

Research on Virtual Environment of Improving Young Teachers' Guidance Ability Based on Metaverse

Lu Peng ¹⁺ and Zhai Xuan-yi ¹

¹ School of Art, Northeast Electric Power University, Jilin 132012, China

Abstract. The guidance ability of graduation project or thesis is one of the professional skills that young teachers can not lack, but at present there is still the problem of insufficient guidance ability in art majors. Under the guidance of iceberg model theory in the context of the metaverse, through the analysis of young teachers in the advantages and disadvantages of graduation design and thesis guidance, modern education for teachers professional quality requirements of the two links, create youth teachers professional quality model, and proposes the countermeasure about the guidance of young teachers guide students graduation design, improve the capacity for art professional talent training provides the basis.

Keywords: metaverse, iceberg model, young instructors, guidance ability, ascension path

1. Introduction

The number of teachers is expanding, and the average age of teachers is getting younger. Compared with teachers with long experience, young teachers have advantages and disadvantages. At the same time, the Ministry of Education and other six departments issued guidelines on *strengthening the reform of the construction of college teachers in the new era*. Focus on the capacity building and development of young teachers. Policy guidance and practice verification show that the instructor's professional ability and guidance level can be reflected from the completion and quality of students' graduation project.

Students' graduation thesis and design results can be counted as an attachment to the teacher's evaluation. Based on the metaverse and combined with the iceberg model theory, the environment is redesigned, so as to provide support conditions for the improvement of young teachers' guidance ability, the shortcomings of young teachers in the process of guiding students are corrected, and the career planning of young teachers is set clear goals. In this way, not only can the quality of students' graduation project (thesis), but also the ability of young teachers to get a certain improvement. From the perspective, the status quo and advantages of the industry will be analyzed, and the concept of the path to improve their ability will be studied.

2. Characteristics about the Graduation Project of Art Major and Thesis

In modern education, art majors generally only pay attention to practical ability, but lack of theoretical knowledge and organizational ability of writing. This kind of education and training mode makes students majoring in art unable to combine theory with practice. To some extent, the insufficiency of graduation design and graduation thesis quality. The graduation design is exquisite, but the paper lacks logical expression is one of the characteristics of the graduation design and thesis of art majors.

Moreover, young teachers lack certain guiding experience. There is often a lack of guidance that leads to unqualified sampling, which affects the quality of the final graduation project or thesis from the beginning of helping students choose topics. Horizontal comparison of other majors and vertical comparison of other teaching links, art graduation projects or papers show students' comprehensive ability level and knowledge of the system learning display. At the same time, it also shows the level of professional guidance teachers of art.

⁺ Corresponding author. Tel.: 15981162821;
E-mail address: 279314862@qq.com.

3. Knowledge of Iceberg Model

3.1. Connotation

The iceberg model was developed by American psychologist David McClelland in 1973. It is to divide the different performance of individual quality into the surface part and the deep part, that is, the upper and lower part of the iceberg.

3.2. Value

In people's self-analysis and performance, often show a small part, namely behavior. More parts are internal, hidden at a deeper level [1]. Quality is often expanded and excavated. For young teachers, the potential quality is the lower part of the iceberg, which is below the surface of the water, while the guiding ability and experience are superficial and horizontal. From entry to experience in education, young teachers' guiding ability will gradually increase with potential personality, quality, motivation and interest. Teachers' inner qualities can be studied through the observed behavior of guiding graduation project and thesis [2]. That is, the iceberg above the water and the iceberg below the water, that is, the surface of the dominant characteristics and invisible quality of the combined development, can effectively develop multi-level guidance ability and effect.

4. Advantages and Disadvantages of Young Teachers in Guiding Graduation Project and Thesis

4.1. Advantages

Full of energy. Compared with other senior teachers, young teachers are older and have less work pressure and task. At the same time, I have a lot of energy to think and finish.

Easy communication. Young teachers are more suitable to play the role in instructors because their psychological age is similar to that of graduates. They understand the essence of each other's sentences.

