

Research on the Reform of Course Assessment of *Meridians and Acupoints Science* Based on Formative Evaluation

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Abstract: Formative evaluation refers to a comprehensive and continuous evaluation of students' learning attitudes, strategies, and emotions during the teaching process. The assessment of the course *Meridians and Acupoints Science* based on formative assessment is conducive to fully mobilizing students' learning enthusiasm, comprehensively improving their comprehensive literacy and teaching effectiveness. Based on the current teaching situation of the course *Meridians and Acupoints Science*, this paper analyzes and explains the problems existing in the current assessment methods of the course. On this basis, the paper proposes corresponding improvement and optimization strategies from three aspects: evaluation subject, evaluation content, and evaluation method, in order to promote the smooth progress of teaching reform work.

Keywords: Formative Evaluation; Meridians and Acupoints Science

1. Introduction

The Meridians and Acupoints science is an introductory course and core content of acupuncture and moxibustion. The study of this course can lay a foundation for *the Study of Acupuncture and Moxibustion Therapy* and *Acupuncture and Moxibustion Law*. This is of great significance for students to learn professional courses; Course evaluation has an undeniable impact on curriculum implementation and student learning, and is an important driving force for promoting teaching reform and optimization, as well as promoting curriculum construction and implementation. However, there are still shortcomings in the evaluation process of this course, such as a single form of course assessment and measurement standards, and the unclear function and role of formative evaluation results. Therefore, it is necessary to explore the reform

practice of the course assessment of *Meridians and Acupoints Science* based on formative evaluation.

2. The Role and Significance of Formative Evaluation in the Course Assessment of *Meridians and Acupoints Science*

2.1 Beneficial for Mobilizing Students' Learning Enthusiasm

In the learning process of *Meridians and Acupoints Science*, the enthusiasm and initiative of students directly affect the final teaching effect. Therefore, it is necessary to fully mobilize the enthusiasm of students in order to ensure the smooth implementation of teaching activities. The use of formative assessment can greatly stimulate students' interest in learning. Specifically, teachers can conduct process evaluations of students through classroom quizzes and activities, which can attract their attention and bring them back into the classroom. This can also encourage them to maintain active thinking, engage in active exploration and self reflection, thereby achieving better learning outcomes. [1]

2.2 Beneficial for Comprehensively Improving Students' Comprehensive Literacy

The introduction of formative evaluation can to some extent reduce the proportion of final exams in the assessment of the course of *Meridians and Acupoints Science*, and make up for the shortcomings of traditional evaluation models that overly focus on assessing students' memory ability. For example, formative assessment can include students' practical operation and application, and innovation ability in the assessment scope. It can expand and improve the evaluation content and indicators of the course, and achieve the evaluation of students' comprehensive abilities. This also can promote the comprehensive development of students and comprehensively improve their comprehensive literacy.

2.3. Beneficial for Improving the Effectiveness of Course Teaching

After an interview with students majoring in acupuncture and moxibustion science in TCM colleges and universities, it was found that students generally believed that periodic unit tests could help students review in time, reduce the burden of reviewing and preparing for the final exam, and consolidate and strengthen knowledge; In formative assessment, learning groups can be established to achieve complementary advantages and common progress through benign competition within groups and inter group evaluation. For teachers, conducting formative evaluations in the teaching of *Meridians and Acupoints Science* course helps them monitor the teaching situation in a timely manner, understand the learning situation of students, and consolidate teaching achievements. This in turn provides direction guidance for the reform and optimization of teacher teaching.

3. Current Assessment Methods and Issues in *Meridians and Acupoints Science* Course

3.1 The Form and Measurement Standards of Course Assessment Are Single

The assessment form and measurement standards of the course *Meridians and Acupoints Science* are single, mainly reflected in excessive emphasis on summative evaluation. Due to various factors such as the exam environment and the physical and mental state of students, the final test results cannot accurately and comprehensively reflect the development of students, resulting in poor evaluation results. Specifically, the traditional curriculum assessment model is mainly aimed at meeting the needs of selection, identification, and appraisal, focusing on assessing students' memorization ability, while neglecting the assessment of their comprehensive abilities such as operational level and innovation ability. This cannot fully reflect the actual learning situation of students, such as their moral education performance, classroom enthusiasm, and attendance rate. Some students also engage in short-term rapid memorization and memorization to cope with exams. In this way, the storage time of knowledge is relatively short, and students often quickly forget knowledge after exams, which affects their future learning.

3.2 The Function and Effect of Formative Evaluation Results Are Not Obvious

One reason is that the formative evaluation methods used by teachers are relatively single and rigid. This leads to low authenticity and accuracy of the evaluation results obtained by teachers. In the teaching of the course *Meridians and Acupoints Science*, there are many things that students need to memorize, and they are required to be able to apply what they have learned on the basis of understanding. But currently, teachers mainly use questioning to understand students' mastery of knowledge and use their answers as their regular grades. This cannot fully and accurately reflect whether students truly understand and master knowledge, and the evaluation of students' abilities is very shallow and one-sided; [2] Secondly, the evaluation of students by teachers is not specific, clear, and comprehensive enough. Some formative evaluation results lack scientific and reference value, have little practical teaching significance, and teachers fail to pay attention to the development of students' attitudes, emotions, and innovation in the learning process, which cannot achieve comprehensive evaluation. This goes against the original intention of formative assessment.

