Empirical Research on Features of Class Needs Within Universities
Students in Sichuan Province

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Abstract: Needs refers to human beings’ desire for goals. University students’ needs have changed
as well in the information era. It is an important foundation to understand the real class needs of
university students for current class innovation and teaching quality improvement. To this end, this
study researches universities class needs in Sichuan Province with social science research methods,
it shows the degree of universities students needs from high to low: the need of teachers’ ability, the
need of class benefits and the need of teaching methods innovation, and it puts forward the
countermeasures and suggestions of universities classes innovation in Sichuan Province on this
basis.

Introduction

The university classes are major carriers of college education. It brings a huge challenge to
college education with the increase of university enrollment and employment pressure, combined
with the prevalence of utilitarianism in the market economy, and the spread of “the idea of
education is useless”. Currently, many teachers still have cognitive misconceptions of university
classes, they use obsolete class forms and the cramming education is still very popular.

On the analysis of some literature, it is found that there are three features of literature research on
class innovation in colleges: 1, the qualitative literature is more than the quantitative literature, but
the less one began to increase from the year of 2013; 2, the main content of class innovation in
universities and colleges focuses on following five aspects: the teaching models, the evaluation
mechanism of teaching quality, the reformation of teaching methods, the satisfaction degree of
teaching, and the borrowing of overseas teaching methods, but it is relatively less for those directly
research on the perspective of class needs of university students; 3, the subject and the object of
university classes have changed: the previous literature mainly based on teachers, which studies the
class influence and management ability of outstanding teachers, it has gradually transferred to
students now. The foreign researches on class innovation in universities and colleges mainly focus
on the teaching method and the innovation of teaching modes, such as the case method, the problem
and discussion method, and the multimedia resource method, etc.

The entry point of this research is to scientifically catch the real class needs and learning
motivation of the university students, so as to innovate the class indeed in the information age. Thus
college teachers could be aware of the important role of innovative class in the current higher
education, and then continue to take a series of measures, to enhance the quality of students, and
ultimately achieve the win-win situation.

Research Methods

This research is conducted by self-compiled questionnaire, which has following steps: (1) Review the
relevant research results at home and abroad, to collect the factors related to this study.
(2) Use the form of open questionnaire, such as: What do you most want in the class? What is the teacher's influence on your class? What kind of teaching method do you like? What do you want to get in class? It can collect the needs of university students through those problems, including the need of class enthusiasm, the need of classroom hardware and software environment, the need of the teacher's teaching ability and teaching methods, and their view of new media technology application, to induct and unite. The closed questionnaire is finally formed through the first draft, the process of trying to fill and the modification. (3) Through discussions and amending, then reclaimed and amended it again according to the proportion of 10% after the pre-test, and finally developed a perfect closed questionnaire. (4) In order to achieve a more objective and realistic research result, the study allows interviewees taking enough time to think about a problem with depth interviews, to think deeply about one question, to gain a better understanding of their class needs, as well as their views and ideas of class innovation in colleges. (5) This research selected the university students from Sichuan Province as the survey object, and adopted the stratified sampling method. The survey was conducted by means of online survey and paper questionnaires. In this survey, 700 questionnaires were distributed, and 670 valid questionnaires were recollected. Finally, it used EXCEL11.0 for statistical analysis to obtain the results.

Analysis on Research Results

The Overall Analysis on the Class Needs Features of University Students

<table>
<thead>
<tr>
<th>Need Dimension</th>
<th>Specific Index</th>
<th>Dimension mean</th>
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<tbody>
<tr>
<td>Class benefits</td>
<td>Knowledge and ideation</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Time for auto-didacticism and independent thinking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chance for self-expression</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Broaden and enhance the relationship</td>
<td></td>
</tr>
<tr>
<td>The ability of teaching</td>
<td>Be good at inspiring students and guide them to discuss and think</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>Conduct teaching ideas in accordance with courseware</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communicate with students after class and reflect timely</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control the process of class very well</td>
<td></td>
</tr>
<tr>
<td>The methods of teaching</td>
<td>Explain class content with PPT</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>Play related teaching videos</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teach with own knowledge and experience without books</td>
<td></td>
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<tr>
<td></td>
<td>Teach by students themselves on the stage</td>
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First of all, among the three dimensions about class needs, the need of teachers' teaching ability is the most prominent, including: "Be good at inspiring students and guide them to discuss and thinking", "Conduct teaching ideas in accordance with courseware", "Communicate with students in classroom and reflect timely", "Control the process of class very well". We put together the interview data and concluded that the teacher who has a strong teaching ability is the leader of a class in the minds of university students, and he could reasonably arrange the teaching tasks in given time. College teachers not only can effectively spread the knowledge, but also sincerely
communicate with students, and create a harmonious atmosphere to stimulate students' thinking ability, showing a high level of class management. The need of class benefits are the second important factor for university students in Sichuan Province. They hope to obtain something in the class, such as: "Knowledge and Ideation", "Time for auto-didacticism and independent thinking", "Chance for self-expression", "Broaden and enhance the relationship". It shows that contemporary university students pay much attention to expression and influence. The class need of teaching methods innovation is the last need and mainly includes students want more application of modern multimedia technology, which reflects the new requirements of the new way of information technology teaching methods for those students who grow up in the information age.

