



Employability Strategy by Focusing on Soft Skill Development of Animation Students in the Metaverse Job Market

Tongfeng Xu ¹, Jirawan Deeprasert ^{2*}, Kessara Kanchanapoom ³

¹ Ph.D Candidate, Rattanakosin International College of Creative Entrepreneurship, Rajamangala University of Technology Rattanakosin, Salaya, Thailand.

^{2*} Assistant Professor, Rattanakosin International College of Creative Entrepreneurship, Rajamangala University of Technology Rattanakosin, Salaya, Thailand.

³ Ph.D, Faculty of Management Science, Silpakorn University, Cha-am, Thailand.

* **Corresponding Author:** jirawan.dee@rmutr.ac.th

Citation: Xu, T., Deeprasert, J., Kanchanapoom, K. (2024). Employability Strategy by Focusing on Soft Skill Development of Animation Students in the Metaverse Job Market. *Educational Administration: Theory and Practice*, 30(2), 162-171. doi: 10.52152/kuey.v30i2.1052

ARTICLE INFO

Received: 30 Oct 2023
Accepted: 28 Dec 2023

ABSTRACT

This research delves into the viewpoints of various stakeholders concerning the essential soft skills that animation students must possess to enter the workforce within the Metaverse. Employing a qualitative methodology, the study conducts 30 semi-structured interviews involving project managers from Metaverse companies, animation teachers, and animation students. The findings underscore unanimous consensus among stakeholders regarding the critical importance of imagination, teamwork, communication, and problem-solving capabilities as fundamental soft skills for animation students aiming to excel in the Metaverse job market. While aesthetic skills, continuous learning aptitude, and time management proficiency garnered recognition from all three groups of stakeholders, they held less central positions. The study acknowledges the constraints stemming from its qualitative approach and limited sample size, prompting circumspection in extending findings to other sectors. However, the delineated strategies for enhancing soft skills carry pragmatic implications, offering the potential to enhance the employability of animation students and empower them to effectively navigate career hurdles post-graduation. By amalgamating the perspectives of stakeholders, this research empirically contributes to the development of comprehensive frameworks for nurturing animation talent within educational institutions.

Keywords: Soft Skills, Animation Students, Metaverse, Qualitative Research, Strategies.

INTRODUCTION

The current demand for talent in China's animation industry is as high as 600,000, while the number of related professionals is only 300,000, which is far from enough to meet the needs of job vacancies (Bao, 2022). Despite the vast number of graduates each year, companies still find it challenging to find suitable candidates, resulting in many animation graduates facing unemployment upon graduation. Against this background, the Chinese animation talent pool is insufficient, unfavorable to China's desire to use animation to increase its international influence. To address this issue, researchers in China believe that universities are focused on training students in the hard skills needed for future jobs and neglect to teach the soft skills that employers value, which leads to students being rejected by employers when applying for jobs (Cheng & Wang, 2023). Although soft skills are becoming increasingly important in the modern workplace, employers are more inclined to recruit candidates who have specialized knowledge, work well in a team, and can solve problems (Yong & Ling, 2023). However, current animation students are incapable of doing teamwork, and even communication skills are lacking (Zhao & Li, 2019). Lin (2023) stated that the animation talents needed by enterprises could not only have professional skills but also need to have soft skills such as communication and teamwork; Ge (2022) noted that

animation students need to recognize the importance of teamwork in soft skills to be better prepared for future employment. Therefore, to better address this issue, universities need to be helped to identify the soft skills that animation students will need for their future jobs and develop strategies that can enhance them.

Developing a relatively comprehensive strategy requires adopting perspectives among stakeholders to identify deeply the problems faced (Cai, 2023). This will ensure that the responses generated will consider all parties' needs and solve the problems more effectively. However, few researchers have conducted empirical studies on animation students' soft skills from the stakeholders' perspective. The researcher searched the keywords "animation students," "soft skills," "empirical evidence," and "stakeholders" using CNKI and Web of Science databases. There were approximately 32 papers related to the soft skills of animation students between 2013-2023 that mentioned stakeholders, but none of these studies were empirical. As a result, there is a research gap in empirical studies exploring animation students' soft skills from a stakeholder perspective. However, there are many industries suitable for animation students, and to fill this research gap, the researcher needs to interview employers in industries suitable for animation students systematically. Since the data to be analyzed is too complex and large, the researcher selected the metaverse industry based on the animation industry's trend to fill part of this research gap. The reasons for choosing the metaverse industry are as follows.

