

Research on Collaborative Innovation of Art Teachers Based on Learning Community

Chen Hao

Abstract—With the rapid development of economy and society, colleges and universities actively participate in the construction of economic and social development, and build industry-university-research alliances. Relying on the concept and characteristics of learning community, this paper discusses the necessity of collaborative innovation of art teachers' production, learning and research, analyzes the impact of learning community on production, learning and research from the outside and inside, and proposes the way of collaborative innovation of art teachers' production, learning and research under the guidance of the concept of learning community, so as to further promote the professional development of teachers and the collaborative innovation ability of learners.

Index Terms—Learning community, art teacher, learning and research, collaborative innovation

I. INTRODUCTION

The combination of production, learning and research is the synergy and integration of different social divisions of scientific research, education and production in terms of function and resource advantages, and the connection and coupling of the upper, middle and lower levels of technological innovation. In response to the trend of industry-university-research cooperation, the Shanghai Municipal Education Commission launched the industry-university-research practice system. Its purpose is to strengthen the cooperation between production, teaching and research, encourage university teachers to exchange and interact with each other in the practice base, promote the improvement of university art teachers' scientific research ability and teaching level, and promote their better growth. Based on the teaching practice of the concept of learning community, college art teachers and primary and secondary art teachers should work together to innovate and jointly promote the continuous development of industry-university-research cooperation.

II. OVERVIEW OF THE CONCEPT OF LEARNING COMMUNITY

A. Definition of the Concept of Learning Community

The concept of “learning community” was clearly put forward by Boyer in the report entitled “Basic School: Learning Community” published in 1995. Boyer pointed out that learning community means that learners with a common vision and common mission come together to share learning experience, exchange learning experience, explore the path

to knowledge, and participate in the common goal of education [1].

The learning community in this study refers to the group formed by learners (art teachers in universities and primary and secondary schools) who adhere to common aspirations and goals and actively participate in sharing and exchange. There is no specific limit on the number of members and no strict rules and regulations. Learners have their own professional knowledge and skills in the field of their own industry. They respect each other, discuss and exchange on an equal basis, share their own knowledge, experience, experience and emotion, and make progress and development together.

B. Characteristics of Learning Community

1) Shared leadership model

Shared leadership model the operation of learning community needs leadership, and shared leadership model is a typical model. The learning community proposed by Sato University in Japan and the professional learning community of teachers in Singapore both emphasize the importance of shared leadership. The shared leadership model is not to abandon leadership, but a leadership structure and organizational model based on learners' high quality, professionalism, practicality, knowledge and other professional skills that need to be shared. Generally speaking, a leader team is organized by a member as the initiator, and the rest of the learner's brainstorm and share their knowledge, skills, experience, etc., which has certain directionality and functionality for the learning objectives and promotes the achievement of the learning objectives, which is the characteristics of the shared leadership model.

2) Real problem situation

The real problem situation is an important way to guide learners to communicate and exchange based on common interests, knowledge, views, etc. This is an important carrier of team learning and practice. The problems pointed by the learning community are all from the daily classroom teaching practice. Based on the real classroom situation, they are the situations that they try to solve but fail. Therefore, the questions put forward by learners can be discussed in the team, which has strong educational value and can be explored. University teachers and primary and secondary school teachers form a common learner team. Thinking, analyzing, solving, observing and reflecting on problems are all important means to promote teachers' practical ability. Through such open and operable problems, teachers can adapt to their roles as soon as possible and explore ideas and methods to solve problems.

3) Hybrid learning concept

The concept of blended learning is a learning concept that

Manuscript received June 15, 2023; revised August 30, 2023; accepted September 30, 2023.

Chen Hao is with Shanghai Normal University Tianhua College, China. E-mail: chen hao85art@163.com (C.H.)

doi: 10.18178/ijssh.2023.13.6.1175

has been used for a long time in western countries. This concept means that university teachers and primary and secondary school teachers can realize interactive exchange, learning and experience sharing on the cloud based on the Internet platform. With the popularization of science and technology, the concept of learning community has been deeply rooted in the hearts of the people. The teacher network project in Singapore and the intelligent classroom project in Australia have created a variety of platforms for teacher-to-teacher communication, such as interactive electronic whiteboard, video conference, projection system, multi-functional microcomputer with touchscreen version, etc., which has built a good platform for teacher-to-teacher interaction. Teachers can communicate, support each other and share results online or offline. The concept of blended learning improves the immediacy and creativity of teacher communication.

