



## **Packaging creative design professional research feeding teaching innovation research**

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**Abstract:** The paper packaging design teaching, the teaching and scientific research is the talent of education high quality of the two legs, mutually promote scientific research and teaching, scientific research can promote the practice teaching, promote the students' practical ability, cultivating packaging packaging design talents, through the teaching reform, promote the benign interaction of scientific research and teaching, is one of the important subjects in this paper, we study. This paper puts forward that scientific research feeding teaching lies in enriching classroom teaching with scientific research results, improving the learning interest of students majoring in packaging design and enhancing their ability to solve practical packaging creative design. With the emphasis on scientific research in colleges and universities, the scientific research work and teaching in colleges and universities have made some progress, and the scientific research ability of teachers and students has made obvious progress. Through scientific research, this paper nurturers teaching, establishes the scientific research platform of the school, enricfies teaching resources, improves teaching quality, improves the cutting-edge, practical and interesting content of the course, and strengthens the cultivation of creative talents in packaging design.

**Keywords:** Innovation center; Scientific research platform; Scientific research ability; applied.

### **1. Introduction**

At present, the world is facing the sixth scientific and technological revolution. Germany has proposed the "industry 4.0 plan", the United States has proposed the "advanced manufacturing partnership plan", and China has proposed the "intelligent manufacturing 2025 plan" to train enough high-level, application-oriented and diversified professionals with innovative capabilities. Scientific research of feedback teaching research have been research, 1994, Japanese scholars Sasaki is presented

based on the service society industrial packaging and packaging engineering discipline structure system to effectively promote the development of the theory and practice teaching, Chinese scholars put forward the construction of packaging engineering specialty course system of science, training to meet the needs of packaging industry, packaging professional talents with engineering practice ability, from the view of the entire lifecycle of product packaging design, packaging design discipline connotation, strengthening packaging design education practice. MAO ying of tianjin university of commerce thinks that to perfect the university scientific research feeds back the teaching, to the university teacher establishes the encouragement, the safeguard mechanism; Wang hong and li yuhong's scientific research feedback teaching is mainly reflected in the cultivation plan, the construction and improvement of the professional curriculum system, and the strengthening of the construction of students' "second classroom". Anhui wenda information engineering college, liu hui and li xue-ting, proposed that teachers should be encouraged to actively introduce scientific research results into classroom teaching, so that students and teachers can achieve "vision integration" in curriculum teaching and create a gold course. However, although many universities have set up laboratories and added practical courses, the experimental teachers are mostly undergraduates who seldom receive systematic scientific research training, and there are few designed experiments and comprehensive experiments, which cannot effectively train students' scientific research ability to solve problems. Build creative packaging design "" multi-level practical teaching system of combining scientific research feedback teaching mode, to scientific cognition of packaging design, the packaging design professional scientific research to establish a perceptual knowledge, inspire students' innovative thinking, training the students' scientific research ability and the ability of thinking, students set up a corresponding practice base, scientific research, strengthen the construction of student innovation fund project, let the students more part in teacher's scientific research. In the "public entrepreneurship, peoples innovation" era background, the university is the main force of social development of technology and knowledge, creative packaging design, the innovation ability of professional theory and design practice, requires a high degree of creative packaging design is a practical very strong professional, the scientific research into teaching, scientific research project as the students' practical teaching resources, according to the actual application of packaging design, to reform the traditional teaching mode, set up scientific laboratory hardware and software base, cultivate the students' ability of innovation, get the latest academic dynamic and cutting-edge knowledge and skills, This is an effective way to improve the creative design ability of packaging.

