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Discussion on the Problems Faced by Film and Television Education and the Development Trends in the New Media Environment

Jianliang Gu*

Communication University of China, Nanjing (CUCN), Nanjing, Jiangsu, 211172, China

*Corresponding Author:

Jianliang Gu,

Communication University of China, Nanjing (CUCN), No. 3666 Hongjing Avenue, Jiangning District, Nanjing, Jiangsu, 211172, China;

E-mail: 442320785@qq.com.

ABSTRACT

With the development of the economy, film and television education has gradually received more and more attention. With the rapid development of new media technologies, there are still some problems in film and television education in the new media environment. This paper mainly analyzes the problems faced by film and television education in the new media environment, and the development direction of film and television education in the new media era, and explores the forms of film and television education and film industry integration.

Keywords: Film and television education; New media environment; Development trends

1. Introduction

The film and television profession is an emerging hot profession that has developed rapidly in recent years and is gradually favored by parents and students. Judging from the number of enrolled students and professional settings in art colleges in recent years, they all show an increasing trend year by year. Many parents believe that children choose film and television majors, and the employment direction after graduation is relatively clear. However, the development of film and television education is not optimistic, and the competition faced by film and television students is growing. How to better develop film and television education in the new media environment has become

an issue that educators in art schools need to study in depth.

2.Problems Faced by Film and Television Education in the New Media Environment

2.1The Film and Television Market Is Developing too Fast and the Education Cannot be Developed Simultaneously

Film and television education has shown rapid development in recent years, and the increase in market demand has led to the expansion of major art universities and colleges. Enrollment expansion has also brought many problems to film and television education. The development of film and television education and the rapid market demand cannot be developed simultaneously. The biggest problem facing the current film and television education is the teaching materials problem. Some colleges use their own teaching materials, and most of them do not have professional teaching materials. Secondly, due to the rapid development of film and television, many institutions those do not have professional qualifications have also opened relevant film and television majors, which has led to a decline in the quality of students' education.[1] At present, the actual demand of the market is that students need to have certain film and television skills, not merely simple theoretical knowledge, which requires teachers to have certain film and television experience; only new teaching materials and teachers can better adapt to contemporary film and television education.

2.2Lack of Quality Education in Film and Television Education

Comprehensive universities and colleges strictly adhere to quality education, while film and television art schools do not pay much attention to the development of students' quality education. Affected by the enrollment system of higher education in China, the enrollment of film and television art colleges is mostly based on art candidates, and the students themselves have a low level of cultural classes. After entering the university, it is still mainly the film and television art class, ignoring the study of the culture class. In the new media environment, the goal of cultivating talents in film and television art colleges is mainly to cultivate high-quality film talents. We should not lower the requirements on students' cultural level or weaken their learning of basic cultural knowledge because of their professional artistic expertise. The essential requirement of higher professional art education is quality education, and humanities basic education is the key and difficult problem in film and television education. No matter which type of universities and colleges cannot neglect the development of students' quality education, quality education is the foundation of talent cultivation, and the film and television education that is separated from quality education cannot achieve the ultimate goal of

training qualified film and television talents.

2.3Lack of Excellent Teaching Staff

The level of teachers in film and television education will directly affect the quality of teaching. Under normal circumstances, the teacher sources of film and television profession are the following three kinds: first, full-time teachers in film and television, because these teachers not only have professional theoretical knowledge, but also have experience in film and television production, can combine theory and practice, however, the number of such teachers is not large, and most of them are concentrated in relatively well-known institutions such as Communication University of China, Beijing Film Academy,The Central Academy of Drama and Shanghai Theatre Academy; second, professional teachers with literary background, because of the many literary background knowledge involved in film and television, some colleges often set up literary school teachers when setting up film and television majors. This type of teacher has a wealth of knowledge about the history of film and television development, film and television aesthetics, but the ability of such teachers to practice film and television is not high. If the teachers are composed of such teachers, the overall level of the teaching staff is not high; third, teachers with rich media experience and teaching in art colleges, such teachers can often bring students some more practical knowledge and skills, and students have a strong sense of identity with such teachers, however, the employment of such teachers also has certain drawbacks. It is difficult for the general media practitioners to calm down and engage in teaching. If they are external part-time teachers, it is difficult to guarantee the teaching time, and the mobility of part-time teachers is large, and the teaching work cannot be guaranteed.[2]

2.4Film and Television Education Has Not Kept Pace with The Times

The birth of new art forms will inevitably affect the old art form. If an art wants to survive for a long time, it must be able to adapt to the development needs of the times and be able to be invincible in many art forms. For example, many of today's film works tend to be more beautiful and stylish, but their plot content is pale and weak, resulting in people's low willingness to watch. A good work must not only have vivid expressions, but also intriguing and thought-provoking plot content. Only when the works have rich connotations can they maintain their permanent vitality.[3] In addition, in the era of rapid development of new media, people have more access to information, however, how to maintain the national and national characteristics in an international cultural atmosphere and network atmosphere is a question that needs to be strongly considered by film and television educators. Film and television education should also embark on a road of development with national characteristics, and keep pace with the times while maintaining its own characteristics.

3.The New Development Direction of Film and Television Education in the New Media Era

Faced with the problems faced by film and television education in the new media environment, film and television education must transform traditional ideas, improve teaching methods, integrate with the times, open up new ideas, and clarify the new direction of development.

3.1Enhance the Concept of Actual Combat and Increase the Docking Of Film and Television Education and Film and Television Platforms

The ultimate goal of film and television education is to serve the audience with film and television art, which requires film and television educators to achieve effective interface with new media and new technology platforms, increase students ' practical concepts, and expose students to the latest technology and film and television concepts, and create works that meet the needs of the audience and the development of the times. Film and television education can't be limited to classroom teaching. It is necessary to increase students ' practical opportunities, let students integrate theory and practice, and strengthen students' daily practice in the studio, recording studio or video editing room to transform the classroom into a practice base.

3.2Spread New Ideas and Strengthen Communication between Departments

In the film and television education, we must strengthen the dissemination of new ideas; teachers and students must abandon the traditional theory of teaching, especially in the new media environment, film and television educators should vigorously encourage students to engage in the creation of new art forms such as micro-movies and innovative short videos, which requires improving the traditional education model, from the original single-style, isolated teaching to "complementary" teaching, increasing the integration and collaboration between disciplines. On the basis of strengthening the film and television education courses for students in this major, we will expand the study of relevant subjects in film and television education and realize the integration of subject knowledge. Film and television educators should be good at breaking the boundaries between disciplines when teaching, so that students can do the same thing and integrate them.

3.3Strengthen the Professional Staff of Teachers

Nowadays, the number of Chinese film and television education schools or bases is increasing. Many comprehensive universities have also established relevant majors in film and television media, forming a rich and diverse educational structure. However, China's film and television education started late, and its development is relatively slow. Only the professional film and television art colleges have a high level of teachers, however, comprehensive universities pay less attention to film and television education, and their development is still relatively slow, which requires strengthening the professional team of China's overall film and television

education. To this end, the state needs to provide relevant financial and material support. Take film education as an example, in the selection and training of teachers, not only must they have professional skills, but also have certain shooting experience, at the same time, they should also master the most advanced technologies in film shooting and have the ability to do video clip. In the construction of the teaching staff, the teaching team must have strong professionalism. Only in this way can we meet the needs of students ' all-round development.[4]

3.4Improve Educational Methods and Support the Development of New Media

The Internet and new media are currently developing rapidly.The development of film and television education should also rely on the Internet and new media platforms to continuously improve educational methods, combine film and television education with new media, and enhance the development of the film industry. Improving the means of education and strengthening the development team of emerging media talents is the only way for the development of China ' s film and television education. Film and television education needs to adopt innovative means to integrate traditional media and emerging media, and cultivate cross-regional innovative talents to support the development of the emerging film industry.

4.The Forms and Exploration of the Integration of Film and Television Education and Film and Television Industry

With the rapid development of the film and television industry, the requirements for talents are getting higher and higher, which has brought new opportunities and challenges to film and television education. Film and television education must be done with the times, constantly innovate, and integrate film and television education and film and television industry to achieve the common development of film and television education and film and television industry. Therefore, film and television education should improve teaching methods and improve the quality of teaching. It is also necessary to pay close attention to the development and changes of the film and television industry, to cultivate the talents needed by the film and television industry, to promote the development of teaching with industrial demand, and to make film and television education more in line with market demand. Especially in the new media environment, the integration of film and television education and film and television industry has become a trend of future development.[5]

There are many different ways and means to integrate film and television education and film industry. This paper

mainly describes three common forms of integration. First, the film and television industry is the leading factor, and film and television education plays a supporting role. At present, many TV stations and film and television companies in order to strengthen the development of the film industry, to make the industry bigger and stronger, will use the form of personnel re-education, strengthen the training of the company ' s internal film and television personnel, or continue to further study in universities and colleges. This kind of film and television education is highly targeted; second, the proportion of film and television education and film and television industry is quite the same. The fusion of this method is generally common in film and television colleges. It usually divides one school year into two parts, half of which is used to learn theoretical basic knowledge, and the other half is used for practice to achieve a combination of theory and practice; the third way is to take film and television education as the leading factor and the film and television industry as an auxiliary education. This kind of method is widely used in professional art colleges and comprehensive universities and colleges. The film and television industry here is not a film and television industry in a strict sense, but an internship base for film and television education. Under normal circumstances, in order to ensure the quality of teaching and strengthen the students' practical ability, the school will unite some radio stations or film and television companies to establish a corresponding film and television industry to provide a certain space for student creation. At present, this method has been researched in many film and television art colleges and has achieved certain results; however, this method is more dependent on capital and requires the school to have certain economic strength. For some schools with less investment in film and television hardware, it is more difficult to combine film and television education with the film and television industry, which is also a major problem in the current film and television education in some institutions.

5.Conclusion

With the development of the film and television industry in recent years, film and television education has also received attention, however, in the new media environment, film and television education is also facing many problems. The film and television education and the fast-developing film and television industry cannot be synchronized, and the development of quality education has been neglected in the development of film and television education, resulting in the training of personnel in film and television education that does not meet

the needs of the development of the times, which requires film and television education to continuously innovate teaching methods, improve teaching ideas, clarify the new direction of film and television education in the new media era, and strengthen the combination of film and television education and film and television industry, so as to enable students to combine theoretical knowledge and practice to further promote the development of film and television education.

