## The influence of the matching degree between teachers' teaching methods and students' learning methods on students' achievement

## Jinghua Lv<sup>1</sup><sup>2</sup>, Janaka Low<sup>1</sup>

Malaysia University of Science and Technology, Petaling Jaya 47810, Malaysia Xi'an University of Architecture and Technology, Xi'an, 710055, China

**Abstract:** This paper analyses the relationship between the teachers' teaching methods and students' learning methods, emphasis on teachers' teaching methods and student to study the matching degree of impact on academic performance, and to improve the teaching methods and learning methods of compatibility method as a breakthrough point, to make use of teaching means, in a planned way and adjustment of teaching learning method through analyzing three aspects, It is expected to provide reference for relevant personnel.

## Keywords: Teaching Method, Learning Method, Study Result

## 1. Introduction

Both teachers' teaching methods and students' learning methods are indispensable factors in teaching activities, which have a crucial impact on students' performance. The research and analysis of the influence of the matching degree of teachers' teaching methods and students' learning methods on students' academic performance can provide a basis for improving the matching degree of teaching methods and school methods, and then provide convenience for improving students' academic performance.

## 2. The relationship between teachers' teaching methods and students' learning methods

## 2.1. Teaching methods and learning methods complement each other and are closely linked

Strictly speaking, teachers' teaching methods and students' learning methods complement each other and are closely linked together, collectively known as teaching method [1]. Generally speaking, teaching method refers to the methods used by teachers and students in teaching activities in order to achieve teaching objectives. Therefore, teaching method is not only a teaching method but also a learning method [2]. In addition, because teachers' teaching methods are limited by teaching content and students' learning ability, teaching methods and students' learning methods are closely related. At the same time, because good teaching methods are also good learning methods, the boundary between them is blurred, and it is impossible to divide them scientifically and rationally. For example, when teachers teach through situational teaching method, teachers can let students show the teaching content through performances, which can effectively improve students' ability to grasp and understand knowledge. Therefore, this teaching method is also a good learning method, so that students can learn knowledge better.

## 2.2. Teaching method is the intermediary of students' indirect understanding of the objective world

In the teaching process, teachers need to realize that students are not only the subjects of the teaching process, but also the subjects of the cognition process, and the teaching content is the object of cognition [3]. Teachers and teaching methods are the intermediary of students' indirect understanding of the objective world. Therefore, all behaviors of teachers in the teaching process are just a kind of regulation information, so as to let students fully understand the objective world and master the teaching content in the learning process. The criterion to judge whether the regulation information is reasonable is reflected in the use of teaching methods. If it is highly matched with students' learning methods and can effectively deepen students' mastery of knowledge and improve their academic performance, then the regulation

## ISSN 2522-6398 Vol. 5, Issue 7: 25-28, DOI: 10.25236/FER.2022.050705

information is reasonable. If students and the learning method of matching degree is high, can't help students better master knowledge, improve students' academic performance, so this kind of control information is not reasonable, so teachers need to select a new teaching method, in order to meet the needs of teaching, improve students' academic performance, so that the students in the learning process can realize the object.

## 2.3. Teaching methods can provide students with the most reasonable learning methods

The higher the degree of matching between teaching methods and students' learning methods, the stronger students' sense of learning will be in the learning process. Therefore, it is not difficult to find that the degree of matching between teachers' teaching methods and students' learning methods will directly affect the sense of learning. Therefore, the most appropriate teaching method must also be the most appropriate learning method, and in teaching activities, teachers' teaching method and students' learning method jointly form the teaching mode, achieve the educational objectives together, so that students can better grasp the relevant knowledge. Therefore, teaching methods can provide students with a scientific and reasonable learning method, so that students can actively participate in learning. For example, when teachers use heuristic teaching methods to carry out teaching activities, they need to carry out teaching activities jointly between teachers and students, rather than teachers or students' unilateral behavior.

