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On Teaching Quality Evaluation of High-Level Applied University Courses Based on Learning Engagement

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Abstract

Based on the in-depth analysis of learning engagement, this paper constructs an evaluation index system of teaching quality of economics and management courses suitable for application-oriented universities, which is mainly based on student experience, promotes the teaching quality of economics and management courses and promotes the concept of "student-centered", and eventually forms an effective path to improve the teaching quality of courses with popularization and practical significance. The whole process of path construction is conducive to the growth and development of students, and plays a certain role in promoting the improvement of teachers' teaching quality.

Keywords

Learning Engagement, Teaching Quality Evaluation, Economics and Management Courses

1. Introduction

The evaluation index of teachers' course teaching quality is the basis for defining the evaluation content and carrying out the evaluation. Establishing a scientific, reasonable and feasible index system is the key to achieving the purpose of evaluation, carrying out quantitative analysis and smoothly implementing the evaluation activities. The evaluation of university teaching quality should follow the concept of "student-centered". It is the basic function of university education to preach, dispel doubts and impart knowledge, and one of its main objects is students. With the development of education in China, the accumulated amount of educational resources has been greatly improved. Undergraduate education has

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been transformed into "universal education". The quality of education received by its recipients or students is the most important criterion for its evaluation, that is, the teaching work should be centered on students. Course teaching is an important connotation of teaching concept. Therefore, it is of great practical significance and imperative to construct appropriate evaluation index of course teaching quality.

High-level application-oriented university training cross-border, integration, high-level application-oriented undergraduate talents, not simply employment-oriented, but to people's all-round development-oriented, that is, to improve personality, develop human resources, serve others, self-development. The factors of college students' learning engagement involve students' individual differences, learning motivation, school environment and social environment. Exploring the influencing factors of learning engagement will help to grasp the law of college students' learning engagement. The level of learning engagement has an extremely important impact on students' academic achievement and long-term development. The research on teaching quality evaluation based on learning engagement can raise students' enthusiasm and improve students' consciousness of acquiring knowledge and effectively improve the quality of personnel training in high-level applied universities.

The current college education problems exist in many aspects, including colleges and universities paying more attention to teachers' classroom teaching rather than students' learning and paying more attention to teachers' teaching mode rather than students' learning mode. There is less attention to the cultivation of students' interest. The supervision and feedback of students' learning process are not timely. The setting of course content shows more emphasis on independent concepts rather than the concept associated with the application process, which is not conducive to the cultivation of students' high-level learning and other issues. Therefore, it is necessary to change the current concept of teacher-centered in colleges and universities into student-centered learning, pay more attention to the learning links and processes from students, make students the main body of learning, stimulate learning motivation and improve the level of students' learning.

The teaching quality evaluation based on students' learning engagement pays more attention to the learning process and experience, which effectively increases students' learning autonomy. However, at present, most of the students in theory courses of the university participate in the teaching effect evaluation questionnaire of course teachers, which has insufficient intake and lack of attention to the process of learning quality, such as students' deep experience, learning engagement and student-centered value-added evaluation. At present, teachers' exploration of students' curriculum learning engagement and learning effectiveness is not deep. Some teachers will independently design questionnaires to conduct surveys at the end of class to understand students' learning effectiveness. There is a lot of demand space for learning engagement. The course teaching quality evaluation lacks the "process index" of learning quality.

It can be seen from the above problems that we should establish the concept of "student-centered" educational evaluation (Bai, 2014), reshape the teaching quality evaluation system, integrate the relevant elements of learning input, and increase the process index assessment. Through the feedback of Evaluation Information of Course Teaching Quality, teachers can constantly self-evaluate and reflect on their teaching activities according to the evaluation criteria, promote teachers to change their educational concepts and teaching behaviors, improve and enhance their professional quality and teaching ability to form a personalized teaching style, improve the teaching level of teachers.

Based on more than 20 years of experience in college students and educational administration, the author of this paper investigates how to consider the transformation of curriculum teaching from "teacher-centered" to "student-centered" and how to truly evaluate the quality of course teaching from the perspective of students.

2. Analysis of Learning Engagement Factors

For learning engagement, G. Kuhn believes that the degree of student engagement refers to the time and energy that students devote to effective learning activities, with particular emphasis on the meaning of "effective"; the environmental support given by schools refers to how students view school support for their learning, that is, their satisfaction with their own learning and school support. The theory of learning engagement reflects the student-centered education concept. The practice of the theory of learning engagement marks the transformation of the evaluation of universities from scale to connotation. The theory of learning engagement has two important characteristics, one is the effectiveness of learning engagement, and the other one is students' satisfaction. Effectiveness refers to both the effective input of students and effectiveness of school engagement. Fundamentally, satisfaction and effectiveness are consistent; only high student satisfaction shows that the input is effective; effective investment will further increase satisfaction (Zhu, Huang, & Gu, 2017).

