

PROCEEDINGS ARTICLE

Research on the Industry-University-Research Teaching Practice of Packaging Design Based on the Mechanism of "School-Agriculture Cooperation"

Fang Gan^{1,2,*}, Nurul Hanim Romainoor¹¹ School of the Arts, Universiti Sains Malaysia, Penang, Malaysia² School of the Arts, Guangxi Normal University for Nationalities, Chongzuo, China

ABSTRACT

"Poverty alleviation" and "rural revitalization" are two important national economic policies and guidelines for China's rural economic construction, representing two important development stages of China's rural economic development. In view of the practical problems existing in the transitional period of rural revitalization after rural poverty alleviation in China, this study takes the packaging design classroom model under the "school-agriculture cooperation" mechanism as the research content and gives full play to the innovative advantages of the design specialty to carry out the research on the industry-university-research teaching practice in the context of "poverty alleviation and rural revitalization". Integrating the brand research and development of agricultural products, the teaching and practice of packaging design, and the research of local packaging design, is not only conducive to the industrial development of rural agricultural products in China, but also conducive to the innovative practice and research of the teaching mode of packaging design in colleges and universities.

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1. INTRODUCTION

"School-agriculture cooperation" is a kind of assistance mode for colleges and universities to participate in the poverty alleviation and revitalization of the rural economy. Colleges and universities use their own professional discipline advantages to provide one-to-one assistance in human, technical and other resources for poor areas and villages, to help the assisted people get rid of poverty and move towards revitalization economically. Chinese colleges and universities initially participated in rural poverty alleviation in the form of direct purchasing of agricultural products in poor areas by school canteens [1]. This assistance model is one-way. In addition, it can directly improve the economic status of poor areas in the early stage, but it is not a long-term plan, because this model cannot help the assisted areas embark on the road of

independent economic development, which is not conducive to their entry into the stage of economic revitalization after they get rid of poverty.

On 29 December 2018, China's Ministry of Education issued the formulation plan of scientific and technological innovation on rural revitalization by colleges and universities, officially proposing to combine the talent training of colleges and universities with the development and revitalization of the rural economy, requiring local colleges and universities to cultivate more professional talents for rural development through teaching and to provide high-quality human resources for the development of the rural economy [2]. Since then, universities and villages have established an interactive and win-win model through the "school-agriculture cooperation" model, rather than the previous one-way assistance model. On the one hand, college teachers and students

*Corresponding author. Email: ganfang@gxnun.edu.cn

can provide effective professional knowledge and practical technology for the development of the rural economy, and make contributions to its development and revitalization. On the other hand, the practical difficulties existing in the development of the rural economy can provide practical teaching opportunities for the practical courses offered by colleges and universities, so that students can master the ability to solve practical problems with the use of professional knowledge in these practical courses, and the classroom is of high practical value and significance.

2020 is the final year for rural poverty alleviation in China. The number of poor people in China has decreased from 770 million to 5.51 million, and the rural poverty rate has decreased from 97.5% to 0.6% [3]. So far, the goal of China's rural economic construction has shifted from poverty alleviation to rural revitalization. Although China's rural poverty alleviation has achieved great results, solving the problems of insufficient development momentum in poverty-stricken areas and preventing poverty-stricken areas from returning to poverty is the focus of attention in the transition period. The poverty of the poverty-stricken areas is firstly caused by geographical location, climate environment, population, humanities, natural resources and other congenital conditions. But these inherent attributes will become short boards and defects that hinder the revitalization of poverty-stricken areas in the transitional stage.

Besides, the transformation of the rural economy from "poverty alleviation" to "revitalization" is by no means a national project overnight, with the characteristics of persistence, continuity and repetition. The short-term goal of China's rural economic construction is to "get rid of poverty", and its long-term goal is to achieve "rural revitalization" with stable and sustainable development. These two are connected in one vein, complementary to each other, and closely related to each other in the development stages [4]. In the special period of intersection and transition between the two, how to ensure that the poverty-stricken areas do not return to poverty and move towards revitalization is a practical problem faced by the poverty-stricken areas. However, how to provide professional services for rural collective and individual economic development according to local conditions in combination with the current situation of rural development and the actual situation of the university's dominant professional courses is a major issue that colleges and universities involved in the "school-agriculture cooperation" project need to think about. The establishment and improvement of the "industry-university-research" mode of the curriculum formed under the "school-agriculture cooperation" mode is the key entrance for

colleges and universities to participate in and help solve the practical problems encountered in the transition period from poverty alleviation to the revitalization of the rural economy.

