A Study on the Shaping of Students' Self-Efficacy by Teachers' Feedback Styles in the View of Educational Psychology

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Abstract. This study explores the shaping of students' self-efficacy by teachers' feedback styles from the perspective of educational psychology. The classification and characteristics of teachers' feedback styles are analyzed, including conversational descriptive feedback, different types of feedback, self-referential and other-referential feedback, and SHARP feedback method. The concept and importance of students' self-efficacy and the relevant theoretical foundations in educational psychology, such as Bandura's social cognitive theory and Locke's goal-setting theory, are described. The relationship between teachers' teaching efficacy and students' self-efficacy was investigated, and teacher feedback strategies for cultivating students' self-efficacy were proposed, including giving positive feedback and recognition, encouraging to try new things, and providing a suitable learning environment. Finally, we summarize the research results and point out the shortcomings and prospects of the study. In the future, we can further study the relationship between teachers' feedback and students' self-efficacy in different cultural backgrounds and digital environments, and expand the research targets and incorporate more theories of educational psychology.

Keywords: Educational psychology; teacher feedback style; student self-efficacy.

1. Introduction

The importance of teacher feedback and student self-efficacy is gaining prominence in today's education. Teacher feedback, as a key part of the educational process, plays a crucial role in student learning and development. Student self-efficacy, on the other hand, profoundly affects their motivation, behavior, and achievement.

Educational psychology, as the study of psychological phenomena and patterns in the educational process, provides a theoretical basis for understanding the relationship between teacher feedback and student self-efficacy. The research object of educational psychology covers psychological processes such as learning, memory, motivation, emotion and personality, as well as the interactions and influences among teachers, students and parents. By studying these aspects, we can better understand the learning characteristics and needs of students, thus providing teachers with more effective teaching strategies.

The appropriate use of teacher feedback can stimulate students' interest in learning, enhance their motivation to learn, and thus improve their sense of self-efficacy. For example, according to the behaviorist learning theory, teachers can shape students' learning behaviors through external stimuli such as rewards and punishments, motivate students to actively participate in learning, and thus improve their sense of self-efficacy. Meanwhile, cognitive learning theory also emphasizes students' initiative and thinking ability development. Teachers can cultivate students' cognitive ability by guiding them to think, understand and solve problems, thus enhancing their sense of self-efficacy.

2. Conceptualization of Teacher Feedback Styles and Student Self-efficacy

2.1. Classification and characteristics of teacher feedback methods

Conversational descriptive feedback is highly targeted, focusing on the details of students' writing, such as vocabulary use, grammatical norms and sentence structure, to help pinpoint improvement points. It is highly interactive, with teachers and students communicating in depth during the assessment, enhancing students' understanding of the feedback and stimulating their enthusiasm for

learning. It provides students with specific revision strategies, such as optimizing the logic of the essay. The evaluation can be personalized according to students' individual differences to meet diversified needs, and it can also detect problems in time and push students to quickly adjust their learning strategies.

Different types of feedback can be used in different ways. Positive feedback reinforces students' self-confidence and motivation, while negative feedback, if used correctly, allows students to reflect on their shortcomings, but needs to be done in a way that does not undermine their confidence[1]. Guided feedback points out the direction of improvement, while non-guided feedback guides students to explore and reflect on their own learning abilities.

Self-referential feedback allows students to compare their own past performance, which is conducive to setting appropriate goals and stimulating internal drive; other-referential feedback allows students to understand their own position in the class, which can evoke a sense of competition, but teachers need to control the degree of use to prevent pressure overload.

SHARP feedback method is highly targeted, pinpointing students' problems; interactive, promoting teacher-student discussion; clear guidance, giving precise suggestions for improvement; personalized, matching individual differences; and timely and excellent, which can quickly adapt to adjust teaching strategies and guarantee the effectiveness of teaching.

2.2. The concept and importance of student self-efficacy

Writing self-efficacy, which is students' beliefs about their own writing ability, stems from self-perception and knowledge base. Students construct confidence in their writing proficiency by assessing their own mastery of writing knowledge and skills. For example, accurate use of vocabulary and grammar will enhance their writing confidence.

