

Talent Training Mode and Employability of Art and Design Majors at A Chinese Engineering University

Mei Lu

Graduate School, Emilio Aguinaldo College, Manila, Philippines

Abstract: Employment is the foundation of people's livelihood. The employment problem of college students is a complex and comprehensive problem. How to break through the limitations of the established education model and cultivate the high-quality composite talents required by the market is an important task for the reform of higher education talent training model in the new era. This study aims to explore the relationship between talent training mode and employability of art and design majors to reform the talent training mode and improve students employability. Based on quantitative research methods, 192 senior students respondents were selected from the Shandong J University and questionnaires were distributed to collect data. The statistical results showed that more female students are being drawn to major in arts and design in a Chinese engineering institution. Regardless of the respondents' gender, the opinions on planning and communicating, learning, and managing oneself are the same and the two variables have a significant degree of association. Based on the results of the study, the researcher proposed an enhanced talent training model towards to improving students' employability.

Keywords: Art and Design Major, Employability, Engineering University, Talent Training Mode.

1. Introduction

Employment is the foundation of people's livelihood. After China's higher education has entered the stage of popularization, the employment situation of college students has become more and more severe, and the employment issue has attracted great attention from all walks of life. The employment problem of college students is a complex and comprehensive problem. The structural shield between the professional structure, quality and concept of graduates and the needs of the society is a universal and deep-rooted problem, which is an important "bottleneck" that affects and restricts the employment of undergraduates for a long time.

The traditional higher education talent training mode is to a certain extent not adapted to the market demand for talents. In the background of knowledge economy, the progress of society and the development of China's economy increasingly need high-quality composite talents. How to break through the limitations of the established education model and cultivate the high-quality composite talents required by the market is an important task for the reform of higher education talent training model in the new era.

2. Organization of the Text

2.1. Framework

2.1.1. Theoretical Framework

For more than half a century, there have been numerous researchers on human capital theory, the more influential being Theodore Schultz, Jacob Mincer, and Gary Becker. Schultz is the pioneer of modern human capital theory. In 1960, he delivered a lecture on "Investment in Human Capital" at the annual meeting of American economics, which not only clearly introduced the concept of human capital, but also discussed the nature of human capital, the content and ways of human capital investment, the key role of human capital in economic growth, and other basic principles and policy implications of human capital theory, which in turn triggered other researchers to study human capital theory with

enthusiasm.

Up to now, there are many researchers with their own ideas on the human capital perspective, but there is a high degree of agreement on two basic understandings of human capital theory: first, that schooling can increase an individual's productive capacity; and second, that individuals with higher productive capacity can earn higher individual labor income, i.e., wages, in the labor market. These two basic ideas are represented in the following diagram as the basic theoretical model of human capital theory.

Another theory is career planning theory. Shartle (1952) considered career as a general term for the occupations or positions that a person experiences during his or her working life. Mcfarland (1969) considered career as a series of job choices and related educational or training activities based on long-term goals in one's mind, and as a planned career development process. Generally speaking, career varies in emphasis depending on the perspective from which it is articulated, but broadly speaking, career refers to the course of work or career-related activities that an individual engages in throughout his or her life.

The concept of occupation in economics includes four main aspects: 1. occupation is a labor role acquired by workers in the system of social division of labor, and occupation has its roots in the social division of labor; 2. occupation is a social activity and has a social character; 3. occupation has continuity and stability; 4. occupation has an economic character.

Career has the following four meanings :1. Career only refers to the whole experience one has spent in various career positions in one's life. It does not contain the meaning of success or failure, nor the meaning of the speed of progress. 2. There are two aspects of career: external career and internal career. External career refers to the continuum of various activities and behaviors performed by a person in the working period, while internal career planning refers to the subjective characteristics of career, involving a person's values, attitude, needs, motivation, temperament, ability, development orientation and so on. 3. A career is a process, a continuum of

work-related experiences throughout a person's life, not just a period of work. 4. Career is influenced by various aspects, and to some extent, career can be considered as the result of the interaction of many aspects.

2.1.2. Statement of the Problem

Categorically, the study gathered the following data: (1) the profile of the respondents in terms of: 1.1. Sex 1.2. Major; (2) the assessment of the respondents on talent training mode of art and design major in terms of 2.1. School curriculum setting, 2.2. Students' engagement and 2.3. Teachers teaching plan; (3) the assessment of the respondents on their employability in terms of 3.1. Professional Knowledge Application Ability, 3.2. Professional Innovation Ability, 3.3. Team Cooperation Ability, 3.4. Communication and Coordination Ability, 3.5. Learning Ability, and 3.6. Self-Management Ability; (4) the significant difference on the respondents' assessment of their talent training mode of art and design major when their profiles are taken as test factors; (5) the significant difference on the respondents' assessment of their employability when their profiles are taken as test factors; (6) the significant relationship between talent training mode and employability of art and design major and (7) the output of the research is to proposed a program that aims to revolutionize the talent training model in art and design majors and improve the employability of students in such majors.