III. THE NECESSITY OF INDUSTRY-UNIVERSITY-RESEARCH COLLABORATIVE INNOVATION GUIDED BY THE CONCEPT OF LEARNING COMMUNITY

A. Industry-University-Research Collaborative Innovation can Lead Production Practice

Based on the concept of learning community, the construction of industry-university-research collaborative innovation can effectively and orderly lead production practice and further promote knowledge innovation, technological innovation, high-tech industrialization and practical innovation through harmonious and stable mutual cooperation and interaction. In order to promote the implementation of the "12th Five-Year Plan" Shanghai University Connotation Construction Project, improve the academic, technical and practical abilities of university teachers, and promote the construction of education and teaching, disciplines and courses, the Shanghai Municipal Education Commission encourages university teachers to take various forms to participate in research and development, work or practice in enterprises, scientific research institutions, government and other practical departments, and enhance the awareness and ability of university teachers to consciously participate in the main battlefield of economic and social development, Improve teachers' education and teaching ability.

Under the guidance of the industry-university-research policy, art teachers in colleges and universities have gone deep into the primary and secondary school classes and carried out industry-university-research cooperation in the form of observation classes, exchange discussions, academic seminars, salon meetings, etc., [2]. Based on the concept of learning community, through observation and research in the way of field research, further improve the practical ability and creative ability of art teachers, lead production practice, and promote collaborative innovation of production, teaching and research.

To cultivate core competencies in the discipline, it is necessary to focus on the core position of students in the learning community. In the process of art cooperation and exploration, mutual cooperation should be achieved to achieve the collision of "teaching" and "learning" perspectives, allowing each student to become a part of the

main body of the classroom, but also serving the main body. This is the creative motivation of students as the main body. Of course, the guiding role of teachers cannot be underestimated. Teachers are both collaborators and leaders throughout the entire process. In the process of respecting students' independent exploration, they explore and progress together with students, in order to truly achieve "freedom" in students' creativity.

B. Industry-University-Research Collaborative Innovation can Improve Scientific Research Capacity

The implementation of the industry, education and research policy is to build a practice platform for college teachers, ensure that college art teachers and primary and secondary art teachers share their experiences and insights in the teaching process through exchange and interaction, condense into scientific research achievements, form educational experience for teachers to learn together, and then improve the scientific research level and ability of learners, further innovate and develop, and condense into the essence of human knowledge.

In the process of industry-university-research practice, if learners do not have the concept of learning community, they often have their own prejudices and are unwilling to share their teaching experience and scientific research insights, which leads to the fact that the scientific research achievements of art teachers in primary and secondary schools cannot flow flexibly to universities, let alone the collaborative innovation of industry-university-research [3]. Based on this, art teachers in colleges and universities must adhere to the concept of learning community and the attitude of sharing learning through actual research, so as to apply the scientific research results obtained through the evidence of facts and classroom practice to actual classroom teaching, improve the promotion value of scientific research results, and have good feasibility. Therefore, art teachers need to implant the concept of learning community, guide learners to jointly create, share scientific research achievements, improve scientific research ability, and promote collaborative innovation of industry, university and research.

C. Industry-University-Research Collaborative Innovation Can Improve Teaching Effect

The implementation of the industry-university-research policy needs the guidance of the policy. The Shanghai Municipal Education Commission implements the industry-university-research policy by selecting elite teachers and backbone teachers from colleges and universities. They have unique understanding and understanding of the art education in colleges and universities. At the same time, they can also obtain first-hand information, conduct analysis and research, and improve the teaching effect of art teachers through field research, listening to examinations, and participating in teaching and research activities.

Based on the concept of learning community, in the process of communication, art teachers in colleges and universities will change their original preconceptions and find that the generative changes in the classroom are no longer too ideal and perfect for the concept of art classes in primary and secondary schools, so that they can not operate

in practice; In addition, the art teachers in colleges and universities can not only see the interaction and communication on the surface of the classroom, the cooperation between teachers and students, students and students, but also deeply excavate the teacher-student relationship, classroom culture and even the school atmosphere behind the classroom teaching through communication and sharing in the process of research [4]. These are aspects that need to be considered in the research. If there is no concept of learning community, The limitations of researchers themselves may lead to the imperfect results of industry-university-research research and the inability to carry out collaborative innovation of industry-university-research. Therefore, art teachers should carry out conceptual innovation based on the concept of learning community, improve their own scientific research innovation and practical teaching level, improve teaching effect, and promote better collaborative innovation and development of industry, education and research.

