

The Application of Three Major Learning Theories in Piano Teaching

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Abstract: Behaviorism, cognitivism and constructivism is widely accepted in the theoretical circle three learning theory, these three theories can be applied to instrumental music teaching, grasp the features of the three learning theory and adaptability to better promote the piano teaching, therefore in the full understanding of the characteristics of the three learning theory at the same time with the organic combination of piano teaching, In the different stages of piano learning and different aspects of the use of different learning theory, so as to obtain the best learning effect.

1. Introduction

Learning theory is a variety of theories that explain the nature, process and influencing factors of human and animal learning. Psychologists from different viewpoints, using different methods, according to different experimental data, put forward a lot of learning theories, among which behaviorism, cognitivism and constructivism are the three theories widely accepted by the theoretical circle. The three theories have been widely used in all kinds of learning activities, and have been learned and accepted in different stages and disciplines and applied in teaching. In instrumental music teaching, the three theories have also been applied to different degrees. Through the investigation of the three learning theories, we can understand the basis, principles and applicability of the theory, so as to better apply and serve the teaching, so that the relatively perceptual piano teaching has a theoretical basis.

2. Behaviorism Theory and Its Application

2.1 Relevance Theory

Behaviorism learning theory can be summarized as “stimulus-reactive-reinforcement”, which believes that the cause of learning lies in the response to external stimuli, ignores the internal psychological process caused by stimuli, believes that learning has nothing to do with the internal psychological process, and emphasizes that reinforcement is the key to successful learning. Behaviorism learning theory regards learners as a “black box” and considers learning to be an observable behavioral change. Their analysis focus on behavior change, the observation is concerned with how to obtain a satisfactory output, and the output is a response to input stimulus. According to this view, the human learning process due to passively accept outside stimulation process, the teacher's task is to impart knowledge to students, arrangement, observe the reaction of the students, strengthen to a satisfactory response, To correct the unsatisfactory response by remedying or negating it; The student's job is to react, accept and digest the knowledge. Behaviorist learning theory mainly explains that learning is the process of learning new behaviors on top of existing behaviors, and it is the view that habitual behaviors can be learned from “actions”.

In practical education, we can easily find the application of behaviorism learning theory, for example, teachers in order to let the other students to listening, and praise some students listening, so as to motivate students listening to continue, and make the students who are not able to listening in order to be able to get the teacher's recognition and better perform mance.

2.2 Application

In piano teaching, the students' correct playing method, expressive music performance also needs the teacher to give the clear affirmation and encouragement, to help reinforce the positive behavior,

and for the wrong playing method and bad music performance, teachers should also be corrected in time, in order to avoid the habit of form error, and habit formation is more serious error in the future, It's more difficult to correct.

In the development of electric piano teaching software, under the guidance of behaviorism learning theory, the computer can not only provide repeated appropriate stimulation and timely feedback stimulation, but also provide individualized stimulation that varies from person to person, so as to improve students' behavior and achieve the teaching goal. For example, through the evaluation of students' performance, we can get the performance information of students' score recognition, rhythm, strength and other aspects. For the correct performance, we can reward students with high marks, and for the inadequacies, we can provide targeted exercises.

3. Cognitivism Theory and Its Application

3.1 Relevance Theory

The basic point of cognitive learning theory is that people's cognition is not directly given by external stimuli, but the result of the interaction between external stimuli and the internal psychological process of the cognitive subject. The learning process is not a gradual process of trial and error. Learning is a process of sudden insight and understanding, not by trial and error. Learning is a matter of intelligence and understanding, not a blind attempt. Reinforcement is not necessary for learning to occur. According to this view, the learning process is explained as the active and selective information processing by each individual to the external stimuli (such as teaching content) of the current job, according to his or her own attitudes, needs and interests, and utilizing past knowledge and experience. Teacher's job is not a simple knowledge to the students, but first of all, stimulate students' learning interest and learning motivation, then will the current teaching content and students' cognitive structure of the original link organically, students outside stimulus is no longer a passive receiver, but actively to selective stimulation information processing.

Cognitive learning theory emphasizes cognitive structure and internal mental representation, that is, the internal factors of learning, which is quite different from behaviorism learning theory, which only focuses on the explicit behavior of learners and ignores their internal mental processes. Cognitive learning theory broke through the behaviorism only from the external environment to investigate the thinking mode of learning, it, from the perspective of the people's internal process namely intermediate variable, from the Angle of human's rational feeling, perception, representation and thinking through the research of cognitive links such as attribute thinking for problem solving, and found a way of human's senior learning activities, It also captures the essential characteristics of people's thinking activities. However, it separates itself from social practice to study people's cognitive activities, which is reduced to a simple internal process and consciousness system, and to a pure cognitive behavior, which is even analogous to or equivalent to the mechanical processing of information by computers.

3.2 Application

Under the guidance of cognitivism, in piano teaching, learning materials suitable for children's cognitive level should be selected for learning, so that children will not feel that the textbook is too difficult to learn, lose their interest in learning, or feel that it is too easy to get the effect of learning. In the learning process, it is necessary to make full use of cognitive theory in reading spectrum, reciting spectrum, touching keys and other aspects, fully understand the discipline rules, and select, process, digest, store, absorb and use relevant knowledge, so as to achieve good teaching results.