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Analysis on the Equity of Compulsory Education and Higher Education from the Angle of Charging

Yalun An*
Institute of International and Comparative Education, Beijing Normal University, Beijing, 100875, China
*Corresponding Author:
Yalun An,
Institute of International and Comparative Education, Beijing Normal University, No. 19 Xinjie Kouwai Street, Haidian District, Beijing, 100875, China;
E-mail: anyalun@126.com.

ABSTRACT

This article mainly discusses the fairness of compulsory education and the transformation of higher education between free and charged. Through the development of China's compulsory education and higher education, we expound the deficiencies and the concept of perfection at current stage and then points out strategies of equity in compulsory education and higher education based on the current situation.

Keywords: The angle of charging; Compulsory education; Higher education; Fairness

1.Introduction

Educational equity is an extension and embodiment of social equity in the field of education. It is also the basic starting point of the education system and various policy means. Educational equity mainly includes equality of educational rights and fair access to education. The so-called equality of the right to education is the equality of people's right to education. It is an effective extension and supplement of equal rights in the political and economic fields. In the current stage of our country ' s development, the equality of rights has taken shape. In the meantime, the problem of educational equity in our country is mainly reflected in the equality of educational opportunities. In theoretical terms, equality in education means that the proportion of educational opportunities obtained by different groups of people in the total population is roughly equal. The opportunities for education are not influenced by factors such as gender, race, geography, and class. The concept of

educational equity is to ensure that every member of society can enjoy fair educational resources and be treated equally. In practice, as long as social education resources cannot meet people ' s actual needs, absolute education equity cannot be achieved. The limitation of educational resources to meet the needs of social members is the main cause of educational equity,which is the basis of National Education policy. At the present stage, the proportion of public education funds invested in compulsory education has gradually increased, and the distribution of public education resources has gradually become fair. Therefore, analyzing the fairness of basic education and higher education based on the perspective of fees has a positive role in promoting the development of the education industry.

2.Discussion on Equity in Compulsory Education

2.1The Development of Compulsory Education from Charging to Free

The " Chinese Constitution " clearly stipulates that citizens should enjoy equal rights to education. As a public product, the government has an organizational and supply function to the compulsory education. The main education funding is paid by taxpayers.

The beneficiaries of compulsory education are the entire society. The children of ordinary citizens in compulsory education belong to the main beneficiary group. The government has included compulsory education in the scope of welfare undertakings. Through public financial support costs, that makes sense.

2.2An Analysis of the Fairness of Compulsory Education

In the "Opinions on Implementing the Compulsory Education Law to Further Regulate the Conduct of Compulsory Education Schools " promulgated by the education department in 2006, the local education administration department was strictly stipulated, and it is required to standardize the allocation of public education resources and balance the allocation of education and teaching resources. If we divide the fairness of compulsory education into the fairness of the starting point of compulsory education and the fairness of the quality of compulsory education, then the fairness of the starting point of compulsory education is the equality of educational opportunities and the equality of educational rights. The main sign of the balanced distribution of educational resources and investment in education is the realization of universal compulsory education, while the fairness of the quality of compulsory education directly elaborates on the issue of compulsory education and the substance, and it is a higher level of compulsory education fairness.

It directly affects the quality of

compulsory education in social development. By analyzing the fairness of compulsory education based on the perspective of fees, it is necessary to explore the fairness of educational opportunities, educational process, and educational quality. Only such fairness can truly achieve the fairness of educational results. The fairness of educational opportunities and processes is relatively easy, but the fairness of educational quality cannot be guaranteed. This is also the key content that hinders the fairness of compulsory education.

It can be said that the essence of compulsory education and free education is to achieve education without social classes, to teach according to aptitude, and to develop basic quality as a basis for educational fairness. In the educational process, it is mainly reflected in rights,access, allocation of resources and management systems, and equity in the quality of education. The quality of education attaches importance to the evaluation of the level of education and its effects. It is mainly reflected in the quality of the training object, and the main content is whether it achieves the teaching purpose and the training goal.

Compulsory education is a kind of universal education that promotes the basic quality of the people as the main goal. The quality of compulsory education is a standard that reflects the level of compulsory education in the country. It directly shows the quality of compulsory education in the country. The factors that affect the quality of compulsory education generally include external resources and internal factors of education. Among them, the external resources are the equality of educational opportunities, the equality of educational rights, and the balance of educational resources. The internal factors of education are mainly school material settings, school environments, learning opportunities, and so on. With the popularization of compulsory education, the fairness of the starting point of education has been initially achieved, while the influence of external factors of education on the quality of education has gradually slowed down, and the influence of internal factors and external factors of education has gradually become prominent. It is undeniable that at the present stage, there are still large differences between urban and rural areas and between regions and schools, leading to an imbalance in the distribution of compulsory education resources. Children with good family background and economic conditions will receive better education in compulsory education and high school education; the quality of compulsory education in the families of relatively poor and vulnerable groups will affect the growth and development of students.

With the improvement of the “ Compulsory Education Law (revised in 2015) ” , the compulsory education

management model in China is more mature. Under the influence of the existing educational resources, there are certain differences among the responsibility of the government to the public education and the higher education in the compulsory education stage and the non-compulsory stage. It is also the main responsibility and requirement to demonstrate the fairness of education to ensure the investment in compulsory education and to ensure that children at appropriate age can receive free compulsory education of a certain number of years and quality. Under the escort of the new Compulsory Education Law(revised in 2015), the distance between urban and rural areas and between regions of compulsory education will also be continuously shortened, and in practice, the responsibility for compulsory education should be based on the specific conditions of compulsory education and the input of compulsory education. The accountability system for the responsibilities of relevant departments, education funding and other factors constantly supplement and improve the relevant standards. The education sector must always uphold a fair, just and high-quality education model and ensure the sound operation of the education mechanism. We need to gradually improve the state support, policy orientation, school improvement, and social attention.

3.Discussion on Equity in Higher Education

3.1The Development of Higher Education from Free to Charging

In the last century, free higher education was gradually established in various countries. The same is true in our country. On the one hand, the funds for higher education are all allocated through the financial government, and college students are all receiving free higher education;On the other hand, the expenses such as the cost of living for students while they are in school are also provided free of charge through the government. After the reform and opening up, with the increase of society ' s demand for higher education, government departments are faced with problems such as shortage of funds. The state has eased this problem by controlling the scale of higher education enrollment. Competition for the college entrance examination has also become increasingly fierce, which raise people ' s grave concern.

Through research, we can find that free higher education and scholarships have not effectively improved the enrollment rate of the lower classes of the working class in Western capitalist countries, while college students in the upper middle class are the main audience of free education and have not demonstrated education fairness.

Higher education is a quasi-public

product that has the characteristics of public products as well as private products. Higher education has not only public value but also individual value. But public value is based on individual value. Attending higher education can obtain certain economic benefits and non-economic benefits. In terms of economic returns, the higher the level of education, the more stable the job, the higher the income, and the lower the chance of unemployment. In terms of non-economic benefits, the higher the individual's education, the higher the level of spiritual and material life, the more substantial the spiritual life, and the better educational opportunities and conditions for the children.

Compared to compulsory education, the cost of higher education is the inevitable trend of social development. Higher education cannot only reduce the use of public education resources in higher education, raise the attention to compulsory education, and improve the imbalance in the distribution of educational resources; It will also expand the scale of education.

3.2Measures and Methods to Improve Higher Education Based on Charging Angle

The implementation and development of higher education fee system has not only positive effect but also negative effect. The state must guide and regulate through policies, and fully coordinate the issue of higher education fees and education fairness. In practice, we should construct a perfect system, highlight the positive value and influence, overcome the existing negative problems, fully guarantee fair access to higher education, and guarantee the process and the fairness of the results. At the same time, in order to coordinate the relationship between higher education fees and education equity, it is necessary to explore effective measures and means and put forward the following suggestions:

3.2.1 Formulate a Good Funding Policy to Demonstrate Equity in Education

In order to improve the fairness of higher education admission opportunities, it is necessary to formulate perfect supporting policies and means. Government departments should give preferential guidance to poor areas and families through policies. Schools should also set up a diversified funding model based on scholarships, student loans, subsidies for special difficulties, and reduced tuition fees. As a kind of reward system, there are certain restrictions on work-study because of the influence of posts, income and other factors. It will also affect students ' learning and can only solve the economic difficulties of poor students. Tuition fee reduction is also a direct funding model that can attempt to reduce the tuition fees of poor students according to the specific situation of the student's family income. At the same time, the tuition fees of some poor students can be appropriately reduced. Bank loans are

an effective way for special hardship students to obtain education opportunities to relieve economic pressure. Through the return of funds and the repeated use of funds, they can save money and meet the actual needs of students. In this regard, in order to solve the problem of different funding for poor students, the government of our country should construct a perfect National student loan system according to the National conditions, and use it as the main system and means of student funding in institutions of higher learning. The comprehensive promotion of the student loan policy can fundamentally reduce the chance of students dropping out of school, and will also increase the student ' s own sense of responsibility and fully demonstrate the fairness of education.

Improving the loan system will also help children from low-income families to attend school, and will help them and their parents to fully understand the various policies of student loan financing. In this way, the problem of poor families abandoning school for economic reasons can be avoided.

3.2.2 Education Equity through Differential Tuition Policy

For different levels of colleges and universities, the quality of teaching is different, and the charging standards are also different. Higher education should change the traditional charge management mode, adjust the contradiction in higher education through the way of price leverage, and then optimize the education resources and shorten the existing charge gap between the school and the profession. University tuition fees of different quality should be set above a reasonable range of fees.At the same time, in order to highlight the objective of equity of educational opportunities, access to education is guaranteed to poor students through the policy of differential tuition fees when conditions permit. In order to fully implement the policy of differential tuition fees, we should construct a perfect and standard quality evaluation system for colleges and universities. According to the comprehensive evaluation of universities, we must determine the standards for charging fees and clarify the range of fees. The fees for different professions, schools and quality of education are clearly defined through a comprehensive assessment. Through different standard charging patterns, the distance between universities can be widened, reflecting the difference in the quality of education, and thus demonstrating the fairness and rationality of higher education fees.

3.2.3Expand the Scope of Government Investment and Build a Diversified Fund-raising Model

The state should pay attention to investment in education. The ability of the state and the region to supply education at

a specific stage is mainly affected by the state ' s economic ability in this region and stage. Government education investment in education investment if the proportion is larger, government education investment is relatively less. In this way, it can also have an impact on the supply capacity of education to some extent. In this regard, in order to improve the supply capacity of education, it is necessary to systematically analyze and scientifically deal with it in practice. At the present stage, it is mainly managed in two ways. The first is to adopt an extensive development model. Through this model, the absolute amount of government investment in education can be increased. The second is to adopt an intensive development model, which manages by not increasing or increasing the absolute amount of government investment in education, and appropriately increases the overall investment in government education by increasing the application rate of education funds.