First, the construction of the metaverse visual system relies on animation designers to produce completed animated virtual characters, scenes, and animation effects, and these needs coincide with the technical skills that animation students possess (Han, 2022). Secondly, the future development trend of the metaverse industry in China is favorable because all regions in China want to create metaverse demonstration areas and form industrial and have a positive attitude towards the development of metaverse (Xing, 2023). Finally, the Chinese animation industry can utilize the metaverse to create excellent and immersive animation works to maintain its competitiveness compared with its global counterparts (Luan, Wang, & He, 2022).

What are the essential soft skills that animation students must possess to fulfill the demands of the Metaverse job market? As the domain of virtual reality, augmented reality, and immersive digital experiences continues to expand, employers in this Metaverse job market? As the domain of virtual reality, augmented reality, and immersive digital experiences continues to expand, employers in this field are not solely prioritizing technical expertise but also underlining the significance of soft skills. These encompass effective collaboration, innovative problem-solving within an ever-changing landscape, and adeptness in communicating intricate ideas to diverse audiences. Proficiency in merging artistic creativity with technological innovation, alongside a solid foundation in these highly sought-after soft skills, will be pivotal for animation students aspiring to excel in the Metaverse job market.

This research aims to explore how different stakeholders perceive the soft skills necessary for animation students to successfully enter the workforce in Metaverse. As the digital landscape expands into realms like virtual and augmented reality, it becomes increasingly important to identify the specific soft skills that hold value in this industry. This investigation will involve gathering insights from various stakeholders, including educators, industry professionals, and students, to understand their viewpoints. Secondly, building on the findings, this study intends to devise effective strategies geared towards enhancing and honing the soft skills of animation students. By closing the gap between academic preparation and industry requirements, this research seeks to provide valuable input to both education and the professional sphere. Its ultimate goal is to equip future animators with the right soft skills set to excel in the Metaverse job market.

LITERATURE REVIEW

The metaverse first appeared in Neal Stephenson's 1992 science fiction novel *Snow Crash* as an interactive 3D virtual environment featuring avatars (Tilak et al., 2020). Rather than being a substitute or antithesis of reality, the metaverse is generally recognized as the fusion of the natural and virtual worlds (Smart et al., 2007). The metaverse utilizes technologies such as virtual reality (VR), augmented reality (AR), and the Internet to project the real world into the digital world. People can build social and living in the metaverse through avatars, enabling the integration of the natural and virtual worlds. Digital transformation and online interactions have attracted users to game and social metaverse platforms such as Roblox, Zepeto, Minecraft, and Fortnite. The user base of virtual world platforms is increasing, especially among the younger generation familiar with online activities. Hence, the market size of these platforms is also expected to increase. At the same time, research on the metaverse is being carried out in various fields, given that the metaverse has evolved as a significant global trend (Hwang & Koo, 2023). As the metaverse market expands rapidly, the demand for animation professionals in the metaverse job market increases.

The visual part of metaverse gaming platforms like Roblox is designed by designers related to animation

majors (Han, 2022). Using the user avatars in the Roblox Metaverse game as an example, users can create their avatars in the game system according to their preferences and aesthetics. In contrast, the materials for creating animated avatars are designed and produced by designers. These materials mainly include the head, body, limbs, hair, clothing, etc., of the animated avatar, and the design of these materials is closely related to the animation major. Because letting animation students learn to design the faces, hairstyles, and expressions of animation characters is an integral part of the Chinese animation professional curriculum, it is also a hard skill that every animation student must have (Zhan & Cheng, 2014). At the same time, as the builders of the Metaverse visual system, animation talents will be highly sought by the Metaverse job market (Han, 2022).

Williams (2015) termed soft skills as non-technical skills that include interpersonal, human, people, or behavioral skills required to apply the technical skills during employment. Employers seek soft skills in addition to appropriate technical knowledge and skills (Yong & Ling, 2023). Thus, Finch, Hamilton, Baldwin and Zehner (2013) suggested that graduates must develop soft skills competitively, i.e., those prioritized by employers, to secure a place in the job market. In addition, soft skills evolve and change with the labor market, which means that people need to learn soft skills continuously not to become obsolete in the new era (Succi & Canova, 2019). It also states that increased soft skills development increases the chances of better employment opportunities and workplace success (Yong & Ling, 2023).