## **2. Scientific research nurtures the promotion function of teaching**

Creative packaging design of the system of the discipline construction of professional knowledge is the main content of the course, as the foundation of teaching and is widely applied in the teaching process, through the course of the bond to become talents cultivation, scientific research and social service, knowledge inheritance of specific undertaker, also realized the value of scientific research, supporting the professional development. General secretary xi jinping has pointed out that the key for world-class universities is to attach importance to the ability of talents. Colleges and universities promote the development and progress of human society through curriculum teaching. Scientific research activities in colleges and universities are indispensable. Colleges and universities constantly enrich teaching contents and promote the improvement of teaching level based on teaching. Scientific research can promote the improvement of teaching quality in colleges and universities. It is an important step for teachers to increase knowledge reserve and update teaching resources, so as to continuously promote their knowledge level and teaching ability. Students should continue to learn the scientific research experience and knowledge of teachers, deepen the cognition of the major and the understanding of the society, and constantly improve the application skills. In terms of creative packaging design, packaging design research into teaching resources, to establish innovative packaging design research center, the packaging design research into teaching resources, consolidate design knowledge through the scientific research practice, and update and improve the learning knowledge system and set up scientific research platform, the scientific research as a teaching case to indoctrinate students, teach students scientific research methods and research programs, the editor of research achievements of the teaching material, deepen the cognition to the packaging design professional knowledge, students packaging designs to improve students' scientific research ability and innovation consciousness, strengthen students' logical thinking ability. For packaging design teachers, teachers need to explore the frontiers of packaging design, to accumulate teaching resources, and improve the students' knowledge level, teachers need to continuously for subject research, innovative scientific research, as much as possible to complete scientific and technological innovation, turn it into a theory, elaborated to knowledge, teach students, scientific research is a pursuit of knowledge for the future is unknown, packaging design professional teachers in colleges and universities need to raise the level of scientific research, in order to improve the level of teaching, scientific research is the starting point of industry knowledge and skills in indirect experience, on the basis of direct experience, innovation constantly improve teaching quality through scientific research, Adhere to scientific research feedback to promote teaching, scientific research innovation to

accumulate teaching resources, provide teaching level, promote the packaging design professional creative innovation.

### **3. The creative design professional research feeding back the teaching problem research**

3.1 Too much emphasis is placed on scientific research and not enough on the reform of teaching methods.

Professional packaging design at present, many local colleges are widespread phenomenon of "heavy scientific research light teaching, importing, Dr And designer, a professor at the university of excessively consider highly educated and professional titles, emphasis on scientific research ability, weakened the attention to the teaching level, despise the teaching ability and design experience, the school teachers for the title does not pay attention to the classroom teaching methods innovation the scientific research as a standard of performance appraisal, not establishing scientific research feedback teaching system of rewards and punishments.

3.2 Scientific research results cannot be better introduced into classroom teaching. Achievements of scientific research into the teaching system is not sound, not to establish scientific research achievements feedback system of classroom teaching by discussion, there is no clear standard and evaluation mechanism, cannot arouse the enthusiasm of teachers' scientific research achievements into my teaching achievements, caused the scientific research resource utilization is insufficient, scientific research achievements into the depth and breadth of teaching resources is not enough. So, scientific research and the lack of deep going and applicability, the teaching contents, teaching methods and means lack of innovative, new achievements of scientific research cannot be added to the teaching resources, scientific research of the dynamic teaching model does not reflect the latest innovation, not enough coordination of scientific research and teaching, scientific research and teaching link is not compact, the construction of scientific research with no schools close coordination of the construction of the teaching, scientific research and teaching work interaction is not strong, the teachers' research form is single, always for personal purpose, declare subject, published a paper is associated with technical titles, the lack of communication with the research team and between enterprise development with social reality, The application is not strong, the depth of scientific research work is not enough, the lack of durability.

3.3 The sharing mechanism of scientific research platforms such as technical training room has not been established

Laboratory, training rooms in colleges and universities, infrastructure construction is

restricting the further development of academic disciplines and skills training for students exist obstacles, need to integrate resources in college experimental teaching and research facilities, implementation of laboratory resources, comprehensive integration of experimental equipment of sharing, improve the utilization rate of laboratory, training room, the implementation of scientific research production, real docking platform, the construction of the packaging design characteristic discipline in colleges and universities, support the packaging discipline teaching, strengthening the construction of scientific research platform, organize students to view, practice and experiment, according to the characteristic of the packaging professional development and design professional teaching innovation, make good use of scientific research platform advantage resources, Support the development of packaging design specialty, enhance the teaching value of scientific research platform, establish effective management system and management mode of scientific research platform, and realize the optimization of teaching team and teaching resources.