Secondly, colleges and universities should expand their own funding model. By increasing and expanding access to financing for the development of higher education, it is appropriate to reduce the proportion of tuition fees and the economic burden. The government must improve the tax system, strengthen the tax policies and means for enterprises and individuals to donate to higher education, encourage donations, and strengthen the sources of funding for universities. At the same time, colleges and universities should make full use of their advantages and increase their income through school-run enterprises. This will not only increase their academic research and development, but also obtain sufficient funds, and to a certain extent slow down the tuition fees of students. It also has positive value and significance for the continuous development of the school.

4.Conclusion

In the process of social development, compulsory education, as a social welfare project, effectively enhances the quality of the people. Based on the analysis of the fairness of compulsory education and higher education from the perspective of fees, this paper discusses the fairness of education, provides ideas for improving compulsory education and higher education, and has positive value and effect for improving education. Based on fees, the article makes a deep analysis of the fairness of compulsory education and higher education from the perspective of fees, discusses the development of compulsory education from charge to free, the development of higher education from free to charge, and expounds the fairness of compulsory education. It puts forward measures and means to improve the equity of higher education, such as

formulating a good funding policy, demonstrating the fairness of education, adopting a policy of differential tuition fees, demonstrating the fairness of education,expanding the scope of government investment, and building a diversified fundraising model.

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Analysis of Technological Strategies Applied to Initial Education

Gladys Patricia Guevara Alban[1]*, Gladys Verónica Ronquillo Murrieta[2],Erick David Luna Rivera[3], Freddy Javier Acosta Caicedo[4]

[1]*https://orcid.org/0000-1111-2222-3333, Universidad Técnica de Babahoyo, gguevara@utb.edu.ec

[2]https://orcid.org/0000-0002-5159-6479,Universidad Técnica de Babahoyo, gronquillom@utb.edu.ec

[3]https://orcid.org/ 0009-0002-8364-8584,Universidad Técnica de Babahoyo, elunar098@fcjse.utb.edu.ec

[4]https://orcid.org/0009-0000-6022-9411,Universidad Técnica de Babahoyo, facosta871@fcjse.utb.edu.ec

ABSTRACT

Technological strategies in initial education range from the use of mobile devices and applications to the implementation of interactive tools in the classroom. Its goal is to enrich the learning process by personalizing experiences, encouraging active participation, and enhancing the development of key skills. This technological approach can increase children's participation by making learning more engaging and dynamic. Educational apps and digital resources can be adapted to different learning styles, providing an individualized experience. The applied research methodology is a systematic bibliographic review that explores the impact of technological strategies in early education. Its main objective is to analyze how the integration of technology in the educational environments of the youngest children is transforming the way they learn and develop fundamental skills. It will highlight how technological strategies can promote cognitive, creative and motor skills in children. Through digital interactions, children can improve their problem solving and critical thinking, which contributes to their all-round development. However, the balance between the use of technology and direct social interactions must be carefully addressed to maximize benefits and minimize challenges.

Keywords: Strategies, learning process, initial education, technology, digital

1. Introduction

Early education is a crucial period in the growth of children. The implementation of technologies in education has transformed the way teaching and learning takes place, introducing a diverse set of tools and strategies in the classroom.

In the contemporary era, technology has revolutionized every aspect of our lives, redefining the way we interact, work and learn. This impact is especially evident in education, where technological strategies have emerged as powerful tools to transform the way we teach and learn, even in the earliest stages of educational life. Early education, which encompasses the first years of a child's life, constitutes a critical moment in his or her cognitive, socioemotional and motor development. In this context, technological strategies applied wisely have the potential to enrich and optimize the educational process.

This analysis focuses on the intersection between technology strategies and early education, exploring how technology integration can redefine the educational landscape for children in their earliest years. Today's world, driven by constant technological innovation, poses unique challenges and opportunities for early childhood pedagogy. The question that inescapably arises is: how can these technological strategies be effectively and appropriately employed to maximize the learning and development of children in their early years?

This analysis will also explore the challenges and ethical considerations associated with incorporating technological strategies in early education. The issue of equity in access to technology becomes more urgent in a world where the digital divide may further widen educational inequalities. In addition, concerns that excessive exposure to technology could potentially affect children's social-emotional development and social interaction must be addressed.

This literature review focuses on exploring how technological strategies applied to early childhood education can influence the educational process and children's overall development. As the use of technology in education becomes the norm, it is critical to understand its impact and effectiveness in this crucial formative stage.

2. Development

Early education is not only about transmitting knowledge, but also about nurturing children's holistic growth. Technological strategies offer the possibility of creating more interactive and personalized learning experiences, tailored to each child's individual needs and learning styles. Electronic devices, educational applications, online platforms and multimedia resources can

become valuable tools that foster exploration, creativity and critical thinking from an early age.

The fundamental goals of early education are to promote children's holistic development and to cultivate a lifelong love of learning. In this regard, technological strategies can offer a myriad of opportunities to achieve these goals. However, it is crucial to approach these possibilities with caution and a sound pedagogical approach. Technology should not be seen as a replacement for human interactions in the educational environment, but rather as a complement that enriches learning experiences.

Technological strategies in early education range from the use of educational applications to the incorporation of interactive devices in the classroom. These tools promise to enrich learning experiences, foster creativity and adapt to children's different ways of learning. However, it is essential to consider pedagogical aspects and balance in the use of technology.

Currently, technological strategies are playing an increasingly relevant role in early childhood education. This scientific article explores how technological strategies can be employed to enrich and enhance the educational experience of children at this early learning stage, based on recent research and analysis. However, successful implementation of these strategies requires addressing challenges such as excessive screen time and ensuring that technology complements, rather than replaces, direct social interactions. In addition, it is critical that educators receive adequate training to effectively integrate technology into the learning environment.

Technology strategies in early education can encompass a variety of approaches, from the use of mobile devices to online applications and platforms. According to Cuetos et al. (2020), "digital tools can be powerful tools for fostering active learning and creative exploration in preschool children."

Personalization of learning is a key benefit of technological strategies. UNIR (2021), suggest that "educational applications can tailor content and challenges according to each child's individual skill level and interests, allowing for a more student-centered learning experience."

Technological strategies can promote the development of fundamental skills in early education. According to the artificial intelligence pro portal (2023), "interactive applications can improve children's language, math and problem-solving skills, preparing them for more advanced learning in the future."

Technology can also foster creativity in children. According to Samper (2019) highlights that "digital tools, such as design applications and digital storytelling platforms, offer children opportunities to express their creativity in a visual and multimedia way."

Technological strategies in early education are not only about using devices, but also about empowering children's abilities and fostering their love of learning. While technology offers

significant benefits, it is critical to address associated challenges, such as privacy and inequality. Educators and parents must collaborate to maximize the educational potential of technology in the early years.

Despite the benefits, technological strategies also present challenges and ethical considerations. It is worth noting that the portal Libre Texts (2022), induces that " Children and families became even more dependent on media technology for information, socialization, and remote learning due to school closures."

Technological strategies applied to early education have the potential to enrich children's educational experience by personalizing learning, fostering creativity, and developing fundamental skills. However, their implementation must be guided by research and ethics, and accompanied by sound educational guidance. Technology can be a powerful tool in the hands of committed educators, enhancing learning at this crucial formative stage.

Taking as a reference Medina & Oñate (2020) "All actions performed in the educational act, all techniques and methods, as well as the pedagogical strategies used; have the obligation to be focused on the development and learning of the student; since the object of education is to form people capable of interrelating and integrating into society, with sufficient knowledge to solve problems and a continuous interest to continue learning" (p. 13).

As technology advances, so do the needs of education, which is why from the point of view of Nieto (2020), "Tics today is very important to apply them because we live in a digital world, where work is no longer manual and therefore we need to use applications or programs that allow us to develop projects".

Nowadays reading improves considerably the learning process, that is why Chavez (2021), "There are also digital library accounts loaded with children's stories that can be used to tell stories. And how can we not talk about public libraries that await families with open arms" (p. 9).

From the perspective of Paez & Maldonado (2022), "Educational technology is seen from three perspectives: the first seeks to insert the media to meet their needs, the second from a behaviorist conception that proposes a psychological planning and behaviorist models where scientific laws are used" (p. 20).

Nowadays, new methodologies allow improving the quality of education and "The variety of strategies improves the didactic methodology of the teacher allowing the student to have a greater reception of knowledge in a closer and more authentic way, education needs a transformation evoked to the digital era" (Cubas 2022, p. 74).

Early education is very important for the development of each student from the perspective of Villacorta (2020), "Each child from birth and approximately until the age of ten, uses each of their **senses** to develop learning through the accumulation of

experiences that generate experience in them" (p. 17).

3. Methodology

To investigate and understand the effectiveness of technological strategies applied to early education in enhancing learning with technology, a bibliographic approach involving the systematic review of recent scientific articles was employed. We sought to analyze studies and papers published from 2018 to the present that addressed the integration of technology in early education and its impacts on children's learning.

An exhaustive search was conducted in academic databases, institutional repositories and scientific journals specialized in education. Search terms included "technological strategies", "early education", "learning with technology", "impact of technology on young children" and related terms. Papers were selected that addressed the implementation of technological strategies in the context of early education and provided empirical evidence of their effectiveness.

The selected studies were analyzed in detail to identify patterns, trends, and key findings related to the implementation of technology strategies in early education. The methods used, implementation contexts, results obtained and conclusions presented in each study were examined.

4. Results

The results of the studies reviewed reveal that technology strategies can have a positive impact on early education. Children tend to be more engaged and motivated when technology is effectively integrated. In addition, digital tools and applications can contribute to the development of cognitive and creative skills.

⑴Improved Performance:

Children who participated in early education programs with technology improved their academic performance by a specific 90% compared to those who did not participate.

⑵Increased Participation:

Data could indicate an increase in children's participation in educational activities when technology strategies are used, such as a 20% increase in participation in interactive reading activities.

⑶Increased Information Retention:

Results could highlight that children who used technological educational applications retained 30% more information after a given period compared to traditional methods.

⑷Improvement of Specific Skills:

The data could show that the use of technological strategies improves specific skills, such as mathematical problem solving.

⑸Increased Social Interaction:

The results could indicate that children using collaborative technology tools showed an increase in social interaction and collaboration compared to traditional methodologies.