# **3.** The influence of the matching degree between teachers' teaching methods and students' learning on academic performance

#### 3.1. Influence students' interest in learning and arouse their enthusiasm

To teachers' teaching and students learning match will affect students' study interest, arouse the enthusiasm of students, if the teaching method and learning method matching degree is higher, so the students in the process of learning society are also produced by the stronger, thus increasing the students' interest in learning, to be able to more actively involved in learning, improve their academic performance. If the matching degree of teaching method and learning method is low, it will lead to students' difficulty in mastering knowledge in the learning process, and their sense of learning is low. As a result, students are less enthusiastic about learning, and thus their academic performance declines.

Not only that, the teachers in the teaching process with the aid of all kinds of teaching methods, can put the arcane knowledge into digestible and knowledge, let the students in the learning process can gradually develop a suitable for their own learning methods, to deepen the knowledge of, make the teachers' teaching and students' learning methods of compatibility, eventually improve the goal of learning.

#### 3.2. to enable teachers to better carry out teaching tasks, improve students' academic performance

Teaching methods and learning methods match height will directly affect the teaching activity, this is because if the teachers' teaching and students' learning methods matching degree is high, can make students better grasp what teachers teach, realize the teaching goal, the teacher can effectively carry out the teaching tasks, improve the students' academic performance, promote the development of students. If the matching degree between teachers' teaching methods and students' learning methods is low, then when teachers carry out teaching activities with the help of teaching methods, students will fall behind the learning progress, which seriously affects the development of teaching tasks and is not conducive to improving students' academic performance and promoting students' development.

In addition, teachers in the teaching activities, to choose the suitable teaching method, not only can make teaching activities get twice the result with half the effort, also can let students actively participate in learning, promote the teaching task smoothly, so that the students can have enough time to learn outside the classroom knowledge, enrich students' knowledge reserve, eventually to improve students' academic performance.

## 3.3. Affect learning efficiency

Teachers teaching methods and students learning method of matching degree can also affect students' learning efficiency, if the teachers' teaching methods and students' learning methods matching degree is

## ISSN 2522-6398 Vol. 5, Issue 7: 25-28, DOI: 10.25236/FER.2022.050705

high, is proved that students' learning method is a good way to learn, can let students to study even harder, and in the process of learning experience the fun of learning, broaden the students' thinking, so that the students can study efficiently, This can effectively improve students' learning efficiency, improve students' academic performance. If the matching degree between teachers' teaching methods and students' learning methods is low, it means that students' learning methods are not suitable for the current learning task, which will seriously affect students' knowledge mastery, reduce learning efficiency and affect students' academic performance.

In addition, a good learning method can enable students to effectively master the learning content, so as to have more time to learn extra-curricular knowledge, in order to enrich their knowledge reserve, so that students can study independently, improve their academic performance, and promote the continuous development of students.

## 4. The method of improving the matching degree of teaching method and learning method

#### 4.1. Teachers should be good at using various teaching means

In order to improve the matching degree between teaching methods and learning methods and improve students' academic performance, teachers must be good at using various teaching methods in the teaching process. In this way, teachers can find appropriate teaching methods, improve the matching degree of teaching methods and learning methods, better achieve teaching objectives, meet the needs of students' knowledge, improve students' performance. At the same time, using a variety of teaching methods, can make the teaching content become rich and interesting, so as to mobilize students' interest in learning, so that students actively participate in teaching activities, learn appropriate learning methods, improve the matching degree of teaching methods and learning methods and learning methods and learning methods, in order to improve students' academic performance, promote student development. For example, teachers in the teaching content, so not only enriches the teaching content, improving the students' interest in learning, still can make students learn new learning method, so as to improve the compatibility of teaching methods and learning methods, improve academic performance.