Lee and Yoon (2021) state that this is an era of Industrial Revolution 4.0, where artificial intelligence (AI) or programmed robots take over many workloads and tasks. Although AI serves as the engine that can make the metaverse work, there is currently no way to issue the ability to replace humans to realize the theories and technologies that allow machines to perform various tasks autonomously (Guan, 2023), because AI lacks human-specific abilities such as imagination, interpersonal skills, and moral judgment. Yong and Ling (2023) also point out that AI cannot replace humans entirely because machines do not possess soft skills - human skills. However, it is worth noting for animation students that the emergence of AI drawing has made it more difficult for them to find jobs. It is because AI drawing can automatically generate animation characters, scenes and other parts of the material, it lowers the technical threshold of the pictures, thus shortening the drawing skills gap between low-drawing-level and medium-drawing-level animation designers. However, although AI drawing reduces the barrier to drawing skills, subjective skills such as imagination are still unique to animation designers. As a result, companies in the job market will have stricter requirements for animation talents, especially for students' soft skills such as imagination and problem-solving (Cai, 2022). Against this background, employers in the animation industry will also include soft skills as a significant consideration rather than simply the more quickly measured hard skills. Therefore, soft skills enhancement is essential for animation students to find jobs related to the animation profession, and it is needed to develop a strategy for them to enhance their soft skills.

A stakeholder is any group or individual affected by or can influence the achievement of an organization's goals (Freeman & Veal, 2001). Based on this definition, the stakeholders relevant to this study are the animation teachers, and students, project managers of the companies associated with the metaverse for the following reasons.

First, animation teachers are the organizers and implementers of improving animation students' employability. After students enter the university, teachers make students acquire the necessary professional knowledge and comprehensive qualities required for future work through classroom teaching. Therefore, animation majors' teachers meet stakeholders' requirements directly related to this study. Secondly, animation students, as the core beneficiaries of soft skills enhancement, are supposed to meet the stakeholders' requirements directly related to this study. Finally, employers are the direct measure of college students' employability (Zhang, 2017). In the massification of higher education, one of the critical measures of college students' employability is whether or not employers hire them. In this study, Metaverse-related companies serve as the leading employers, so their opinions are significant for the improvement of the soft skills of animation students.

METHODOLOGY

Sampling Method

The researcher first used purposive sampling to select initial pre-interview respondents to determine whether Metaverse employers knew about the animation majors and whether animation teachers and students learned about Metaverse. As the student group, senior animation students have more sufficient work experience than animation students in other years. Therefore, the student sample for this qualitative study will be primarily senior animation students with Metaverse work experience. The snowball method was then used. That is, the initial

respondents (employers of Metaverse companies who know the animation profession, teachers and students of the animation profession who know Metaverse) were used to find other respondents suitable for this study, thus gradually expanding the coverage of the sample and finally obtaining the number of samples that fit this study. Eventually, this study consists of ten project managers from companies related to Metaverse, ten animation teachers, and ten senior animation students from universities offering animation majors in the Beijing area.

The main reason for choosing Beijing for this study is that Beijing has more metaverse companies. According to "Hurun China Metaverse Companies with the Greatest Potential 2022" released by Hurun Research Institute in June 2022, the metaverse companies in Beijing account for the essential proportion, over 25%. This means that animation students in Beijing have more opportunities to participate in Metaverse-related internships than in other regions. Animation students with metaverse-related internship experience can describe in more detail the requirements of metaverse companies for soft skills and discover more strategies to improve soft skills. Secondly, many Metaverse-related activities are currently organized by Beijing universities offering animation majors.

Data Collection Techniques and Tools

This study utilized a semi-structured interview method for data collection. This method allows for reciprocity between the interviewer and the respondent, generating new ideas and follow-up questions based on the respondent's answers (Galletta & Cross, 2012). This means that interacting with them gives the researcher a deeper understanding of each stakeholder's perception of animation students and provides information different from the existing literature.

The researcher used online (network teleconference) and offline (face-to-face) methods to interview the respondents, depending on their willingness to join in terms of efficiency and quality of data collection. The main questions of the interview as shown in [Table 1](#).

Table 1. Stakeholders' interview questions

Interview questions for managers	Interview questions for teachers	Interview questions for students
Do you understand the soft skills of animation students?	Do you know the metaverse?	Have you worked on any metaverse-related projects?
What do you think about the importance of soft skills in the metaverse industry?	What do you think about the importance of soft skills in the metaverse industry?	What do you think about the importance of soft skills in the metaverse industry?
What do you think are some of the soft skills that will help animation students find work in the Metaverse job market?	What do you think are some of the soft skills that will help your students find work in the Metaverse job market?	What do you think are some of the soft skills that will help you find work in the Metaverse job market?
Why do you think these soft skills will help animation students find jobs in the Metaverse job market?	Why do you think these soft skills you mentioned help your students find jobs in the Metaverse job market?	Why do you think these soft skills you mentioned help you find jobs in the Metaverse job market?
What do you want universities and teachers to do to help animation students develop the soft skills you just mentioned?	What do you want the university and teachers to do to help your students develop the soft skills you just mentioned?	What do you want the university to do to help you develop the soft skills you just mentioned?