#### **4. Improvement strategy of "scientific research feeds teaching" for packaging creative design specialty**

4.1 Improve the teaching function of the scientific research platform in the major of packaging creative design.

(1) Colleges and universities should make overall planning for the teaching of packaging design, take measures to open the scientific research platform to students, enrich the teaching practice resources of packaging design by using the practical training equipment of the scientific research platform, improve the learning enthusiasm of students of packaging design resources, improve their knowledge system, and expand their design vision.

(2) Establish a multi-party scientific research platform for resource sharing

To establish creative packaging design professional development management system and operational mechanism, the scientific research platform for the overall planning, establish colleges and universities, government and enterprises to share the packaging design of scientific research platform (as shown in figure 1), innovative packaging design of the applied talents training will be combined with students' scientific research training and scientific research platform, using the university scientific research platform resources to strengthen students' ability to design and develop innovative ability.

Enrich the construction of training teachers on the scientific research platform. Research platform is an important component of university science and technology innovation system are gathered base of talents, and is beneficial to packaging design to carry out technological innovation, innovative packaging design, the construction of

packaging design industry forefront, strengthen the original innovation and research, cultivate discipline lead and characteristic discipline, support the development of packaging design, better social demand docking, scientific research platform is designed, the exploratory, developmental, physical and creative, through government cooperation between higher vocational colleges, based in scientific research platform, develop packaging design new materials research, development and enterprises and research institutes, and other enterprises and institutions closely integrated, Strengthening university scientific research platform for foreign service ability, improve scientific research and teacher's humanistic care and the policy support, stable team training teacher feedback to improve the teaching incentive mechanism, to abandon the thought of "scientific research light teaching", develop scientific research of feedback teaching performance appraisal system and incentive measures to further promote the ability of the school packaging design talent.

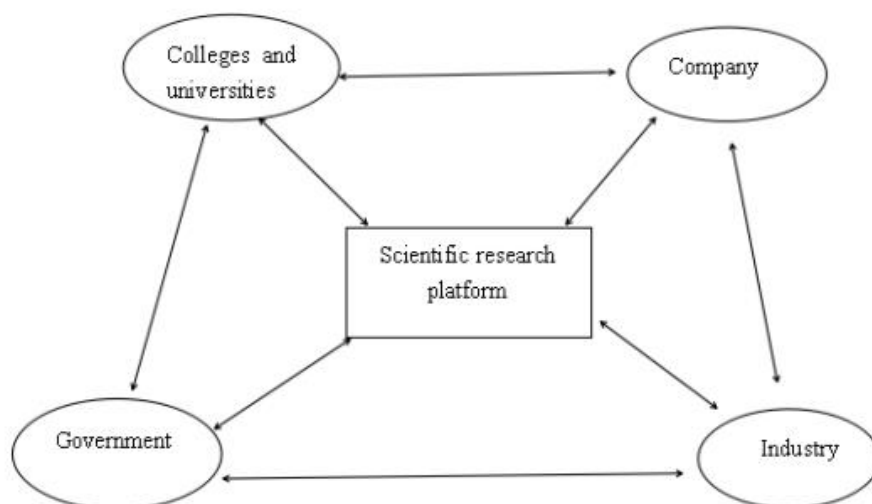


Figure 1 open and Shared scientific research platform of universities

#### 4.2 Strengthen the implementation strategy of enriching classroom teaching with scientific research achievements.

It is an effective way to enrich the teaching content and improve the teaching quality to introduce the scientific research results into the teaching content. In the concrete implementation process, local colleges and universities should establish an effective management mechanism for the transformation of scientific research results into teaching, formulate basic procedures and specific plans for the transformation of scientific research results, strengthen the evaluation and inspection of the introduction of scientific research results in the teaching process, and actively guide teachers to promote the orderly transformation of scientific research results into teaching resources. At the same time, we should strengthen the construction of incentive mechanism for the transformation of scientific research results into teaching, link the transformation of scientific research results into teaching resources with teachers'

