

Report on the Implementation of Informatization Teaching in the Course of “Beauty of Garden Herbs” in Higher Vocational Colleges

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Abstract: The implementation report of informatization teaching of the beauty of garden herbaceous plants is elaborated from five aspects: teaching design, teaching process, teaching implementation effect, characteristics and innovation, reflection and improvement. The course takes students as the center by means of information teaching, and pays attention to the cultivation of students' professional quality in the teaching process, which makes the teaching effect significantly improved.

1. Introduction

1.1 Teaching Design Concept

In the process of curriculum design, construction and teaching implementation, the curriculum of “beauty of herbaceous plants” has always implemented three teaching concepts: taking students as the center, and stimulating students' initiative exploration consciousness through the mixed teaching mode. Through group cooperation and exploration, teachers' personalized guidance, differentiated teaching, pay attention to the growth of each student. The whole process pays attention to the infiltration of moral education and cultivates students' professional ethics. The implementation of information-based teaching means has always been combined with school enterprise cooperation and assisted by enterprise personnel to form a “lesson fusion” curriculum teaching practice system, which better cultivates the quality of team cooperation, the spirit of craftsmanship and the professional quality of dedication and honesty.

1.2 Teaching Methods and Means

1.2.1 Teaching Methods

In terms of teaching methods, mixed teaching, task driven, group cooperation and other teaching methods are adopted. Through micro class self-study, group inquiry, question answering and puzzle solving, plant games, specimen making and other teaching methods, students are guided and encouraged to start from the reality of life, from easy to difficult, from this and that, plus game interaction, to fully mobilize students' subjective initiative and achieve students' playing The goal of learning and learning. Before class, the task book is issued through the network platform to let students know the task clearly. The students use the network platform resources for self-study. In the pre class learning, if they have doubts, they will take the task and questions into the classroom. Teachers should guide and encourage students to acquire knowledge independently through practice and discussion, cultivate students' ability of thinking, analyzing, solving problems and team cooperation, and cultivate students' ability of consulting materials, hands-on and innovation.

1.2.2 Teaching Methods

A. Based on the campus nursery and campus green space, the basic identification of common garden herbs is realized.

B. Using embossing studio to make garden flower specimens, plants are not affected by time and space, and further improve students' ability to identify plants comprehensively.

C. It is an important way for students to preview before class, study in class, review after class, tutoring, assessment and independent inquiry learning by using online course learning platform, micro class, flower recognition program or app.

D. The use of garden flower market, campus green space to achieve on-site teaching, promote students' in-depth learning, and further improve students' ability from plant awareness to application.

E. Using smart classroom teachers, breaking the traditional teaching method, we can realize preview before class at any time in the teaching process, discuss in groups and test at any time in class, so that teachers can quickly grasp the learning situation of each student and give targeted guidance.

1.3 Teaching Strategies

According to the characteristics of garden herbaceous plants and students' cognitive rules of garden plants, the course is divided into three teaching processes: Flower recognition, flower understanding and flower using. From simple to complex, the course helps students understand the teaching key points and resolve the teaching difficulties. It fully embodies the “student-centered” teaching concept. Relying on the teaching environment such as nursery training ground, flower embossing training room and campus green space, the course is divided into three teaching processes Plant teaching resource library, etc., fully adopts information teaching means, highlights the key points and solves difficulties, adopts diversified teaching methods and three-dimensional evaluation method, implements the teaching mode of online learning as the guide, offline activities as the support, and informatization means throughout the whole teaching mode, fully realizes learning by doing and teaching in doing, and achieves the ideal teaching objectives.

1.4 Evaluation System

Build a multi-directional and whole process evaluation system of theory + skills + literacy. Through self-study before class, students' learning methods, teachers' teaching methods, classroom teaching and after-school interaction, according to students' participation, operability and implementation results, combined with group self-assessment, inter group evaluation, software evaluation and teacher's comments, the comprehensive evaluation of students is carried out in stages, so that the assessment and evaluation is fair and reasonable^[1].

2. Teaching Process

2.1 Study Before Class

2.1.1 Push Project Learning Resources

Teachers push project learning resources (project task book, flower application design micro class, picture library) on the network learning platform;

2.1.2 Questionnaire Released by Questionnaire Star

- A. The teacher completes the release of the star test paper before class;
- B. Teachers answer questions in the learning platform;
- C. Check the students' preview results online and analyze the students' answer results.

2.2 Practice in Class

2.2.1 Context Introduction

- A. The team leader shall divide the work to ensure that each team member is clear about his or her own tasks;
- B. Ask the teacher for advice on the problems encountered in the preview process;
- C. Prepare the information needed for the investigation.

2.2.2 Field Observation

- A. Students observe by themselves, and use the flower recognition software and plant identification two-dimensional code for auxiliary identification, and record the main morphological characteristics of plants by hand, as materials for future review and consolidation;
- B. Group discussion on the problems in the observation, record and submit to the e-learning platform

2.2.3 Field Investigation

- A. Students use tape measure and tape measure to measure plant height and crown width, and record the names of plants;
- B. The team members work together to complete the measurement, photographing and hand drawing;

2.2.4 Hand Drawn Record

- A. Group observation, search, discussion process, record the problems encountered and consult the teacher.
- B. The group observed the ornamental characteristics, color and plant height matching characteristics of each plant in the flower application form, drew records and marked them by hand, and uploaded the results to the online learning platform for exchange and sharing.

2.2.5 Case Sharing

- A. The group will send representatives to share the investigation results of the group, and other members can supplement it at any time;
- B. The content shared by the group includes: the types, characteristics, types, ornamental characteristics, landscape characteristics of the application forms of garden flowers investigated by the group.
- C. Students are asked to do some questions, group discussions and knowledge points not prepared before class.