G. Kuh put forward that the core element of the quality of education is the degree of students' investment in learning. He concisely defined college students' investment in learning as "the time and energy that college students spend on activities with educational purposes" (Zhang, Huang, & Wu, 2021). At present, the academic world studies learning engagement from three aspects: behavioral engagement, emotional engagement and cognitive engagement. Behavioral engagement is mainly expressed as: participation, including students' participation in academic, social or extracurricular activities; emotional engagement includes students' both positive or negative reactions to teachers, classmates, schoolwork, and school; cognitive engagement reflects students' mastery of difficult skills to understand complex ideas, and their willingness to work hard for them after deep thought.
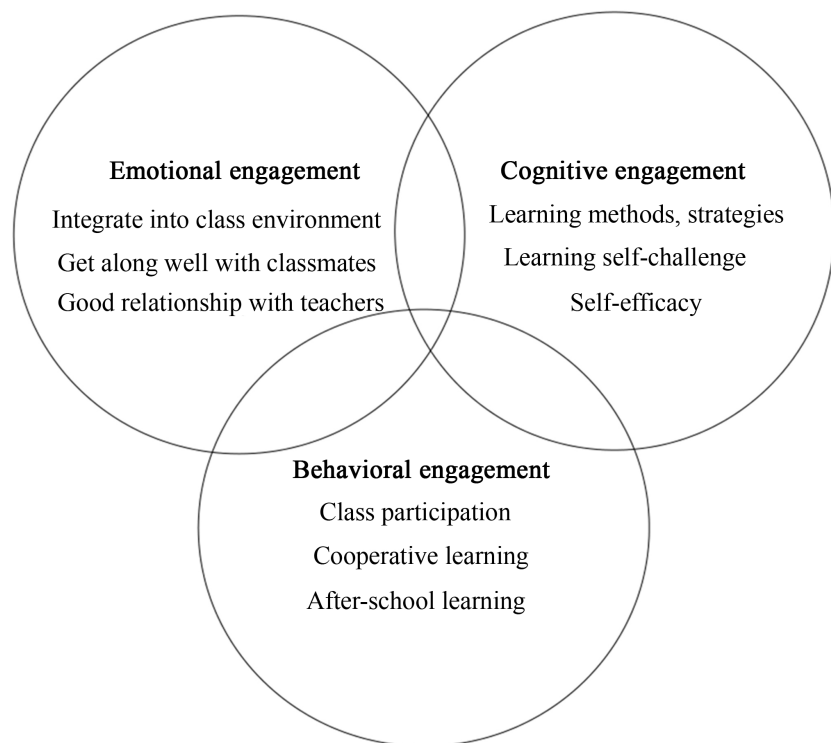
Behavioral engagement refers to the engagement in course learning and learning tasks, such as whether to seriously complete the course work, whether to lis-

ten to the teacher carefully, participate in classroom discussions, and ask questions to the teacher. It reflects students' participation and effort in classroom learning and after-class learning activities.

Emotional engagement refers to students' emotional responses to classroom activities. Through the emotional relationship and interaction between students and teachers, the degree of students' emotional involvement is reflected. The degree of students' active cooperation in learning and the degree of teacher-student interaction reflects students' expectations for learning and their emotional reactions with classmates and teachers when they complete tasks related to learning.

Cognitive engagement refers to students' views on solving course learning problems and their thinking about difficult course problems. Cognitive input consists of high-level learning and information analysis. Through investigation and analysis of students' cognition of different courses and students' ability to use knowledge to analyze reality, draw conclusions and solve problems, students' learning challenge degree is obtained, so as to reflect the situation of students' autonomous learning ability.

In these three dimensions, the first is the emotional engagement experience, followed by the cognitive engagement level, and finally is the behavioral engagement tendency. Emotional input determines the level of enthusiasm for learning investment, cognitive input determines the way and level of learning investment, and behavioral input determines the degree of learning investment (Figure 1).

Emotional engagement

Integrate into class environment
Get along well with classmates
Good relationship with teachers

Cognitive engagement

Learning methods, strategies
Learning self-challenge
Self-efficacy

Behavioral engagement

Class participation
Cooperative learning
After-school learning

Figure 1. Logical relationship diagram of evaluation elements of course learning engagement.