professional title assessment, job promotion and professional assessment, promote the transformation of scientific research results in teaching, and give appropriate preference in funding investment and policy support. In addition, further expand the depth and breadth of the transformation of scientific research results. Teachers can choose the scientific research achievements with advanced theory and great practical significance in the research field as the form of elective courses to teach students the latest scientific research theories and developments. Or in the form of academic lectures to introduce their own research results and experience, explain the latest academic views and developments, improve students' interest in learning and enthusiasm. In addition, teachers in local colleges and universities can also introduce scientific research results into the construction of teaching materials. The textbooks compiled can fully reflect the frontier of professional knowledge, enhance the advancement of teaching content, and facilitate the cultivation of students' learning ability and thinking ability.

#### 4.3 Improve the construction of freshman seminar for applied majors in colleges and universities

Seminars originated at Harvard University in the 1980s and gradually became the core curriculum of American universities. In China, Tsinghua University was the first to establish the goal of combining teaching and research in talent training. In 2003, Tsinghua University took the lead in opening students' seminar courses. Domestic ordinary colleges and universities are gradually popular.

(1) Perfect the technical education goal, professional packaging design seminar is designed to make students adapt to the technical transformation, around to determine the teaching objective design professional students, in order to cultivate applied talents, namely "take the student as the main body, teacher as the leading", build "series seminar" and "multi-level practical teaching system, scientific research and teaching feedback.

Seminar (2) the students to make students understanding of packaging design professional knowledge integrity, the design direction and development trend of packaging design professional knowledge seriously, keep up with the latest development of packaging design industry and technology, with rich practical experience of professional teachers undertake professional guidance, according to the characteristics of the design professional knowledge structure, and set up a series discussion topics, inspire students' thinking, students form their own cognitive and for discussion, so as to improve the teaching effect of professional packaging design seminar, training students habits of thinking and practical ability, able to enter the laboratory, training rooms and other related research and practice base, The proposed

topic of research teachers and scientific research project, with the aid of scientific research methods to inspire students' cognition of professional packaging design, to establish a study spirit and sense of self, and professional packaging design topic, design enterprise senior design talent to teaching positions, as a design teacher, can let students informed design new knowledge and new technology enterprise.

(3) Establish modular teaching of core courses of packaging design major

Information age, it is necessary to establish the information age packaging design and manufacturing model teaching, master packaging design automation programming, industry 4. 0 background packaging design and other teaching modules, through the packaging design industry basic situation research fashion design; Through the innovation of design mode packaging design customization, through packaging design automation tutorial to study the application of robot technology in packaging design; Through industry 4. 0 background research on packaging design model in the Internet era will set up various forms and close to the actual life of packaging design professional issues, cultivate students' innovative thinking and exploration spirit, improve the teaching effect of students' packaging design seminar course.

### **5. Establish a packaging creative design innovation center**

Through the establishment of packaging design theme innovation district promote research feedback teaching, strengthen the innovation of the university students' education, relying on the professional advantages of packaging design, packaging design of teachers' professional training room and resources, build the innovation in packaging design of university students' scientific and technological innovation comprehensive practice base, establishing science and technology innovation system and innovation base, packaging design research and feedback of teaching innovation, promote the professional packaging design in colleges and universities students scientific research innovation ability, with creative packaging design innovation center as the carrier, promoting the transformation of scientific research to update in time and packaging design five for routine teaching resources, through the packaging design course knowledge and experiment. Broaden the thinking mode of packaging design, improve the teachers' ability to feed back teaching through scientific research, improve the students' ability of scientific research and innovation, and establish a scientific research platform for packaging design. Teachers with high design level and experience in design practice will be introduced to participate in the construction of the innovation base, and school-enterprise joint guidance teams with strong scientific research ability will be established, such as full-time teachers team and design management research team. Strengthen innovation entrepreneurship competition, establish kechuang packaging design project, provide scientific theory and the practice



