

# The practical teaching design of illustration design course based on OBE concept

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**Abstract.** Based on the concept of OBE education and taking the course of Illustration Design as an example, this paper expounds in detail how to apply the concept of OBE to practice teaching design by focusing on teaching objectives, teaching contents, teaching methods, teaching modes, teaching resources, course assessment and achievement evaluation. This can be used for reference to solve the problems existing in the course teaching and effectively improve the quality of the course teaching.

## 1 Introduction

Outcomes-based education (OBE for short) is an educational concept that is oriented towards students' learning outcomes. It believes that the goal of instructional design and instructional implementation is the final learning outcome of students through the educational process. At present, domestic research on outcomes-based education mainly focuses on how schools or majors use the OBE education concept to carry out the reform of talent cultivation model, the design of training program and professional certification at the macro level, but there are still some deficiencies in the specific operability [1]. This paper focuses on these three aspects, taking the course of illustration design as an example, to carry out the course design.

## 2 Defining output

Figures and tables, as originals of good quality and well contrasted, are to be in their final form, ready for reproduction, pasted in the appropriate place in the text. Try to ensure that the size of the text in your figures is approximately the same size as the main text (10 point). Try to ensure that lines are no thinner than 0.25 point.

Defining output is to define the learning outcomes of the course according to the graduation requirements in the training program, that is, the teaching objectives.

The following principles should be reflected in the formulation of teaching objectives based on the concept of OBE: (1) teaching objectives should reasonably support graduation requirements. (2) The coverage of teaching goals is multi-dimensional. (3) The teaching objectives should reflect the concept of "student-centred" and be expressed by explicit

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action verbs, such as students' ability to describe, explain, analyse, design... (4) Teaching objectives need to accurately describe the cognitive level of students and be measurable and evaluable [1, 3]. Based on the above principles, this article reversely combs the teaching goals of the Illustration Design course based on the graduation requirements and professional positions in the visual communication design talent training program (refer with: Table 1).

**Table 1.** Teaching objectives of illustration design.

Styles Level	Specific Objectives
Knowledge Layer	Objective 1: Students can state and explain the basic knowledge and theory of the definition, classification, generation and development of illustrations, the comparison and transformation between literary art and painting art, the conception and technique expression of illustration creation.
	Objective 2: Students can apply the basic procedures of illustration design, understand the expression and aesthetic consciousness of illustrations, and interpret, analyze and evaluate the application of illustrations with different themes and styles; Be able to summarize and explain the current situation and trends in illustration design.
Ability Layer	Objective 3: Students can apply the knowledge of illustration design to analyze, conceive, design and implement specific operations on related topics; Be able to apply the theoretical and practical knowledge of illustration design to design a preliminary solution for the enterprise.
Quality Layer	Objective 4: Students can make use of online learning courses and resources such as MOOC and micro-courses, as well as Chinese and English materials query, literature retrieval and other means to carry out independent learning and cooperative learning, write research reports, conduct results demonstration and effective communication and exchange.
	Objective 5: Students can understand and abide by relevant professional ethics and norms and fulfill their responsibilities in the practice of illustration design.

### 3 Achieve output

The achievement of output refers to the use of reasonable teaching strategies (including the selection and integration of teaching contents, the design of teaching methods and modes, and the construction of teaching resources) to enable students to achieve learning outcomes in teaching goals [2].

#### 3.1 Selection and integration of teaching content

According to the teaching objectives of Illustration Design (refer with: Table 2), the teaching contents are divided into 3 modules and 9 units, which are expanded in the logical order of "basic - theory – practice". Each module corresponds to 1-2 teaching objectives. However, non-technical goals such as students' learning and teamwork ability cannot be directly reflected in the course teaching content, but need to be reflected through the reform of teaching models.

**Table 2.** Module Division and Corresponding Teaching Objectives of Illustration Design.

Module	Main Teaching Content (unit)	Teaching Objectives	Student Achievement
Basic Knowledge Module	1. The concept and historical evolution of illustrations 2. Illustration expression methods and tools 3. Function, value and application area of illustration design	Objective 1	Students can state and explain the basic knowledge and theory of the definition, classification, generation and development of illustrations, the comparison and transformation between literary art and painting art, the conception and technique expression of illustration creation.
Theoretical Knowledge Module	4. Design the categories and forms of illustrations 5. Aesthetic features of illustration design 6. The development trend of modern illustration design	Objective 2	Students can apply the basic procedures of illustration design, have a deep understanding of illustration performance and aesthetic consciousness, explain, analyze, and evaluate the application of illustrations on different topics; Be able to summarize and explain the current situation and trends in illustration design.
Practical Knowledge Module	7. Design criteria of illustration design 8. Design orientation and conception of illustrations 9. Artistic expression of illustration design	Objective 3	Students can apply the knowledge of illustration design to analyze, conceive, design and implement specific operations on related topics; Able to apply the theoretical and practical knowledge of illustration design to design a preliminary solution for the enterprise.