3. Analysis on Evaluation Index of Course Learning Engagement

This paper organizes experts and students to adopt the Analytic Hierarchy Process (AHP), Delphi method and brainstorming method to construct the evaluation index system of course teaching quality. The advantages of analytic hierarchy process are the combination of qualitative and quantitative analysis, which is highly logical, systematic, concise and practical. It is an effective decision-making method for multi-level and multi-objective planning decision-making problems. Therefore, this kind of distribution is very suitable for the construction of the evaluation index system of course teaching quality. The construction of indicators collects a large number of students' subjective judgments and objective factors, using the judgment matrix method and the expert method to assign weights to the third-grade indexes indicators, and evaluates the teaching quality of the course through all students in the course class. It is of great theoretical and practical significance to evaluate the teaching quality of courses centering on students for improving the teaching quality and personnel training level, and for improving the teaching mode and the level of teaching.

In order to integrate the learning input factors into the evaluation index of teaching quality, it is necessary to determine the indicators that, in addition to cognition, emotions, values, attitudes and other factors that can stimulate students to devote themselves to learning; determining indicators of the contribution of the learning environment to learning, real-world scenarios and real tasks have a significant impact on students' emotions, values, attitudes and other factors, which is helpful to improve learning engagement; determine constructive indicators of learning, because knowledge is not instilled, but constructed by students in real situations and interactions with others. Authenticity activities and practices directly shape the process of students' knowledge construction.

According to the characteristics of the research object, aiming at the learning engagement of students' specialized courses, this paper mainly reshapes the structured indicators of learning engagement of students' specialized courses and the currently recognized and large-scale National Survey of Student Engagement which is also known as NSSE. This paper decides to adjust the degree of educational experience and campus environment support to the degree of teaching support and teachers' feedback, that is, to determine the five conditional variables of academic challenge, active cooperation, student-faculty interaction, teaching support and teachers' feedback, as shown in Table 1.

1) Academic challenge

The dimension of academic challenge measures whether students are challenged in the learning process. It includes two secondary indicators: high-level learning and analysis of information. Patrick T. Terenzini and Er-nest T. Pascarella proposed that only by challenging students can they be forced to enter the learning state. He called this Newton's first law of university teaching, that is, unless there is an external force to make students change their state or direction,

Table 1. Evaluation index system of course learning engagement.

First grade index	Second grade index	Third grade index
Course Learning Engagement	Academic challenge	Higher-order cognitive behavior-higher order learning
		High-order cognitive behavior-information analysis
	Active cooperation	Cooperative learning
		Active learning
	Student-faculty interaction	Student-teacher communication inside and outside class
	Teaching support	Teachers' Help and Inspiration to Students
	Teachers' feedback	Teachers' Tracking of Learning Effect

or they will remain stationary or in a state of uniform motion in students' study. Therefore, it is necessary to provide students with appropriate challenges in teaching, which will cause changes in students' minds, thus opening the door for them to accept more different and more complex thinking (Trenzini & Zhao, 2021).

2) Active cooperation

The dimension of active cooperation means to encourage students to both active learning and cooperative learning. Active learning means that students need to take the initiative to acquire knowledge, rather than passive acceptance. To make learning happen, students must consciously accept challenges, and the higher the degree of investment, the better the educational effect. Cooperative learning means that students need others to participate in the learning process, and interacting with teachers or classmates is more prone to challenges. When different values, attitudes and behavior in peer groups or choices are made in the face of conflict, it will lead to challenges and stimulate students' progress.

3) Student-faculty interaction

The dimension of the degree of interaction between students and teachers is the degree of all interaction and influence between students and teachers. Mutual discussion and communication are the behavior or expression strategies adopted by students and teachers in the process of interaction. Student-teacher interaction plays a very important role in college curriculum teaching. The level of student-teacher interaction affects the level of learning and teaching while the effect of student-teacher interaction is also an important factor affecting the learning effect and teaching effect. At present, the main reason for the low level of teacher-student interaction in colleges and universities can be summarized as the disconnection between teachers' teaching and students' learning, which leads to unsatisfactory interaction between teachers and students. Therefore, teachers can adopt a combination of theoretical teaching and case analysis to stimulate students' understanding of knowledge points and existing knowledge, deepen their understanding of knowledge through classroom discussion, and enhance student-teacher interaction; Increase the difficulty of studies or courses to enhance

the interaction between teachers and students; It can also promote the level of interaction between students and teachers by strengthening the tracking and supervision of learning effects after class.

4) Teaching support

In the NSSE model, the dimension of the support degree of campus environment is to investigate the relationship between students and classmates, teachers, counselors and administrators in the school, and the support and help provided by the school for students' academic success, interpersonal relationship, emotional problems and economic problems. In the survey of curriculum learning engagement, this index is revised to teaching support, that is, teachers' help and inspiration for students in curriculum learning.