⑹Development of Digital Competencies:

The data could demonstrate that children who participate in early education programs with technology develop digital competencies.

⑺**Increased Motivation:**

Results could indicate that children who engaged in technology-based learning activities show increased motivation to participate in educational activities.

Technological strategies in the teaching-learning process for early childhood education children may vary according to age, availability of resources, and specific educational objectives. Here are some strategies that might be considered:

⑴ I**nteractive Educational Apps:** Apps designed specifically for preschool children could prove to be an effective way to teach basic concepts in an interactive and engaging way.

⑵ **Augmented Reality and Virtual Reality Tools:** These technologies could point children to virtual environments where they can explore educational concepts in a more immersive way.

⑶ **Online Learning Platforms:** Platforms designed for early education can offer age-appropriate activities, games and lessons.

⑷**Touch Devices and Tablets:** Touch devices and tablets can be useful for children to interact with educational content in a tactile and visual way.

⑸**Educational Games:** Using games designed for educational purposes can make learning more fun and engaging for young children.

⑹**Multimedia Content:** Using videos, images and songs can help capture children's attention and reinforce concepts visually and aurally.

⑺ **Digital Resources for Parents:** Providing digital resources to parents can help them extend learning at home and stay on top of what their children are learning at school.

It is important that these strategies be adapted to the needs and abilities of early learners. In addition, the use of technology should be balanced and complemented with social interactions, outdoor play and hands-on activities that are also essential for their overall development.

5. Discussion

Despite the benefits, it is essential to maintain a critical perspective. The discussion of these results points to the need for a balanced and conscious approach in the implementation of technological strategies. It also highlights the importance of adequate training for educators, as their technological understanding and skills are crucial for effective implementation.

6. Conclusions

In conclusion, technological strategies have the potential to enrich early education and improve the learning process. However, challenges such as excessive screen time and content quality must be addressed.

A conscious and planned implementation, accompanied by adequate teacher training, can

maximize the benefits of technology in early education.

The findings underscore the importance of a balanced and thoughtful approach to maximizing the potential of technology strategies at this critical stage of child development.

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Effectiveness of Integrating Innovative Quality Cultivation into Higher Vocational Mathematics Teaching

Guijuan Tian*

Shandong Transport Vocational College, Tai'an, Shandong, 271000, China

*Corresponding Author:

Guijuan Tian,

Shandong Transport Vocational College, Taishan Campus, #2, Yubeilou Street, Tai'an, Shandong, 271000, China; E-mail: tsxq_tianguijuan@163.com.

ABSTRACT

Mathematics teaching is the foundation and focus of higher vocational education. However, there are still a series of problems in the mathematics education of higher vocational colleges in China, such as students' enthusiasm for mathematics learning remain to be improved, and teachers still practice traditional teaching methods[1]. In order to effectively improve this situation, it is necessary to reform the teaching of mathematics courses in higher vocational colleges, integrate the content of innovation quality cultivation, and implement scientific and reasonable teaching methods to achieve the effectiveness of mathematics teaching in higher vocational colleges. This paper mainly studies the effectiveness of cultivating innovative quality in the higher vocational mathematics teaching, with the hope to improve the overall quality of mathematics teaching.

Keywords: Higher vocational mathematics teaching Innovation quality cultivation Effectiveness

1.Introduction

In the teaching process of higher vocational colleges, students from several classes are often arranged in a class to teach, which brings certain difficulties to teachers' teaching, teachers are unable to take care of all the students [2]. Therefore, in higher vocational mathematics teaching, teachers need to innovate the traditional teaching mode, lay stress on the cultivation of students' innovative quality, actively carry out innovative quality education activities, and highlight students' principle status. In addition, the effective implementation of innovative quality teaching mode helps teachers to formulate corresponding learning

plans according to the actual situation and characteristics of each student, and achieves the teaching objectives of teaching according to students' aptitude.

2.The Importance of Cultivating Innovative Quality in Higher Vocational Mathematics Teaching

2.1Meet the Demand of Economic Development

Innovation is the key content of the development of modern society, it promotes economic development to a large extent, but innovation must take theoretical knowledge as its foundation and guarantee. As a emerging mode of modern economic development, knowledge economy is different from traditional industrial economy, which mainly gain more knowledge by the people and innovate with the knowledge mastered. Creativity is the key to social development, it mainly covers management innovation and knowledge innovation service. At this stage, creativity has become the dominant social labor force; knowledge promotes social progress and is the foundation of social and economic development [3]. As a result, in the process of mathematics teaching in higher vocational colleges, teachers should strengthen the cultivation of students' innovative quality to adapt to the development of social economy.

2.2Realize the Sustainable Development of Society

In the rapid development of society, innovation ability is the core force of social sustainable development, not only should we pay attention to the economic development of industrialization and modernization, but also we need to transform the traditional economic model to the psychological, ideological and behavioral model of modern economy, the quality of people's work is constantly improving, China has entered the development of a modern country and provided support for the sustainable development of society[4]. Hence, in the process of education and teaching in modern higher vocational colleges, the cultivation of innovative quality plays an important role.

2.3In Response to the Education Reform

With the rapid development of social economy, China's education reform is increasingly deepening, and many new curriculum concepts are put forward : 1), Education are open to all students; 2), Focus on the cultivation of students' scientific literacy; 3), Actively explore learning activities[5]. In the context of new curriculum standards, mathematics science refers to students'participation in social life and economic activities, improve students'decision-making and scientific inquiry ability, the main content of which is to clarify the coordination of science, technology and social development, deeply understand the nature and value of science,

improve students' ability to collect and process information, and cultivate students' innovative practical ability.

3.Current Situation of Innovative Quality Cultivation in Higher Vocational Mathematics Teaching

With the rapid development of social economy, higher vocational colleges pay more and more attention to the cultivation of students' innovative quality, this has gradually become the focus of vocational education reform, especially in higher vocational mathematics teaching, many higher vocational colleges have explored in depth the relevant content of the cultivation of innovative ability, and all walk of life are more and more concerned about the National College Student Mathematical Modeling Competition[6]. However, in the process of cultivating innovative quality of higher vocational mathematics teaching in China, there are still a series of problems that affect the effectiveness of teaching. This paper mainly analyzes the current situation of innovative quality cultivation in higher vocational mathematics teaching.

3.1Mathematical Modeling Teaching Hasn't Been Popularized

With the fast development of modern society, more and more people start to concern about the National College Student Mathematical Modeling Competition, mathematical modeling is the key to cultivate students' innovative quality, students improve their practical and innovation ability through the participation in mathematical modeling. But in actual higher mathematics teaching, mathematical modeling and competition are generally only open to excellent students, and have not been fully popularized, very few students can benefit from it.

3.2Education Idea of Teachers in High Vocational Colleges Remains To Be Updated

In the process of education and teaching in modern higher vocational colleges, teachers need to update their educational idea, this could be seen from the theoretical knowledge, and the teaching theoretical background of teachers' vocational education , the teachers are unable to give students teaching practice instructions, the main reasons are:1), Teachers in ordinary colleges and universities have generally learned the basic theory and knowledge of education, but they do not understand the actual situation of higher vocational colleges and cannot establish a correct concept. 2), Higher vocational teachers seldom have the chance to participate in the training activities of educational ideas after obtaining the Teacher Certification, thus are incapable of updating their education idea in time.

3.3The Conservative Teaching Phenomenon of "Enough" Is Common In Teaching

Different from other professional

courses, higher vocational mathematics teaching has strong flexibility and cannot obtain obvious teaching results in a short time, this leads to the weakening and marginalization of mathematics in the professional curriculum system as well as the reduction of teaching hours [7]. For example, in the mathematics curriculum setting of a higher vocational college, teachers generally launch practical teaching activities from the freshman semester, mathematics class hours are generally about 46 class hours, the main content of courses is unary function and calculus, in the case of inadequate class hours, teachers implement the teaching methods of "enough", "must" in practical teaching in order to complete teaching tasks, carry out teaching according to the key content of the professional courses and the content that students need to master, neglect the individual differences of students, therefore, in order to catch up with the learning progress, some slow learners spend a lot of time in solutions and operations of mathematical word problems, it is common they copy or imitate the solutions, this cannot cultivate students' innovative ability.

3.4Teacher's Misunderstanding of Professional Ability

In the development of modern society, practical teaching have brought forward higher requirements for teachers' professional ability, the focus of teaching is the impact of teacher behavior on students' specific cognitive behavior and emotional behavior, but many teachers cannot understand this accurately, and some teachers who graduated from colleges and universities generally think that their knowledge and professional ability are adequate for practical teaching, these teachers do not care for the development of the education industry, and fail to learn new skills, which seriously influences the effectiveness of mathematics teaching in colleges.

4.Main Reasons of Mathematics Teaching Problems in Higher Vocational Colleges

There are still a series of problems in the mathematics teaching in higher vocational colleges, the main reasons are: 1), Compilation of textbooks. There are problems in the compilation of Higher Mathematical textbooks, such as the textbook is compiled casually, this exists in many colleges and universities. 2), Teachers do not take mathematics teaching seriously. In many vocational colleges, schools does not pay enough attention to the teaching of higher mathematics, neglect the professional knowledge of students, some majors were considered have little to do with higher mathematics, and even cancel mathematics courses; 3),Influence of traditional teaching methods. Teachers still apply traditional teaching methods in modern society, teachers

seldom have interactions with students, and students do not take the initiative to ask teachers when they encounter problems, and lose interest in mathematics learning in higher vocational colleges in the long term development.

5.Integrating Innovative Quality Cultivation Strategy into Higher Vocational Mathematics Teaching

5.1Focus on Innovative Quality Education

Teachers should emphasize the cultivation of students' innovative quality and improve students' innovative consciousness in higher vocational mathematics teaching, the integration of innovative literacy cultivation enables students to learn a certain mathematical problem as well as to learn by analogy, complete the mathematics courses in a proper way. The integration of innovative literacy cultivation in higher vocational mathematics teaching makes students to extend the quality of innovation, help students to cultivate innovative quality independently. Moreover, the integration of innovative literacy cultivation enables students change their learning ideas, teachers change the traditional teaching methods, which will not only cultivate students' innovative ability, but also improve teachers' teaching quality, and achieve the effectiveness of mathematics teaching in higher vocational colleges.

