An Analysis of Teacher-Student Relationship Functions in Various Teaching Modalities

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Abstract. The issue of the effects and influencing factors of interactions among teachers and students has received extensive attention, but an examination of how the teacher-student relationship functions in various teaching modalities is still insufficient. This paper analyses the factors affecting teacher-student inter-action in different teaching modes online and offline. In the online classroom, the fluency of the web technology, the variety of the teacher's teaching formats, and the student's ability to self-manage affect the effectiveness of interactions among teachers and students. Meanwhile, in the offline teaching models, the teacher's teaching attitude and ability, students' learning attitude and ability, as well as the layout of the classroom itself and the arrangement of the curriculum all have an impact on teacher-student interaction. Based on this, this paper puts forward the following suggestions. Firstly, in online teaching, the advantages of online network teaching should be grasped, and more forms and media of teacher-student interaction should be provided. Secondly, in the process of of-fline teaching, the direct and real-time interaction forms should be grasped, and teachers and students should communicate with each other and give feedback in time.

Keywords: Online Teaching Mode; Offline Teaching Mode; Teacher-Student Interaction; Role Analysis.

1   Introduction

With the wide application of information technology in education and teaching, online education has become an important part of university education. However, there is insufficient research to analyze the role of teacher-student interaction in different teaching modes online and offline. Some studies have found differences in students' overall performance under different teaching modes, with offline performance significantly higher than online [1]. This may be due to the lack of effective supervision and management of online teaching, as well as effective interaction, which causes students' studying initiative and learning impact to decrease. In addition, online teaching supervision is limited by the network environment, which is significantly weaker than the offline teaching mode. Therefore, it is necessary to analyze the advantages and disadvantages of online and offline teaching modes to fully explore the advantages of both and make up for each other's deficiencies. At the same time,

with the deepening of education reform, the value of interaction among students and teachers is becoming more and more prominent and can no longer be ignored. This thesis will also discuss the significance of interaction, and then amalgamate the present issues with interaction among pupils and teachers in the classroom and provide corresponding solution strategies, to provide some insights into future classroom teacher-student interaction.

2   Online Teaching Models: Teacher-Student Interaction

2.1   Features of the Online Teaching Model

The online teaching mode is a form of teaching that uses an online platform to transmit and communicate with courses while utilizing the Internet and information technology. Compared with traditional offline teaching, online teaching mode has unique characteristics.

Online teaching mode has flexibility. Students can choose to study according to their own time and place and are no longer restricted by geographical location and time. This allows educational resources to be more widely spread and shared, improving the popularity and convenience of education.

The online teaching mode is interactive. Through the online platform, Teachers and students can engage and communicate in real-time. Teachers can release teaching materials, assignments, quizzes, etc. Students can submit assignments and answer questions online, and teachers can give timely evaluation and feedback. Students can also engage in online discussions and cooperative learning, promoting mutual communication and common growth [2].

Online teaching modes are diverse. Educators can use a variety of teaching methods and resources, such as video courses, online teaching materials, and multimedia presentations, to enrich the content and form of teaching. Students can also learn according to their learning styles and rhythms, improving their learning effectiveness and interest.

2.2   Factors Affecting Teacher-Student Interaction in Online Teaching Model

The online teaching mode has been widely used in the field of education due to its flexibility, convenience, and interactivity. However, whether teacher-student interaction in online teaching mode can effectively promote learning is constrained and challenged by many influencing factors.

On the one hand, technical equipment and network conditions are some of the most important factors affecting teacher-student interaction in online teaching mode. Students need to have sufficient hardware devices such as computers, tablets, or smartphones, and a stable network environment to ensure the smooth running of online teaching. At the same time, teachers also need to be competent in technical operations, skilled in using online teaching platforms and Internet resources, as well as the ability to solve technical problems [3]. Whether the technical equipment and

network conditions can fulfill the necessary conditions directly affects the level of quality and effect of the interaction between teachers and students.

