# Research on the Application of Micro-Class in Anatomy Theory Teaching of Nursing Major

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**Abstract:** Objective: To explore the application of micro-class teaching method in anatomy theory teaching of nursing specialty. Methods: Two classes (97 students) were randomly selected from the 2019 nursing major classes in our school as the research objects. Based on the differences in teaching methods, they were divided into control group and experimental group with 48 and 49 students respectively. Among them, the experimental group implemented the traditional teaching method of combined micro-classes, while the control group implemented the traditional teaching method and carried out parallel comparative experimental research. Results: The test group was significantly better than the control group in various indexes such as specimen examination, test report, theoretical examination, teaching mode and autonomous learning ability. Conclusion: Introducing microteaching into anatomy theory teaching can obviously improve the teaching quality and efficiency, which is consistent with the needs of anatomy curriculum reform under the background of new media, and is worthy of reference and further promotion.

# 1. Introduction

Anatomy is mainly a subject to analyze the normal human body shape and structure. It belongs to a basic medical subject and is listed as a major course for nursing students. It is also an important condition for studying other medical and nursing subjects. There is not much content in this course, which involves the appearance, structure and orientation of many organs of the human body. There are many related concepts and proper nouns involved. For nursing students who have just started, the content is relatively abstract and relatively dull, thus increasing the difficulty of learning. The former teaching mode can not arouse the students' enthusiasm for the course, ignore the individuality of the students, and lead to the dull atmosphere in the teaching classroom, even the problem of learning weariness. According to this, the author refers to the new teaching method of micro course, which is increasingly popular in China in recent years, and applies it to the course. Now the report is as follows.

# 2. Data and Methods

# **2.1 General Information**

Two classes (97 students) were randomly selected from the 2019 nursing classes in our school as the research objects. Based on the differences in teaching methods, they were divided into control group and experimental group with 48 and 49 students. Among them, the inclusion criteria are as follows: all the students have taken the national unified entrance examination for ordinary colleges and universities; All participants understood the nature and content of the experiment and signed a consent form. At the same time, the exclusion criteria are as follows: Those who are unable to complete all research tasks due to reasons such as taking leave of absence for a long period of time or dropping out of school. Compliance is very unsatisfactory. Control group: 15 males and 33 females; The average age was  $(19.03\pm0.49)$ . There was no significant statistical difference between the basic data of different groups (P>0.05), and the results were comparative.

#### 2.2 Research Method

In the week before the experiment, the experimental group watched the micro-lesson videos made by teachers according to the teaching requirements of nursing science, including the relevant teaching plans and their comments, etc. through the network teaching platform on campus. At the same time, before each test, self-evaluation and test (mainly multiple-choice questions, with 1 point for each question and a total of 10 points) were conducted for about 10min. After the questions were asked, the teachers and students started discussions. Secondly, on the basis of students' selfassessment, tests and questions, the teacher elaborated the teaching objectives, important and difficult contents of the experimental course, and played the relevant micro-lesson materials. Then, the teacher started the demonstration teaching, the students continued to ask questions after observing the specimens and models, and the teacher cleared up the doubts in real time. Near the end of class, the teacher made a summary of the class, arranged the questions after class and arranged the report task of the experiment. In contrast, the control group adopted the traditional explanation method of the experimental class. Specifically, the teacher first took about 15min to explain the requirements of the experimental class and the regulations that should be paid attention to, and made an exemplary professor. The students observed the specimens and models for about 1 hour. Based on the questions, the teacher cleared up the doubts in real time. Near the end of class, the teacher summarized the class, arranged the questions after class and arranged the report of the experiment.

# 2.3 Observation Index and Judging Standard

(1) After completing the teaching of the experimental course of human anatomy, two groups of students were examined, with a full score of 100. The main items included: specimen examination, test report examination (all 10 points), and theoretical examination (80 points). (2) The two groups of students were evaluated on teaching methods through questionnaires. A total of 112 questionnaires were distributed, 112 of which were recovered on the spot, and the recovery efficiency of the questionnaires was as high as 100%. (3) The evaluation of the two groups of students' autonomous learning was conducted by means of Williamson College Students' Self-Rating Scale for Self-Directednessin Learning (SRSSDL). There are 5 dimensions and 60 items in total. The scoring method of 5 grades is adopted. The range of the total score is 60-300 points. If the score is high, the students have outstanding autonomous learning ability.

#### **2.4 Statistical Analysis**

The SPSS20.0 tool was adopted for statistical analysis in the study of the observed indicators, in which the expression of the count is [n (%)], Tested by $\chi$ 2, the mean difference  $(\bar{x} \pm s)$  is used to indicate the measured data, and it is detected by t. If P<0.05, there is a statistical difference.