Forward thinking. Young teachers have strong ability to accept new ideas and active thinking. Young teachers and students have unique introduction and views on new things.

Professional match. Keep up with The Times and accept the changes brought about by technological development. Use new media technology to enhance professional practice ability.

4.2. Disadvantages

Lack of coaching experience. Young teachers lack necessary guiding experience, which affects the quality of students' graduation projects [3]. Most young teachers have just changed from students to teachers and lack practical working experience in guiding students' graduation thesis.

Lack of motivation to invest. Young teachers just joined the teaching team, there is no clear teaching objectives, lack of psychological motivation to guide the graduation design, easy to appear fear of difficulties.

Lack of interest in research. Young teachers are unable to devote themselves to the interests of students' selected topics, resulting in their ignorance of relevant knowledge and inability to provide better guidance.

Lack of fundamental guidance. Only pay attention to completing the teaching task, can not meet the fundamental needs of students themselves, can not provide fundamental guidance to students.

5. Requirements of Modern Education on the Professional Quality of Instructors

Instructor competence should cover basic competence, essential competence, professional competence and key competence based on discipline [4].

5.1. Orientation of Young Instructors

An advisor is a teacher or scientific researcher who guides others to study, study or write academic papers in institutions of higher learning or research, providing help for students' learning and growth. In practical work, instructors are often busy with teaching work, administrative work, and participation in various conference activities, which leads to conflicts between instructors and their supposed professional

positioning [5]. From teaching to guidance, can put forward targeted guidance to different students, improve students in the process of learning different mistakes and problems.

5.2. Capacity Requirements of Young Instructors

The stronger young instructors' ability, the higher the degree of attention, the higher the probability of students writing high quality graduation thesis [6]. Knowledge accomplishment includes political theory accomplishment, disciplinary and professional knowledge, scientific and cultural reserve and pedagogy knowledge. At the same time, the basic skills of teachers are the essential qualities of each instructor. Usually include professional ability, teaching ability, management ability. To develop teacher resilience should therefore focus on improving the professional environment as well as looking at ways to enhance teachers' personal resources [7]. These abilities are the key to advisor to guide students better.

6. Application of Iceberg Model in Guidance Ability Improvement

According to iceberg model theory, this paper analyzes the surface quality and potential quality of young teachers. In the analysis of potential quality, the individual quality of young teachers consists of ability, suitability, potential, motivation, value interest, psychological quality and so on. The implicit part plays a decisive role in the performance of individual behavior, especially in the development of teachers' personal competence [8]. As shown in figure 1.

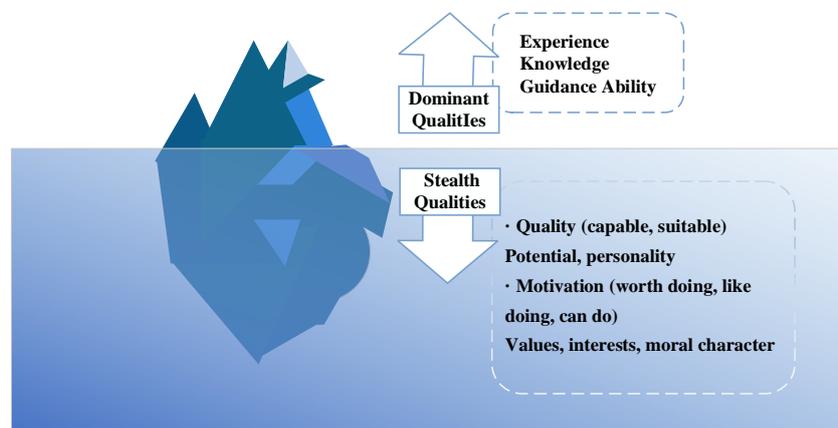


Fig. 1: Key features of iceberg model among young teachers.

Through the analysis and reconstruction of the iceberg model, the personal quality of young teachers is reorganized and analyzed, and a new ability model of young teachers to guide the graduation project and thesis is obtained. As shown in figure 2.

