

Strategies for Cultivating Public Funded Targeted Normal Students Based on Goal Management Theory: A Case Study of East, West and North Guangdong

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Abstract Public funded targeted normal students are an important component of China's teacher team construction. Since its implementation in 2007, a large number of outstanding rural teachers who have been striving on the front line of education have been trained. Based on the theory of goal management, this paper explores the problems and countermeasures in the training of public funded targeted normal students. It strives to solve the problems of low willingness to teach and high default rates among public funded normal students, and hopes that the suggestions proposed in this paper can further promote the effective implementation of policies for public funded normal students.

Key words Goal management; Public funded targeted normal students; Selection of normal students; Training of normal students

DOI 10.19547/j.issn2152–3940.2024.03.007

For over a decade, China has attached great importance to rural education and introduced multiple policies to promote its development. Rural development is an important issue in China's social development, but currently there are still weak links in rural education, among which the construction of teaching staff is particularly crucial^[1]. Public funded targeted normal students (hereinafter referred to as "public funded normal students"), as an important source of rural teachers, have become the backbone of rural education development in the new era. It plays an important role in optimizing the rural teacher team, improving teacher quality, and promoting the revitalization of rural education^[2]. However, there have been frequent breaches of contract by public funded normal students in recent years, mainly due to the lack of effective long-term goal management and guidance in the training process. As a result, the cultivation of public funded normal students has received much attention. There are few existing studies exploring the cultivation of public funded normal students from the perspective of goal management. To solve the problem of rural teachers being unable to stay, leave, and teach well, efforts must be made to cultivate public funded normal students. Therefore, it is necessary to explore the cultivation of public funded normal students from the perspective of "goal management".

1 Historical review of the policies of public funded targeted normal students

The core of rural revitalization lies in rural education, and the core force of rural education is rural teachers^[3]. Although ancient rural education in China had its embryonic form, there was no teacher education, let alone rural teacher education. Until modern times, people have generally realized that "to revitalize education, it is necessary to first widely reserve normal schools. If the teaching staff is insufficient, how can schools prosper?"^[4]. To cultivate an excellent rural school education team, Hunan Province took the lead in implementing the policy of free normal students in the field of education. In 2006, Hunan First Normal University launched the five-year consistent free targeted normal students training program for junior high school students, achieving significant results^[5]. This initiative not only improved the quality of enrollment, but also the first batch of graduates went to rural areas to teach in accordance with the agreement in 2011, making a positive contribution to rural education. In 2007, the General Office of the State Council issued the *Implementation Measures for Free Education for Normal University Students Directly under the Ministry of Education (Trial)*^[6], and proposed to further promote this policy in the key work points of 2008, increasing the number of pilot provinces to 10. In 2012, the General Office of the State Council forwarded a notice from the Ministry of Education and other departments, encouraging local authorities to select some normal students for rural primary and secondary schools and kindergartens and carry out free education to cultivate excellent teachers based on actual conditions. Subsequently, the number of provinces where policies were implemented increased to 20. Starting from 2015, in order to meet the needs of rural education, the rural teacher support plan, which encourages local governments and teacher training institutions to adopt various targeted training

Received: May 9, 2024 Accepted: June 17, 2024

Supported by Key Topic of Education Research at Zhaoqing Education Development Research Institute (ZQJYY2023022); Research and Practice Project on Promoting High-quality Development of Basic Education through the Construction of New Normal Schools in Guangdong Province; Key Research Platform and Project for Ordinary Universities in Guangdong Provincial Department of Education in 2022 (Key Project of Technology Service for Rural Areas) (2022ZDZX4058).

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methods for rural teachers, has been implemented. The 19th National Congress of the Communist Party of China proposed important measures to implement the rural revitalization strategy, including strengthening the construction of rural professional talent teams, encouraging all sectors to participate in rural construction, and innovating mechanisms for cultivating and introducing rural talents^[7]. In March 2018, the Ministry of Education and other departments issued the *Action Plan for the Revitalization of Teacher Education* (2018 – 2022), emphasizing the need to further improve the professional identity, social responsibility, and political and economic benefits of public funded normal students, and improve the education policies for normal students in directly affiliated normal universities. In August of 2018, the *Implementation Measures for Public Funded Education of Normal University Students Directly under the Ministry of Education* was released, transforming the education model of normal students from "free education" to "public funded education". Subsequently, various regions further clarified the training methods for public funded normal students in their respective regions^[8].