To ensure the accuracy of the data, the researcher transcribed and read each interview multiple times and subsequently coded and analyzed the compiled data using NVivo.

RESULTS

Soft Skills Coding Results

The [Table 2](#) below illustrates stakeholder assessed soft skills, detailing perceptions of personal, social, and working abilities, segmented by imagination, communication, teamwork, continuous learning, and problem-solving skills from managers, teachers, and students.

Table 2. Coding analysis from stakeholders

Selective coding	Axial coding	Open coding	Number of sources of material			
			Manager	Teacher	Student	Total
Soft skills	Personal ability	Imagination	10	9	9	28
		Aesthetic ability	2	3	4	9
	Social ability	Communication skills	7	8	7	22
		Teamwork skills	8	7	7	22
	Working ability	Continuous learning ability	3	2	1	6
		Problem-solving skills	8	6	5	19

Imagination

Throughout the interviews, most of the interviewees mentioned imagination as a necessary soft skill for animation students. This is because the success of fictional and imaginative animation works is closely related to the creators' unique imagination (Zheng, 2019). The metaverse, as a virtual world, can also be constructed and developed without the imagination of animation students. About ninety-three percent of these respondents said that imagination is an important soft skill, as they said:

Manager 6: A great imagination helps students create characters and scenes that are versatile and appealing to consumers, thus making their animation work stand out in a competitive market.

Teacher 6: One of the primary sources of competitiveness of Metaverse's products is the novel design ideas, and realizing these novel designs requires a rich imagination as a basis.

Student 5: Imagination helps me to finish my work on time. When the company asks me to design an animated scene, I visualize the history and culture behind it and what animated characters it could use. These visualizations drive me to develop a new animation scene to ensure that I can complete the work assigned to me by my leaders on time.

Esthetic Ability

Imagination can help students or staff to create creative animated characters and scenes. Still, if they want these characters and settings to be more artistically appealing, they also need students to have specific aesthetic abilities.

Manager 4: An excellent animation talent must possess solid aesthetic ability. This is because students with aesthetic ability create animations full of artistic impact and life while satisfying consumers with different aesthetic needs.

Student 2: Aesthetic ability can help us to recognize and respect the relationship between different cultures and art; people with aesthetic skills to create works can often attract the attention of many users because the productions of both the author's subjective personality also will understand the needs of different groups and design a different style.

Teacher 4: Aesthetic ability is the ability to appreciate beauty. This aesthetic ability is subjective. That is to say; after completing their work, animation students first need to make an aesthetic assessment of their jobs to make a preliminary judgment of whether it is in line with their original design intention and creative goals.

Teamwork Skills

The construction of virtual worlds in the metaverse requires the joint efforts of talents in several fields, including animation production, blockchain, and interactive technology. Therefore, only people with good teamwork can better accomplish the task of building virtual worlds. Seventy percent of stakeholders believe that teamwork is a necessary soft skill for animation students.

Manager 5: When animation designers design a new product, they first need to understand the specific needs of the user, the enterprise, and the requirements of the launch of new products as soon as possible; there is not much time for designers to understand. This requires the cooperation of multiple animation designers to understand the user's needs from different perspectives.

Student 10: Since the metaverse product is limited in content, presenting all of the team members' ideas is impossible, so the team members must collaborate. Several discussions and refinements between members are needed to select the most suitable content to express the product.

Teacher 8: The process of producing a metaverse project usually requires the collaboration of multiple professionals. Each of these people has different skills and experience, and it is only through good teamwork that

they can combine their strengths and work together to produce a high-quality project.

Communication Skills

Effective communication ensures that information flows smoothly and that there is a better understanding of each other's ideas, opinions, and needs within the team. This helps team members build consensus and promotes cooperation. The results of the interviews were similar to the teamwork skills, and seventy percent of the stakeholders considered communication skills as a necessary soft skill for animation students.

Manager 1: After the animation designer has defined the features and movements of this virtual animated character, they need to communicate and exchange ideas with the programmer, who may need to write the code according to the animation designer's ideas to achieve the desired effect. Therefore, close communication between them is necessary to ensure the smooth running of the project.