At second, the research compared and analyzed the class needs of students of different gender, different age, different grades, different professions, who have ever obtained scholarships or not, who was student cadres or not, and found that 42% of the interviewees have ever owned scholarships or was a student cadres, whom focusing on the need of self-learning and learning feedback. However, those people who did not receive scholarships or did not serve for other students focus on skills development and self-development. And 47% of the students in each grade think that teachers should be good at inspiring students and guiding students to think. 16% of the sophomore and junior students hope that teachers can walk out of the podiums and communicate more to students, which can find inadequate and to adjust teaching methods in time. These research results show that new conception should be given in university classes.

The Need of Teaching Ability

![What Kind of Teaching Ability Do You Expect Teachers Have?](image)

Figure 1. What Kind of Teaching Ability Do You Expect Teachers Have.

The era had passed away, in which teacher was the teaching center, language and courseware were teaching methods, taught university students in a cramming way, replaced by the raise of the new pattern of university classes which concentrate on students. The specific needs of university teachers' teaching ability are shown in following Figure 1. This result shows that nearly half of university students pay great attention to the communication and inspiration of teachers in the class. Only a small number of students think that teaching ideas should be carried out according to courseware. University students generally respond their resistance and dislike of mechanical transmission of knowledge, expecting teachers to integrate teaching content, teaching key point and various information to sum up and refine them; as well hoping they can fully grasp and understand the level of students' cognitive level. Thus students would like the new pattern class which aims at improving the comprehensive ability of students. It actually proves that university students have new requirements of teachers’ ability in the new environment and background.
The Need of Class Benefits

Survey data shows that students most expectation to enhance their knowledge and thinking ability in the class. From the perspective of career development, it is the basis for individuals to increase their knowledge reserves and improve thinking ability to gain a better career development. The systematic, derivative and practice of college students’ knowledge structure make teachers to do better guidance and supervision, so as to enhance the accumulation of university students.

Secondly, students all want to have time for autodidacticism and independent thinking in class time except senior students. University teachers should give more time for students to absorb and digest the taught knowledge, rather than blindly output knowledge and ignore the truth that students’acceptance in process. College teachers should grasp the degree of knowledge inputing, giving them enough room to think independently, and introducing their thought in class learning. The senior students have certain understanding of the practice, hope to show themselves through self-expression, but also for accumulating more experience a better job, that is why they show their relatively strong need of self-expression opportunities and broadening and enhancing relationships.

The Need of Teaching Methods Innovation

The result shows that(as shown in Figure 3 below) 64% of university students believe that teachers can improve the enthusiasm of students by playing teaching related videos or using PPT to explain class content to improve interestingness. In the Internet era, the authority of the teacher's knowledge has greatly reduced, so the university teachers should use the emerging media technology to stimulate students learning passiot, enhancing student interest in learning and achieveing good teaching results. 25% of the students think there is no use to use textbook and teaching with teachers' experience and knowledge, while 10% of university students wish to exchanging classes. That is, sharing ideas by students themselves on the stage to improve class enthusiasm.

These are reflected that the university classes’ influence and vitality are weakened which are in the neglect of students need to update and students personalization. Only multi-level, multi-angle, and multi-form of teaching methods would have different effects. University teachers should integrate their own related practical experience with the teaching content to help students understand the existing problems of practical work, in order to meet the needs of students at different levels or allow students to take the initiative of expressing, promoting student’s thinking independence and depth in the teacher-student dialogue, so as to continually stimulate students’ learning enthusiasm and motivation.
Which Teaching Method Can Improve University Students’ Enthusiasm in Classes?

<table>
<thead>
<tr>
<th>Teaching Method</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A. Explain class content with PPT</td>
<td>26%</td>
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<tr>
<td>B. Play related teaching videos</td>
<td>38%</td>
</tr>
<tr>
<td>C. Teach with own knowledge and experience without books</td>
<td>25%</td>
</tr>
<tr>
<td>D. Teach by students themselves on the stage</td>
<td>10%</td>
</tr>
<tr>
<td>E. Other</td>
<td>1%</td>
</tr>
</tbody>
</table>

Figure 3. Which Teaching Method Can Improve University Students’ Enthusiasm in Classes?