2 Current situation of public funded targeted normal students training

The implementation of the policy of public funded targeted normal students has been going on for 18 years, but it has only been a short period of 6 years in Guangdong region. This paper explores the implementation effect of the policy of public funded targeted normal students in rural schools in east, west and north Guangdong. Although this policy has achieved significant results nationwide, Guangdong, as an economically developed province, has slightly insufficient policy implementation. Rural schools in east, west and north Guangdong lack educational resources, and the teaching staff and conditions urgently need to be improved. The effectiveness of policy implementation needs to be analyzed in depth. At the same time, there are many problems in policy implementation, such as insufficient training scale, single enrollment form, high default rate, and uneven training quality, which urgently need to be solved.

2.1 Insufficient training scale of public funded targeted normal students Rural schools in east, west and north Guangdong are facing a dual dilemma of teacher shortage. On the one hand, the remote geographical location and backward educational conditions make it difficult to introduce and retain high-level teachers. Although the policy of public funded normal students aims to alleviate the shortage of teaching staff, the scale of training is far from meeting actual needs, especially in the structural shortage of teaching staff in subjects such as music, sports, aesthetics, and information technology. On the other hand, due to limited personal development and difficult living conditions, public funded normal students tend to flow to cities and towns, especially in core cities such as the the Pearl River Delta, which further exacerbates the shortage of rural teachers, making the limited resources of public funded normal students not fully utilized.

Therefore, Guangdong Province needs to prioritize solving the problem of insufficient training scale of public funded targeted normal students in rural education. By increasing financial investment, expanding the scale of training, and improving the quality of training, it aims to attract and retain outstanding teachers. At the same time, policies should be optimized to provide better career development opportunities and living security for public funded normal students, encourage them to take root in rural education in the long term, and contribute to the revitalization of rural education.

2.2 Single enrollment form of public funded targeted normal students and high default rate At present, although there is some autonomous enrollment, the enrollment of public funded normal students is mainly based on the results of the college entrance examination. The selection criteria are single, and the application motivation and comprehensive quality cannot be effectively assessed. It is difficult to select outstanding teacher "seedlings"^[9]. After long-term exploration and practice, the policy of public funded normal students has been widely recognized as a key way to promote the improvement of the quantity and quality of teachers in economically underdeveloped areas. According to the *Implementation Measures for the Employment of Free Normal University Graduates Directly under the Ministry of Education* in 2010, free normal university graduates should return to primary and secondary schools in their source provinces and regions to teach in principle, and be encouraged to engage in education in remote and impoverished areas and ethnic minority areas. In 2011, the first batch of 10 597 free normal students all entered the field of primary and secondary education, of which more than 90% taught in primary and secondary schools in the central and western regions. However, according to a survey conducted by a reporter from the *People's Daily* on the employment data of the first batch of free normal students in the education departments of 17 provinces and regions, including Hebei, Shanxi, and Inner Mongolia, although the employment rate was high, the willingness to work at the grassroots level was not strong, and the proportion of teaching in rural areas was low, which was in sharp contrast to the high employment rate. According to incomplete statistics, out of 4 821 free normal school students in 17 provinces and regions, the employment rate was over 90%. However, there were still 41 graduates who have defaulted, accounting for about 0.9% of the total number of the first batch of free normal students in these provinces. Another 266 people had cross provincial employment, suspension of classes, or inability to graduate normally. Only 4.1% of the surveyed students taught in rural schools^[10]. It is not uncommon in Guangdong Province for public funded normal students to default upon graduation. From the performance of the 2021 public funded targeted master's students education in Guangdong Province, 141 out of 234 graduates have fulfilled their teaching obligations, accounting for 60.26%. The proportion of those who breach their contracts or are not suitable for teaching due to physical reasons was also not low (Table 1)^[11]. The reasons behind this have

to make us ponder deeply. Seen from Table 1, there is a negative correlation between the performance of public funded normal students and the academic reputation of the graduation school. That is, the higher the reputation of the school, the higher the default rate. This indicates that if the enrollment indicators are only

targeted at high-level universities, and it ignores the needs of employers and the employment intentions of graduates, it will be difficult to achieve the optimal policy effect. Therefore, it is recommended to dynamically adjust enrollment indicators to optimize policy implementation.

Table 1 Performance of 2021 public funded targeted master's students education in Guangdong Province

University	Number of graduates trained	Number of performers	Performance ratio//%	Number of defaulting parties	Default ratio//%
South China Normal University	120	56	46.46	63	52.5
Guangzhou University	100	71	71.00	29	29.0
Guangdong Polytechnic Normal University	14	13	93.00	1	7.0

Note: Data are from the Notice from the Education Department of Guangdong Province on the Performance of Public Funded Targeted Training of Primary and Secondary School Teachers in East, West, and North Guangdong in 2021.

2.3 Uneven training quality of public funded targeted normal students In the process of policy implementation, the quality of training public funded normal students faces many challenges and difficulties.