Student 8: In school and my internship, I often encountered situations where my ideas were not approved, and I needed to repeatedly communicate, discuss and share my thoughts with teachers, group members, or leaders. That's why communication skills are essential both at school and at work. Only excellent and effective communication can produce more solutions.

Teacher 3: Communication skills often directly determine whether a student's design will be adopted in a team; for students, whether in the company or the school, just doing their design is not enough but also being able to persuade people to accept their solutions, understanding of other people's opinions and feedback, and cooperate with the other members of the team to complete the assignments assigned by the teacher or the company's assigned tasks.

Continuous Learning Ability

Only with good continuous learning ability can college students gain more knowledge and improve their comprehensive strength (Liu & Chen, 2023). Since the metaverse is a relatively new field, animation students must continuously learn new knowledge to maintain their employment competitiveness.

Teacher 5: If students are unwilling to follow the pace of the times to master new skills and knowledge, like using AI drawing to improve their drawing efficiency. In that case, they will likely be replaced by AI automatic drawing programs. That's why students need to have the ability to learn continuously, always pay attention to and understand the development trend related to the animation and metaverse industry and adjust their learning direction in time.

Manager 2: Employees or internship students whose professional skills and knowledge cannot meet the requirements will be eliminated from the company. In order not to be dismissed, employees or internship students need to improve themselves through continuous learning and improve their professional skills and knowledge.

Student 9: There is so much unknown knowledge in a relatively new field like the metaverse. My current expertise probably covers at most about twenty percent of this unknown knowledge. Hence, I must keep learning to keep my knowledge in line with future market trends to ensure I can create forward-thinking animation works.

Problem-Solving Skills

Problem-solving skills are sought by employers as many companies rely on their employees to identify and solve problems (Suarta & Suwintana, 2021). About sixty-three percent of the stakeholders in this study made similar points.

Manager 7: In the face of the metaverse product not meeting the user's expectations of the use of the problem, animation designers with the ability to solve problems will take the initiative to collect the user's feedback and communicate with the relevant personnel, in-depth investigation and research, to ensure that a comprehensive understanding of the problem, followed by the development of a targeted solution.

Student 1: During my internship, I need to summarize my experience in solving problems frequently and by analogy to find out some potential issues that may exist to improve my ability to prevent and solve problems. In this way, when I face similar situations next time, I won't panic, and I can efficiently deal with the requirements of users and leaders.

Teacher 2: Students with independent problem-solving skills do not need frequent guidance from their supervisors but can think and act independently, sometimes taking the initiative to avoid potential problems.

Soft Skills Development Strategy

Through stakeholder interviews, the researcher summarized the essential soft skills needed for animation students to enter the metaverse job market work to get a job. Highly recognized among these were imagination

(mentioned by about 93 percent of stakeholders), teamwork skills (70 percent), communication skills (70 percent), and problem-solving skills (about 63 percent). In contrast, aesthetic skills (30 percent) and continuous learning skills (20 percent) were not mentioned as much.

In response to these soft skills commonly mentioned by the stakeholders, the researcher interviewed them. The stakeholders were asked how universities or teachers can improve the soft skills you mentioned. Their suggestions were summarized into three enhancement strategies. First, stakeholders believe that the key to developing students' teamwork, communication, and problem-solving skills is that schools and businesses must work together to build internships.

Teacher 3: The company's employees have accumulated rich experience in problem-solving in practice, and students can learn more effective problem-solving methods and strategies by working with them. In addition, Through communication and collaboration with business professionals, students will gradually develop a sense of teamwork, and their communication skills will be enhanced.

Manager 1: Students will inevitably face work-related problems at the internship site. However, by experiencing and solving these problems in advance, students can solve similar issues in an organized manner in their future work. At the same time, to better integrate into the team and better assist the company staff in completing their tasks, students will take the initiative to understand their job duties and functions from the company staff and clarify the importance of what they do to the whole team, as well as to understand the responsibilities and tasks of other people. This process will exercise their own communication and teamwork skills.

Student 10: Universities should actively cooperate with companies to establish internship sites so that students can enter the real work environment earlier, experience teamwork in a real work environment and the problems they will encounter in teamwork, and experience the gap between communication with colleagues and contact with classmates as a way of avoiding conflicts among colleagues due to communication problems in their future work.

Secondly, stakeholders believe rich learning resources can improve students' imagination. Learning resources are categorized into teacher and university-provided learning resources. Teacher-provided learning resources include diverse and excellent examples of artwork.