It has a profound impact on writing motivation, strategies and outcomes. Students with high self-efficacy are motivated to write, eager to explore materials, utilize multiple strategies, and strive for excellence; on the contrary, students with low self-efficacy tend to be frustrated with writing, slack off, procrastinate on tasks, and lack motivation and creativity in writing, which hinders the enhancement of writing ability.

Exploring students' self-efficacy in writing is of great significance in understanding students' writing psychology, planning teaching strategies, and promoting writing progress. Teachers can accurately grasp the psychology of students' writing, such as confidence, motivation and anxiety levels, and then customize personalized teaching plans and give appropriate feedback to students with different self-efficacy. For example, they can encourage students with low self-efficacy, help them rebuild their confidence and stimulate their motivation, and enhance their writing skills and comprehensive literacy through cultivating their self-efficacy in writing, so as to build a solid foundation for their long-term development.

3. Theoretical Basis for The Effect of Teacher Feedback Style on Students' Self-efficacy

3.1. Relevant theories in educational psychology

Theories related to educational psychology provide the foundation for the connection between teacher feedback and student self-efficacy [2]. Bandura's social cognitive theory emphasizes the intersection of individual behavior, environment, and cognition, in which self-efficacy is a key influence on motivation and behavior. As a subjective judgment and belief in one's own abilities, individuals with high self-efficacy are more motivated and resilient to attempt new tasks and cope with difficulties. In education, teachers can enhance students' self-efficacy by creating positive environments and guiding correct self-perceptions, such as using behavioral shaping, using rewards and punishments to regulate behaviors and increase the frequency of correct behaviors, and using imitation learning, where students refer to their peers in order to acquire knowledge and skills.

Locke's theory of goal setting states that specific, challenging goals with timely feedback have a superior positive effect on activity outcomes. Goals are motivational and can transform needs into motivation and guide behavior. In teaching, teachers should set clear and specific learning objectives according to students' actual situation, with moderate difficulty to stimulate the desire to challenge and ensure that they are achievable through hard work, and provide timely feedback on the progress and results of learning, so as to help students adjust their strategies and improve their results. For example, in the long jump training experiment, different goals were set at different stages to enable students to accumulate successful experiences and enhance their sense of self-efficacy.

3.2. The relationship between teachers' teaching efficacy and students' self-efficacy

Teacher teaching efficacy and student self-efficacy interact and are strongly related.

High teacher teaching efficacy has a positive effect on student self-efficacy, mainly through positive interactions and the creation of a supportive environment. Teachers' teaching efficacy, which is derived from Bandura's concept of self-efficacy, reflects teachers' confidence in their own teaching ability. Teachers with a high sense of teaching efficacy are confident and positive in their teaching, and in classroom interactions, such as discussions, they encourage students to express their views, listen attentively, and give positive evaluations and suggestions, which builds a good teacher-student relationship, makes students feel valued, and then enhances their self-confidence and sense of self-efficacy. At the same time, these teachers are good at creating supportive teaching environments, carefully designing activities, creating contexts, and providing abundant resources, such as organizing creative exhibitions in art classes, so that students can freely explore and realize their potentials, which can stimulate their interest in learning and enhance their sense of self-efficacy. Studies such as Caprara et al. (2006) have also confirmed that there is a significant positive correlation between the two, with teachers' positive teaching behaviors serving as role models for their students, stimulating their motivation and self-efficacy[3].

Figure 1. The relationship between teachers' teaching efficacy and students' self-efficacy

In turn, high student self-efficacy can motivate teachers. On the one hand, students with high self-efficacy are confident, active and inquisitive about learning, which motivates teachers to update their teaching content and improve their methods to meet their needs. For example, students' in-depth investigation of experiments in science class motivates teachers to search for information and design new experiments to improve their teaching. On the other hand, students' progress and self-efficacy under teachers' instruction will make teachers feel the effectiveness of their teaching, increase their confidence in teaching, and become more actively involved in teaching. For example, the improvement of students' essay writing in writing class will make teachers firmly believe in the effectiveness of their teaching methods, which will further improve their sense of teaching efficacy.

4. Specific Effects of Different Teacher Feedback Styles on Students' Self-efficacy

4.1. Impact of dialogic descriptive feedback

Dialogical descriptive feedback is significant in enhancing students' self-efficacy in writing. It is highly targeted, allowing teachers to focus on the vocabulary, grammar, and sentence patterns of students' writing, pointing out deficiencies as well as strengths, such as correcting vocabulary and affirming logical structures in essay writing, helping students to clarify their own writing and increase their confidence.