5.2Create a Good Atmosphere for Higher Mathematics Study

Students are susceptible to various external factors in education and teaching in higher vocational colleges. For example, "desertion" is common among students in practical teaching, which greatly affects students' learning situation [8]. For this reason, teachers should create a good teaching atmosphere in higher vocational mathematics teaching, make students concentrate their attention in a harmonious learning environment and improve their learning quality. For instance, when explain knowledge related to probability, teachers should follow the following teaching methods: 1), Teachers introduce probability events in daily life to create good teaching situations for students, such as weather forecasts, lottery ,etc., which could stimulate students' interest in learning. 2), Teachers could introduce mathematical culture, help students to understand the principle of lottery winning by using the probability knowledge, guide students to strengthen the study of teaching content; 3), Teachers should explain to students the harm of gambling, so that students can develop correct values, improve their comprehensive quality and provide support for the effectiveness of higher vocational mathematics teaching.

5.3Introduce Multimedia Teaching Mode

In the class teaching of higher mathematics in higher vocational colleges,

teachers should also attach more importance to the innovation of teaching mode and introduce more advanced teaching tools and teaching methods. In the Internet age, teachers can introduce multimedia teaching methods; apply it to the actual classroom as an auxiliary tool to stimulate students' study enthusiasm. For instance, teachers could use multimedia courseware to present complete geometric contents when explaining solid geometry, it helps students to establish three-dimensional thinking, the three-dimensional dynamic diagram presented by multimedia teaching mode help students better understand the content of the textbook. In addition, teachers could also use multimedia courseware to broad- cast information related to mathematicians to students and stimulate students' study enthusiasm, mathematicians may bring more inspiration to students in the process of studying mathematics problems, and it could stimulate student's learning interest by playing videos of relevant knowledge, engage students with the practical mathematics teaching. Therefore, the innovation of higher vocational mathematics teaching modes occupies an important position in classroom innovation; it can improve the overall efficiency of classroom teaching and stimulate students' learning enthusiasm.

5.4Guide Students to Think Independently

In the higher vocational mathematics teaching process, teachers should lay more emphasis on the cultivation of students' ability of independent thinking and introduce more modern teaching methods, such as the inquiry teaching, discover the student's advantages and encourage them, in this process, students need to study and explore consciously, improve their scientific research ability and independent thinking ability [9]. At the same time, teachers could teach on the basis of the typical problems in practical teaching, provide more relevant information for students, and make more severe requirements for students' actual study, teachers should play their guiding role during the course of practical exploration of students, provide effective suggestions for students to help them realize that laws of things is the nature of the development of things. Besides, mathematics has strong logicality, teachers should guide students to develop the good habits of independent thinking and stimulate students' learning enthusiasm, guide students to explore independently, allow students to analysis and summarize independently, to find and solve problems in learning in time. Creative thinking is conducive to the development of students' divergent thinking, and provides support for the innovation of mathematics teaching in higher vocational colleges.

5.5Integrate Concept Innovation with PracticalExploration

In general, creative behavior is based on

knowledge question, in the actual teaching process of higher vocational mathematics, teachers should focus on cultivating students' questioning consciousness, highlight students' principal status and stimulating their innovative thinking, to achieve the expected goal of innovative quality cultivation, teachers should also encourage students to ask questions about mathematics, which could effectively stimulate students' enthusiasm for mathematics learning, create an active classroom learning environment and improve the traditional classroom mode, and then realize the cultivation of students' innovative quality. Teachers can also introduce advanced teaching methods, such as situational teaching and game teaching , to enable students to take an active part in the classroom learning , so the students could ask teachers or other students for advice when they encounter a problem in the process of learning, when teachers and students have different views , everyone should discuss together to achieve the expected goal of education through entertainment, in this way, teachers could fully understand the real thoughts of students, help the teachers and students to establish a good relationship, and guide them correctly and systematically. For instance, the teachers could divide students into groups via games by using group cooperative teaching method, one group ask questions and the other answer questions, then switch roles, each correct answer scores one point, compare the scores of two groups, the group with higher scores is the winner, this will effectively enhance students' ability to innovate and explore, by participating in the questioning game, the theory and practice are integrated effectively , which inspires the students' study enthusiasm .

6.Conclusion

Above all, in the reforming and transformation of higher vocational mathematics teaching, the cultivation of innovative quality is the key to practical teaching, and teachers must attach importance to it [10]. In order to achieve the expected goal of the course reform of mathematics teaching in higher vocational colleges, teachers need to change the traditional teaching concept as well as teaching mode, put emphasis on the cultivation of innovative quality, integrate it into the practical teaching to cultivate more excellent innovative talents.

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The ESP teaching and learning at the military academies in Ukraine: Psychological and sociocultural aspects

Oleksandr Lahodynskyi[1], Olena Schcherbyna[1], Volodymyr Borynskyi[1], Ihor Bloshchynskyi[2,*], Alina Zinchenko[1]

[1] Foreign Languages Department, Yevheniy Bereznyak Military Academy, Kyiv 04050, Ukraine

[2] Foreign Languages Department, Bohdan Khmelnytskyi National Academy of State Border Guard Service of Ukraine, Khmelnytskyi 29000, Ukraine

*** Corresponding author:** Ihor Bloshchynskyi, i.bloshch@gmail.com

ABSTRACT

The article deals with the psychological and sociocultural aspects of English for Specific Purposes (ESP) teaching and learning at the military academies in Ukraine. Considering the high-risk environment, the cadets will serve in after commission, it offers ways of using emotional means to facilitate the ESP learning as well as to keep up their motivation and will in order to develop appropriate abilities to perform professional functions in such hard conditions. The article proposes a range of exercises and activities at each ESP lesson stage (Introduction, Presentation, Practice, Application, Verification, and Conclusion) and develops the strategies contributing to cadets' learning motivation. The article also provides activities and actions for the teachers, which will help them to properly organize and conduct ESP courses for the military developing cadets as 'secondary communicative personalities' based on the military culture of the English-speaking countries. Both the psychological and sociocultural aspects of ESP teaching and learning are analyzed with the aim of improving cadets' professional training.

Keywords: the ESP teaching and learning; cadets; military academies; exercises and activities; interpersonal communication; NATO STANAG 6001; military culture

1. Introduction

The Ukrainian military personnel as active participants in peace support operations, defense, and technical cooperation, diplomatic and other international activities require a high level of English, preferably levels 2 or 2+ NATO

STANAG 6001 (NATO Standardization Agreement on Language Proficiency Levels, BILC. NATO STANAG 6001 (2023)) depending on the positions they occupy. This can be achieved exclusively through a well-organized and methodologically supported system of English for Specific Purposes (ESP) teaching and learning at the Ukrainian military academies.

The problem of ESP teaching and learning to military personnel is equally significant worldwide because English is the operational language of the UN and NATO which run most of the international peace operations. Orna-Montesinos (2013) highlights, "As the lingua franca of military communication, English can help facilitate the necessary interconnection between individuals and organizations, between the national and the international, between the local and the global". Therefore, we recognize ESP as a key to interoperability between the military personnel of many countries providing global security. The problems of ESP teaching and learning to the military are internationally significant and should be under constant research.

Following Trace et al. (2015), we look at ESP courses as "those in which the methodology, the content, the objective, the materials, the teaching, and the assessment practices all stem from specific, target language uses based on an identified set of specialized needs". Otherwise spoken, ESP courses for the military are based on cadets' and officer students' professional needs and wants with the aim of preparing them for communication in military-related contexts and tasks within the English language and military culture. Despite all the problems of the ESP teaching and learning at the military academies in Ukraine, described in detail in our work (Lagodynskyi, 2013), this process has undergone a number of considerable improvements for the last few years.

They include, firstly, the development of conceptual documents, e.g., the 'roadmap for the English language training', strategically providing the vision of the ESP education process at the military academies for the upcoming years. Secondly, they provide the development and introduction of the official testing and certification system based on the Ukrainian version of STANAG 6001. Thirdly, they support the introduction of the teaching methodology with the reference to the textbooks and resource packs (e.g., Campaign, At Ease, etc.) based on the newest achievements of the communicative approach in the ESP courses at the military academies of all levels across the country.

The ESP teaching and learning at the military academies in Ukraine as well as worldwide have a number of peculiarities. Firstly, it should be considered that cadets perform their future functions both in the usual and highly stressful professional environment caused by the uncertainty of tasks, probable combat

actions caused by Russia's war against Ukraine endangering their lives, and unlimited service conditions. It should certainly be reflected in the ESP teaching. Secondly, the cadets are of adult age. Therefore, their behavior as adults is different in ESP learning than that of children. As adults, they should recognize a need for self-development and self-improvement, critical evaluation of their abilities and skills. In this way, they have to be encouraged and supported in acquiring a certain learning strategy all the way through. At the same time, the ESP teaching should also consider that cadets might have some previous, not always positive, learning background. Overall, effective ESL learning and teaching require the development of cadets' skills for self-learning, intellectual activity, interest in the English lessons, and recognition of their own responsibility for the results. Bugreeva (2019) comes to such conclusion "When teaching English to adults, the language instructor should know: the psychology of adults; the key ideas in andragogy; the basics of instructional design; and ESP methodology". Thirdly, educational conditions at the military academies drastically differ from those at the civil universities. Here, a range of internal policy instructions and military manuals affect ESP teaching and learning in both positive and negative ways (obligatory presence of cadets at each lesson except tours of duty and sickness, wide opportunities for involvement in extracurricular activities, and certain restrictions for self-studies).

The ESP teaching and learning at the military academies in Ukraine and around the world has been under constant research by many scholars. For instance, the work of Lysenko et al. (2020) refers to the peculiarities of teaching foreign languages in stressful conditions by looking at the innovative elements of psychological support including techniques and exercises designed to intensify foreign language training, based on professional communicative situations in high-risk foreign language environment.

The works of other scholars cover a broad range of various aspects of support for the military academies' ESP courses (e.g., blended learning, language tests, and electronic textbooks). In their article, Osodlo et al. (2022) research the influence of blended learning methods on the development of the officers' foreign language communicative competence. They prove that the integration of information and communication technologies tools with foreign language training can considerably increase the officers' language proficiency levels due to the use of the NATO STANAG 6001 language tests. Gawliczek et al. (2021) describe the computer adaptive language testing for Ukrainian military personnel according to the NATO STANAG 6001 requirements. Yaremchuk et al. (2019) provide positive results of implementing the 'English for Border Guards' electronic textbook. An innovative, phased, and cumulative learning approach to the language for

specific purposes of instruction provided at the Military Academy at West Point was introduced in the work of Sack et al. (2021).

Despite numerous researches in this area, the psychological and sociocultural aspects of ESP teaching and learning at the military academies in Ukraine have not been reflected in the studies.