IV. THE IMPACT OF THE CONCEPT OF LEARNING COMMUNITY ON THE COLLABORATIVE INNOVATION OF INDUSTRY, UNIVERSITY AND RESEARCH

A. Rely on the Concept of Learning Community; External Influence on the Collaborative Innovation Process of Industry, University and Research

The current society is a learning society, which requires us to adopt the concept of learning community to view education. Art teachers in colleges and universities enter primary and secondary schools to carry out industry-university-research research, which will be affected by the school system. Whether the industry-university-research practice system is connected with the school system directly affects the construction quality of the learning community [5]. Because of the great differences in the education process between colleges and universities and primary and secondary schools in the face of different educated groups, colleges and universities are more focused on cultivating students' problem-solving ability and logical thinking ability, while primary and secondary schools are more focused on the teaching of knowledge and the cultivation of habits. This requires the learners from both sides to strengthen the integration of their respective systems, think in different places, narrow the limitations of external systems and systems as much as possible, give full play to their respective advantages, and share views and knowledge.

B. Rely on the Concept of Learning Community; Inherently Affect the Collaborative Innovation Process of Industry, University and Research

The concept of learning community requires learners to interact with each other in a modest and prudent manner and work hard for the common educational goals, which forms a strong cohesive learning community culture. Although the teaching objects of art teachers in colleges and universities are different from those in primary and secondary schools, the basic knowledge of art, pedagogy, psychology and the perception of beauty they learn are the same. In the process of knowledge discussion, you can influence others through

your own knowledge and experience, share your positive experience, and form a healthy and upward learning community culture.

Universities, industries, and enterprises within the community may be at different levels of experience and knowledge, and they may even have different roles, professional directions, research expertise, and needs throughout the entire learning and production process. They share a common vision but face different audience groups. Therefore, as organizers and managers of the community, we should fully coordinate the implementation process of industry, academia, and research, leverage the advantages and characteristics of both parties, stimulate their deep needs and motivation, and generate a learning effect of demonstration, guidance, and motivation through "diverse interactions", so as to enable participants in the learning community to achieve better character innovation.

In addition, the professional quality of college art teachers is also very important. Teachers' professional quality refers to professional knowledge, professional skills and professional emotions, etc., which is particularly critical to the cultivation of learning community in the research of industry, university and research. Therefore, learners from both sides should take advantage of the differences in teaching environment, summarize experience and methods, exchange and interact with each other, and form practical scientific research results

V. THE WAY OF COLLABORATIVE INNOVATION OF ART TEACHERS

A. Improve the System of Linking Production, Learning and Research

The cooperation between art teachers in universities and primary and secondary schools needs institutional guarantee. To this end, both sides should overcome institutional obstacles and achieve an integrated innovation community. First, we should establish relevant systems to strengthen the dominant position of enterprises. Let enterprises become the "makers" of scientific research projects and determine the research direction of scientific research. The cooperation between production, teaching and research of art teachers should mobilize the enthusiasm of primary and secondary school teachers, so that primary and secondary school teachers can find problems and find problems from teaching practice. In view of these problems, we should discuss with art teachers in colleges and universities to achieve the goal of common improvement. Second, we should improve the personnel management and other relevant systems to promote the deep integration of art teachers in colleges and universities and primary and secondary schools. The institutional differences between universities and primary and secondary schools in personnel management, talent evaluation, welfare treatment and other aspects are large, which affects the willingness of both sides to cooperate and also restricts the in-depth development of cooperation. Therefore, colleges and universities should establish an effective mechanism to encourage industry-university-research cooperation, give preference to the evaluation and employment of professional titles and

welfare treatment, encourage art teachers in colleges and universities to go deep into primary and secondary schools, and carry out in-depth industry-university-research docking, so as to give full play to the academic advantages of college teachers and the practical advantages of primary and secondary school teachers, thus creating a good atmosphere for the cooperation between the two sides. Third, we should establish an orderly flow system of talents between production, university and research institutions, and promote the exchange and interaction of personnel from both sides. Colleges and universities can reform the post setting of talents in production, study and research units, flexibly set up part-time researcher posts for scientific and technological personnel in primary and secondary schools, allow them to obtain corresponding remuneration, and take the part-time experience of university teachers in production, study and research in corresponding primary and secondary schools as an important indicator of talent evaluation, so as to stimulate the enthusiasm of university teachers in production, study and research [6].