The interactive nature of the program allows teachers and students to have in-depth communication and discussion during the evaluation[4]. Teachers ask questions about the ideas in the essays and students elaborate their ideas. This interaction makes it easier for students to understand the feedback, stimulates their interest and enthusiasm in writing, and gives them more motivation to improve because they feel valued.

Strong guidance is reflected in the provision of specific revision advice and methods. The teacher gives advice on the use of transitional sentences for poorly connected paragraphs, and also uses questions to inspire students to optimize the expression of their views, helping them to progress gradually in their writing ability and strengthen their sense of self-efficacy.

Personalized feedback is based on individual differences in student evaluation and guidance. For students with weak foundation, we emphasize the consolidation of foundation and encouragement, and for those with high level, we put forward in-depth innovation requirements to explore their potential and improve their level.

Timely feedback can quickly point out problems after students have completed their writing, such as teachers commenting on grammatical spelling errors immediately after short classroom essays are written, making it easy for students to make corrections in time and avoiding a pile-up of problems.

When teachers use dialogic descriptive feedback, they should uphold the principle of positive encouragement and avoid negative criticism. Acknowledge students' use of new vocabulary and sentence patterns to motivate them to write; point out problems in a gentle manner, such as suggesting improvements instead of harshly criticizing. At the same time, take into account individual differences and provide personalized feedback according to students' personalities and interests. We can provide gentle encouragement to inward-looking students, direct guidance to outward-looking students, and suggestions for writing materials according to their interests, such as providing music lovers with music-related writing inspirations to make their writing vivid and dynamic, and enhance students' self-efficacy in writing in an all-round way.

4.2. Impact of different types of feedback

Positive feedback can have a significant impact on students' sense of self-efficacy. For example, a teacher who compliments a student on a job well done can give the student a boost of confidence and motivation as a result of the recognition of his or her efforts. Negative feedback can have a negative impact if not used appropriately, but when used in moderation, it can help students recognize shortcomings and motivate them to improve, and teachers need to pay attention to how it is phrased.

Guided feedback can help students clarify their direction, as in the case of essay writing, by pointing out grammatical errors and giving suggestions for correct expression and structural improvement, so that students can be clear about the problem and how to solve it, which is conducive to the improvement of their writing skills and self-efficacy.

Non-directive feedback focuses on guiding students to self-reflection and exploration, and cultivating independent learning skills[5]. Teachers use questioning, such as asking about the strengths and weaknesses of an article and ideas for improvement, to encourage students to take the initiative to think, enhance their sense of self-efficacy in self-exploration, lay a good foundation for their long-term learning development, and enable students to gradually learn to cope with various challenges and problems in their learning independently.

4.3. Effects of self-referential feedback versus other-referential feedback

Self-referential and other-referential feedback have different effects on students' self-efficacy. Self-referential feedback can enhance self-efficacy and subsequent performance. For example, in math learning, students compare their test scores before and after the test, notice the progress in knowledge, and increase their confidence in math learning, so that they can set reasonable goals and carry out their subsequent learning more accurately. Because reviewing one's own experience can accumulate experience and knowledge, positive self-referential feedback can also promote good emotional attitudes, which can help improve self-evaluation and self-efficacy.

Although feedback from others can stimulate a sense of competition, it is easy for students to blindly set high goals that are difficult to achieve. For example, if a teacher in a class emphasizes a student's excellence, other students may be frustrated by the pressure of feeling that their own efforts are insufficient to achieve their goals, their sense of self-efficacy decreases, and they lose their motivation to learn because their goals are difficult to achieve, thus affecting their subsequent performance. However, the appropriate use of peer-referenced feedback can help students recognize their shortcomings and turn them into learning motivation. Teachers need to control the degree of use, avoid excessive pressure, and guide students to view the gap correctly.

4.4. Impact of the SHARP feedback approach

The SHARP feedback method has a significant effect on teaching effectiveness and students' self-efficacy. In teaching, it helps teachers to accurately grasp the situation of students, give targeted guidance, make students feel concerned, and enhance their motivation, confidence and satisfaction in learning. For example, in the teaching of nephrology, it is important to set clear goals and focus on the direction, review the performance of the students to know the strengths and weaknesses, summarize the gains to make it clear that they have made progress and growth, and formulate measures to provide paths for improvement, so that the students can clearly understand their own learning situation and actively learn.