### 3.2 The design of the suitability of teaching methods and learning activities

Based on the teaching needs of OBE concept, teachers choose appropriate teaching methods or learning activities according to the knowledge type and teaching objective level of “learning output”. Table 3 shows the main knowledge types, levels of teaching objectives and corresponding teaching methods and learning activities of each unit of the course of Illustration Design. On the one hand, different teaching methods are adopted for different types of knowledge. For factual or conceptual knowledge, self-learning and classroom teaching are mostly adopted. Regarding procedural knowledge, “integration of knowledge and action” and “learning by doing” can be emphasized. Experiential teaching, simulated practice teaching, and case teaching can be used more; for metacognitive knowledge, we should pay more attention to the cultivation of students' way of thinking, such as discussion, collaborative inquiry learning, problem solving, etc [3]. Different levels of teaching goal, on the other hand, also should adopt different teaching methods, such as memory and understanding of the teaching goal of the two low-order can use part of classroom teaching and autonomous learning, and the analysis, evaluation, the teaching aim of creating these higher-order needs more using collaborative inquiry learning, the discussion, case teaching, the teaching method based on the problem or project.

**Table 3.** Corresponding table of knowledge type, teaching objective level and teaching method of Illustration Design.

Module	Main Knowledge Type	Teaching Goal Level	Teaching Method and Learning Activities
Basic knowledge module	Factual knowledge Conceptual knowledge	Memory Understanding	Self-learning Lecture Case study
Theoretical knowledge module	Factual knowledge Conceptual knowledge	Memory Understanding Application Analysis	Self-learning Lecture Case study
Practical knowledge module	Procedural knowledge Metacognitive knowledge	Understanding Application Analysis Create (design)	Self-learning Lecture Project teaching Collaborative learning
Basic knowledge module	Factual knowledge Conceptual knowledge	Memory Understanding	Self-learning Lecture Case study

### 3.3 Flexible design of teaching mode

The teaching based on the concept of OBE emphasizes “student center”, in which teachers are the guide and leader of learning [4]. In the teaching design of Illustration Design (refer with: Figure 1), the teacher adopts a mixed teaching model of online learning before class, offline interaction on the middle line of class and online learning after class. Students achieve the role of cognitive knowledge and sublimation knowledge through independent and cooperative learning before and after class, and the role of consolidating and deepening knowledge through classroom learning. In the classroom teaching, the main teachers check the learning effect before class, summarize and sort out the knowledge points, arrange the classroom tasks and explore the learning together through group discussion, group cooperation and online teaching platform interaction. Course evaluation is based on the learning output data of students to achieve the teaching objectives of the course, including online and offline learning and the overall evaluation of the final design work [5].

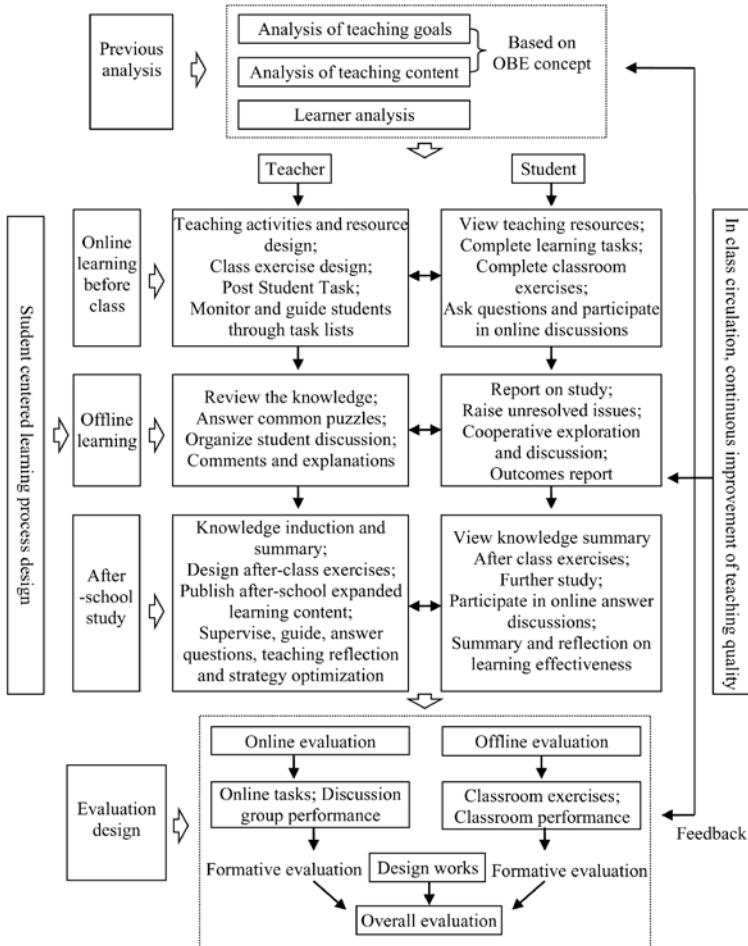
This teaching mode not only reflects the dominant position of students' learning, but also is conducive to cultivating students' autonomous learning ability and cooperative inquiry ability, so as to achieve the non-technical teaching objectives, as mentioned above, teaching objectives 4 and 5 [6].