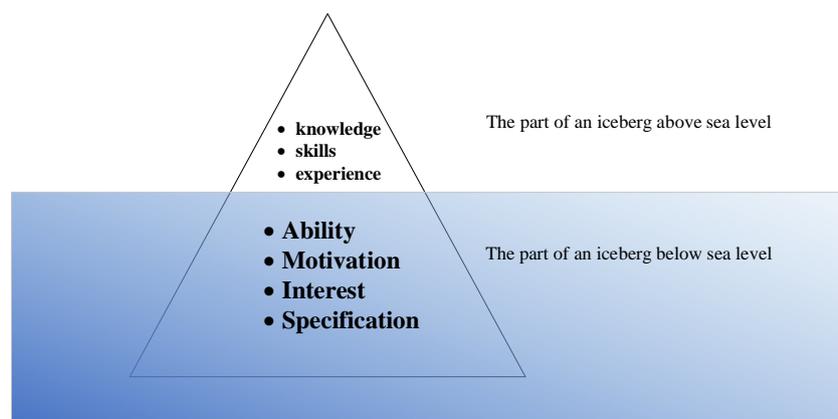


Fig. 2: Ability model of young teachers to guide graduation thesis.

Knowledge, skills and experience, as surface abilities, can be directly seen to improve and perform. It is the explicit standard and thinking aspect of the two-way selection between graduates and tutors. The guidance model of young tutor, outstanding graduate student and outstanding undergraduate can reflect the potential quality of young tutor [9]. It is also the factor that informs cultivation and ascension to see significant changes directly. The latent ability is different from the latent ability, which is the inner quality of

young teachers, namely the inner show. At present, there are some problems such as topic selection direction and lax management [10]. It is the decisive quality behind the potential knowledge, skills and experience, which has an indirect but non-negligible impact on the acquisition of students' achievements.

7. Approaches and Methods for Improving the Abilities of Young Teachers in the Metaverse

Combining with the actual situation of art college and the characteristics of art specialty, this paper puts forward the guidance ability suitable for young teachers Methods and paths to improve the ability of young teachers to guide students' graduation project (thesis). The five-way approach and path interact with each other, as shown in Figure 3.

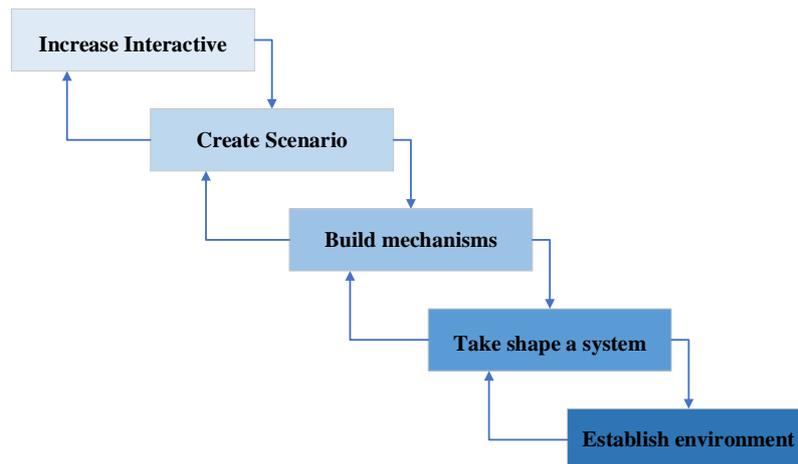


Fig. 3: Methods and paths to improve the ability of young teachers to guide graduation projects.

7.1. Construct Multi-dimensional Interactive Environment

Looking for senior teachers to lead, rich guidance experience. First of all, it has been proved that only relying on theoretical knowledge is not a good guide for students to complete graduation thesis and creation. Then, if they want students to make progress, young teachers especially need some skills and methods as guides to guide students effectively. At this point, senior teachers are needed to lead young teachers. Through creating a multi-dimensional interactive space environment, thinking about the exchange of experience relationship and consensus, by VR technology, each part of the condensation of AI technology, such as countries experienced teachers for young teachers' demonstration. It is undeniable that the professional starting point of young teachers can be improved through the experience of senior teachers. It will also help young teachers improve their enthusiasm for students' graduation projects and papers.