## 4.2. Teachers should carry out teaching in a planned way according to teaching objectives

To the largest extent, improve the teaching method and learning method of matching degree, teachers in the teaching activities, should be scientific and reasonable teaching plan according to the teaching targets and adopt suitable teaching methods, so can effectively arouse the enthusiasm of students, improve the students' learning interest, trains the student to develop a suitable learning method, So as to improve the matching degree of teaching methods and learning methods, improve students' academic performance and promote students' continuous development.

Therefore, teachers should actively communicate with students to master their learning situation and learning methods. In this way, they can ensure that the teaching method is consistent with the actual situation of students to the greatest extent, so as to better teach and improve students' academic performance. In addition, strengthening communication with students can also make teachers help students improve learning methods and improve learning efficiency.

#### 4.3. Students should constantly adjust their learning methods according to their learning situation

Due to the differences in teaching contents and teaching objectives, students should choose suitable learning methods for different learning contents, only in this way can they effectively improve their learning efficiency and academic performance. Therefore, students in the teaching activities, according to their own learning situation, constantly adjust the learning method, so that the learning method and the teacher's teaching method match high degree, in order to improve their learning efficiency, enhance the sense of learning, improve their academic performance.

At the same time, constantly adjust learning methods, but also let students better grasp the knowledge, deepen the understanding of knowledge and understanding, to complete the teaching objectives.

## ISSN 2522-6398 Vol. 5, Issue 7: 25-28, DOI: 10.25236/FER.2022.050705

## 5. Experimental investigation

#### 5.1. Research objects and methods

There are 50 students in class 5, Grade 3, Grade 2, middle school. The results of 5 students are investigated by drawing lots, and the appropriate teaching methods are adopted according to the teaching content. The influence of the matching degree of learning methods and teaching methods on learning results is analyzed.

## 5.2. Investigation results

As the Table 1 and Table 2:

Table 1. Low matching degree between teaching	mothods and loaming mothods
Table 1: Low matching degree between teaching	i meinoas ana iearning meinoas

Student no.	Chinese score before entering	The first monthly test	Results change
	senior three	Chinese results	
1	92	91	- 1
2	87	87	0
3	102	95	7 -
4	95	90	- 5
5	76	78	+ 2

Table 2: Teaching methods a	nd learning methods have	high matching degree
-----------------------------	--------------------------	----------------------

Student no.	The first monthly test Chinese	The second month test	Results change
	results	Chinese results	
1	91	112	+ 21
2	87	98	+ 11
3	95	100	+ 5
4	90	94	+ 4
5	78	89	+ 11

According to Table 1, when the matching degree between teaching methods and learning methods is low, students' academic performance generally declines, and only grade 5 increases, but the increase is limited. When the matching degree of teaching method and learning method is high, students' academic performance generally increases, and the number 1 with the largest increase of 21 points.

## 5.3. Discussion and analysis

Through investigation and research, it is not difficult to find that the matching degree of teachers' teaching methods and students' learning methods has a direct impact on students' academic performance, and the academic performance of students with higher matching degree of learning methods is significantly higher than that of students with lower matching degree of learning methods.

Therefore, when conducting teaching activities, teachers should try to improve the matching degree of teaching methods and learning methods, so as to improve students' academic performance and promote students' development.

Conclusion: In a word, in order to improve the matching degree of teaching methods and learning methods, it is necessary to comprehensively consider all kinds of methods and actual situations to improve the matching degree, so as to select favorable programs. On this basis, various methods to improve the matching degree can be effectively integrated, and then improve the matching degree of teaching methods and learning methods.

## References

[1] Han Ning, Dai Li. Journal of North China University of Science and Technology (Social Science Edition),2022,22(02):93-99.

[2] Huang Guowei, Yi Jin. Basic problems and breakthroughs in deep learning teaching practice in primary and secondary schools. Shanghai Education Research, 2022(03):38-42.

[3] Han Qinan, Cui Haitao, XU Ying et al. Practice and Discussion of interactive Teaching in elasticity Teaching. Education and Teaching Forum, 2022(09):93-96.