

# Reflections on the Teaching Reform of Art Theory Courses from the Perspective of Connectivism

Yanfa Wu\*, Yangliu Cui

School of Art, Anhui University of Finance and Economics, Bengbu 233030, China

\*Corresponding author email: yanfawu01@163.com

**Abstract:** *Connectivism is a new learning theory that adapts to the information society and the Internet age. Its concept and cognition about knowledge, learning, curriculum, teachers, students, and interaction that subvert traditional learning theories constitute the basic viewpoints of this theory. This theory provides a new direction and possibility for the teaching reform of art disciplines and art theory courses in the new era. Constructing modern smart classrooms and teaching models, applying connectivity learning theory to art theory classroom teaching, giving full play to the teacher's role as a course facilitator in influencing and shaping the construction of network resources, constructing network course learning resources, and optimizing the network course learning environment have become The proposition of the times in the teaching reform of art disciplines and art theory courses in the new era.*

**Keywords:** *Connectivism; Smart classroom; Art theory; Teaching Reform; Teaching environment*

The increasing socialization of knowledge production in the digital Internet era is driving a new round of curriculum teaching reform in colleges and universities. Undergraduates in the new era have fully entered the Internet era. Course teaching has become increasingly inseparable from network communication and network acceptance. The setting of disciplines and the arrangement of teaching content will inevitably be restricted and affected by the Internet. The promotion of new teaching models such as micro-classes, MOOCs, flipped classrooms, rain classrooms, and smart classrooms has promoted the formation of an education ecosystem in the open network era. Connectivism is a learning theory that adapts to the Internet age, which was first proposed by George Simmons in the article 《Connectivism : A Learning Theory for the Digital Age》 in 2005[1]. It has become an important theory for people to recognize and understand the laws of learning in the Internet age.

## 1. The basic point of connectionism

Connectivism believes that learning is “a process of connecting”[1], which is the reconstruction and establishment of a relationship and nodes in the knowledge network structure. This theory forms a more systematic view of philosophy, knowledge, learning, curriculum, teacher, student, learning environment, and teaching interaction.[1]

### 1.1. Perspective of knowledge

From the perspective of connectivityism, knowledge is a network phenomenon, and the process of learning is also the process of network connection and knowledge circulation. Dynamic and growth are the important characteristics of network knowledge. Therefore, this view of knowledge believes that “connectivity learning not only emphasizes the establishment of connections with existing nodes, but also emphasizes the creation of new nodes in the learning process and the establishment of connections with them to promote the growth of knowledge.”[2] Obviously, connectivity doctrine emphasizes that knowledge is a connection established in a complex information environment, a process of continuous creation and new knowledge generation based on the understanding of existing information and resources. Path-finding and awareness are two means of condensing information in an online learning environment.[3] Through path-finding and understanding, the connection between information is established, and the circulation and growth of knowledge are promoted.

### 1.2. Perspective of learning

Connectivism believes that learning is the formation of a network. The network is composed of nodes

and connections. The generation of meaning comes from the formation of connections and the coding of nodes, and the acquisition of knowledge is the process of meaning. The key factors that affect the connection and the strength of the connection include the learner's motivation, emotions, the degree of emphasis on the node, the contradiction in the node, the degree of openness and importance of the node, repetitiveness, patternization, logic and experience, etc.[1] From the perspective of this kind of learning, the network is a unique cognitive element that can process, filter, evaluate and verify new information, and has the characteristics of adaptability, ease of fluidity, and customization.[4] Therefore, learners learn through the establishment of network connections, and the learning process is also the process of creating and developing their own knowledge network.

### ***1.3. Perspective of course***

The Connectivism course is an open online course, which emphasizes that learners independently decide how to participate, which technology to use to create a learning space, and share or generate learning content.[3] These online courses are open educational resources jointly developed by learners or participants. Learners can create their own learning space, express opinions, conduct interactive learning or share learning resources. Therefore, open courses and their scope will continue to expand with the participation of learners, and curriculum resources will continue to be generated and developed during the learning process.