On the other hand, the instructing and guiding ability of teachers is one of the key factors of teacher-student interaction in the online teaching mode. Compared with traditional face-to-face teaching, online teaching requires teachers to be able to convey knowledge through language, images, multimedia, and other means, and to be able to accurately understand students' problems and needs and provide timely help and answers. Teachers need to be good at assisting students in taking an active role in conversations and interactions and directing their learning through prompt evaluation and feedback. Teachers' ability to instruct and guide directly affects the learning effect of students and the interaction between teachers and students.

In addition, students' motivation and independent learning ability are also important factors affecting teacher-student interaction in online teaching mode. Online teaching mode emphasizes students' independent learning and independent inquiry, which requires students to have certain independent learning abilities and learning motivation. Students need to take the initiative to participate in the interactive part of the online classroom, actively ask questions, and communicate and discuss with the teacher and other students [4]. At the same time, students also need to have a certain degree of self-management and time management skills and be able to reasonably plan their study time and tasks. Students' motivation and independent learning ability directly affect the quality and effect of the interaction.

3   Offline Teaching Models: Teacher-Student Interaction

3.1   Characteristics of the Offline Teaching Model

In the offline teaching mode, teachers and students face to face for direct teaching communication and interaction, which is the most obvious difference from the online teaching mode. The offline teaching mode takes the classroom as the main scene and adopts the traditional teaching method, in which the teacher imparts knowledge to the students through explanation, demonstration, and modeling, while the students can ask questions, discuss, and communicate with the teacher face-to-face in real-time.

The offline teaching mode has several features. Firstly, the interaction between teachers and students is more direct and real-time, which is conducive to promoting the teaching effect. Within the classroom, educators can make timely adjustments and answers based on students' responses and questions to improve the learning effect. Secondly, The offline teaching style places a strong emphasis on the development of connections and emotional contact among educators and students. Using direct connection, Instructors can better understand students' perplexity and desire for learning, which can better guide and observe how students are learning. Furthermore, the offline teaching mode can also provide a collective learning atmosphere, where students can communicate and cooperate to promote mutual learning motivation and common progress.

Teacher-student interaction in the offline teaching mode has the advantages of directness and real-time, and face-to-face interaction can promote the learning effect

and the establishment of teacher-student relationships. However, the offline teaching mode also must face problems such as classroom capacity and time limitations. In the future development of teaching, teachers can explore innovative methods of combining online teaching mode to give full play to the advantages of offline teaching mode and make up for its shortcomings, to improve the effect of teacher-student interaction.

3.2   Factors Influencing Teacher-Student Interaction in Offline Teaching Models

The quality and effectiveness of teacher-student interaction in offline teaching mode are affected by a variety of factors. This paper will analyze three aspects: teacher factors, student factors, and teaching environment factors.

Firstly, teacher factors play an important role in teacher-student interaction in offline teaching mode. Teachers' teaching attitude and teaching ability directly affect the quality of teacher-student interaction. Excellent teachers pay attention to the learning progress of each student, focus on stimulating students' interest and initiative in learning, and guide students to think deeply and interact with each other. For teachers, adequate teaching preparation and interesting content are also important conditions for effective teacher-student interaction.

Secondly, the student factor is also one of the important influencing factors of teacher-student interaction in offline teaching mode. Students' learning attitude, enthusiasm, and learning ability are directly related to the effect of teacher-student interaction. Students who are willing to think, express themselves, and actively participate in classroom discussions can stimulate teachers' enthusiasm for teaching and promote the smooth progress of interaction. In addition, students' learning backgrounds and learning styles also have an impact on teacher-student interaction, and teachers need to adopt appropriate teaching strategies according to students' characteristics to stimulate each student's participation and expression.

Teaching environment factors also play a non-negligible impact on teacher-student interaction in offline teaching mode. The layout of the classroom, the use of equipment, and the arrangement of class time all directly or indirectly affect the development of teacher-student interaction. A comfortable and spacious classroom environment can provide a good atmosphere for teacher-student interaction, and modern teaching equipment can also enhance the effect of teacher-student interaction. In addition, classroom time needs to be reasonably arranged, leaving enough time for teacher-student interactions and discussions to promote in-depth and effective interactions.