All these steps are beneficial to students' self-efficacy. Setting teaching goals can stimulate students' motivation and enthusiasm for learning and make them work hard to achieve their goals; reviewing performance enables students to understand the progress and results of their learning, see the progress and increase their confidence, and recognize the shortcomings to stimulate the motivation for improvement; summarizing the gains enables students to recognize the value of their own efforts and strengthen their beliefs in learning; and formulating measures for improvement points out the direction and methods for improvement, so as to make them more confident and motivated to pursue their goals and improve their abilities.

In conclusion, the SHARP feedback method, with its uniqueness, not only improves the quality of teaching and students' satisfaction, but also excels in promoting students' self-efficacy, which provides an effective feedback model for teaching and learning and facilitates the benign development of teaching and learning activities as well as the overall growth of students.

5. Teacher Feedback Strategies for Developing Students' Self-Efficacy

5.1. Giving positive feedback and recognition

(1) Focus on the process rather than the result of students, encourage attempts to explore, and give reasonable suggestions for guidance

In the teaching process, teachers should shift their focus from students' learning outcomes to the learning process. For example, in the teaching of math problem solving, teachers should not only pay attention to the correctness of the students' final answers, but also to the students' ideas and methods of solving the problems as well as their efforts in the process. When students try different methods in the process of solving problems, even if they do not arrive at the correct answer in the end, teachers should give encouragement and recognize their spirit of exploration. At the same time, teachers can

give reasonable advice and guidance to students in response to problems that arise in the process of solving problems. For example, if students make mistakes in the logical reasoning of a certain step, teachers can patiently analyze the reasons for their mistakes and guide them to think about the correct way of reasoning.

(2) Provide feasible and high goals to give students psychological pleasure and a sense of achievement

The goals set by teachers for students should be highly feasible, neither too simple to make students feel bored nor too difficult to make students feel frustrated. For example, in English writing teaching, teachers can set writing goals for students to improve gradually according to their actual level. For students with a weak foundation, the initial goal can be to be able to use simple vocabulary and sentence patterns correctly and write a fluent short paragraph; for students with a higher level of proficiency, the goal can be to write an in-depth argumentative essay using rich vocabulary and complex grammatical structures. When students achieve these goals through their efforts, they will gain psychological pleasure and a sense of accomplishment, thus enhancing their sense of self-efficacy.

5.2. Encouragement to try new things

(1) Provide new learning styles and experiences to increase students' self-confidence

Teachers can actively introduce new learning styles, such as project-based learning and group cooperative inquiry, so that students can experience the joy of exploration and innovation in different learning modes. For example, project-based learning is carried out in science class, in which students gain an in-depth understanding of scientific knowledge through independent selection of topics, formulation of research plans, conducting experiments and data analysis, and at the same time cultivate independent learning and problem-solving skills. This new way of learning can make students feel that their abilities are given full play, thus increasing their self-confidence. In addition, teachers can also utilize modern educational technologies, such as virtual reality and online learning platforms, to provide students with a rich and diverse learning experience. Through virtual reality technology, students can immerse themselves in visiting historical monuments, exploring natural phenomena, etc., which enhances the fun and attractiveness of learning. Online learning platforms, on the other hand, provide students with the opportunity to learn anytime and anywhere, meeting the learning needs of different students.
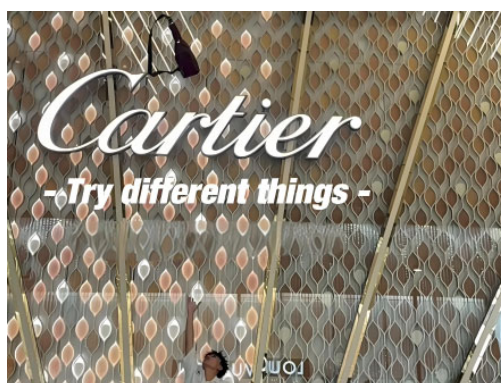

Figure 2. Encouragement to try new things

(2) Conduct a role reversal to allow students to take on new roles and overcome low self-esteem