2.2.6 Hands on Operation

- A. No group, all students work together to complete the simulation of outstanding cases.
- B. Set the crystallization of all students' labor and wisdom, in the joint efforts of everyone, complete the construction of garden flower border.

2.2.7 Summary and Evaluation Task Arrangement

- A. Answer the questions in the process of investigation.
- B. Teachers guide students to conduct self-evaluation and mutual evaluation.
- C. The student team will carry out the work
- D. Mutual evaluation.
- E. The teacher assigned the task

2.3 Extension after Class

Taking advantage of the unique conditions of the campus garden nursery training base, students strengthen labor, plant flowers and grass in the training field in their spare time; pick plants and make specimens by taking advantage of the rich plant resources on campus; arrange tasks after class to require students to conduct outdoor investigation in major parks; participate in various vocational skills competitions and utilization of schools, industry associations and provincial level. The knowledge and skills learned participate in social service to achieve the goal of extension after class.

3. Effectiveness of Classroom Teaching

3.1 Improvement of Academic Level

Through the “spiral” task driven teaching mode, with the promotion of participatory learning and collaborative learning as the core concept, and with the help of information technology^[2], the comprehensive integration of high-quality educational resources and the reorganization of teaching process, students' learning objectives are more clear, learning interests are more intense, cooperative learning and generative learning are effectively improved, and the standard and quality of learning outcomes are significantly improved. A variety of information technology means, ultimately improve the quality of teaching, greatly improve the students' learning efficiency and independent inquiry ability.

3.2 Transformation of Learning Achievements

Guided by project-based and modular teaching, after careful arrangement before class, during and after class, students are organized to participate in various competitions in the industry in their spare time, such as the innovation and entrepreneurship competition of Vocational Colleges sponsored by the provincial education department, the “China Cup” combination potted plant and landscape design competition sponsored by China Flower Association, landscape design and flower arrangement art items of provincial vocational skills competition. In order to verify the effectiveness of the teaching method, the combined potted plant competition sponsored by the provincial Flower Association has achieved gratifying results.

3.3 Extensive Sharing of Resources

As an excellent online open course, the popularity of online courses, micro courses, material bank, specimen bank, etc. in our university and related colleges and universities of this major is relatively high, which provides a useful reference and reference value for teachers and students in other colleges and universities.

3.4 Enhancement of Social Service Capacity

According to Bethel national training laboratory in Maine, the average retention rate of materials after learning for 24 hours under each guidance method is as follows:

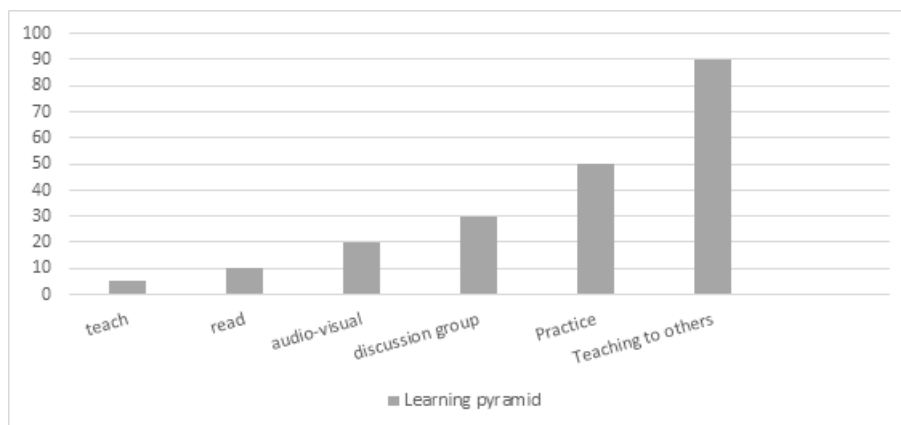


Fig.1 Average Material Retention

According to the above results, we use students' spare time to focus on training students' teaching ability, organize students to go to primary and secondary schools and communities to carry out plant science popularization activities in their spare time, so that students can further consolidate and review their knowledge in the process of teaching others, so as to realize “learning half”, teaching and learning benefit each other, and improve students' practical adaptability and interpersonal communication ability To improve the overall quality of students and lay a solid foundation for better employment in the future.

4. Reflection and Improvement

4.1 Reflection and Improvement of Teaching Resources and Environment

Because the course of garden herbaceous plants is mainly to study garden flowers, the diversity, complexity and seasonality of garden flowers and plants, only using smart classrooms and campus training sites can not meet the requirements of understanding and application of plant diversity in practice teaching, especially the seasonal flowers of one or two years, due to short life and high maintenance requirements^[3]. Through the joint efforts of teachers and students of landscape engineering technology, 25336 plant picture libraries, 756 plant specimen banks, 178 plant seed banks, 256 micro lectures and 246 live broadcast (recording and broadcasting) were established. In the course of practical training, students are guided to visit and investigate the flower market to make up for the lack of teaching resources.

4.2 Reflection and Improvement of Teaching Based on the Principle of Teaching Students According to Their Aptitude

In the process of teaching this course, some students are not active enough, their role in group activities is limited, and their performance in pre class, in class and after-school assessment is not ideal, in order to achieve the educational idea of “the excellent become talents, the capable succeed and everyone grows up”.

Under the premise of fully considering the students' professional foundation and learning habits, the corresponding teaching design was carried out, and the excellent students and the difficult students were organized to “pair up” and carry out one-to-one assistance.

5. Conclusion

Some students are not interested in garden plants. In order to stimulate students' enthusiasm, a variety of game activities are designed in the teaching process, and the game content is set as mobile phone games.

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