2. "SCHOOL-AGRICULTURE COOPERATION" AND PACKAGING DESIGN COURSE

The protection, use and sale of goods create the multi-function of packaging design, which integrates the comprehensive application of design art, consumer psychology, ergonomics and other disciplines. And then, packaging design becomes a professional course of art and design that integrates science, humanities and social sciences, art, psychology and other disciplines with strong practicality [5]. The primary function of packaging is to protect the products from being damaged in the process of production, transportation and sales. Secondly, it is to spread and beautify product information to attract consumers through packaging and decoration. The ultimate goal is to better sell products. The service objects of packaging design are products and consumers. The needs of products and consumers provide specific design methods and principles for packaging design. In addition, the design elements need to be excavated from the product itself, and the final design effect needs to meet or even exceed the consumers' expectations of the product. The economic development of rural areas mainly depends on the sale of local agricultural products. Packaging is the carrier of agricultural products to the market, which can not only protect agricultural products, but also promote and brand them. This is why many colleges and universities choose to let the packaging design course participate in the "school-agriculture cooperation" project.

Many poverty-stricken areas with "school-agriculture cooperation" projects have unique regional cultures, customs and cultural characteristics, and high-quality ecological agricultural products. These unique regional cultural characteristics are good elements of packaging design for local agricultural products. However, due to the information closure caused by its inconvenient transportation and the early economic backwardness, the business awareness of local farmers is very weak. Even now, with the strong assistance of the state, these poverty-stricken areas have been lifted out of poverty. The lack of knowledge of industrial market-oriented operations has led to the failure of these poverty-stricken areas to realize the development of agricultural products driving economic benefits towards independent revitalization, and even the risk of returning to

poverty [6]. One of the reasons for its stagnant economic development is that its agricultural products and local specialties are poorly packed and unable to compete with other similar products.

The market demand stimulates the continuous development of the packaging design industry. Besides, the lag of the rural economy also leads to the fact that China's agricultural product packaging itself is in its infancy and has not formed a mature agricultural product packaging design system. Compared with other types of products, agricultural products in the Chinese market have always given people the impression of economic benefits. This causes people to pay less attention to the packaging design of agricultural products, and seldom combine the sales function of packaging with agricultural products, resulting in the fact that the packaging design industry pays little attention to the allocation of agricultural product resources. Although many colleges and universities have set up packaging design and related courses in response to social needs, the courses are often divorced from the actual products and markets, and lack the contents related to the practical operation of solving practical problems. Especially in colleges and universities located in developing cities and regions, due to the lack of school-enterprise cooperation or orders from real enterprises, students use false propositions to design and create in the packaging courses. Even so, these universities rarely establish cooperative relations with local enterprises to serve local products. On the other hand, many enterprises in developing regions prefer the services of design institutions in first-tier cities, which also makes it difficult for these colleges and universities to form a teaching mode of order school-enterprise cooperation with local enterprises. Also, this has further led to the fact that the packaging design talents trained by colleges and universities in these developing regions will choose to work in first-tier cities after graduation. Then, there is a lack of design resources in non-first-tier cities. However, the poor villages belonging to these non-first-tier cities are even less able to obtain design assistance.

3. PRACTICAL PROBLEMS TO SOLVE IN THE PACKAGING DESIGN COURSE UNDER THE "SCHOOL-AGRICULTURE COOPERATION" MECHANISM

As a two-way and mutually beneficial teaching mode, the packaging design course under the "school-agriculture cooperation" mechanism can not only directly solve the current situation of lack of practice

in the packaging design course and the practical problem of lagging development of rural agricultural products, but also further affect and solve the cognitive problems in the packaging design service field and the current situation of lack of designers in non-first-tier cities.