2.2. Research Methodology

2.2.1. Research Design

In this study, the researcher adopted a descriptive research

design under quantitative research, focusing on the analysis of the relationship between the new model of talent training and the employability of graduates. A correlational study is one that looks for connections between variables and uses that information to forecast what will happen in the future.

The adopted questionnaires have undergone the test of reliability with Cronbach's Alpha of 0.90. Prior, a content validation procedure with the help of experts was conducted.

2.2.2. Instrumentation

The questionnaire was created by the researcher based on the purpose and questions of the study. The first part of the questionnaire consists of a description of the respondents' profile. The second part includes students' evaluation of the art and design talent training model which contains school's curriculum, students' individual participation, and teachers' teaching programs. The third part is the respondents' personal evaluation of their employability, which is divided into 6 sub-variables with three to four statements for each sub-variable.

The questionnaires produced by the researchers were submitted to the experts for approval, and Cronbach's Alpha was used to determine the internal consistency.

2.3. Figures

This section presents, analyzes, and interpret the data gathered on talent training mode and employability of art and design majors at a Chinese Engineering university.

Table 1. Profile of Respondents

Variable	Category	f	Percent
Sex	Male	73	38.0
	Female	119	62.0
Major	Environmental Design	128	66.7
	Visual Communication Design	32	16.7
	Industrial Design	32	16.7

Table 1 presents the profile of respondents on sex and major in the engineering field. It infers that there are more (f= 119, 62.0 percent) females than their male (f=73, 38 percent) counterparts. On the other hand, many (f=128, 66.7 percent)

of these respondents are majoring Environmental Design; and the rest are taking up Visual Communication Design (f=32, 16.7 percent), and Industrial Design (f= 32, 16.7 percent).

Table 2. Assessment of Talent Training Mode of Arts and Design Students

Indicators	\bar{X}	SD	QD	VI	R
1. School Culture	3.086	.622	Agree	High	2
2. Student Engagement	3.066	.5985	Agree	High	3
3. Teachers' Teaching Plan	3.158	.573	Agree	High	1
Composite Mean	3.099	.601	Agree	High	

Legend: 3.51– 4.00 (Strongly Agree- Very High); SA 2.51 – 3.50 (Agree-High); 1.51 – 2.50 (Disagree-Low); 1.0- 1.50 (Strongly Disagree-Very Low)

This information infers that the implementation of the

Talent Training Mode of Arts and Design is somewhat strong in implementing the curriculum which translates to the teachers' plan on instruction but needs to review its delivery so that there will be improved student engagement.

Table 3. Summary of the Assessment on Employability of Arts and Design Students

Indicators	\bar{X}	SD	QD	VI	R
1. Professional Knowledge Application Ability	3.22	.560	Agree	High	4
2. Professional Innovation Ability	3.21	.571	Agree	High	5
3. Team Cooperation Ability	3.26	.578	Agree	High	2
4. Communication and Coordination Ability	3.27	.533	Agree	High	1
5. Learning Ability	3.25	.561	Agree	High	3
6. Self-Management Ability	3.17	.561	Agree	High	6
TOTAL	3.17	0.561	Agree	High	

Legend: 3.51– 4.00 (Strongly Agree- Very High); SA 2.51 – 3.50 (Agree-High); 1.51 – 2.50 (Disagree-Low); 1.0-1.50 (Strongly Disagree-Very Low)

The students appear to concur that the program's employability is high, as seen by the overall mean of 3.172,

which is highly skewed (SD= 0.561). In other words, the students' coordination and communication skills are strong (WM= 3.27, R=1), but their self-management ability are lacking (WM= 3.17, R=6).

Table 4. Correlation Between Talent Training Mode and Employability of Arts and Design

Indicators	Pearson Correlation	Sig	Decision on Ho	Interpretation
Talent Training Mode / Employability	.000	.685**	Reject	Significant

The r value of .000 and Sig. Value of .685 rejects the null hypothesis of no significant relationships. In other words, it points to the fact that there is high correlation between the two variables.

3. Literature References

3.1. The importance of employability

Some scholars have explained the importance of college students' employability to society, for example, Xue, et al. [1] indicated that the construction of social system of college students' employability cultivation can not only help college students achieve better employment and raise enterprise value gain, but also fundamentally improve college students' employment rate and alleviate structural contradictions in employment. According to Hora, et. al. [2] and Wang, et. Al. [3], the construction of social system for college students' employability training can be done through the following main paths: the government establishes vocational information network system and introduces policies and regulations to promote school-enterprise cooperation; enterprises actively participate in establishing school-enterprise communication and feedback channels to refine the talent selection mechanism; universities establish stable, diversified and in-depth school-enterprise communication channels to optimize the employability training mode; college students timely understand the employability requirements of target jobs and actively reduce the distance between themselves and the market. The university students can understand the requirements of the target jobs and take the initiative to narrow the distance between themselves and the market, etc.