Countermeasures of the Research

Converting the Role of University Teachers and Innovating the Mode of Classes

According to the interview, most of the university teachers understand that the class changes with time pass by, but they still think that teacher should be the centor in the class for the reason is that students' cognitive level and experience is not well. However, they should be a new role in front of college students. Coach teachers should not only learn to design open teaching theme, sincerely questioning and dialoguing in the process of teaching implementation, but also exploring and communicating the knowledge with students after classes, so as to create an atmosphere of mutual teaching to achieve the purpose of common growth among teachers and students.

Combined with the existing teaching methods such as MOOC, flipped class, PAD class and some new teaching methods and based on the teaching conception of enlarging knowledge and concentrating on application, we had innovated the class practically. After continuous practice, the study found that teachers should build knowledge application and evaluation of learning scenarios in classes, to improve the overall quality and ability of students, showing their dominant positions. In those scenarios, students have the voice, and finish the comprehensive evaluation and experience of them in the displaying of communication, problem and projects solving. The new model which is suitable for the teaching of college students in Sichuan Province: the learning of basic knowledge conducted by the form of MOOC and self-teaching under the guidance of teachers, derivative knowledge learned by building a variety of scenarios with the forms of work presenting, program designing, problem solving, dialogue, etc. to guide students to apply knowledge, analysis and evaluation. This teaching mode enhanced the satisfaction degree of students and teachers to 30%.

Implementing Practical Mode of Teaching and Enhancing Professional Ability of Teachers

A person who has higher learning is your teacher, who has moral character is your model. University teachers should not only enhance the professional knowledge and the ability of scientific researching, while tightly study the theory of education and teaching, and training and promoting their teaching ability and professionalism. The different types of universities mean that the degree of teacher’s specialization and teaching ability requirements are different, coupled with the different needs of teachers.

As we all know, the important work of university teachers is scientific research and teaching. China's colleges have prevalently phenomenon of "focusing much on research more than teaching",
as well as incentive policy significantly tilts to scientific research. And then, the researching level of teachers does not improve the quality of teaching. Researching and teaching have not integrated into one. It should use practical mode of teaching to improve professional quality and ability of univeristy teachers. The practical teaching mode applies the thory of eduction and teaching, and makes research on the existing problems in teaching process with purpose. It also integrates teacher’s experience of service industry and enterprise to enhance his speciality and extract the essence to cultivate teaching. This method can help teachers to actively find problems and research on the issue, and constantly pioneer new researching direction, forming practice-driven teaching, and promoting scientific research with teaching model, and vice versa. So as to ultimately achieve the goal that student’s comprehensive ability have overall promoted.

**Upgrading Teaching Methods**

The present era is the one of knowledge renewal and sharing. Impacted by the network information, the cognitive level and understanding ability of current college students have a rapid increase in a few years. So, how to guide college students to think and learn? It is becoming increasingly important to internalize knowledge and then become their ability. Therefore, in the process of guiding students to learn, it is key point to mobilize the interest of students, at the same time the more important is allowing students to get the approach of learning in order to benefit their whole life. Only by applying this idea to teaching practice, can we let the role of teacher change from the inculcator of the knowledge to "the exploiter of ability, the digger of potential, the developer of future" of student.

University teachers should influence students through their own words and noble qualities so that students could realize that they are not only the receptors of knowledge in the class, but also the transmitter of knowledge. Let students have the courage to speak out and like to communicate with teachers. In the specific implementation of teaching process, university teachers can divide the class, so that students could elaborate the teaching content with their own understanding, and the other students can affirm or question the views of this elucidator. At the same time, teachers can know the understanding of knowledge in the students’ presentation, in order to reflect and promote the sublimation of their teaching level. Using this method, it can not only promote students to understand the knowledge, improve class activity and participation, but also can exercise the language expression ability of university students, enhance the initiative and enthusiasm of them.

**Building a Shared Platform of Knowledge and Promoting Teachers and Students to Grow up Jointly**

The informatization of university class is the irrestible trend in internet era, it could improve students’ learning initiative through various teaching software, teaching activities, enriching the teaching content. Besides the basic all-pervading multimedia technology, we also use the technology of cloud computing which can promote the exchange, collaboration and win-win situation among the major universities, providing a new mode of operation for education informatization. Cloud computing has changed the building model of informationized hardware environment, people could get improved and advanced hardware equipment just at a certain cost.

Information age is also the post-feeding era. Smooth wireless and wired network, rich and high-quality online learning resources, convenient learning exchange platform and mobile intelligence equipment have provided the chance to students that they can consult and communicate with teachers online anytime and anywhere, according to their own learning interests, hobbies and needs. Simultaneously, teachers can immediately provide personalized guidance and help aiming at their questions, to achieve interactive learning and self-learning environment. And ultimately make teachers and students achieve joint development in such a shared platform.

**References**