Teacher 10: In the teaching and learning process, we can help students better understand and recognize their feelings by providing them with a wealth of art materials and resources to better the effect of students exploring and understanding things from multiple perspectives. This will help them to overcome stereotypes and thus stimulate the generation of new ideas.

Manager 9: Teachers can let students start a discussion based on a particular artwork case or topic in class and encourage students to come up with some different ideas and have a collision of ideas, which will enhance students' imagination to a greater extent.

Student 7: Teachers should prepare many excellent examples for us to refer to and imitate. When we have replicated more works, we will naturally think of two or even more unrelated pieces and try to integrate them to form a new style. During the imitation period, teachers must also discuss with students, and teachers' and students' ideas are constantly fused, thus broadening students' imaginations.

DISCUSSION

This study explored stakeholders' perceptions of the soft skills that animation students need to enter the metaverse. The study found a high degree of agreement among stakeholders that imagination, teamwork, communication, and problem-solving skills are essential soft skills that can help animation students find work in the metaverse job market. This empirical evidence related to soft skills supports the views of previous researchers. For example, Pu (2021) points out that if China wants to cultivate talents who can shoulder the Chinese animation industry, it must start by developing animation students' imagination; According to Wang (2014), the job market related to animation students not only focuses on the use of professional skills of animation students but also pays more attention to the comprehensive qualities of students, such as teamwork and communication, to make sure that the students hired can contribute to the development of the enterprise; Chen (2019) stated that if the university neglects the cultivation of comprehensive abilities such as teamwork ability analytical and problem-solving abilities of animation students, it will result in the students not being able to meet the needs of the animation professional talent market.

In contrast to the soft skills mentioned above, aesthetic and continuous learning abilities were not frequently

spoken out, although managers, teachers, and students said them. This result is similar to previous studies, i.e., aesthetic and constant learning skills related to animation students' soft skills were also rarely mentioned in previous studies. From 2013 to 2023, there were about eight articles of literature related to Chinese animation students' soft skills and aesthetic ability in CNKI and Web of Science databases. One of them Yin (2020) states that animation students need to rely on the aesthetic ability to create touching works to further promote the animation industry's development. There are about five pieces of literature related to Chinese animation students' soft skills and continuous learning abilities. One of them S. Liu (2016) noted that universities need to focus on cultivating students' ongoing learning ability during the education process, and this ability of constant learning, adaptation, and development will promote the development of companies and enterprises and the local economy, and animation companies and enterprises are the direct beneficiaries.

CONCLUSION

This study developed strategies to improve the critical soft skills of animation students by summarizing data from stakeholder interviews. First, the internships built in cooperation between universities and companies are vital to improving teamwork, communication, and problem-solving skills. School-enterprise cooperation can provide animation students with conditions and opportunities to improve their practice skills and enhance their ability to solve practical problems and teamwork. The practical work in the school-enterprise cooperation can enable students to move from theory to practice, and working with employees will improve their communication skills and learn to communicate with others and explain their ideas. Practical work can also help students understand the current state of technology, management, workforce, the demand for talents and technology, the current problems and challenges they face, the future development prospects and trends of the enterprises, etc. Such knowledge and skills can enable animation students to accurately assess the factors of employability that the enterprises need and to develop them to promote their successful employment.

Secondly, rich learning resources can improve students' imagination. Teachers in the teaching process, cases of successful artworks can be introduced to stimulate students' imagination from the perspective of the diversity of thinking. By constantly improving students' imagination, they can enhance the standard of animation creation, promote the improvement of the quality of animation works, better adapt to the needs of the industry, and more comfortably cope with the fierce competition in the talent market.

RESEARCH LIMITATIONS AND PROSPECTS

Qualitative research always focuses on individual cases and cannot account for all aspects of the subject (Mayring, 2002). Despite the limitations of this study, the results of this study help to reduce the existing research gaps.

Considering the limitations of qualitative research regarding the number of respondents, this leads to an interesting question: does improving these soft skills positively impact students' employability? Many quantitative studies on teamwork, communication, and problem-solving skills have also been shown to impact students' employability positively. However, there are few quantitative studies on the relationship between students' imagination and employability, so this could be part of future research.