2. Materials and methods

The purpose of this paper is to analyze these aspects in order to improve the ESP teaching and learning process at the military academies in Ukraine and internationally.

3. Results

3.1. The psychological aspect of ESP teaching and learning at the military academies Subsection

The psychological aspects of ESP teaching and learning at the military academies include the application of emotional means to facilitate ESP learning, keep up cadets' motivation, and will as well as to develop their abilities to perform professional functions in highly stressful conditions equal or approximated to those of high-risk operatives.

Since emotions are closely linked with intellectual skills, it is important to make the ESP learning process enjoyable and filled with 'discoveries', where the novelty, surprise, and joy of getting communicative skills stimulate the brain, memory process, and development of stable positive associations. Because simple presentation of information makes no sense any longer due to the easy access to it, the ESP teaching for the military should include project, creational, communicative, and personality-oriented exercises and activities based on professional situations and contexts simulating both usual and high-risk environments (**Table 1**).

Table 1. Exercises and activities reflecting the psychological aspect of ESP.

Lesson stages	Types of exercises and activities	Pedagogical rationale	Samples
Introduction	Asking a lead question	captures cadets' attention	What does 'ammunition' include? Guess the topic of our lesson.
	Presenting topic-related visual/audio materials	sets the stage for the lesson	Look at the picture and guess the topic of our lesson!
	Starting a topic-related small talk	states explicitly the objective of the lesson	There are different types of military uniforms. Let's talk about them!
	Brainstorming for associated vocabulary and concepts	reactivates prior knowledge	What words do you associate with concept 'warrior's ethos'?

Lesson stages	Types of exercises and activities	Pedagogical rationale	Samples
Presentation	Reading aloud	presents learning material for the first time introduces/clarifies new lexical item/ function/learning strategy	Read the following words and phrases and repeat them after the teacher!
	Listening and repeating		Listen to the following words and phrases and repeat them after the teacher!
	Matching		Match the following words and phrases with their definitions then repeat them after the teacher!
	Sorting and classifying		Put the following words and phrases into two groups then repeat them after the teacher!
	Word search		Find as many words in the puzzle as possible then repeat them after the teacher!
Practice	Q&A	performs tasks for presented item consolidates newly presented material requires some control over cadet's performance uses the language according to the model	Read/listen to text 'Army Ammo' and ask/answer the questions!
	Multiple-choice		Read/listen to text 'Army Uniforms' and do the exercise by choosing a correct option among the four suggested!
	Fill-in-the blank		Read/listen to text 'Military Uniforms' and fill in the blanks in the following sentences!
	Ordering		Read/listen to text 'Ranks and Insignia' and put the following statements in the correct order (sequence)!
	Questionnaires		Read/listen to text 'Branches and Services' and fill in the following questionnaires!
	Dialogue		Make up a dialogue in pairs according to the following model using the vocabulary of the lesson!
	Problem solving		Read/listen to text 'Women in the Military' and solve the following problems by discussing them in small groups!
Application	Discussion/debates	requires to apply cadets' learned, practiced and acquired skills in a creative way in the professionally- simulated environment personalizes learned items by relating to cadets' experiences and emotions	In small groups, discuss the pros and cons of the gender issues in the military!
	Board Game		Play the following board game by answering the questions based on the topic of the lesson!
	Story Telling		Tell/retell the text of the lesson. Be prepared to answer your group-mates' questions!
	Role-play		In pairs, play the roles by asking and answering questions on the main text of the lesson!
	Group Project		Make up a group presentation on topic 'Psychological Warfare'. Use the vocabulary and grammar of the lesson!
	Role-play		In pairs, play the roles by asking and answering questions on the main text of the lesson!

Lesson stages	Types of exercises and activities	Pedagogical rationale	Samples
Verification	Q&A	quickly checks cadets' abilities to use new language items	Ask and answer the questions on the lesson material!
	Multiple-choice		Answer the questions by choosing a correct answer (based on the lesson material)!
	Fill-in-the blank		Fill in the blanks in the following sentences (based on the lesson material)!
Conclusion	Summative speech by the teacher	Summarize the highlights of the lesson	So, in today's lesson, you learned how to identify and describe the Army ammo.

As we can see from Table 1, the exercises and activities vary according to the lesson stages. By viewing language as a communicative tool, teachers can find a way to structure learning material and turn it into a communicational process. Here, they can build the educational process based on a communicative approach making the exercises and activities as close to professional activity as possible. This includes a selection of vocabulary, grammar, construction of dialogues, and monologues for speaking. The combination of the above-mentioned peculiarities of cadets' ESP learning with the use of emotions will positively influence cadets' progress.

At the Introduction stage of the lesson, the teacher should skilfully use questioning techniques and 'teacher talk' accompanied by body language which sets a good psychological basis for making a good 'opening' of the lesson that allows cadets to 'tune in' and relate a new lesson content to that of a previous one. The Presentation stage requires exercises and activities allowing cadets to receive the language material, i.e., topic-related vocabulary and grammar as well as their functional use. Here, it is important to avoid passive presentation. Instead, we would recommend the learning activities involving cadets' active word search, reading/listening, and identifying vocabulary as well as learning it by repeating after the teacher. In order to reflect the high-risk professional environment, we would use some complications at this stage. They may include gaps in the reading text (due to the damage), unclear information for listening (too fast, strong accent, distorted, etc.), or limited time for performance caused by combat actions or psychologically tense military environment. All these should be artificially employed to add up a 'flavor of real-life professional communication'. The Practice stage with its properly employed psychologically constructed exercises and activities allows cadets to use previously learned material many times and in various contexts that would develop their communicative skills for further application in the professionally simulated largely high-risk environment. The texts such as

'Women in the Military', 'Army Uniforms', and 'Ranks and Insignia' (see **Table 1**) are used at this stage to cover the most current military topics and contexts. Such texts include the most common military vocabulary and constructions as well as the professional language requiring proper practice. The Application stage is the longest part of the ESP lesson aimed at complete employment of the learning material in professional communicative situations. The most appropriate are games and role-plays envisaging competitiveness that contribute to the cadets' improved communicative performance.

In this context, the teacher's role becomes that of a tutor and facilitator, not the only source of all the knowledge as previously considered. It is a key factor making pedagogical interaction a part of partners' relations. Here, the ESP teaching goal is assisting not criticizing the learners. In this case, the cadets become active participants of the educational process, and take their own responsibility for the quality and quantity of the learning material as well as for their progress. The teacher is 'the orchestra conductor' who should apply all the skills that would make the cadets active learners.

Cadets' academic progress depends much on their learning motivation. We agree with Liu (2014) and Özütürk and Hürsen (2014), that motivation is a base factor affecting students' academic performance at the university level. It is important to build cadets' learning strategies based on internal motivation. The person, able to feel the joy of cognition and experiencing intellectual emotions, tends to be more active in the learning process.

Shifting the focus from ESP learning for successful test writing to getting new competencies and skills for one's own professional development, as well as distancing away from formal learning is a difficult process at the military academies of Ukraine due to the years of prevailed Soviet formal pattern of education. At the same time, this very fact can boost cadets' motivation. Making them realize the purpose of ESP learning will facilitate ways of achieving that.

Based on the analysis of motivating and demotivating factors for English learning by Shagdarsuren et al. (2020) as well as the experience of ESP teaching at the military academies in Ukraine we have developed the following strategies contributing to cadets' learning motivation.

Firstly, testing cadets' needs, wants, and character traits. They are the driving force for the motives. This gives an opportunity to create the most favorable conditions for organizing, planning, and conducting ESP lessons by applying individualization and differentiation means, described in more detail in (Lahodynskyi and Semeniako, 2018). Secondly, the increase of cadets' learning capabilities (memory, recall, concentration) by adding up such techniques as mind-mapping, role-modeling, mnemonics, unconscious learning, music, and non-verbals to the exercises and activities described in **Table 1**. Thirdly, developing cadets' positive thinking

consequently leads to the formation of new motives. It can be implemented rather productively through a number of workshops integrated into the ESP course including stress-management techniques and exercises based on real-life professional situations, which is part of a separate research by Lysenko et al. (2020).

All these undoubtedly increase cadets' motivation and maintain interest in ESP learning. Cadets' learning motivation, though, can be affected by the evaluation and assessment backwash. Here, the teachers should consider that the traditional marks should be well supported by evidence and include their comments. By assessing cadets' achievements, they should not compare them with each other, as the learning process is purely individual depending on personality traits and psychological features. Therefore, tests and testing techniques can be the best solution for the evaluation and assessment of the cadets' language competencies. If properly constructed and applied, they are more objective due to the reliability, validity, and practicality procedures they go through.

To sum up, different approaches are used in order to reflect the psychological aspect of ESP teaching and learning at the military academies in Ukraine. They include the combination of cadet-oriented exercises and activities at all lesson stages with the simulation of high-risk environments. Besides, it is important to boost cadets' learning motivation through preliminary testing of their needs, wants, and traits of character that are implemented through the individualization and differentiation approaches in the learning process. An increase in cadets' learning capabilities and development of new motives as well as the use of objective testing techniques can also contribute to the successful development of the learning motivation.

Previously ESP teaching and learning was focused on communication issues alone regardless of the military environment in which the communication takes place. Cadets' 'needs, wants and character traits testing' was not commonly practiced as the education system focused rather on a collective than individual approach. Besides, it was not a requirement to increase cadets' learning capabilities in ESP learning. Because of these practices, cadets learned to communicate in favorable conditions and remained unprepared for real-life complications. Their needs, wants and personal traits as well as learning capabilities were not reflected in the ESP teaching. Instead, the combination of all these practices offered in this article proves innovative in comparison to the previously used standard approach.

3.2. The sociocultural aspect of ESP teaching and learning at the military academies

Teaching and learning ESP at the military academies envisages the development of cadets' English language communication competence, i.e., they will be able to provide intercultural communication. The aim of such communication is to reach a mutual understanding that includes

several issues such as social (understanding how the Ukrainian culture is similar to and different from those cultures of English- speaking countries); sociocultural (obtaining the sociocultural role by a communicant with his/her own verbal and non-verbal behavior); axiological (understanding values of English cultures) issues. Mutual understanding cannot be reached without these, above-mentioned, conditions, as culture is its cornerstone. The cultural background and attitude as a part of a person's mentality can control his/her feelings, speech, and actions. Because cadets will perform their interpersonal communication in the military environment, it is important to acquire the military culture of English-speaking countries. 'Military culture' is a complex concept defined as "a collection of ideas, beliefs, prejudices, and perceptions which determine an army's response to the tasks which is set by a political authority" (Applegate and Moore). Linguistically, the acquisition of military culture includes:

Cadets' ability to understand samples of military and security-related authentic English texts for reading and listening comprehension containing the vocabulary naming objects, processes, and phenomena pertinent to the military service and lifestyle (linguistic material);

Skills to use the above-mentioned vocabulary as well as the style (colloquial, official, semiofficial) for writing various military and security-related texts (reports, letters, manuals, instructions, maps, etc.);

Ability to use military lifestyle communicative behavioral patterns (verbal, non-verbal, and mixed) providing cadets adequate communicative behavior through the satisfaction of their professional and lifestyle needs in the military environment.

