

# Application of UMU Mobile Platform in Teaching of Animal Anatomy and Histology and Embryology

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Fund Project: Henan Province New Agricultural Science Research and Practice Reform Project in 2020 “Applied Animal Medicine Professional Reform and Practice under the Background of New Agricultural Science” (No.: 2020JGLX139); 2018 Henan Province Educational Science “13th Five-Year Plan” Project “Practical Research on Applied Undergraduate Animal Physiology Teaching Supported by Cloud Classes in a Mobile Learning Environment” (Code: [2018]-JKGHYB-0313)

**Abstract:** With the rapid development of information technology, education informatization has also become a hot spot of contemporary people’s attention. With the support of mobile Internet technology, the school introduces learning smart mobile terminals, e-bookbags and other equipment into the class, and uses the UMU mobile Internet platform for teaching, which has changed the traditional class teaching in the single teaching method, students’ low interest in learning, and participation in the learning class. Low, low class atmosphere and other phenomena, the content originally explained in the class is sent to students in the form of video, so that students can use their free time to learn independently after class. Therefore, this article explores its application in the teaching of animal anatomy and tissue embryology based on the UMU mobile platform.

**Keywords:** UMU Mobile Platform; Animal Anatomy; Tissue and Embryo; Course Teaching; Application

With the rapid development of technology, major changes have taken place in education and teaching. Teachers’ face-to-face lecture time has been shortened, and the Internet has been introduced into classes. The entire industry has undergone major changes from the prohibition of bringing mobile phones to the class to reminding students to bring mobile phones to class. The UMU mobile platform is also an effective interactive learning platform that makes teachers’ “teaching” and students’ “learning” more efficient. Under the UMU mobile interactive learning platform, students can effectively acquire knowledge, reform and innovate class teaching methods and teaching models. Then the course of animal anatomy and histology and embryology is the basic course for medical majors in colleges and universities, and it is the basis for learning other professional courses, but the teaching content of the course of animal anatomy and histology and embryology is relatively boring, abstract, and complicated, and it only depends on tradition. It’s difficult to achieve the teaching effect using the UMU mobile platform. Therefore, the use of the UMU mobile platform to teach the courses of animal anatomy and tissue embryology adapts to the development of the times, and also enables students to learn more effectively under the new teaching mode. Download the resources uploaded by teachers on the UMU platform, and set up study groups to discuss problems. Teachers and students can interact well in class and answer questions after class, so that students can integrate into the class and learn new knowledge.

## 1. Teaching analysis

### 1.1 Introduction to UMU mobile platform

The UMU mobile platform is also an effective interactive learning platform. Its core concept is to start from effective

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doi: 10.18686/ah.e.v5i1.3123

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learning, provide lecturers with effective online learning tools for a long time, help lecturers to improve the ability of effective learning project design, and solve how online teaching should teach, how to learn, how to practice, how to test the effect of learning, etc. At the same time, teachers and students can download and register to use the UMU mobile platform for free. Teachers can use it to broadcast courses, students can also watch teachers' online videos, teachers and students can interact across screens, and can also take mobile tests. All teaching activities data can be exported, and the effect of students' learning can be observed intuitively. Under the UMU mobile interactive learning platform, students can effectively acquire knowledge and reform and innovate class teaching methods and teaching models.

## **1.2 Analysis of curriculum status**

In veterinary medicine professional education, the course of animal anatomy and histology and embryology is recognized by teachers and students as the most difficult subject. This course is also a basic course for college students who just started, so that both teachers' teaching and students' learning have appeared. Although the course, as a morphological subject, focuses on morphological description, its structural terms are complicated, and the content is too many and trivial, which makes it difficult for students to remember, and most students lack the ability to learn independently and control themselves. Moreover, the body structure of animals is complex, which is more abstract and difficult to understand. Students are required to observe and compare animal specimens, models and living bodies to strengthen their understanding. Due to the limitation of class time and the increase of students, teachers' teaching and research have brought great pressure. Teachers can't have targeted teaching and can't grasp the learning dynamics of students in time. In addition, there are relatively few interactions between teachers and students, the time in class is limited, and teaching resources are also relatively short, which results in students not being able to learn with sufficient resources.