REFERENCES

- Bao, W. (2022). Dui biao chanye shengji xuqiu peiyang yingshi donghua fuhe xing rencai — zhong gao zhi guantong yingshi donghua zhuanke kecheng gaige diaoyan baogao [Cultivating film and animation composite talents in response to the demand of industrial upgrading—Research report on the curriculum reform of film and animation specialization in middle and higher vocational schools]. *Education and Cultivation*, (8), 68-70. Retrieved from <https://qikan.cqvip.com/Qikan/Article/Detail?id=7107883231>
- Cai, Q. (2023). *Gaoxiao hebing zhong de nei waibu hefa xing ji qi dui zuzhi rentong de yingxiang* [External and internal legitimacies and their effects on organizational identification of merged universities: Evidence from Zhejiang University] (Master's thesis, Zhejiang University, Hangzhou, China). doi:10.27461/d.cnki.gzjdx.2023.000025
- Cai, S. (2022). Jiyu shehui xuqu de donghua zhuanke chuangxin chuangye jiaoyu gaige yanjiu [Research on innovation and entrepreneurship education reform of animation major based on social needs]. *Popular Literary*, (17), 138-140. Retrieved from <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=DZLU202217051&DbName=CJFQ2022>
- Chen, X. (2019). Donghua zhuanke jichu kecheng de xiangmu shi xuexi chutan [A preliminary study of project-based learning in animation professional foundation course]. *Da Guan*, (7), 197-198. Retrieved from <https://qikan.cqvip.com/Qikan/Article/Detail?id=7002680524>
- Cheng, J., & Wang, C. (2023). Xin wenke beijing xia donghua zhuanke rencai peiyang fang'an de sikao [Reflections on the Training Scheme for Students Majoring in Animation under the Background of the New Liberal Arts]. *University: Research and Management*, (4), 88-91. Retrieved from <https://m.fx361.com/news/2023/0717/22374302.html>
- Finch, D. J., Hamilton, L. K., Baldwin, R., & Zehner, M. (2013). An exploratory study of factors affecting undergraduate employability. *Education Training*, 55(7), 681-704.
- Freeman, R. E., & Veal, J. M. (2001). A Stakeholder Approach to Strategic Management. *SSRN Electronic Journal*. doi:10.2139/ssrn.263511
- Galletta, A., & Cross, W. E. (2013). *Mastering the semi-structured interview and beyond: From research design to analysis and publication*. New York, NY: NYU Press
- Ge, X. (2022). *Zhixiang zhiye suyang de zhong zhi "FLASH donghua" ketang jiaoxue celüe yanjiu* [A study on classroom teaching strategies pointing towards professional competencies for "flash animation" in secondary vocational schools] (Master's thesis, Hebei University, Baoding, China). doi:10.27103/d.cnki.ghebu.2022.002087
- Guan, N. (2023). Research into Innovations, Risks and Governance Strategies for the Labor Market in the Metaverse Era. *Journal of China University of Labor Relations*, (03), 92-105. Retrieved from <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=GHLJ202303010&DbName=CJFQTEMP>
- Han, F. (2022). "Yuan yuzhou" gainian de xingqi dui sanwei donghua jiaoxue yingxiang [The rise of the concept of "metaverse" has an impact on the teaching of 3d animation]. *Packaging World*, (3), 67-69. Retrieved from <https://qikan.cqvip.com/Qikan/Article/Detail?id=7107266033>
- Hwang, S., & Koo, G. (2023). Art marketing in the metaverse world: Evidence from south Korea. *Cogent Social Sciences*, 9(1), 2175429.
- Lee, D., & Yoon, S. N. (2021). Application of artificial intelligence-based technologies in the healthcare industry: Opportunities and challenges. *International Journal of Environmental Research and Public Health*, 18(1), 271.
- Lin, J. (2023). Shuzi meiti shidai donghua biaoqian xingshi ji donghua jiaoxue gaige [Animation Expression and Animation Teaching Reform in the Digital Media Era]. *New Horizon*, (6), 69-71. doi:CNKI:SUN:XMCH.0.2023-06-023
- Liu, M., & Chen, Z. (2023). Kecheng si zheng jiaoxue dui daxuesheng chixu xuexi nengli de zuoyong jizhi yanjiu—yi guojia ji yiliu kecheng "yingxiao guanli yu cehua" kecheng wei li [Research on the role mechanism of curriculum civic teaching on the continuous learning ability of undergraduates — taking the national first-class course "marketing management and planning" as an example]. *Heilongjiang Education: Theory & Practice*, (3), 70-72. Retrieved from <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=HJLL202303021&DbName=CJFQ2023>
- Liu, S. (2016). Based on "animation film analysis" course on the animation theory of autonomic learning. *Art and Design*, (8), 150-152. doi:10.16824/j.cnki.issn10082832.2016.08.054