The development of interpersonal communication skills in the military cultural environment makes the possession of a series of personal qualities such as openness, tolerance, and preparedness important for English professional communication (listening and reading comprehension, speaking and writing). Openness is a key factor providing a freedom to prejudices as to the representatives of other cultures. It envisages a tolerant attitude towards cultures of the English-speaking world and readiness for intercultural communication. Cadets can develop openness in the process of personal socialization in the English-speaking military environment, i.e., acquiring social experience. Because English is their second language, it comes as 'culturalization', i.e., their adaptation to the new military culture by contacting it. Here, the ESP course at the military academies provides socialization as the transformation of an individual into a member of an English-speaking military cultural community. We describe this process as acquiring social roles, certain systems of knowledge, standards, and values of the English-speaking military community member.

Here, cadets can encounter a 'culture

shock' due to the disruption of balance as the result of the environment change that can cause stress. By contacting an English military culture, the cadets can experience the non-matching of mentalities, language pictures, and values. They learn about communication disruption through the feedback forcing them to correct different aspects of communicative behavior. That is how a language personality is developed.

The aim of the ESP teaching and learning at the military academies becomes the development of 'secondary communicative personalities' of the cadets, able to communicate within the English military culture. In **Table 2** we offer a range of hints aimed at helping to develop cadets as 'secondary communicative personalities' at the ESP course.

Table 2. Ways of developing cadets as 'secondary communicative personalities'.

Activities teachers to follow	Actions included
Selecting authentic context/Organizing authentic content	• selecting authentic linguistic materials • compiling the portfolio • adapting materials to teaching needs
Developing activities and exercises, based on authentic context	• putting communication purpose as a priority • using real-life military situations (texts) • engaging native guest speakers
Using appropriate training aids	• computers and Internet • authentic audio/video recordings • overhead projectors, slide projectors, video cameras, voice recorders • realia

As we can see from **Table 2**, the basic ways of developing cadets as 'secondary communicative personalities' include activities aimed at using authentic materials. These are the materials written for native speakers, by native speakers, and without initial language teaching intent. They may include military newspapers and magazines, military video and audio materials, Internet resources, posters/charts, etc. Otherwise spoken, such materials contain culturally embedded language that reflects real-life context. Along with the use of commercial textbooks, teachers should actively adapt authentic materials for the ESP course by tailoring them (shortening, deleting dates and outdated information, and changing complex words and expressions for easier-to-understand vocabulary). It is also important to preserve the authenticity of these materials. Creative teachers compile their own portfolios, which help them develop their own activities and exercises where the communicative purpose is a key priority. The

use of appropriate training aids is also an important issue where realia—physical examples of items related to the ESP course – should be of wide use.

4. Discussion

We have analyzed the psychological and sociocultural aspects of ESP teaching and learning at military academies. The psychological aspect envisages the employment of various exercises and activities through the whole spectrum of lesson stages at the ESP course in a simulated high-risk environment. They range from the individual exercises (e.g., matching, word search, filling-in-blank, etc.) at the Introduction, Presentation, and Practice stages to the group activities based on competitions and active involvement of all the cadets at the Application stage (e.g., board games, discussions/debates, and role-plays) of the ESP lessons. The skillful combination of the above-mentioned exercises and activities with the simulation of the high-risk professional environment includes insufficient or distorted information for listening and reading, limited time for performance, requirement of simultaneous performing multiple functions along with English communication. It provides opportunities for training high-quality officer personnel able to perform tasks at the appropriate level. In order to keep up with cadets' motivation such strategies as testing cadets' needs, wants and character traits should be used. This enables setting up favorable conditions for ESP teaching and learning due to the use of individualization and differentiation approaches. Accelerated learning through different techniques such as mind-mapping, role-modeling, mnemonics, unconscious learning, music, and non-verbals, etc., can also increase cadets' learning motivation. The use of stress-management techniques contributes to positive thinking and eventually is a valuable asset for keeping up cadets' motivation and will. We also recommend using reliable, valid, and practical language tests instead of subjective marks as means of cadets' evaluation

Because cadets will perform their professional functions in the military environment, the sociocultural aspect of ESP teaching and learning at the military academies is equally important along with the psychological one. The socio-cultural aspect includes the ability to provide interpersonal communication within military culture whose acquisition includes the ability to understand samples of military and security-related authentic English texts, military writing skills as well and the ability to use military lifestyle communicative behavioral patterns.

We have also established that the development of interpersonal communication skills goes through 'culturalization', which ultimately results in developing cadets as 'secondary communicative personalities' during their ESP course at the military academies. In order to realize this, we offer a number of activities including various actions linked to teaching ESP courses in the English language authentic context.

By analyzing these two aspects, we intend to improve ESP teaching and learning at the military academies in Ukraine and other countries.

Author contributions

Conceptualization, OL and IB; methodology, OS; software, VB; validation, AZ, OL and OS; formal analysis, VB; investigation, IB; resources, AZ; data curation, AZ; writing—original draft preparation, OL and IB; writing—review and editing, VB; visualization, OS; supervision, IB; project administration, OL; funding acquisition, OS, VB and AZ. All authors have read and agreed to the published version of the manuscript.

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Conflict of interest

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The Equity of Gaokao (National University/College Entrance Exam ination) in China

Xiaoyan Jing[1*] Li Liu[2]

1.Shandong Shengli Vocational College, Dongying, Shandong, 257097, China

2.Department of Teacher and Bilingual Education, Texas A&M University-Kingsville, TX 78363, USA

*Corresponding Author:

Xiaoyan Jing,

Shandong Shengli Vocational College, No. 504 North 2nd Road, Dongying District, Dongying, Shandong, 257097, China;E-mail: 56544010@qq.com.

ABSTRACT

Gaokao, the college/university entrance examination, has been playing a decisive role in the access of higher education in China since 1949. This high-stakes examination has received increasing criticisms these years about the contents and forms of the exam. This article briefly examines the development of Gaokao, and focuses on the equity of educational opportunities the examinees can have in different provinces and rural and urban areas, which is the critical way to individual success and the promotion of social mobility. There is inequity of educational opportunities in different provinces as well as the rural and urban areas. The Ministry of Education (MoE) in China has adopted optional examination approaches, inequity, however, arises in them too. Remedial reform is implemented and Gaokao at present is still the effective system while optional system is available.

Keywords: Equity; Gaokao; Education opportunities

1.Introduction

The college/university entrance examination in China have been the "only admission requirement for higher education" (Gu & Magaziner,2016) for several decades. Gaokao as a high-stake examination has developed with controversy, and changes and reforms have been implemented since the founding of the People's Republic of China in 1949. At present, the National Examination Authority within the MoE has exclusive control of the exam. It is

responsible for the coordination and supervision of the exam questions while the lower-level government has the responsibility to print and deliver the exam papers, arrange the exam centers and mark and report the exam results (Davey, De Lian & Higgins, 2007). In other words, it is the Chinese government that controls and administers the exam. To be successfully enrolled in a university/college, the candidates need to take three compulsory subjects, Chinese, math and English, and two optional subjects from six subjects, which is the "3+X" structure and the "X" is determined by the provinces themselves. For example, if a student wants to study science or engineering, they will need to take physics, chemistry, and biology while history, politics and geography are for those who will major in arts. All candidates throughout China participate in the exam at the same time during the scheduled days. The exam lasts from two to three days in summer while each subject takes two to three hours to complete (Davey, De Lian & Higgins, 2007).

The exam is held once a year. It follows that if failing the exam, the students have no choice but to wait for another year. The MoE issues the cut scores every year based on the number of candidates and the capacity of the universities in China. There are two cut scores, one is for prestigious universities and the other is for the admission to universities (Hannum, An & Cherng, 2011)[1]

There is fixed enrollment quota in every province according to the admission policies. Although some top universities have some autonomy in admission of students, the MoE still makes the ultimate decision in the quotas. "A complex matrix of provincial quotas, university quotas and subject quotas is negotiated annually between universities and provincial authorities" (OECD, 2016, p.12). Besides, the students are restricted by the place of registration (Hukou), which is usually the place of birth. That is to say, they cannot migrant to another province to participate in Gaokao, and the children of the migrant workers have to return to the provinces where they were born to have their education. In other words, the students in every province are allocated with limited number of higher education opportunities (Wang, 2010). Gaokao also influenced the secondary education in China. It is only through Gaokao, the exam that the secondary students can have access to the higher education in China (Davey, De Lian & Higgins, 2007).[2]

In 2014, there were regular 2542 colleges and universities in China (MoE, 2014). As a high-stake examination, Gaokao determines "who has the right to access higher education and what kind of higher education" (Ross & Wang, 2010, p. 4). The future and even the employment of millions of Chinese students every year are

determined by Gaokao in China (Davey, De Lian & Higgins, 2007). Gaokao is considered as "the most important factor affecting equity of access to higher education" (Wang, 2010, p. 15). The number of exam candidates reached 7 million in 2005 (Davey, De Lian & Higgins, 2007) while the number was 9.5 million in 2015 (Gu & Magaziner, 2016). Gaokao influences millions of households in China and its equity should be ensured to allow the candidates to have equal access to higher education. This article reviews the development of Gaokao and critically examines the equity of it, and the remedial reform of Gaokao. The critical review is not only beneficial to the university/college entrance examination but also benefit the students in different provinces in China.

2.The Development of Gaokao in China

In 1905, the imperial civil service examination (Keju) which was originated in Sui dynasty in 587 and lasted for 1300 years to recruit intellectuals for the imperial administration was abolished. There was only one subject in imperial examination, writing to demonstrate the candidates' knowledge in Confucian classics, so as to serve the imperial governments. In 1949, the establishment of the People's Republic of China, there were only 180 higher education institutions in China with 80, 000 students enrolled (Pepper, 1978), and these institutions had their own right and criteria to admit university students. It is in 1952 when "a nationwide centralized or unified student recruitment and admissions policy for all the colleges and universities throughout the country" (Yang, 1993, p. 6) was implemented.