B. Establish a Knowledge Sharing Platform for Industry-University-Research Cooperation

The core of the learning community is to establish a platform for art knowledge sharing between art teachers in universities and primary and secondary schools to realize art knowledge sharing. This not only enriches the knowledge reserve of learners, but also promotes the win-win situation between universities and primary and secondary schools. The establishment of knowledge sharing platform should rely on effective carriers, including hardware and software. In terms of hardware, art teachers in colleges and universities, as the leading force, build a web-based art knowledge sharing platform to enable learners of the learning community to obtain information in time and use knowledge to solve problems in time. The online learning community is based on the network, where learners and assistants communicate and exchange ideas around common themes in a common online learning environment. They share experiences and teaching resources through participation, activities, conversations, collaboration, reflection, problem-solving, and other forms to achieve common learning tasks and goals. In terms of software, learners develop specific content such as relevant classroom observation time, teaching discussion times, which is conducive to the smooth promotion of the industry-university-research system. In addition, create a cultural atmosphere for knowledge sharing, share and exchange knowledge and experience, and further promote knowledge sharing on a harmonious soil.

C. Transforming the Learning Community of Industry-University-Research Classroom

The classroom learning community is formed in the classroom environment and is subject to the classroom atmosphere, teacher-student interaction, student-student communication and other factors. Therefore, transforming the learning community environment of the industry-university-research classroom is the key link in the process of industry-university-research collaborative innovation. To transform the classroom learning community, we should first reduce the size of the classroom. The class

observed by learners is mainly small, which is convenient for observation and recording. At the same time, in the process of question-and-answer between teachers and students, students should understand the relationship between teachers and students, deepen the classroom culture, etc; In the after-class communication process, share classroom teaching experience and reflect on classroom generative problems [7]. Second, establish a harmonious and orderly exchange atmosphere. In the process of communication, learners should not talk with others in a condescending manner, but sincerely share their own views and opinions and jointly discuss the knowledge collision in the classroom. Only in this way can learners be promoted to develop together, innovate together and promote the development of art education. Third, we should advocate classroom interaction between teachers and students. The concept of learning community requires not only the interaction between art teachers in universities and primary and secondary school teachers, but also the interaction between teachers and students. Effective interaction in the classroom, their own opinions and opinions, open questions, and unexpected answers are all the advantages of classroom generation. Therefore, the transformation of the learning community in the industry-university-research classroom requires the cooperation of researchers, teachers, students and other aspects to achieve greater success.

VI. CONCLUSION

In summary, based on the concept of a learning community, art teachers in universities should take the path of industry-university-research cooperation, actively delve into primary and secondary school classrooms, create and share scientific research results with learners, in order to cultivate the ability of primary and secondary school students to discover, appreciate, and create beauty, and improve their art quality. The deepening of industry university research cooperation requires institutional guarantees. To change the professional title evaluation system for art teachers in universities, guide teachers to go deep into the frontline and establish the idea of serving the grassroots; To establish an effective carrier for industry university research cooperation. Strengthen the construction of an art knowledge sharing platform using the internet as a medium, and promptly explore and answer students' relevant questions; We need to strengthen the atmosphere creation of a learning community. Encourage interaction between teachers and students, fully mobilize the enthusiasm and initiative of primary and secondary school students in learning art, and enable students to acquire knowledge and receive edification in a pleasant atmosphere. With the joint efforts of art teachers, primary and secondary school students, and relevant organizations in universities, a vivid new situation in art education will inevitably emerge.

CONFLICT OF INTEREST

The author declares no conflict of interest.

REFERENCES

- [1] Z. Jian, *Construction of Learning Community*, Shanghai: Shanghai Education Press, 2008.

- [2] M. Y. Pan, "Several theoretical issues of industry-university-research cooperation education," *China University Teaching*, 2008, vol. 3, pp. 15–17
- [3] J. Retallick and B. Cocklin, "Learning community in education: Issues, strategies and contexts," *England: Routledge*, 1996, vol. 6, pp. 36–37.
- [4] L. Ming, X. H. Gao, and X. W. Liu, "Problems and countermeasures for the construction of multidisciplinary collaborative innovation alliance," *Modern Education Management*, 2019, vol. 10, pp. 47–53.
- [5] S. Jian and S. J. Chen, "Experience and enlightenment of foreign industry-university-research policies," *Modern Management Science*, 2008, vol. 7, pp. 36–38.
- [6] L. Jian and L. L. Geng, "Research on government actions and typical models in the United States and Britain's multi-party collaborative education," *Higher Engineering Education Research*, 2019, vol. 4, pp. 52–63
- [7] S. Q. Peng, H. H. Yu, and X. F. Yang, "The construction and implementation of UGSS teacher education talent training mode – The reform practice of Changjiang Normal University," *Journal of Teacher Education*, 2015, vol. 2, no. 5, pp. 118–124

Copyright © 2023 by the authors. This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited ([CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)).