# 3. Data and Methods

# **3.1 Comparison of Assessment Results of Different Groups**

Table 1 Statistical Comparison Of Assessment Results of Different Groups( $\bar{x} \pm s$ ,Points)

Group	Number of cases	Examination of	Experimental report	Theoretical
		Specimens		knowledge
				examination
Control group	48	8.21±1.21	6.24±0.79	68.91±6.78
Experimental group	49	8.97±1.47	9.19±2.41	87.35±7.98
χ2 value	-	9.317	8.723	9.322
P value	-	0.002	0.004	
			0.002	

From the above Table 1, it can be seen that the test group's assessment, test report and theoretical test are significantly better than the control group, and there is statistical difference between them (P<0.05).

# 3.2 Evaluation and Comparison of Teaching Modes in Different Groups

The observation group students were more satisfied with the teaching mode than the control group (P<0.05) (Table 2).

Group	Number of	Mobilize	Strengthen	To improve	Strengthen the	Strengthen the
	cases	enthusiasm for	learning	the expressive	ability to	ability of
		learning	ability	ability of	analyze and	teamwork
				language	resolve	
					problems	
Control group	48	34(70.8)	35(72.9)	33(68.8)	34(70.8)	32(66.7)
Experimental	49	47(95.9)	44(89.8)	45(91.8)	46(93.9)	45(91.8)
group						
χ2value	-	10.871	5.113	6.982	7.976	7.011
P value	-	0.001	0.038	0.031	0.016	0.027

Table 2 Comparative Statistics Of Teaching Model Evaluation in Different Groups[n(%)]

As can be seen from Table 2 above, the experimental group was significantly better than the control group in terms of teaching mode and other indicators, and there was a statistical difference between the two (P<0.05).

#### 3.3 Comparison of Autonomous Learning Ability of Different Groups

Table 3 Comparison of Autonomous Learning Ability of Different Groups( $\bar{x} \pm s$ ,Points)

Group	Number of	Learning	Learning	Learning	Learning	Interpersonal	Total score
	cases	concept	behavior	strategy	assessment	communication	
Control	48	42.31±1.87	43.14±1.75	40.91±2.73	42.31±1.87	41.98±2.07	206.15±6.07
group							
Experimental	49	49.24±3.01	50.14±2.01	46.44±4.01	47.24±3.91	45.14±2.91	242.14±5.81
group							
χ2value	-	5.981	6.181	6.109	5.813	6.081	19.981
P value	-	0.039	0.023	0.024	0.042	0.022	0.001

As can be seen from Table 3 above, the experimental group was significantly better than the control group in terms of autonomic learning and other indicators, and there was a statistical difference between the two (P<0.05).

# 4. Discussion

With the popularization of new media, the introduction of micro-class as a new teaching resource into the theoretical teaching of anatomy obviously has the following advantages:

#### 4.1 Less Time

The duration of the mini-class is usually only about 8min, and the longest is not more than 10min. Relevant experiments show that if students watch the teaching video for more than 20min minutes, they will become bored due to visual fatigue and lose their enthusiasm for learning. Therefore, the micro-class teaching method can make up for this deficiency to a certain extent. In a limited period of time, it can establish the learning objectives, emphasize the key points of learning, and improve the learning enthusiasm of students as much as possible.

# 4.2 The Content is More Refined

When choosing knowledge points, micro-class should choose some teaching emphases and difficulties as much as possible. At the same time, it should pursue the effect of keeping improving when making videos. For example, anatomy involves the knowledge of dangerous triangle. At this time, we can use the video resources of micro-class to carry out hierarchical and precise lectures. In this way, not only enrich the actual content of classroom teaching, but also enable students to enjoy learning more.

#### 4.3 The Teaching Scene is More Vivid

The main way of micro-class is micro-video. Based on micro-settings, micro-lesson plans, micro-cases, micro-courseware, micro-exercises and micro-thinking, a real and vivid resource atmosphere of micro-class is constructed. Such visualized scene teaching is also more in line with the learning characteristics of nursing students, so as to stimulate students' enthusiasm for anatomy learning as much as possible, and ultimately improve the teaching quality and effect of teaching classes.

#### 4.4 Learning Ways Are More Flexible

The video produced by the micro-class is shorter in time, more precise in content and more interesting. At the same time, it also reduces the learning time and makes the learning method more flexible, thus being more convenient for students to use. However, it is not constrained by the traditional teaching time, place, distance and other indicators, so that students can learn by themselves when they consciously want to learn, which is flexible and convenient. At the same time, it can interact with teachers through WeChat, which is consistent with students' diversified and personalized learning needs.

Judging from the results of this experiment, the experimental group adopted the micro-course method, so the indicators such as the test, test report, theoretical test, teaching mode, and self-learning ability of the specimen should be significantly better than the traditional teaching method. There were statistical differences in the control group (P<0.05).

#### **5.** Conclusion

Introducing microteaching into anatomy theory teaching can obviously improve the teaching quality and efficiency, which is consistent with the needs of anatomy curriculum reform under the background of new media, and is worthy of reference and further promotion.

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