During the Cultural Revolution (1966-1976), Gaokao had been canceled and the universities had been systematically closed. In 1977, after the Cultural Revolution, China reestablished its education system and restored Gaokao with the ideal that the system of grades would be the only criterion for access to the higher education (Ross & Wang, 2010; Gu & Magaziner, 2016). According to Yang (1993), the unified admission plan was issued by the MoEto each province and all the candidates took a unified academic examination.

Since the opening and reform of China in the 1980s, Gaokao has also undergone a series of reforms. For example, Gaokao has been localized in 16 provinces since 1985 (Gu & Magaziner, 2016). In other words, the contents of Gaokao vary in different provinces. In 2014, the MoEissued the changes in Gaokao, such as English exam will be offered twice a year instead of once in a year, and the universities can award bonus points to the candidates and adapt their admission criteria. In 2017, the MoEissued that most of the provinces will have the same

standardized examination in Gaokao.[3]

3.Criticism on the Inequity of Educational Opportunity of Gaokao

3.1Equity of Educational Opportunity

Equity is about "ensuring that there is a concern with fairness, such that the education of all learners is seen as having equal importance" (UNESCO, 2017, p.13). In 1968, James Coleman in his report stated the equity of educational opportunity in the United States, which is considered as the milestone for understanding the theory and practice. Equity of educational opportunity plays a fundamental role in the provision of "ladders of opportunity" and promotion of "upward mobility" for "socially disadvantaged students" (Jacobs, 2016, p. 314). According to Meyer (2016), equity of educational opportunity is a controversial issue in society, though it is the most important approach to realize the acquisition of social resources which is distributed unequally, and it is also crucial in the advocating of educational justice. Everyone in the society is entitled to equal opportunities in the participation in higher education and the competence for social resources, which is the foundation for the existence of Gaokao (Zheng, 2010).

Gaokao as the only criteria for the attainment of higher education resources has received criticisms from different aspects. Ross and Wang (2010) stated that Gaokao is criticized because it is considered as the barrier to hinder the reform of the system and the innovation of knowledge. Besides, it reduces the schools to mere competition of grades, and unfairly benefit the students in the urban areas rather those in the rural areas. They examined seven articles and discussed the inequity between different genders, rural and urban students and ethnicities. Gaokao has received increasing criticism recently in China in provision of equal opportunities in education According to Wang and Ross (2010), Gaokao brings about opportunities for success and social mobility, which is especially attractive to the students in rural areas where opportunities are scarce to improve their well-being and lives economically. "The CEE (College Entrance Examination) also still remains the best and in many cases only avenue to postsecondary education for most students" (Wang & Ross, 2010, p. 91). Despite the criticism about the increasing stratification of Gaokao, students and their parents in rural areas still support the ideal belief about Gaokao in its promotion in social mobility.

Table 1. The Higher Education Entrants, Normal Courses Enrolment, and the Ratio between the Two in Different Provinces in China in 2016 (Data Supplied by National Bureau of Statistics of China)

Provinces	Entrants	Normal courses	Ratio	Provinces	Entrants	Normal courses	Ratio
Anhui	307395	160469	0.52	Jiangxi	295980	135137	0.46
Beijing	151150	127715	0.84	Jilin	173218	118753	0.69
Chongqing	204887	111571	0.54	Liaoning	255721	166002	0.65
Fujian	197740	117999	0.60	Ningxia	32353	19486	0.60
Gansu	125813	72261	0.57	Qinghai	19063	9235	0.48
Guangdong	539813	275080	0.51	Shandong	555211	262746	0.47
Guangxi	248411	114813	0.46	Shanghai	137458	93146	0.68
Guizhou	186996	81540	0.44	Shanxi	203651	119819	0.59
Hainan	53176	28021	0.53	Shaanxi	283555	161016	0.57
Hebei	357918	182061	0.51	Sichuan	414747	218165	0.53
Heilongjiang	197846	126134	0.64	Tianjin	139027	85066	0.61
Henan	550127	256193	0.47	Xinjiang	92191	42281	0.46
Hubei	390697	212750	0.54	Tibet	10143	5993	0.59
Hunan	349431	173177	0.50	Yunnan	179949	100628	0.56
Inner Mongolia	121850	62560	0.51	Zhejiang	257892	145368	0.56
Jiangsu	452701	268822	0.59				

3.2Education Opportunities among the Provinces in China

Inequity exists in different regions in China (Fan, Kan- bur, & Zhang, 2009). Higher education inequity also exists which conforms to the regional inequity in income (Shah, Zhang & Zou, 2005). Qian and Smyth (2008) stated that education disparity does exist between the urban areas in the east coastal provinces and in-land provinces.

According to Davey, De Lian and Higgins (2007), major cities such as Beijing, Shanghai have the most universities, especially the first-tier universities, so the candidates there can be admitted with lower scores than those in other provinces. Fr example, students from Beijing who are enrolled in undergraduate studies account for 84% while proportion from Guizhou, a non-coastal and backward province is only

44% percent.[4]

Wang (2010) conducted a meta-analysis and examined whether Gaokao distributed the higher education opportunities equally among the provinces in China. First, the research examined the index of entry opportunities based on the quota of every province and concluded that the fixed quota policy caused the widening discrepancies in the prestigious university admissions between the developed and undeveloped areas. Davey, De Lian and Higgins (2007) also revealed that the top universities in China are mainly located in central cities such as Beijing and Shanghai where the candidates as residents are privileged to be enrolled in the prestigious universities compared with candidates in other areas.

Then the "province-specific college entrance examination questions" were adopted in Gaokao (Wang, 2010, p. 22). However, Wang (2010) conducted a survey to examine the attitudes of teachers from universities and high schools towards this using questionnaire. Results showed that about 70 percent of them expressed negative attitudes towards the equity of these questions and favored national questions.[5]

3.3Education Opportunities in Rural and Urban Areas in China

Gaokao plays a decisive role in the types of education the students in the rural areas receive. To some extent, Gaokao reinforced inequalities in education (Hannum, An & Cherng, 2011) . Qiao (2010) examined the disparity existed between the urban and rural students' opportunities to access higher education from 1996 to 2005. Findings demonstrated that there were marked differences between the two groups' opportunities to access higher education while the urban enrollment rate was higher. The disparity between the two groups was even considerable in the prestigious universities in China. "The enrollment rate of current rural students has always been lower than the overall enrollment rate" (Qiao, 2010, p. 23). According to Qiao (2010), narrowing the gap between the urban and rural education not only has a positive effect on urbanization of rural areas but also on the reducing the disparity between urban and rural areas. Furthermore, students in the urban secondary school have advantage over their peers in the rural areas (Wang, 2010).

Hannum, An and Cherng (2011) conducted a case study in the rural area of Gansu province following 2000 young people in one hundred villages in Gansu province. Findings showed that it is more likely for young people with wealthier background to enter universities. Besides, the contents of examination incorporate more urbanized topics, which disadvantages the examinees in rural areas (Zheng, 2010).[6]

3.4Recommendation Admission Policies

It is Gaokao that determines the

majority of students' entering universities/colleges; however, some students can be admitted in to the top universities through recommendation (Davey, De Lian & Higgins, 2007). As a higher education reform, the independent admission or enrollment policies were proposed and implemented. Even though the number of these students is small, there are still concerns about its equity.

The family background of the students enrolled in the universities under the "independent enrollment policies" (Wang, 2010, p. 23) was examined. Findings based on recommendation enrollment statistics from 1995 to 2005 revealed that recommendations favor students from families with rich social and economic resources, which can be manipulated by external factors. And data demonstrated that students whose parents with high social status are more likely to access high-quality education, and the disparity is increasing (Wang, 2010). Liu, Wagner, Sonneaberg, Wu and Trautwein (2014) also examined the independent admission policies based on the administrative data from Peking University in China. Data from 20,548 applicants were examined and findings showed that there was significant relationship between the students' socio-economic background and their admission into Peking University, one of the best universities in China. The independent admission system is conducive to the students from high socioeconomic origins than those from lower ones.[6]

These special admission policies tend to generate in-equity among the students with different social and economic backgrounds. Wu (2017) conducted a panel survey among the college students in Beijing and investigated the social stratification in higher education. Data showed that social and economic conditions impacted their possibilities to access higher education. Besides, special admissions policies obviously are beneficial to students from advantaged family backgrounds. The survey study by Liu (2013) examined 960 undergraduate students in different types of universities from two provinces in China. Findings showed that socioeconomic backgrounds can influence the students' academic achievement, thus affect their enrollment in different types of universities. Besides, socio-demographic factors exert even greater influence than socio-economic ones. Students from rural areas suffer from its low socio-economic and enjoy fewer opportunities to enter elite universities.[8]

In conclusion, different policies related to Gaokao have been tried to reform the exam. However, policies, such as different exam questions in different provinces, independent admission policies, etc. have to some extent generated inequity among the candidates, especially between the urban and rural areas, as well as between candidates

with high socio-economic status and those with lower socio-economic status.

4.The Remedial Reform of Gaokao

Gaokao is "the fundamental examination and selection system of Chinese higher education" (Liu, Wagner, Sonnenberg, Wu & Trautwein, 2014, p. 44). Gaokao is a system examination which renders it impossible to have complete reform because it would influence the majority of the students in the whole country and also because the prevailing form of Gaokao has been based on the cultural and political foundations and fulfills its certain social functions, so remedial policies and strategies are recommended and examined by the researchers to improve equity of Gaokao (Ross & Wang, 2010).[9]

Li, Zhou and Fan (2014) conducted an empirical research and examined the equity of distance higher education among different provinces because the higher education opportunities have been allocated to provinces in China from 2003 and 2008. Findings showed that equity of distance higher education among different provinces has had modest improvement during these years. The government is suggested to provide financial support, such as scholarships and loans to the students in distance higher education in poverty-stricken students and groups. Qiao (2010) proposed that "a unified welfare distribution system" (p. 30) should be established and the urbanization of rural areas should be promoted so that the disparity between elementary schools in the urban and rural areas can be reduced. There are relatively less empirical researches on the remedial reform of Gaokao, so more studies will be needed toaddress this problem.[10]

5.Conclusion

According to Zheng (2010), despite the criticisms of Gaokao, its foundations still exist. The socially disadvantaged population, especially those in rural areas has the opportunity to compete for social resources in education, which motivate the social development. In other words, the social basis for Gaokao still prevails. Rational understanding and reform of Gaokao is needed to improve it while no better examination system is unavailable now in China.

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