7.2. Create Academic Atmosphere

Among teachers, create a strong academic atmosphere and cultivate interest in subject research. The establishment of the multi-dimensional interaction environment in the metaverse promotes the communication between senior teachers and young teachers, as well as the communication between students and teachers. Through the integration of virtual and reality makes people have an immersive physical examination, and can help young teachers find the research direction they are interested in in many professional topics, and cultivate their interest in the research of this topic. Improve the accuracy of the topic selection. According to the general direction of the training plan, on the basis of discovering their own interests, from shallow to deep, so as to conduct research. In the subject research, young teachers can also timely and effectively answer the topic selection questions, so as to give students the most pertinent opinions. It can create a strong atmosphere for academic research and promote the in-depth exploration of the subject.

7.3. Build Effective Mechanisms

There is a very simple but not negligible phenomenon that young teachers lack specific career goals in their educational career, which are about teaching and guidance. First of all, using the large carrier, through the school or the superior to establish incentive mechanism, take the initiative to set specific goals and plans

for young teachers, the young teachers to better adapt to the rhythm of the school teaching, encourage young teachers to actively participate in teaching activities, inspire the motivation of young teachers education investment, at the same time can also see the practice of the young teachers in other schools or other situation, Make it grow in comparison with each other. At the same time, the results of the sample test will be linked to the performance assessment of young teachers to encourage more excellent teachers to participate. From the quantitative change to the qualitative change of teaching results, under the influence of this strong academic atmosphere, many young teachers make progress together.

7.4. Take Shape a System that is Extremely Effective

Perfect inspection system, carry out fundamental guidance. In the meta-cosmic context, from adjusting the schedule, tracking and directing each step, according to the steps, and subject to the supervision and inspection of the other teachers in the meta-cosmic, improve the inspection system. Resist young teachers only pay attention to the superficial form, but ignore to give students a model guidance fundamentally. It is not uncommon for young teachers to lack in-depth discussion of the topic while showing the research content, which results in teachers not doing their due diligence in guiding work and students not getting complete knowledge. The design of institutional arrangement is closely related to the creation of incentive mode and academic atmosphere. Standardizing the guidance of young teachers can also make young teachers form potential rules and make the incentive mechanism more feasible.

7.5. Establish an Information Resource Environment with Shared Contents

Form full coverage of information visualization resources to provide unlimited enjoyment. In the meta-cosmic environment, it can automatically collect updated data and materials to form block chain, correctly grasp the current status and problems of young teachers, and find the correct solution. And according to the needs of students, guidance needs of young teachers and personal development needs of young teachers are coded, and after editing and screening, visual information data can be formed. Every visual information can be used for reference by anyone, providing a strong guarantee for information acquisition and promoting the overall joint detection of deficiencies. Young teachers can also grow in this process. Similarly, a resource environment with shared information contributes to the formation of effective institutions that help individual teachers participate in monitoring and testing in the metaverse.

7.6. Summary

Metaverse contains ideal environment technology had radiation for young teachers to guide the path to carry on the positive influence, improve the capacity in sea level of the upper that only show a visible representation, measures and technologies, but it is below the sea surface in the inner and contains with the purpose of the logic behind it, as shown in figure 4.

