

A Practical Study on the Teaching Reform of the Course 'Product Photography and Image Processing' Based on the Concept of OBE

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Abstract

With the continuous development and reform of education, the traditional education mode has been difficult to meet the needs of modern society, so the education mode based on the concept of Outcome-Based Education (OBE) has gradually attracted widespread attention. In this paper, for the importance of product photography and image processing on sales effect in the era of e-commerce, and the limitations of traditional teaching mode in cultivating students' comprehensive ability, we put forward the design of teaching reform of Product Photography and Image Processing course based on the concept of OBE. The importance of the teaching reform of the Product Photography and Image Processing course is firstly elaborated. Then the teaching objectives, course modules and teaching evaluation contents are designed in detail, with emphasis on the task-driven and project-oriented teaching design oriented to the cultivation of students' abilities. Finally, the effectiveness of the teaching reform practice is summarised, illustrating the positive impact of the reform on improving students' comprehensive quality and ability.

Keywords

Product photography, image manipulation, teaching reform, OBE philosophy.

1. Background and Significance of The Study

With the rise of e-commerce platforms, goods are sold in a different way from traditional retail, relying more on picture display to attract consumers. Therefore, the level of product photography and image processing directly affects the sales effect, and even becomes a key competitive advantage for enterprises. Product photography and image processing courses in e-commerce majors in colleges and universities not only aim to cultivate students' professional skills, but also meet market demand and help students to find employment and start their own business. Through learning these courses, students can master photography technology, image processing skills, enhance the beauty and attractiveness of product display, and lay a solid foundation for future engagement in related industries.

In traditional teaching methods, teachers usually explain key concepts based on the textbook, and the teaching content is mainly based on the traditional theoretical knowledge of product photography, so that students' understanding of product photography can not be internalised, and there is a lack of real project-based practical operation. In short, this teaching method has limited effect on improving students' comprehensive ability. In addition, the traditional teaching evaluation mainly focuses on the results, ignoring the students' learning performance and learning effects at different stages of the teaching process.

With the continuous development of education concepts, teaching methods based on Outcome-Based Education (OBE) have gradually gained importance. The OBE concept emphasises student-centred and outcome-oriented teaching methods, with the outcome referring to the maximum competence that a student can achieve after a certain stage of learning. Therefore,

the OBE educational philosophy focuses more on developing students' continuous development ability. Taking the OBE concept as the core of the product photography and image processing course, focusing on students' knowledge, ability and quality cultivation goals, optimising the teaching method and improving the evaluation system will help students gradually achieve deep learning based on the outcome goals, and ultimately improve the quality of teaching.

2. Design of Curriculum and Teaching Reforms

2.1. Design of teaching objectives

Based on the concept of OBE, setting teaching objectives for the course of Product Photography and Image Processing can be based on a comprehensive consideration of three aspects, namely, knowledge, ability and quality, and is oriented to the overall enhancement of students' abilities. In terms of knowledge objectives, students should not only master the application skills of DSLR cameras, but also master the composition methods and techniques, basic lighting techniques, etc., and be able to use this knowledge for practical operation; students should understand the shooting needs of different types of commodities, and master the technical response to different shooting scenarios, in order to ensure the quality and effect of the product images.

In terms of competency objectives, students should have the ability to analyse photographic works, including the analysis of composition, light and shadow, colour and other elements, as well as the understanding of the emotions and messages conveyed by the works; students should have the ability to independently set up photographic scenes, and be able to carry out the design of the set and adjustment of the lighting according to the characteristics of the products and the needs of the shooting, so as to achieve the best shooting effect; students should have the ability to independently complete the tasks of product photography, including the operation of the whole process from the preparation of the shooting equipment to the post-processing, so as to ensure that the product images are of high quality and high attractiveness.

In terms of quality objectives, students should have good observation skills and aesthetic qualities, and be able to draw inspiration from daily life and art works to provide innovative ideas for product photography; students should have teamwork spirit, actively participate in team projects, communicate and collaborate effectively to complete the tasks together; students should have critical thinking and problem solving skills, and be able to quickly analyse and propose solutions to ensure the successful completion of the tasks in the face of the challenges and problems that arise in the process of photography.

The above teaching objectives are set to ensure that students develop comprehensively in the three aspects of knowledge, ability and quality, and that they are able to perform various tasks of product photography and image processing in practical work, laying a solid foundation for their future career development.

2.2. Course module design

The traditional teaching materials of the course 'Product Photography and Image Processing' are too old-fashioned, teaching the application of camera functions in a step-by-step manner. Nowadays, most of the 'Post-00' college students have taken elective courses similar to basic photography or image processing in junior and senior high schools, and they already have the basic ability of camera operation and image processing before entering schools. Therefore, in the design of the course module, we should keep abreast of the times, no longer stick to the existing teaching materials, but should carry out real case project-based practice according to the needs of the e-commerce industry, so as to cultivate students' work skills that are compatible with the relevant positions. At the same time, the course according to the actual situation of the timely excavation of the elements of ideology and network hotspots, the

introduction of the previous Zhejiang Provincial University Student Photography Competition award-winning works of cases for practical teaching, reshaping the teaching system.

Based on the OBE concept, the curriculum teaching reform of Product Photography and Image Processing, the content of the course module needs to take full account of the students' individual characteristics and learning needs, and be designed in a task-driven and project-oriented manner, so as to achieve a comprehensive enhancement of knowledge, ability and quality.

2.2.1. Course Module 1: Introduction to Basic Knowledge and Skills

A brief introduction to the basic concepts and importance of e-commerce product photography and image processing; introduction of basic equipment and tools, including the layout of the photographic environment, basic lighting techniques, shooting methods of e-commerce products made of different materials, e-commerce product placement techniques, e-commerce product shooting orientation and angle selection, e-commerce product photographic composition methods, etc., so as to allow students to familiarise themselves with basic photographic and post-processing techniques.