teaching, arouse students' interest in declare innovation experiment plan, set up a training project library Internet + innovation and take an active part in the packaging design innovation contest, establishing creative packaging design innovation center multi-level research and combining the practical teaching system of feedback teaching system. Innovation center is a frontier in the field of packaging design disciplines, in the process of scientific research of feedback teaching, establish a scientific research project feedback training courses to packaging design innovation center will be in the process of scientific research frontier in professional course, professional course of packaging design innovation, makes the curriculum in line with the research direction of packaging design, based on innovation, reform the teaching of specialized courses research feedback teaching, make the packaging design teaching reform project layer, through the combination of theory and practice of packaging design theory of learning, to the packaging design and development, Until through the reasonable design and to the innovation center practice to complete the comprehensive understanding and application of packaging design knowledge. Set up the characteristic and serialized teaching material base of the innovation center, revise the professional teaching material of the practice experience of the innovation center, and form the characteristic and serialized teaching material of packaging practice combining with the characteristics of packaging practice. Through the study of packaging practice major, students develop their interest in the research direction of packaging practice major and innovative practice ability.

#### **6. Establish a platform for the exchange of creative packaging design research results**

Packaging design research project is a scientific research team of the project results, by editing, make research literature, summarized earnestly plan implementation plan, strengthen the scientific research and data analysis, detailed design, project implementation innovation projects, the proper way to research the necessary scientific research quality, guide students to carry out innovative research of the project, understand the process of scientific research project, improve the students' scientific research level, enhance the scientific research project of the sacred sense of mission. Through the study of the written summary of achievements of scientific research team of the project results show, in the scientific research platform propaganda, regularly invited to packaging design industry leader to visit the guidance, the combination of school education and packaging design research institutions, and independent scientific research institutions and large and medium-sized enterprises outside the scientific research departments, enhance the enthusiasm of students' participation in scientific research project, timely understanding of frontier problems in

the development of packaging design industry, actively engage in creative packaging design, etc, to try and attract better packaging design invest cooperation development and industrialization of enterprises and schools, universities and scientific research and innovation center to provide financial support, Make project results of teaching cases, can support more students entrepreneurship, through professional packaging design innovation practice teaching, let the students to better participate in the actual research project, design ability, cultivate the students to study carefully established in accordance with the project team, strengthen the team cooperation ability, the head of the team to lead the whole team, improve the guidance teachers and students to participate in communication, make the implementation of the college students' scientific research training plan better. It is very important for students to share scientific research results on the exchange platform and solve problems in the scientific research process.

## **7. Conclusion**

Through the creative packaging design professional scientific research of feedback teaching, the packaging design research into the teaching resources in time, organize students to participate in the packaging design of scientific research, teaching condition of support for students, students to participate in close professional packaging design professional frontier science research, and scientific research into the teaching material, can not only broaden the students' knowledge, and can improve the packaging of students use knowledge to solve practical design problems. In the packaging creative design professional education, teaching and scientific research should be combined. Through the joint efforts of schools and research institutes, students should be the main body to carry out the project scientific research, play the forefront role of the project, and timely meet the social needs of the packaging design industry. Creative packaging design professional scientific research feedback teaching, teaching and scientific research collaboration between the two sides need to establish a benign operation mechanism, and continuously explore research feedback teaching mode, setting up and series packaging design teaching material library, cooperate with packaging design professional course teaching mode innovation, help students comprehensive understanding of the packaging design and creative design professional knowledge, students learning through theory and practice of packaging design is to learn the professional knowledge, and cultivate the ability of design, constantly strengthen the innovative research, training students' research interest in packaging design professional research direction and practice innovation ability, For the society to train more high-quality packaging creative design professionals.

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