### ***1.4. Perspective of teacher***

The Connectivism learning is a kind of open learning. Teachers are important nodes in open online learning. Therefore, the role of teachers is positioned as the promoter or influencer of the curriculum. As the facilitator or shaper of online courses, the key elements specially arranged by the teacher in the online learning context, the opinions disseminated, the topics of concern, concepts and comments will all affect the learners. With the deepening of the learning process or the expansion of the curriculum, a large number of fragmented content interactions gradually form a knowledge structure, and continuously aggregates generative content, which is passed by the teacher to the learner and provides a summary or comprehensive comment for it. Therefore, teachers need to have the ability to build and shape the network, be responsible for the organization or coordination of online courses, provide network technical support or daily management, etc., which are different from what teachers should have in the traditional learning concept.

### ***1.5. Perspective of student***

Connectivism emphasizes that learners need to have high information literacy, able to "recognize when information is needed, and have the ability to locate, evaluate, and effectively use the required information" [2] Because the development of this kind of learning relies on learners to actively participate in online learning in order to obtain, evaluate and use information. So as far as connectivist learners are concerned, "Today's learners are accustomed to working for others, but in the future they will work more for themselves. They will set goals for themselves more than a worker who can only accomplish goals set by others"[4]. Therefore, the establishment of networked learning situations requires learners to be familiar with and adapt to network technology, establish connections and exchanges with others, share knowledge and experience and generate new knowledge structures.

### ***1.6. Perspective of interaction***

In Connectivism learning, interaction-based network connection is the key to success in learning. Because all elements and links of learning based on connectivity doctrines all need to rely on the establishment of network connections and the development of interactions, all of which occur during interaction. Through interaction, the connection between learners, between learners and facilitators and learning content is promoted, and knowledge growth methods such as path finding and understanding are also promoted in network interaction. Therefore, interaction is the core of connectivity learning and the key to connection and network formation.[2]

In short, the communication theory of learning is concerned with the characteristics of knowledge, courses and learning, the learning ability and learning purpose of learners, and the importance of the knowledge network learning context. It is suitable for the network independent learning and knowledge circulation of college students, which has triggered a new era. A series of thinking and practice of

education and teaching reform.

## **2. Feasibility Analysis of Introducing Connectivism Learning Theory into Art Theory Course Teaching**

The rapid development and application of networks in the Internet age has transformed learning from content to form. Connectivism is precisely to meet the needs of learners' independent learning in the digital Internet era. This learning theory is based on the establishment of network connections, including connections between stimuli and responses, connections between conditions (including problem-solving goals) and actions, or connections between nodes in a semantic network.[5] From this kind of learning perspective, learning will happen as long as there are connections between stimuli and responses in the network environment, between conditions and actions, and between nodes in the semantic network. Connectivism learning theory is more suitable for adult education or modern higher education, so the learning theory is also suitable for the teaching of art theory courses in colleges and universities in the new era. As an important supplement to classroom teaching, the introduction of connectivity learning theory into art theory course teaching has its logical and realistic inevitability and possibility.

### ***2.1. The Necessity of Introducing Connectivism Learning Theory into Art Theory Course Teaching***

In the era of digital information and the Internet, new knowledge and new technologies emerge endlessly and change rapidly. The organization and management of new information and new knowledge has become a phenomenon that everyone and every organization must face. The new era requires individuals to possess multiple literacy, problem-solving and critical thinking skills, which requires individuals to constantly create opportunities to improve their learning ability. The rapid development of information technology and Internet technology has provided huge conditions and powerful motivation for individual diversified learning spaces and learning methods, but at the same time it has also transformed traditional learning from content to form. Knowledge exists in different places, especially in the structure and time of society and culture.[6] Therefore, digital and networked spaces provide opportunities and possibilities for learners. Under this kind of learning background, higher education and university student groups in the new era are no exception. They need to rationally choose knowledge to construct their personal professional structure to adapt to the external environment, and they need to continuously optimize their own knowledge system to adapt to social development. Information network technology has given birth to the reform of college courses and teaching, and it also provides conditions for this reform. Connectivism emphasizes that the learning of knowledge is based on the interconnection of various nodes, and it is a process of combing and mastering different knowledge information and professional nodes. Therefore, the choice of learning resources is very important to strengthen their learning ability, and it is also the basic requirement of learners' information literacy in the information age.

The complexity of the ecological environment of Chinese art education in the new era requires the teaching of art theory courses to become more open and diversified. Connectivism learning theory will inevitably become an important link in the teaching reform of art theory courses, as well as an important means for learners to obtain resources and an important supplement to diversified learning models.