The offline mode of teaching is usually limited by the size of the classroom and the teacher's schedule, and large-scale teaching coverage cannot be achieved. This means that teachers' personalized attention and guidance to students may be somewhat limited in the offline mode of teaching. In the offline teaching mode, the communication between teachers and students mainly relies on face-to-face explanations and interactions and lacks other diversified forms of teaching, such as the application of multimedia, the Internet, and other technologies. This may lead to a relatively homogeneous teaching process that lacks sufficient innovation and vigor [5].

4   Role Analysis of Teacher-Student Interaction

Teacher-student interaction is an important part of the education and teaching process and is of great significance to the learning effect and development of students. In the teaching process, interaction can support teachers' efficient knowledge transfer, help students to actively participate in learning, enhance the effectiveness of teaching, and develop students' independent learning ability and creativity [6].

4.1   Promoting Active Learning in Students

Promoting students' active learning is a crucial component of interactions. Students can take a more active role in their education through interactions with teachers, construct the knowledge system actively, and improve the learning effect.

Students' curiosity and attention can be piqued through interactions. When teachers interact closely with students and share knowledge and experience, students feel excited and eager to learn further. They can not only acquire knowledge from the teacher but also ask questions and discuss with each other. This kind of interaction can pique students' curiosity about what they are studying and motivate them to actively seek out information.

The interaction can boost students' self-esteem and capacity for autonomous learning. During the conversation, teachers will give students positive encouragement and affirmation so that they can feel their progress and achievement. Teachers will also give students appropriate guidance and direction to help them solve problems, think, and explore. Through this kind of interaction, students will not only improve their learning ability but also develop the ability to learn independently. They will gradually cultivate your capacity for independent thought and problem-solving and establish the habit of acquiring knowledge independently.

Interaction can also provide opportunities for practice and application, prompting students to apply what they have learned to real life. Teachers can interact with students through demonstrations, presentations, or practical activities so that students can master and apply their knowledge in practice. Such interactions can help students to better understand and grasp knowledge and apply it to solving real-life problems and situations. Through practice and application, students can develop problem-solving skills and innovative thinking, and improve the depth and breadth of their learning.

In conclusion, it is very important to promote active learning in interaction. Through interaction, Learners can engage in learning deeper, develop independent learning ability, improve problem-solving ability and innovative thinking, and thus improve the learning effect. Therefore, teachers should actively interact with students to create a positive learning atmosphere, so that students can actively participate in learning and achieve the goals and requirements of education.

4.2   Improving the Quality of Teaching

Improving the quality of teaching is one of the important roles of teacher-student interaction. Through positive interaction, Educators can comprehend students' learn-

ing needs and difficulties and adopt corresponding teaching strategies and methods, thus improving teaching effectiveness.

Through interaction with students, teachers can discover students' learning problems and misunderstandings in time. In the classroom, teachers can interact with students through questioning and discussion to guide students to think and express themselves. This helps students to clarify their understanding of knowledge on the one hand, and on the other hand, it allows teachers to detect students' mistakes and confusion in time. Teachers can help students correct their mistakes through explanation and guidance to further enhance their learning.

Teacher-student interaction can facilitate teachers to personalize teaching according to students' learning characteristics and needs. Each student has his or her learning style and rhythm, and teachers can better understand the learning characteristics of each student through communication and understanding with them. In the teaching process, teachers can adjust teaching strategies and methods according to students' characteristics and learning needs, so that learning can be closer to students' actual situation. Personalized teaching can stimulate students' interest in learning and improve the effectiveness and satisfaction of studying.

Interaction can also provide timely feedback and evaluation. Through interaction with students, teachers can keep abreast of students' learning progress and learning outcomes. Through interaction with students, teachers can get students' evaluation and feedback on teaching, to know whether their teaching has achieved the expected results. Instructors can further enhance the quality of their instruction by modifying their lesson plans and material based on student feedback.

Enhancing teaching quality is mostly dependent on interaction. Through active interaction with students, teachers can understand students' learning needs and difficulties, adopt personalized teaching strategies, provide timely feedback and evaluation, and thus effectively improve teaching effectiveness and satisfaction. Therefore, To enhance instruction and support students' general growth, teachers should be aware of their interactions with students and actively engage in that engagement.