## **1.3 Advantages of mobile interactive teaching**

With the rapid development of information technology, students' learning methods have also been greatly enriched. While listening to face-to-face lectures, college students can also go to MOOCs, micro-classes, and course websites to learn related content, which solves the problem of students' learning in class. There are some problems in. First of all, students can use the mobile interactive learning platform to learn anytime, anywhere. As long as they have a mobile network, they can learn. This is an advantage that other teaching models do not have, and it is also in line with the development of the times. Secondly, students can use the fragmented time to learn, accumulate bit by bit the trivial knowledge in the course of animal anatomy and tissue embryology, and finally form a relatively complete knowledge system. Then, the learning of the mobile platform is interactive and feedback. Teachers can accurately grasp the learning situation of students, and students can also systematically evaluate the knowledge they have learned to understand their own knowledge. Finally, it can eliminate the psychological burden of students. For some introverted students who do not like to express, it can effectively relieve the tension in learning, eliminate the timidity in the communication process, and can study easily and seriously.

# **2. Teaching design and practice**

## **2.1 Preparation before class**

In the teaching process, teachers must prepare lessons before class, and pre-class preparation is also an important part. Teachers and students should download the UMU interactive platform software in advance before the class, and the teacher should establish a course of "Animal Anatomy and Histology and Embryology", invite students to join this course, and introduce the UMU mobile platform to classmates during class. The main function is that the teacher uploads materials related to the content of this course, develops teaching videos, and organizes students to discuss and answer questions on the UMU mobile platform.

## **2.2 Teaching process**

"Animal Anatomy and Histology and Embryology" is for students of veterinary medicine. It is necessary to upload teaching content according to the students' learning needs, set up different teaching topics, and let students freely choose the objects of research and exploration. The learning content process mainly includes: small and micro lessons, according to the key and difficult content of the students in the class to sort out the course; small video, develop curriculum-related videos

for teaching expansion, knowledge consolidation, and effectively improve student learning efficiency; discussion, based on Each lesson has a different teaching content, set up discussion of teaching doubts, let students speak independently, and solve students' problems in class in time.

### 2.3 Teaching evaluation

Teachers can use the UMU mobile platform to allow students to take tests on the mobile terminal, and the data in teaching activities can be exported, collect students' usage, and visually observe the effects of students' learning. Through statistical analysis of the data everywhere, we can discover which students speak the most in class and actively participate in class discussions. You can also observe which students did not watch the teaching video and did not complete the learning task, and the teacher can communicate with the student alone, to understand why students did not complete the learning tasks, what problems they encountered in the learning process, etc., teachers can make targeted adjustments to the problems existing in the teaching process in a timely manner.

### 3. Teaching effect

The application effect of the UMU mobile platform in the course of "Animal Anatomy and Histology and Embryology" is quite satisfactory. The UMU teaching platform enriches the teaching process, highlights the key points and difficulties of teaching, and makes students more interested in the Internet age learn more abstract animal anatomy and tissue embryology.

Mobile phones are currently an important tool for college students to entertain, communicate, and learn. Teachers use the UMU mobile platform for teaching, which greatly stimulates students' interest in learning and learning efficiency, allowing teachers to transform from knowledge indoctrinators to student guides, enabling students to autonomous learning is carried out through the UMU mobile platform to improve students' learning initiative and promote the review and expansion of college students' knowledge. In addition, the emergence of the UMU mobile platform has also effectively solved the problem of slow textbook updates during the teaching process, helping students understand the new developments in the field of animal anatomy and histology and embryology, and sharing new resources and understanding new trends anytime and anywhere. In the process of learning, students learn from friends, learn what they learn, control teaching, and rely on evaluation to promote the future development of students.

### 4. Conclusion

Combining the characteristics of the "Animal Anatomy and Histology and Embryology" course to use UMU mobile platform for teaching greatly expands the teaching space. Students can use the time after class to consolidate and review the knowledge points, and effectively the memorization of cumbersome knowledge points is conducive to cultivating students' independent learning and lifelong learning ability.

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