In the 21st century, Chinese art education is facing new changes once again. The most obvious change is the urgent need for comprehensive culture to enter the field of subject education and cultural literacy beyond skills. The technological progress, informatization, and new media in the new era have given birth to a dual transformation of artistic concepts and artistic thinking, which has brought about multiple artistic aesthetic effects and various new artistic styles and artistic phenomena. It needs to be explained and fully understood. Therefore, as the art theory teaching and research leading the art education in colleges and universities, it is also facing a series of complex and diverse new phenomena, new changes, and new problems. It is necessary to speed up the research on art phenomena and art problems in the new art ecological environment, and speed up the new Under the background of the times, the reform and exploration of the teaching of art theory courses in colleges and universities accelerate the continuous renewal and change of art practice, art concepts and research methods. Art theory courses involve interdisciplinary theories and knowledge of art, aesthetics, philosophy, etc. Students are required to read some courses related to art theory extensively, pay attention to current artistic phenomena and artistic trends, and help students to integrate their knowledge of art theory in "Tao" and expand on the level of "use". However, judging from the existing art theory courses, the teaching content is relatively outdated, which is not conducive to the promotion of knowledge innovation. To maintain the dynamic update of

the course content, not only the teachers need to expand the curriculum resources, but also the learners' cognitive renewal. Therefore, for learners, the construction of a complete artistic theoretical knowledge structure not only depends on how much basic theoretical knowledge the learners have mastered, but also whether they can obtain useful learning resources in a timely and accurate manner.

## ***2.2. The Possibility of Introducing Connectivism Learning Theory into Art Theory Course Teaching***

Modern information technology, Internet technology and artificial intelligence technology, as well as the teaching software developed to adapt to modern technology, and the exploration of new teaching methods and teaching models have created various conditions and possibilities for connected learning. The professional teaching of art subjects in the Internet age and artificial intelligence era, and emerging electronic media technologies such as 3D, AR, and VR have further promoted the intelligent and interactive upgrade of curriculum construction. Online courses, offline courses, online mixing courses, virtual emulation programs, Microlecture, MOOC, flip classrooms, etc., more greatly expand the teaching space dimension of the artistic theoretical courses. Inspired the creation and innovation potential of artistic teachers and students.

Internet age and artificial intelligence technology have created many incredible phenomena. In 2020, the sudden rona Virus Pneumonia became the biggest challenge facing the world since World War II, It gives the production and life and social exchange bring subversive changes. The routine education teaching activities of the school have been seriously affected. From the university, all schools are generally attempted and explore the use of network platforms to carry out home online teaching. DingTalk, WeChat, Tencent, Rain Class, Super Star Learning and other network learning software have been rapidly developed, there is an unprecedented change in teaching methods and teaching modes. At the same time, the various academic seminars and academic lectures in colleges and universities are also changed from offline and online and their respective home clouds. Especially the rapid development of Tic Tok, Kwai, vertical screen, short video, etc. Be increasingly affecting the development of the art discipline. All of these education and teaching environments have urged all discipline education teaching, including art disciplines, need to further adapt to changes in new teaching environments, rethinking traditional education teaching, thus forming a new concept of education.

The home online teaching and cloud participation during the rona Virus Pneumonia, vividly interprets the applicability, necessity and feasibility of the Connectivism teaching concepts for the teaching of art theoretical courses. Despite the social teaching of the epidemic in the society, there are different sounds and complaints such as passive home teaching, teaching and learning efficiency, low teaching environment, low efficiency, and difficulties in teaching management, but this kind of teaching ideas transition and fresh exploration, it brings a new vitality of discipline teaching to form a new idea and new cognition of discipline teaching. Especially in post-pandemic era, school education and discipline education are increasingly inseparable from Internet and artificial intelligence, but also will be more and more dependent on them. In particular, our teaching object is already growing in new era of Internet and artificial intelligence, they are familiar with Internet technology and network platforms, and if we do not further develop and use the "Internet + Education" modern teaching mode and education resources, so too lagging traditional discipline teaching models may be separated from our educational objects, while hindering our teaching and discipline development. The theoretical course teaching of the art discipline also needs to combine with Internet technology and artificial intelligence technology, explore and use the "Internet + Artistic Theory" model to promote education and teaching resources.