4.3   Build Positive Relationships between Educators and Students

A positive relationship is recognized as one of the crucial factors in the field of education. The establishment of a positive relationship can contribute to the all-round development of students and good learning outcomes. Firstly, a positive relationship is based on mutual trust and interaction between students and teachers, so students should show their motivation and desire to learn, and they need to take the initiative to participate in classroom discussions and ask the teacher questions, to better communicate and interact with the teacher [7].

At the same time, when teachers can establish a good interactive relationship with students, it is easier for students and teachers to form a friendly and harmonious mutual relationship and mutual help and cooperation environment so that such a positive atmosphere of mutual communication and learning helps to establish a positive relationship. This positive atmosphere of mutual help and cooperation and positive relationships can stimulate learners' learning potential [8].

In addition, especially when teachers give classroom feedback, if teachers are more caring and supportive in their interactions with students, they will be more confident in facing academic challenges and difficulties. This will increase their self-confidence and self-esteem, which will lead to a good teacher-student relationship.

5   Strategies to Improve the Impact of Interactions between Educators and Learners

5.1   Strategies to Enhance the Interactive Effect of Online Teaching

Multimedia technology can be used to enhance the interactivity of online teaching. Using multimedia elements such as audio, video, and images, teaching content can be enriched, and students' interest and attention can be aroused. For example, adding interactive pictures, video cases, and practical demonstrations to the course can enable students to better understand and digest their knowledge, as well as engage them in actively answering questions and discussions.

Introducing online discussion and cooperative learning platforms is also an effective strategy to enhance the interactive effect of online teaching. By utilizing tools such as online discussion forums, online groups, and collaborative documents, students can discuss and communicate with their classmates after class and share each other's insights and experiences. Teachers can also participate in these discussions promptly by expressing their views and suggestions, which promotes interaction between teachers and students and learning effects [9].

The use of online quizzes and question-and-answer sessions can stimulate students' learning initiative and participation. Teachers can design some online quizzes to test students' understanding of classroom content and give timely feedback and guidance. Online Q&A sessions can also help students solve their doubts and learn from each other. Through these forms of interactions, students will participate in learning more actively and improve their learning results [10].

5.2   Strategies to Improve the Interactive Effect of Offline Teaching and Learning

To improve the interactive effect of offline teaching, teachers need to adopt a series of strategies. First, Active participation in class discussions is something that teachers should promote to their pupils. They can use group discussion, role-playing, or questioning to stimulate students' interest and participation. By interacting with their classmates, students' learning can be enhanced and their comprehension of the topic can be improved.

Teachers should also give students timely feedback and encouragement. In the classroom, teachers can give students recognition and praise for good performance through verbal and non-verbal means, thus motivating active participation. In addition, teachers can provide students with timely feedback on their learning in the form

of homework corrections, classroom quizzes, and personalized guidance to help them identify and correct problems in their learning.

6   Conclusion

This study explores the role of teacher-student interactions in different teaching modes online and offline and provides a synthesis of related studies.

On the one hand online teaching mode provides more opportunities and ways for interaction. There are time and space constraints with the conventional offline training method, and teacher-student interaction is mostly based on classroom explanations, and the form of interaction is relatively single. On the online teaching platform, teachers and students can interact through real-time chat, discussion forums, and other ways. This provides students with more opportunities to join in on class discussions and pose questions. which enhances the interaction and communication between teachers and students.

Conversely, the use of an offline teaching mode has the potential to enhance students' learning outcomes. The more direct engagement allows teachers to improve the learning effect by quickly adjusting their responses and queries in response to students' questions and responses. Secondly, the offline teaching mode focuses on emotional communication and the establishment of a positive relationship. Using direct connection, educators can better understand students' learning needs and confusions, and can better guide and focus on students' learning progress.

The prospective part of the study will analyze the limitations of the current study and suggest directions and recommendations for future research. In analyzing the role of teacher-student interactions in different modes of teaching and learning both online and offline, this study still has some limitations and potential problems that need to be further investigated, despite some meaningful findings. This study focused on teacher-student interactions in online and offline instructional modes but did not delve into the differences between different subject areas, grade levels, and student populations. Future research could take a nuanced perspective and conduct comparative studies across disciplines and student groups to further understand the relationship between instructional modes and teacher-student interactions.

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