- Luan, W., Wang, J., & He, R. (2022). Jiyu yuan yuzhou shi yu xia woguo er ciyuan donghua guoji hua chuanbo lujing yanjiu [Research on the international dissemination path of China's secondary animation based on the metaverse perspective]. *Popular Standardization*, (10), 125-127. Retrieved from <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=DZBH202210043&DbName=CJFQ2022>
- Mayring, P. (2002). Qualitative content analysis—research instrument or mode of interpretation. *The role of the researcher in qualitative psychology*, 2, 139-148.
- Pu, P. (2021). Zhishi-siwei-jishu: Dangdai zhongguo donghua sikao [Knowledge-thinking-technology: Reflections on contemporary Chinese animation]. *Animation Research*, 9-12. Retrieved from <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=DMYJ202100002&DbName=CCJD2021>
- Smart, J., Cascio, J., Paffendorf, J., Bridges, C., Hummel, J., Hursthouse, J., & Moss, R. (2007). A cross-industry public foresight project. *Proc. Metaverse Roadmap Pathways 3DWeb*, 1-28. Retrieved from <https://www.academia.edu/download/1141403/7zwfoisqom1hx7.pdf>
- Suarta, I. M., & Suwintana, I. K. (2021, March). The new framework of employability skills for digital business. *Journal of Physics: Conference Series*. doi:10.1088/1742-6596/1833/1/012034
- Succi, C., & Canovi, M. (2020). Soft skills to enhance graduate employability: comparing students and employers' perceptions. *Studies in higher education*, 45(9), 1834-1847.
- Tilak, S., Glassman, M., Kuznetcova, I., Peri, J., Wang, Q., Wen, Z., & Walling, A. (2020). Multi-User Virtual Environments (MUEs) as alternative lifeworlds: Transformative learning in cyberspace. *Journal of Transformative Education*, 18(4), 310-337.
- Wang, W. (2014). Qian tan gaoxiao donghua zhuan ye xuesheng zonghe suzhi de peiyang [Introduction to the cultivation of comprehensive quality of college animation students]. *Art Education Research*, (2), 112-112. doi:10.3969/j.issn.1674-9286.2014.02.095
- Williams-Buenzli, W. (2015). *A measure of soft skill gains acquisition with engagement in baccalaureate nursing programs* (Doctoral dissertation, University of Southern Mississippi, Hattiesburg, USA). Retrieved from <https://www.proquest.com/openview/d7e89819ef1e1a1d3ad778be0e8eco20/1?pq-origsite=gscholar&cbl=18750>
- Xing, Y. (2023). Jiyu yuan yuzhou de yishu sheji yu chuanguo de fa zhan qushi yu biange yanjiu [Research on the development trend and change of art design and creation based on meta-universe]. *Art Education*, (5), 27-30. Retrieved from <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=YSJY202305070&DbName=CJFQ2023>
- Yin, B. (2020). Donghua zhuan ye hexin nengli peiyang lujing xin tan [A new approach to the cultivation of core competence in animation major]. *Contemporary Animation*, (1), 106-112. Retrieved from <https://qikan.cqvip.com/Qikan/Article/Detail?id=7102743163>
- Yong, B. P. P., & Ling, Y. L. (2023). Skills gap: The perceptions of importance of soft skills in graduate employability between employers and graduates. *Journal of Techno-Social*, 15(1), 16-33.
- Zhang, Y. (2017). Daxuesheng jiuye nengli peiyang yanjiu—yi liyi xiangguan zhe lilun wei shijiao [A study on the cultivation of college students' employability — From the perspective of stakeholder theory]. *Education and Teaching Research*, (5), 64-69. Retrieved from <http://61.54.243.197:8089/KCMS/detail/detail.aspx?filename=CDJY201705010&dbcode=CJFQ&dbname=CJFD2017>
- Zhao, Q., & Li, S. (2019). Zonghe xing yishu yuan xiao donghua zhuan ye jichu jiaoxue chuanguo gaige jianshe yanjiu [Research on the innovation and reform of animation basic teaching curriculum in comprehensive art colleges and universities]. *Journal of Northeast Normal University (Philosophy and Social Sciences)*, (6), 98-104. doi:10.16164/j.cnki.22-1062/c.2019.06.014
- Zheng, Z. (2019). Qian tan donghua yishujia chuanguo zhong xiangxiang li yu xianshi de guanxi [An introduction to the relationship between imagination and reality in the creation of animation artists]. *Home Drama*, (18), 106-106. Retrieved from <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=XJZT201918079&DbName=CJFQ2019>
- Zhan, H., & Cheng, H. J. (2014). The role of technology in teaching and learning Chinese characters. *International Journal of Technology in Teaching and Learning*, 10(2), 147.