Teachers can arrange for students to change roles according to their characteristics and needs, so that they can challenge themselves in new roles and overcome their low self-esteem. For example, students who are usually more introverted are allowed to serve as group leaders, responsible for organizing group discussions and reporting work. In this process, students need to communicate and coordinate with group members, assign tasks, etc. This not only exercises their leadership and communication skills, but also allows them to feel their own value and ability. Alternatively, students

who are not doing well in their studies can serve as learning counselors to help other students solve their learning problems. Through this kind of role change, students are able to discover their own strengths and potentials, enhance their self-confidence and overcome their low self-esteem. At the same time, teachers should give full support and guidance to students in the process of playing new roles to help them fulfill their tasks successfully. For example, teachers can provide students who act as group leaders with some organizational and management methods and skills, and students who act as study tutors with some tutoring strategies and resources. In this way, students will be able to play their roles better in their new roles and improve their self-efficacy.

5.3. Provide an appropriate learning environment

(1) Creating a good learning and group atmosphere and providing teaching resources and equipment

Schools and teachers should be committed to creating a positive learning atmosphere and a group atmosphere of solidarity and love. In terms of the learning atmosphere, students' enthusiasm for learning can be stimulated by arranging classroom environments full of learning atmosphere and conducting learning competitions. For example, posting motivational slogans in the classroom and displaying outstanding students' works make students always feel the importance of learning and a sense of achievement. At the same time, subject competitions are organized to encourage students to actively participate and increase their motivation to learn in competition.

In terms of group atmosphere, teachers can organize cooperative group learning activities to cultivate students' teamwork and communication skills. For example, group discussion tasks are arranged in the classroom so that students can learn and help each other in cooperation and enhance their trust and friendship. In addition, schools should provide rich teaching resources and equipment, such as advanced multimedia teaching equipment and abundant books and materials, to provide strong support for students' learning. These resources and equipment can not only broaden students' knowledge, but also improve their learning efficiency and enhance their sense of self-efficacy.

(2) Create a relaxed and harmonious learning atmosphere, so that students can learn and think freely.

Teachers should create a relaxed and harmonious learning atmosphere so that students can learn and think freely in a relaxed environment. First of all, teachers should respect students' individual differences and learning styles and not force students to adopt uniform learning methods. For example, for students who like to learn independently, teachers can provide some independent learning tasks and resources; for students who like to learn cooperatively, teachers can organize group activities so that they can give full play to their strengths in a team. Secondly, teachers should encourage students to ask questions and question to develop their critical thinking. When students ask questions, teachers should give positive responses and guidance to help them find answers. For example, they should set up a questioning session in the classroom to encourage students to bravely put forward their doubts and then organize the whole class to discuss and solve the problems together. Finally, teachers should reduce the pressure and constraints on students and let them give full play to their creativity and imagination in a free atmosphere. For example, students can be given a certain amount of space to choose when assigning homework, so that they can choose homework tasks that suit them according to their interests and abilities.

6. Conclusion

This study analyzes the effects of teacher feedback on students' self-efficacy from the perspective of educational psychology. It clarifies the characteristics and effects of various teacher feedback methods, such as dialogic descriptive feedback, which can help students improve their writing ability and interest, different types of feedback have different effects, self-referential feedback and other-referential feedback have different effects, and SHARP feedback can improve teaching quality and students' satisfaction as well as promote self-efficacy. At the same time, the importance of the concept

of students' self-efficacy is revealed, the theoretical foundations of Bandura and Locke are elaborated, and the interrelationship between teachers' and students' self-efficacy is analyzed. Teachers' feedback strategies are proposed, including giving positive feedbacks, encouraging new things to be tried, and providing suitable learning environments to provide theoretical and practical guidance for the improvement of the quality of education and the promotion of students' all-around development.

However, there are gaps in the research. In different cultures, the effect of teacher feedback varies according to value differences, such as the influence of different references in collective and individualistic cultures, and the study of this relationship can contribute to cross-cultural education. Although the digital environment opens up new avenues for teacher feedback, such as online platforms and big data applications, it faces the challenges of validity assurance and information overload, which can be explored in depth in relation to student self-efficacy to lay the foundation for digital education. We can also expand the research object to self-efficacy in other disciplines, and combine more theories to study the influence mechanism in depth, so as to strengthen the theoretical support for the improvement of education and teaching quality.

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