2.2.2. Course Module 2: Task-Driven Practical Training

Design a series of tasks, such as shooting projects by industry, photos of e-commerce products in industries such as accessories, beauty, shoes and bags, apparel, food, electrical appliances, etc. or taking part in national and provincial photography competitions; instruct students to use the skills and tools they have learnt to complete the tasks, focusing on the cultivation of practical operation and problem-solving ability; interpret and draw on them in conjunction with cases of competitions or real outstanding works of the enterprises to stimulate the creativity and sense of competition of the students.

2.2.3. Course Module 3: Teamwork and Practical Exercises

Students will be grouped into teams, and each team will work together to complete an actual enterprise project or simulation task, such as taking product publicity photos for an enterprise; student teams will plan, execute and complete the task independently, and the teacher will provide support and guidance as a mentor and facilitator; emphasis will be placed on the students' role positioning, communication and collaboration, and the cultivation of problem-solving ability in the team, so as to realise the transformation from individual to team.

Through the above course design, students will gradually master the skills and methods of product photography and image processing in practice, cultivate a sense of innovation and teamwork, while focusing on the overall improvement of students' abilities, which is in line with the teaching principles of the OBE concept and promotes the development of students' comprehensive quality.

2.3. Teaching evaluation design

For the integrity of the learning outcomes of the course 'Product Photography and Image Processing' of the e-commerce profession, the evaluation system includes both process evaluation and outcome evaluation. Process evaluation and outcome evaluation are interdependent, and together they build a scientific and reasonable course evaluation system.

The OBE concept focuses on students' attitudes and behaviours, and pays attention to the teaching process and individual differences, aiming at cohesion of knowledge through the dissemination of values, realizing the value-led dissemination of knowledge, and helping students to develop a meticulous work style of striving for perfection, and to set up a sense of ambitious goals, high moral character, excellent talent and the ability to take up important responsibilities. It is thus clear that teaching evaluation should not be limited to the students' professional learning results, but should be a comprehensive evaluation of the students' self-learning ability and sustainable development of comprehensive ability and

quality ability. Therefore, in this teaching reform, a diversified teaching evaluation method is adopted. The construction of the teaching evaluation system is consistent with the teaching objectives, and the evaluation is carried out from the three levels of knowledge, ability and quality, using a combination of various evaluation methods.

Based on the OBE concept, the design of teaching evaluation content for the course of Product Photography and Image Processing needs to comprehensively consider students' attitudes, behaviours, processes and individualized differences, and seeks to achieve the goals of knowledge dissemination and value leadership, while correcting students' utilitarian learning attitudes and cultivating their comprehensive abilities and qualities.

2.3.1. Knowledge Level Evaluation

To assess students' understanding of the basic concepts, principles and tools of product photography and image processing, which may be in the form of written examination and oral defence. Students' mastery of relevant theoretical knowledge is assessed through assignments and project reports, focusing on their ability to apply knowledge.

2.3.2. Competency Level Evaluation

Evaluate students' photography skills and post-processing abilities, which can be assessed through practical operations and work presentations. Focusing on students' creativity and problem-solving ability, assessing students' ability to cope with real-life scenarios through project assignments and practical tasks.

2.3.3. Quality-level evaluation

Examine students' learning attitudes and study habits, including whether they actively participate in class discussions, completion of assignments, etc. To assess students' teamwork and communication skills, through group projects and co-operative tasks. To pay attention to students' state of mind and comprehensive quality enhancement, and to assess students' self-concept and values through personal statements, reflection reports, and so on.

Combining the above evaluation contents, a combination of process evaluation and result evaluation can be adopted to involve students and achieve a combination of mutual evaluation, teacher evaluation and enterprise side evaluation. Such an evaluation system can not only assess the knowledge and skill level of students, but also assess their learning attitude, teamwork ability and innovation ability to improve, and comprehensively cultivate students' comprehensive quality ability.

3. Effectiveness of Teaching Reform Practices

Teaching reforms based on the OBE concept acted as a stimulus for students. Organisational form, from individual learning alone to group learning in small groups. We had three students as a learning unit, three people together to prepare for the Zhejiang Province University Students' Photography Competition, after the joint efforts of the student team itself, the teacher's multiple guidance, shooting works were pleased to win the second and third prize at the provincial level. It can be seen that this change has firstly improved the situation of some students who are not good at communication; secondly, it has cultivated students' organisational, coordinating and decision-making abilities through group collaboration; and finally, it has added the link of mutual evaluation of works among team members to internalise the knowledge gained, and the students' ability of active exploration has been significantly improved.

After the reform of course teaching, we have gradually changed the teaching goal from knowledge to the cultivation of ability, and ultimately reached a higher level of quality ability and sustainable development ability. By integrating the elements of Civics and Politics in the comprehensive practice of the course projects, students can implant traditional Chinese culture

and Chinese elements when they are carrying out the creative design of their works, which enhances their national pride and cultural confidence, and stimulates their innovative ability to keep abreast of the times, to forge ahead and to be bold in exploration.

4. Conclusion

In summary, the practice of teaching reform of the course "Product Photography and Image Processing" based on the concept of OBE is a challenging and significant work. Through continuous efforts and exploration, it is believed that this course will bring new vitality and impetus to the teaching of e-commerce majors in Higher vocational and technical colleges, and provide better support and guarantee for the growth and development of students. We hope that we can further deepen the research and explore more innovative teaching methods and strategies in the future, so as to make greater contributions to the education of e-commerce majors in Higher vocational and technical colleges, and to contribute to the cultivation of more excellent information talents in the society.

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