### 3.4 Optimization and integration of teaching resources

Based on the course teaching objectives, the teacher designs the teaching content of the online and offline courses as a whole, constructs a practical, project-based, and modular integrated curriculum system that meets the professional qualification standards, and clearly design project-oriented course teaching content. There are two types of projects -- classroom projects and extracurricular projects. Classroom projects are specific cases that cover teaching knowledge points, and extracurricular projects are open cases (such as competitions and topics) that guide students to study independently and develop knowledge independently [7].

Under the concept of outcomes-based education, curriculum teaching resources cannot be blindly piled up. Both online and offline resources need to be introduced, optimized, integrated and constructed around the realization of curriculum learning outcomes (i.e.,

teaching objectives). Attention should be paid to the diversity of resource design to meet the needs of students for different types of teaching resources. Teaching resources need to be dynamically optimized, integrated and updated to evaluate the effectiveness and utilization of teaching resources; Attention should be paid to intellectual property issues in resource utilization.



**Fig. 1.** Teaching design of illustration design based on OBE concept.

## 4 Evaluation output

Under the concept of OBE education, evaluation output refers to the adoption of diversified evaluation methods, focusing on whether learning outcomes are achieved. The following principles should be paid attention to in the course assessment design: First, pay attention to the combination of process assessment and summative assessment. Second, the content of the examination should be closely related to the teaching objectives of the course, and emphasis should be laid on knowledge examination, ability examination and quality examination. Third, the main body of assessment should be diversified, encourage teacher-student mutual assessment, student self-assessment, and student-to-student mutual assessment, etc., and change the past form of teacher-based assessment [8]. According to

the above principles and steps, this paper designs the assessment program of Illustration Design course (refer with: Table 4).

**Table 4.** Corresponding relationship between assessment methods and teaching objectives.

Assessment Type	Assessment Method	Proportion (%)	Corresponding Teaching Objectives
Process Assessment	1. Practice in class	20	1, 2
	2. Class attendance and online learning	10	4
	3. Design work (project or competition design scheme)	20	3, 5
	4. Research report (on problems arising from independent learning, creative thinking and process of design scheme)	10	2,4
Summative Assessment	5. Final design work (schoolwork exhibition)	40	3,4,5

When the assessment method of learning achievement belongs to quantitative evaluation (such as test and final exam), teachers should clear the relationship between teaching objective, teaching content and work form, so as to determine the quality of learning achievement and avoid the proposition deviating from teaching objective. When the assessment method of learning achievement belongs to qualitative assessment (such as project achievement display and exchange, practice report, etc.), teachers need to design a “two-way form of assessment scale”, which consists of assessment dimension, assessment scale and dimension description.

## 5 Summary

In a word, the course teaching design based on OBE idea subverts the traditional mode. It is a reverse design process based on students' learning outcomes, which effectively solves the problems of “what to learn (goal)”, “why to learn (need)”, “how to learn (process)”, “how to prove to learn (evaluation)” and so on. However, dogmatism should be avoided in practical applications, because from a static perspective, not all learning outcomes can be clearly expressed, and some hidden learning outcomes (such as personality qualities, learning habits, thinking traits, etc.) cannot be accurately measured; From the perspective of dynamics, learning outcomes are changing, and it is a difficult problem to describe “future learning outcomes” prospectively in the era of rapidly changing social environment.

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