## **3. The Application of Connectivism Learning Theory in Artistic Theory Course Teaching**

Discussion on the theory of Connectivism and the home teaching and cloud participation during the epidemic, there are proved that Connectivism's importance, applicability and urgency of the learning teaching in the network age, thereby further promoting people to explore the theory of Connectivism's learning. Effectively applied to the artistic theoretical curriculum teaching, as an important supplement to classroom teaching to exert its auxiliary functions for classroom teaching.

### ***3.1. Using modern smart teaching aids to apply Connectivism learning theory to classroom teaching***

In the current information society and digitization era, network multimedia has become a necessary means and cognitive tools for modern smart teaching. According to the interconnected characteristics of chinese Connectivism learning, teachers use smart teaching assistance methods to operate and handle

network information, help learners create network multimedia interactive learning interfaces and establish links, organize, store, pass information and knowledge through network multimedia interactive learning interfaces and establish links.[7]In recent years, the continuous advancement of modern smart teaching software development and smart teaching methods, such as MOOC, Microlecture, rain class, flip classroom, online classroom, etc. are more and more popular, and Widely used in the teaching of disciplines. These modern smart teaching assistance methods have a common requirements and characteristics. This commonality requires that students need to use extracurricular hours to read, watch, and or store extracurricular knowledge or network resources related to the course content, the common characteristics of the common characteristics are in modern information. Technical means storage knowledge. So in this sense, the wisdom class building constructed by modern smart teaching aids has achieved joints between traditional teaching and modern learning. Through the design of the wisdom class, it has expanded the teaching space and enables students to participate in the construction and creation of learning content, which is conducive to combining art theoretical courses with art practice.

### ***3.2. Play teachers' role in impacting and shaping courses in network resource construction***

Connectivism emphasizes learning is a network connection, and this connection is based on various nodes interrelated, and is the process of connecting various knowledge information and professional nodes to organize, store, and transmits. As the promotion of the course, the network impact and shaping can help learners build a complete artistic theoretical knowledge system through the online platform. Related research shows that teachers can enhance learners' participation, and directly affect learners' persistence, the participation of online open courses directly affects the persistence of online open courses.[8]In the artistic theory teaching, one of the functions of teachers is to combine art theoretical curriculum resources and external related learning resources, fragmentation knowledge, etc. to promote and achieve the connection between internal knowledge systems and external learning resources and environments. Help and promote learners to establish a related network connection. Therefore, in the teaching of Connectivism art theory, teachers' responsibilities focus on network courses to study resources and learning environment.

#### ***3.2.1. Constructing online course learning resources***

Of old characteristics of artistic theoretical courses, expand the curriculum resources, to promote the dynamic update of the course content by adding new online courses resources. Teachers and learners cooperate to develop courses during the process of constructing learning resources. First, introduce local non-legacy cultural resources. It can promote the inheritance and innovation of local non-legacy cultures, increasing the fun and time of teaching of artistic theoretical courses, but also helps to enhance students' ability to inherit the outstanding traditional culture of innovation. The second is to introduce folk cultural resources. Folk cultural art resources have local, civil, inheritance, and historical characteristics, with its simple, true characteristics, showing regional unique charm. The third is to introduce local red cultural resources. Close regional red cultural resources, non-legacy cultural resources, folk cultural art resources, and thinking education, linking art theory and practical teaching, leading the value leading and knowledge, moral education, beauty training and emotional education in the same There is always the ability to practice students' practical innovation, making students infected with red culture in the subtlety. The fourth is to introduce local traditional cultural resources. The multi-angle exhibits the basic picture of its basic appearance and inheriting the practice field, and continues to draw strength from the local excellent traditional culture, integrating it into college art disciplines and artistic theoretical courses, is a cultural man, cultural people The intrinsic requirements of people are also cultivating the needs of applicable composite literary talents that meet the requirements of the new era. The fifth is to introduce the online art venue resources. Appropriate introduction of online art galler, group art museum, exhibition hall, museum, etc. Through the introduction of the above curriculum resources, the artistic theoretical curriculum system and professional structure are optimized.