4. Optimization Strategy for Assessment of *Meridians and Acupoints Science* Course Based on Formative Evaluation

Teaching evaluation is an essential part of teaching; How to obtain fair, objective, and accurate evaluation results will directly determine whether the evaluation can effectively guide teaching reform work, ensure the smooth implementation of teaching activities, and thus achieve corresponding teaching objectives. Currently, there are still certain shortcomings and deficiencies in the assessment and evaluation process of the course *Meridians and Acupoints Science*. In response to the current issue of curriculum evaluation, the following optimization strategies will be proposed based on formative evaluation:

4.1 Diversified Evaluation Subjects

The evaluator is the implementer of course evaluation and teaching evaluation, which plays an important role in constraining and influencing the effectiveness of evaluation activities. Medical education is a complex process

involving multiple fields and factors such as teachers, students, families, schools, and society, and the demands based on different factors are also different. Therefore, in order to have a more comprehensive understanding of teaching information, students, teachers, internship units and social evaluation institutions should be included in the main scope of formative evaluation based on the actual teaching situation and the type of course, in the evaluation process of *Meridians and Acupoints Science* course. A comprehensive, objective, and sufficient evaluation should also be conducted from multiple dimensions and perspectives to better reflect the learning situation of students and assist in teaching reform and optimization. [4]

Firstly, it is necessary to regularly organize mutual evaluations among students. Through peer evaluation, students are encouraged to think from different perspectives. This can enhance students' ability to discern and judge, cultivate their innovative and divergent thinking. Meanwhile, by watching other students demonstrate how to find acupoints, one can deepen their impression of knowledge and better grasp the details of acupoints.

Secondly, student self-evaluation should be implemented. As the main body of learning, students have a relatively clear understanding and comprehension of their own learning trajectory. Therefore, teachers should guide and encourage students to conduct self-evaluation, expand their free learning space, teach students methods of self-evaluation and reflection, and enable students to independently complete learning tasks. Students need to have a grasp of the phased learning overview through comparison, analysis, and other methods, and conduct self form checks and corrections to form a continuous record and observation of the entire process. Students should also be good at reflecting on the shortcomings and problems in their learning, timely modifying and adjusting their learning plans, following the correct direction, closely following the teacher's teaching pace, and achieving more ideal results.

4.2 Diversified Evaluation Methods

The course content of *Meridians and Acupoints Science* is complex and varied, and relatively dull. Students not only find it difficult to concentrate on learning knowledge for a long time, but also tend to develop a sense of withdrawal and fear towards learning new

knowledge. Therefore, teachers can frequently use positive evaluation methods such as praise and appreciation to help students build confidence, eliminate their fear of learning professional knowledge, and further enhance teaching effectiveness. In addition, teachers can also encourage and guide students to speak actively, and obtain their learning situation from their speeches and expressions, and judge their current learning status. Teachers then help students adjust their learning status, thereby improving learning efficiency and enhancing learning outcomes. [5] Teachers can also organize students to conduct course assessments through class knowledge competitions, and flexibly evaluate students' mastery of knowledge through methods such as quick questions and answers, case analysis, and problem-solving.

4.3 Diversified Evaluation Content

In the process evaluation of the course *Meridians and Acupoints Science*, it is not only necessary to test the mastery of theoretical knowledge by students, but also to test and evaluate their practical operation and application abilities. The focus of the skills training course assessment is on marking meridians and acupoints, requiring students to be able to mark the specific location of acupoints on the human body and mark the route of meridians. Therefore, university teachers can attach importance to unit tests and use them to make the connection between courses more natural. This can help students better transition to the next stage of course learning. In practical operation, it is necessary to use the knowledge points covered before the latest teaching as the assessment content; The assessment method mainly involves grouping students in pairs and allowing them to randomly select the assessment content from a test paper printed with 12 different meridian names; Students need to memorize the original text of meridian circulation and trace the starting and ending points of the meridians, as well as the circulation route on another companion; then, students need to follow the circulation route to identify the tissues and organs that are connected to them. Alternatively, students can randomly select assessment content from 10 acupoints and follow the steps of "oral positioning, meridian orientation, method selection, and acupoint indication" within 10 minutes. After each assessment, the teacher should lead the students to summarize their knowledge and focus on

explaining common mistakes made by students, such as easily misplaced meridians and acupoints, supplemented by specific demonstrations and operations. This further deepens the impression of students, enabling them to correct the above errors in a timely manner and master the correct acupuncture techniques.

5. Conclusion

Course assessment is an important part of university curriculum teaching. Making good use of course assessment and leveraging its diagnostic, feedback, guidance, and motivational functions can further enhance the quality of classroom teaching. This can also promote the development of students. Therefore, university teachers should establish a comprehensive and diversified evaluation system throughout the entire process. Integrating formative evaluation and summative evaluation can achieve a transformation from knowledge testing to ability testing, fully mobilizing students' learning enthusiasm and promoting their professional development.

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