5) Teachers' feedback

This paper adds the dimension of the degree of teachers' feedback, which refers to the tracking, supervision and response of teachers to the learning effect. It is a special form of interaction between teachers and students in school effect.

4. Analysis of Teaching Quality Evaluation Integrating Learning Engagement Elements

By understanding the real ideas and actual performance of students' learning activities, we can grasp the time and effort of students' active involvement in learning and the effectiveness of students' participation in learning activities. It is entirely student-centered, and students self-describe the learning situation during the whole university or at a certain stage, so as to measure the time and energy that students devote to effective learning and evaluate the quality of teaching that students receive in the classroom, as shown in Figure 2.

4.1. Reforming the Evaluation Index System of NSSE Learning Engagement from the Perspective of Curriculum Evaluation

Based on the structure and index system of NSSE learning engagement, a questionnaire for learning engagement of the course was designed by this paper to
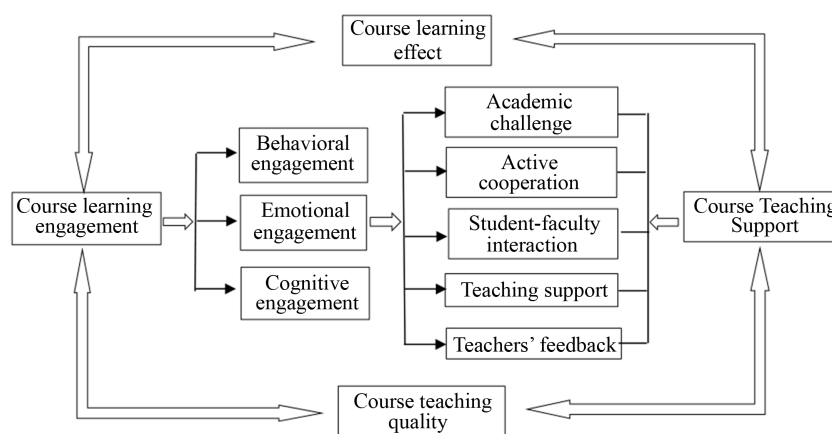
Figure 2. Logical relationship between course learning engagement and course teaching quality.

carry out the survey. Based on the interaction or integration of behavior, emotion and cognition, subjective experience and objective harvest in the process of students' learning, this paper investigates students' learning engagement in multiple dimensions after seamlessly connecting all aspects of course learning, such as students' expectations before class, inspiration, classroom interaction and communication after class. Through a comprehensive study of the five conditional variables of learning challenge, active cooperation, student-teacher interaction, teaching support and teachers' feedback, this paper explores the reasons for the influence of students' learning engagement, and constructs a learning engagement evaluation system suitable for students majoring in economics and management in our school.

4.2. Reforming Teaching Quality Evaluation System from the Perspective of Student Engagement

As the main body of learning, students' cognitive input, behavioral input and emotional input in the learning process not only reflect the improvement of students' knowledge ability, but also reflect students' recognition of teaching content, teachers' teaching and learning environment. According to the analysis of students' engagement in economic and management related courses, combined with the causal relationship between the three dimensions of students' learning behavior engagement, emotional engagement and cognitive engagement and the teaching quality of the course, we find an effective way to improve the teaching quality and construct the teaching quality evaluation system of economic and management courses in our school.

4.3. Reform of Curriculum Quality Management Based on Learning Engagement

Through the analysis of learning engagement and the improvement of the evaluation system of curriculum teaching quality, it is gradually formed that learning engagement, curriculum teaching, learning effectiveness and quality evaluation projects should be judged according to the level of students' learning engagement and the efforts of colleges and universities to attract students to invest in learning. This concept better reflects the concern for learners' learning behavior and learning process. Combining learning engagement with undergraduate teaching quality standards can not only analyze students' learning behavior well, but also examine the measures and effectiveness of colleges and universities to encourage students to participate in various educational activities. This idea is in line with the construction idea of the current teaching quality assurance system in colleges and universities, that is, to evaluate the quality of undergraduate teaching through students' satisfaction with learning effect and students' learning output benefit.

5. Shortcomings and Omissions

The shortcomings and omissions in this paper are as follows: First of all, the re-

search object of the index system constructed in this paper is aimed at undergraduates majoring in economics and management in applied undergraduate colleges. If it is to be used as a learning evaluation system for other types of undergraduates, it is necessary to further modify and improve the indicators. Secondly, the index contains only two elements of students and teachers, and can also supplement the school support and other elements to expand the index.

Supporting Project

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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