4. Constructivism Theory and Its Application

4.1 Relevance Theory

Constructivism learning theory is the further development from behaviorism to cognitivism in

learning theory.

The theory developed in early cognitive learning theory has been on the thought of “construction”, emphasizes the significance of students construct knowledge actively in the learning process, and the closer, more in line with the actual situation of situational learning activities, to personal experience, psychological structure of the original and faith as the basis to construct new knowledge and understanding. Construction is the construction of the meaning of new knowledge, and at the same time includes the transformation and reorganization of the original experience.

Constructivism learning theory about the formation of the learning process model, help primary and secondary school education, especially in science teaching, teachers to grasp and use the students' informal learning before formal learning, and science concept learning before daily concept learning, to understand and construct new knowledge or information, to better ensure that science teaching to achieve the expected effect. In the teaching, through interaction with the teachers and students to observe embodied in teachers' activities in the social experience, in in some activities under the guidance of teachers, gradually to reflect upon teachers' internalized as their own experience, that can be independently engaged in this activity, the development of the potential into reality of development, and constantly create new development area recently.

Constructivism emphasizes student-centered learning theory, which requires students to change from passive receivers into subjects of information processing and active constructors of knowledge meaning. The corresponding instructional design should revolve around “autonomous learning strategy, cooperative learning strategy and learning environment”, so as to promote students' active construction of knowledge meaning. Constructivism emphasizes learners' initiative, constructiveness, exploration and creativity in the learning process.

Constructivism holds that knowledge is not acquired by teachers, but acquired by learners through meaning construction with the help of others (including teachers and learning partners) in the process of acquiring knowledge in a certain situation, that is, in a social and cultural background, using necessary learning materials. The constructivist teaching theory requires teachers to change from the impart and indoctrinator of knowledge to the helper and promoter of students' active construction of meaning Teachers are required to adopt brand-new educational ideas and teaching modes in the teaching process.

The main advantage of constructivism is that students are active constructors of learning meaning, which is conducive to students' active exploration and discovery and to the cultivation of creative talents. The shortcoming of this theory is that it is easy to ignore the leading or guiding role of teachers, the emotional communication between teachers and students and the important role of emotional factors in the learning process, and it is easy to deviate from the requirements of teaching objectives.

4.2 Application

Constructivism is developed on the basis of behaviorism and cognitivism, which emphasizes student-centered learning and fully mobilizes students' active learning initiative. In piano teaching, the application can be embodied in students should not be constrained in the process of learning the piano in the music itself, and should give full play to the imagination and creativity, not only pay attention to the learning of skills, should also pay attention to the study of relevant theory, in this way can we build our own music system and form their own style of music. Teachers and students should carry out rich and multi-directional cooperation, advocate interactive learning and cooperative learning, so as to achieve better learning results.

5. Conclusion

Behaviorism theory, cognitivism theory and constructivism learning theory are in the same line. Although different learning methods and perspectives are emphasized in their theories, they all contribute to the learning process and enrich the learning theory together. The three learning theories have different starting points and different emphases, so their related theories also focus on a certain dimension: Behavioral theory can shape and modify behavior, cognitivism can perceive

and understand knowledge, and constructivism can build and create knowledge system. However, these three theories have their own limitations and applicability, that is, they cannot be applied to all aspects of all disciplines. So they are selective processing, processing, combination and application, in the piano teaching, the three learning theory can be selectively applied, for example in the sitting position, the shape of the hand shape and touch key aspects can be amended by the principle of behaviorism, and to read music training, music theory, listening training can use principle of understanding, For improving students' overall musical accomplishment through learning the piano, constructivism is more suitable for the construction and shaping of students' overall knowledge structure. Therefore, these three learning theories have their own system for the theory itself, but in practical application, they are not separated, but form a situation of interdependence, or different theories are applied in different stages, or a stage is dominated by one theory and supplemented by one theory. Composition of a theory can have its starting point and the focus, but for learning practice, there is no theory is rejection and isolation, they are often interconnected and together, work together learning process, its purpose is to make learners better learning related knowledge and theory, fully improve in study.

The principle of the three learning theory and the method of the master can be better used in teaching, the same is true in the piano teaching, through the use of three kinds of learning theory can better grasp of the piano teaching at different stages, different aspects of teaching, so that the operation of the piano teaching more effective and specification, constantly improve the level of the piano teaching.

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References

- [1] Wan Lili. Discussion on Theoretical Courses in Diversified Teaching Structure of Piano in Normal Universities [J]. Music Exploration, 2009(3).
- [2] Zhou Weimin. Application of Constructivism Learning Theory in Piano Teaching [J]. Music Creation, 2010 (7)
- [3] Wang Jiutong. Foreign Reference of Piano Teaching Theory in Chinese Universities since the New Century [J]. Music Research, 2011(6)
- [4] Song Yang. Effective Application of Modern Educational Theories in Piano Teaching Reform in Universities [J]. Research on Contemporary Educational Practice and Teaching, 2017(8)