3.2. Talent training mode of art and design students

The concept of "new liberal arts" is proposed by Varlotta [4], which is a newer and higher requirement for the discipline construction and talent training in the new era of universities. As a major closely related to daily life, art and design should

also keep pace with the development of the overall discipline construction, especially the training mode of talents in colleges and universities, which needs to be integrated and optimized, multi-disciplinary integration, and steadily move forward towards a multi-faceted, composite, and applied talent training mode with both art and technology.

The socialist market economy is developing rapidly, and the market operation as a long-term and dynamic process, the market demand will be different at different times, and the demand of the society is also different, according to McDonagh [5]. Therefore, art design students should understand the development of the market and base their art design on the needs of the society, so that they can keep pace with the times. Therefore, students must strengthen their individual foresight and foresight, and follow the footsteps of the times and social development, so as to design artworks that meet the market demand.

3.3. The relationship between talent training mode and employability

In the current development of China's social environment, the demand for art and design professionals is increasing, but the quality of social industries for such talents has also been significantly improved. In this case, the training mode of college art and design professionals should be combined with the actual situation for targeted reform and innovation. Wen [6] expounded the importance of career orientation to the talent training of college art and design majors, and on the basis of clarifying the dilemma of the existing talent training mode, finally put forward the effective reform and innovation of talent training mode from five aspects, such as optimizing the goal of talent training, expanding the curriculum system of majors, improving the faculty strength of colleges and universities, giving full play to the role of school-enterprise cooperation, and actively carrying out career education. Meanwhile, Zhao, et al. [7] stated that due to different training programs and teaching environments, educational technology talents cultivated by engineering colleges have characteristics different from those of teacher training colleges and

comprehensive colleges, and their employment rate is low. They researched and established the model of training educational technology professionals in engineering colleges and universities with high quality technology and application, which aims to improve their employability by combining general specialization and science and practice. The purpose of this model is to meet the needs of technical posts of various modern enterprises and institutions for the talents of educational technology majors in engineering colleges, to improve their employability, to expand their market influence and to increase their market acceptance rate.

4. Conclusion

The results of this investigation led to the following conclusions:

1. In a Chinese engineering institution with an Environmental Design major, more female students are being drawn to major in arts and design.

2. In the chosen locale, the culture of the schools places a great value on good supervision and the documentation of course evaluations.

Although there are many volunteer options available, there is little student commitment to OJT positions that are unrelated to their majors.

3. The respondents' perceptions of the school culture, student involvement, and teachers' lesson plans in the target location are noticeably dissimilar from one another. Additionally, data shows that men and women have distinct perspectives on these characteristics.

4. The university excels at coming up with solutions to operational issues, but it requires support when it comes to conducting research.

In summary, the students' coordination and communication abilities are good, but their professional innovation skills are insufficient, according to the summary on employability.

5. Regardless of the respondents' sex, the opinions on planning and communicating, learning, and managing oneself are the same. The evaluations of the students in various Art and Design courses are basically the same, regardless of the students' majors. This can be explained by the possibility that they developed the same attitude in these disciplines.

6. The two variables have a significant degree of association. This may imply that when done well, school culture, student engagement, and teachers' lesson plans boost students'

employability in the arts and in trades.

Acknowledgment

I would like to acknowledge and thank the following important people who have supported me not only during the course of this research, but throughout my PhD study.

Firstly, I would like to express my gratitude to my adviser for her unwavering support, guidance and insight throughout this research.

I would also like to thank the professors who offered help to me continually. Without their encouragement and comprehensive advice, this research would not have been possible.

And finally, I would like to thank all my close friends and family. You have all encouraged and believed in me. You have all helped me to focus on what has been a hugely rewarding and enriching process.

References

- [1] H, Xue. "college students employment ability training social system build path." *journal of north China water conservancy and hydropower university (social science edition)*, 38.04 (2022) : 78-83.
- [2] Hora, Matthew T., Ross J. Benbow, and Bailey B. Smolarek. "Re-thinking soft skills and student employability: A new paradigm for undergraduate education." *Change: The Magazine of Higher Learning* 50.6 (2018): 30-37.
- [3] Wang, Shan, et al. "Teachers' transformational leadership and students' employability development: A social cognitive career perspective." *Social Behavior and Personality: an international journal* 48.5 (2020): 1-15.
- [4] Varlotta, Lori. "Designing a Model for the New Liberal Arts." *Liberal Education* 104.4 (2018): n4.
- [5] McDonagh, Naoise. "China's socialist market economy and systemic rivalry in the multilateral trade order." *Australian Journal of International Affairs* 76.6 (2022): 712-733.
- [6] J. Z. Wen. "On the Reform and Innovation of the Training Mode of Art Design Professionals in Colleges and Universities under the guidance of Vocational Competence." *China Nationalities Expo*.20(2021):91-93.
- [7] Zhao Ya, et al. "to improve college students' employment ability education technology professional personnel training mode of engineering college and university study." *knowledge Tribune*. 6 (2016) : 130-131.