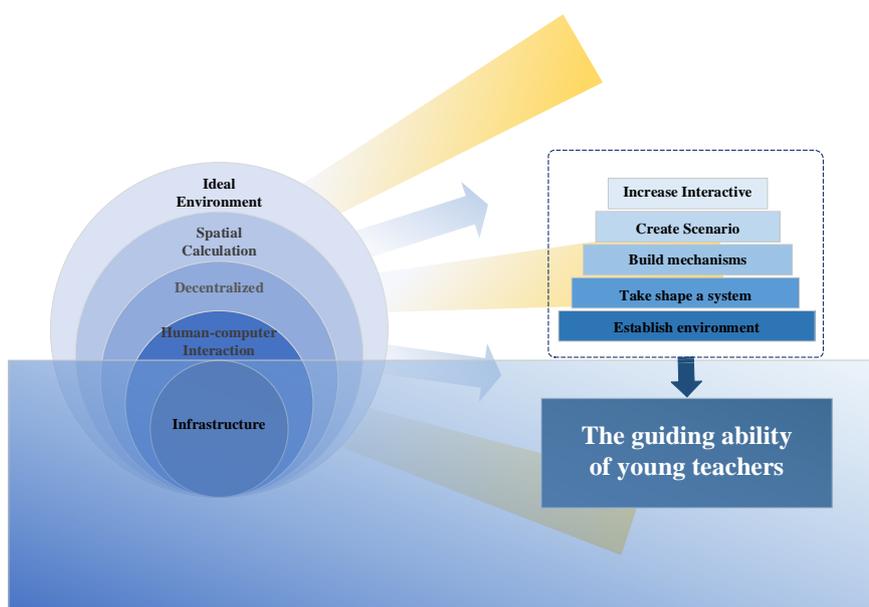


Fig. 4: Ascending capacity and path diagram based on metaverse.

Metaverse can only be formed if there is an infrastructure. Metaverse is formed by the convergence and evolution of many tools and platforms. For example, the virtual education space mentioned in the article is a virtual education platform that provides immersive experience through XR technology and is closely integrated with Digital Twins and other technologies.

8. Conclusion

In the context of the metaverse, data visualization can improve the professional level of young teachers, improve the guidance level of students' graduation projects and papers, and improve the comprehensive quality of students. Through the study of iceberg model, the author establishes a model of young teachers' ability to guide graduation project, and puts forward various methods and approaches to improve young teachers' ability to guide graduation project. This will help authors including young teachers in the actual guidance of graduates to complete the thesis with the design of the scene, like a thread through every step of the instruction from beginning to end. It is of great significance to improve teachers' graduation thesis and design guidance ability from the improvement of teachers' own ability and the cultivation of students.

9. References

- [1] I. Owoeye, and S. M. Muathe. *Competence-Enhancing Interventions and Organizational Performance: A Theoretical Review*. Journal of Human Resource Management. 2018, pp. 67-67.
- [2] Dong H. *Teacher professional judgment: the core of teacher development*. Journal of Teacher development research. 2017,1(02), pp. 45-51. (Chinese)
- [3] Lu P, Cong X. *Research on the improvement path of young teachers' Graduation Design (Thesis) guidance ability under the background of new liberal arts*. Journal of Shoes technology and design. 2021, (07), pp. 87-89. (Chinese)
- [4] Lei L Z, Yang B Q. *The Influence of Project-based Learning on Teachers' Quality*. Journal of Fujian College of Education. 2021, 22(03), pp. 106-108. (Chinese)
- [5] Wang F. *Discussion on the tutorial system of young teachers in local colleges and Universities Based on the improvement of education and teaching ability*. China Adult Education. 2017, pp. 124-127. (Chinese)
- [6] Wang M T, Li Q, Han Q H. *How does the advisor influence the quality of undergraduate graduation thesis, a case study of School of Finance, Shanghai University of Finance and Economics*. Journal of higher education research. 2019, 42(04), pp. 29-40. (Chinese)
- [7] S. Ainsworth, and J. Oldfield. *Quantifying teacher resilience: Context matters*. Teaching and Teacher Education. 2019, 82, pp. 117-128.
- [8] Chen Z X. *Research on teacher development Mechanism based on iceberg Model*. Journal of Educational Observation. 2021,10(07) pp. 56-58. (Chinese)
- [9] Shen X J, Jiang S S, Lian H L. *On the Graduation Project/Thesis of undergraduate students under the guidance of young teachers*. Journal of zhongzhou university. 2020,37(02), pp. 102-106. (Chinese)
- [10] Tian J. *Research on teaching Strategy of Graduation Design in Digital Media Art Design Specialty*. Journal of Modern Vocational Education. 2021(30), pp. 78-79. (Chinese)