#### ***3.2.2. Optimize network courses learning environment***

Unlike traditional learning theories, communication, transmission or construction, Connectivism learning theory emphasizes the support of social networking environment to support teaching interactions in complex information environments.[9] Therefore, the construction of a network learning environment is very important. First, construct a network course resource environment. The above five kinds of artistic theoretical extracurricular resources selected by the teacher, teachers need to build the corresponding network courses resource environment, guide and help students establish related network connections. Students use super star learning, DingTalk, QQ, WeChat public platform and QQ group, WeChat group, etc., teachers and students build shared courses resource construction. Using the teaching model such as

flip class, rain class, using network platforms to push curriculum resources to students and discuss in the group. Digestion in the classroom, and exchange feedback after class. The extracurricular network information selected by teachers should be consistent with the interaction in classroom teaching, so that the acquisition of students' art theory knowledge is not a direct conversion process, but a sense of constructing. The second is to construct a network teaching assessment evaluation environment. Play the freedom, openness, interactivity, equality and circulation of network resources, provide more interactive opportunities and interactive space, guiding and organizing students to participate in online communication discussions, And give timely counseling, check and evaluation, including the assessment and evaluation of student learning effects and learning process. This optimization of this evaluation environment can realize the students' self-assessment and mutual evaluation, realizing a multi-evaluation such as teachers and peers and public. Because teachers and students are a node in teaching activities, they are the participants of teaching activities in network space circulating. This network evaluation environment runs through the whole process, which helps strengthen the dynamic generation of teachers and students' participation and teaching content.

#### 4. Conclusion

Connectivism learning theory provides a new learning concept and perspective of discipline education and discipline teaching in the information society and the Internet age, and also provides a new way and possibilities for the teaching reform of the artistic theory. Network, nodes, connection, interaction are four keywords in Connectivism learning theory. The theory emphasizes that knowledge is a network phenomenon. Learning is a network connection. The learner is a node on the network, and the code of the node is the generator of knowledge and meaning, and the inevitable result of network interaction. Therefore, the network space in this sense is a course, inevitably a freely open network resource, developed by learners and participants, jointly constructed, and sharing each other. The information society and the Internet age not only gave birth to Connectivism learning theory, but also gave birth to a modern wisdom class, Microlecture, MOOC, Tencent, DingTalk, rain class, flip classroom, super star learning, etc. This new learning concept and modern wisdom class have promoted the reform of traditional discipline education, and also provides tools and possibilities for this reform. How to build a modern wisdom classroom to promote modern wisdom class, promote the reform of artistic disciplines and artistic theoretical courses in the new era, which is worth further discussing and thinking.

#### Acknowledgement

This article is the phased result of Anhui Provincial Teaching and Research Project “Research and Practice on Teaching Reform of Art Theory Courses in Colleges and Universities in the New Era” (2018jyxm0076). Anhui University of Finance and Economics Teaching and Research Project “Investigation and Research on the Construction Mechanism, Path and Effectiveness of the Art Education Club System in Anhui Colleges and Universities” (acjydz2020019).

#### References

- [1] George Siemens. *Connectivism: A Learning Theory for the Digital Age*[J]. *International Journal of Instructional Technology Distance Learning*, 2005, 2(1).
- [2] Wang Zhijun, Chen Li. *The Learning Theory of Connectivism and its Latest Development*[J]. *Open Education Research*, 2014(5):14-22.
- [3] George Siemens. *Orientation: Sensemaking and wayfinding in complex distributed online information environment*[D]. *Aberdeen: university of Aberdeen Doctoral dissertation*, 2011.
- [4] George Siemens. *Knowing knowledge [DB/OL]*. Retrieved on June 19, 2014 from [knowing.knowledg.com](http://knowing.knowledg.com).
- [5] Wang Youmei, Zhu Zhiting. *From Connectionism to Connectivism: A New Orientation in Learning Theory*[J]. *China Educational Technology*, 2006(3)5.
- [6] Leslie P. Steffe, Jerry Gale. *Constructivism in Education*[M]. *Shang Hai: East China Normal University Press*,2002:139.
- [7] Kop R, Hill A. *Connectivism: Learning theory of the future or vestige of the past*[J]. *International Review of Research in Open & Distance Learning*, 2008, (3):1-13.
- [8] Jung Y, Lee J. *Learning engagement and persistence in massive open online courses(MOOCs)*[J]. *Computers and Education*,2018(12):9-22.

[9] Wang Zhijun. *A New Research Perspective on Instructional Interaction in Connectivist Learning: Actor Network Theory*[J]. *Modern Distance Education Research*,2017(6):28.