3.1. Solving the Problem of Lacking Practicalness in Packaging Design Course

For many packaging design courses in colleges and universities that lack cooperation with enterprises, when teachers have finished the theoretical courses, students create packaging design themes according to their own preferences, or find some packaging design solicitation activities on the Internet to create packaging design in the practice. These packaging design practices are out of touch with the real market and cannot allow students to fully learn and practice in a series of design links, such as product market research, analysis of product information and refinement, product positioning, refinement of packaging design elements, packaging creation, scheme communication, etc. Under the "school-agriculture cooperation" mechanism, the packaging design course combines the classroom practice content with the packaging design of rural agricultural products, forming one of the core professional courses with theory, practice and the ability to solve specific problems.

3.2. Helping the Rural Areas Get Rid of Poverty and Revitalize the Advantageous Agricultural Industries

Under the "school-agriculture cooperation" mechanism, the packaging design course will apply the development process of packaging design to the packaging design of agricultural products comprehensively, systematically and scientifically, including the early market research, the selection of packaging design elements, the communication with local agricultural product merchants and the completion of the final design scheme. The packaging design of agricultural products with regional cultural characteristics is easier to stand out in the sales process of the same type of products. Through their unique packaging design, products can attract the attention of consumers, convey their own product information and then drive sales [7]. The packaging design elements and regional characteristics are highly consistent with agricultural products. In this way, they can directly increase local economic income by selling agricultural products, but also spread local customs and culture through creative design, laying

the foundation for the local cultural and creative industry chain. At the same time, assistance to agricultural products can also promote the employment of rural people. Therefore, the production, transportation and sales of products would form a complete industrial chain. Poverty alleviation will be achieved by "teaching people to fish". Besides, it is conducive to help revitalizing the rural advantageous agricultural industry.

3.3. Expanding the Service Area of Packaging Design

Packaging is one of the product advertising media born under the intense market competition of commodity homogenization, which makes the practicality of packaging design closely related to products and markets. For a long time, China's design resources have tended to serve large cities, medium and high-end products, and consumer groups. Most of the design resources are concentrated in large and medium-sized cities. For a long time, the advertising media function of packaging has enabled packaging to act as a silent salesperson to sell products for businesses in various sales places, but it seems to have always belonged to brand products and big cities. The allocation of urban design resources in cities at the local level is uneven, which makes it difficult for enterprises in these areas to obtain high-level packaging design services. In addition, many small and medium-sized towns and rural operators of agricultural products and local specialties fail to realize the sales function of packaging for products due to their cognitive limitations in aesthetic and commercial awareness. Through the packaging course under the "school-agriculture cooperation" mechanism, the packaging design resources of colleges and universities are applied to agricultural products and local specialties in the docking areas of colleges, so that the packaging can transmit its own product information to rural areas through design elements such as text, graphics and color, and to provide professional and technical assistance within its power for their industrial revitalization and development after poverty alleviation.

3.4. Leading the New Direction of Employment and Retaining Design Talents for Developing Cities and Regions

Through the tracking and investigation of the employment of graduates from non-capital cities, the graduates of design majors choose to work in Beijing, Shanghai, Guangzhou, Shenzhen and other capital cities. In their consciousness, it seems that only big cities can provide job opportunities for graduates of design majors. Through the packaging course under

the "school-agriculture cooperation" mechanism, students can follow teachers to carry out scientific, systematic, real and complete design practice on agricultural products and local specialties in docking areas. In the process of teaching and design practice, students will understand that the demand for design in developing cities and regions is even more urgent. At the same time, through the teaching practice of this course, students have also mastered how to apply the saturated and mature design skills in big cities to developing cities and regions [8]. When students graduate, they not only have complete design knowledge and skills, but also master the methods and modes of design serving local cities and regions. When they get employed they will have a variety of choices, which can also provide new space and direction for graduates' employment.

4. TEACHING PRACTICE MODE OF "INDUSTRY-UNIVERSITY-RESEARCH COOPERATION" OF PACKAGING DESIGN COURSE UNDER THE "SCHOOL-AGRICULTURE COOPERATION" MECHANISM

The teaching practice of packaging courses under the mechanism of "school-agriculture cooperation" is a typical "industry-university-research" collaborative innovation project, which not only conforms to the practical teaching mode of design specialty, but also conforms to the development needs of poverty-stricken villages in urgent need of professional technology and personnel support.

4.1. "Industry"

This study conducts the teaching practice research of packaging design courses under the "school-agriculture cooperation" mechanism and is committed to making the traditional agricultural products of the docking area enter the market, thereby increasing sales, improving local economic development and providing a certain guarantee for the smooth transition from poverty alleviation to the revitalization of the village. It is suggested to promote the development of the rural economy with the preponderant discipline of design innovation, subvert the traditional image of agricultural products with intuitive aesthetic design, and meet the aesthetic needs of consumers with the packaging design of agricultural products that keeps pace with the times. The interpretation and refinement of unique regional and folk cultural elements will be applied to the packaging design of local agricultural products, which will not only let consumers consume these products,

but also let them consume their regional cultural elements. With the use of the advertising media function of packaging design, it can improve the attractiveness of products and the publicity of regional culture, enable consumers to effectively associate products with production places, help local agricultural products form a brand effect, and form a stable and sustainable industrial development model through the income generation of agricultural products. In addition, it is feasible to provide technical assistance related to packaging design for the formation of agricultural product industry chains in rural areas, and to assist with the bottleneck problems encountered in the transformation from poverty alleviation to revitalization.

4.2. "Universities"

This course includes an understanding of the specific current situation of universities' connection with the countryside, the development needs and implementation conditions of agricultural products and local specialties, and the innovative application of packaging design in combination with local cultural characteristics. The whole course practice not only exercises students' design thinking ability, but also improves students' design practice ability. As the course is a team cooperation project under the "school-agriculture cooperation" mechanism, it can also cultivate students' ability to communicate, cooperate and work together. The design practice background and purpose of "poverty alleviation and rural revitalization" can cultivate students' feelings of caring for society and willingness to share knowledge and skills. This set of teaching and research models is guided by solving the practical problems of insufficient development in the transition period of rural poverty alleviation and revitalization. It truly achieves the goal of "throwing a sprat to catch a herring" and provides technical assistance for the smooth transition of the rural economy from poverty alleviation to revitalization. At the same time, it also makes the teaching level of packaging design courses in colleges and universities have better practical significance and research value. Universities have fully tapped their advantages in manpower, intelligence and technology, so that teachers and students can participate in the "school-agriculture cooperation" work. Besides, they can deeply learn the theoretical knowledge and practical skills of the course in the process of participation, in order to truly achieve the win-win and coordinated development of "poverty alleviation, rural revitalization" and "education and teaching".

4.3. "Research"

"School-agriculture cooperation" is not only a new teaching model worthy of study and improvement, but can also strengthen the construction and development of school teaching teams, enhance the interaction between teachers and students, and promote the exchange of disciplines and social needs. At the same time, there will be the formation of a good atmosphere in which teachers' teaching and scientific research have a team and direction, and there will be a platform and guidance for students' learning and practice. It is suggested to improve teachers' teaching ability through teaching research and practice, and to improve students' professional quality, design skills and cooperation ability. In addition, the practical content in the teaching process is also the research and design practice of the localization of packaging design. The knowledge generated will enrich the theoretical research and design practice of the combination of packaging design and local elements.

5. CONCLUSION

Under the mechanism of "school-agriculture cooperation", this study takes the "poverty alleviation and rural revitalization" of China's rural construction as the research background and uses the packaging design curriculum to help universities connect with villages to realize the curriculum teaching practice from "poverty alleviation" to "revitalization". Besides, it is required to give full play to the specialty of design, go deep into poverty-stricken areas to make packaging design serve agricultural products, and take the "industry-university-research" teaching practice mode of combining theory with practice. Based on the actual situation of the targeted docking area of universities, with help of the intervention of the packaging design curriculum, those good products "unknown to people in the mountains" enter the market and have a certain competitiveness. Through the joint efforts of universities and villages, professional industrial teams are established to improve the packaging image of agricultural products that help the villages, help the rural people increase income, and realize the integration of industry, teaching and research. It is feasible to achieve a win-win situation among the increase in people's income in the docking area, the "school-agriculture cooperation" project, the teaching quality of packaging courses, and students' professional learning, rather than "one-way help" which is an assistance mode of the interactive and sustainable development industry chain. Therefore, it is required

to solve the problem of unsalable high-quality agricultural products in poverty-stricken areas, in order to promote the development of agricultural products in rural areas, help "rural revitalization" and contribute to the realization of a well-off society in an all-round way.

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