2.3.1 Widespread phenomenon of learning fatigue. Professor Zhu Juntong and other scholars have found that the level of learning fatigue among public funded normal students is significantly higher than that of non public funded normal students. The reason for this may be related to the fact that the career path of public funded normal students has been determined after graduation, mainly going to rural areas for teaching, and personal efforts are difficult to change their career trajectory^[12]. Due to a lack of expectations for diversity and flexibility in future career development, their learning motivation has weakened.

2.3.2 Mismatch between abilities and needs. Public funded normal students often find it difficult to obtain professional skills and qualities that match the actual needs of rural education due to career orientation restrictions. The requirements of rural education for teachers are not limited to teaching abilities, but also include various abilities such as adapting to rural environments and cultural integration. The current training system for public funded normal students often overlooks these aspects, resulting in their abilities and qualities being unable to meet the needs of rural education. On the one hand, the admission score for public funded normal students is lower than that of other majors in the same university, so there may be a gap in the basic learning ability between public funded normal students and non public funded normal students in the same university. On the other hand, most graduates of public funded normal universities lack experience in teaching management practice, which greatly restricts the improvement and development of their professional abilities^[13].

2.3.3 Incomplete training system. The public funded normal students training system is facing problems such as unreasonable curriculum design and weak practical teaching links^[1]. These issues hinder students from acquiring comprehensive and systematic knowledge and skills, thereby affecting the improvement of training quality. It is found that universities need an important support point-target management when recruiting and cultivating public funded normal students.

Based on this, this paper explores the issue of cultivating

public funded normal students from the perspective of goal management theory. Universities establish clear training objectives, design training plans based on this, establish specialized management institutions, and systematically cultivate the awareness and ability of normal students to serve rural areas^[14]. More importantly, goal management helps universities transform their employment guidance ideas, cultivating students' awareness of serving the countryside, adaptability to the rural environment, and solid teaching abilities with goals and targeted measures from the beginning of enrollment, avoiding college students from fulfilling their obligations in a formality, and truly integrating the cultivation of public funded normal students with the development of rural education, promoting the realization of personal and social values.

3 Goal management: theoretical foundation of public funded targeted normal students training

The management by objectives (MBO) theory was first proposed by American management scholar Professor Drucker and was first applied to organizational management within enterprises. This theory is an important component of his management philosophy, emphasizing several core principles: in the definition of goals, Drucker believed that organizations should clearly define their own goals and missions, which should be clear, specific, and measurable in order to provide direction and benchmarks for the organization's various activities; in terms of target measurement, he emphasized that the target must be measurable for tracking and evaluation. This means transforming goals into specific quantitative indicators to measure progress and achievements. The MBO emphasizes the concept of self-management, including individual and organizational self-management. Every employee and manager needs to take responsibility for their work and responsibilities, self regulate, and ensure that their work aligns with the organization's goals. Drucker believed that the task of managers is to assist employees in setting and achieving goals, rather than just supervising work. They should become partners in achieving their goals. The MBO emphasizes continuous feedback and correction to ensure that the achievement of goals is consistent with changes in the organization and external environment. These principles emphasize the importance of goal management in organizations and how it can help improve performance and stimulate employee motivation^[15]. Peter

Drucker's management philosophy has a wide influence in management studies, and MBO is also one of his important contributions.

Universities should also integrate goal management throughout the process of cultivating public funded normal students, and clarify role positioning and employment requirements. Normal universities should take the fulfillment rate as the core, combine the characteristics and actual situation of the school, formulate selection standards and training strategies, screen normal students who are interested in rural education, and reduce the default rate. At the same time, the ultimate task of goal management in universities is to achieve the comprehensive development of public funded normal students, cultivate the talents needed by society, and provide support for social development from a social perspective. From the perspective of personal development of college students, goal management is an important force in supporting public funded normal school students to achieve personal and social value, clarify future goals, and drive learning and growth.

4 Strategies for cultivating public funded targeted normal students based on MBO

The MBO has been widely recognized in the field of higher education. Based on the core principles of goal management, this paper proposes the following optimization strategies for cultivating public funded targeted normal students.

4.1 Clarifying training objectives—cultivating rural teachers with local sentiment The policy of public funded normal students can be seen as a response to the issues of agriculture, rural areas, and farmers. Clarifying their training objectives can improve the quality of education and the efficiency of resource utilization, and the curriculum should be more targeted to ensure that public funded normal students have not only the necessary knowledge and skills, but also the determination to be deeply rooted in the countryside and a love for the countryside.

Chinese modern educator Gu Shuzhi summarized the goals of rural teacher training into three points: "firstly, to approach rural life; secondly, to investigate the actual situation in rural areas; thirdly, to have the knowledge and spirit to improve rural areas"^[16]. Rural educators such as Yu Jiaju *et al.* also put forward similar views. Each rural normal school establishes training objectives based on this and implements them in practice. For example, Jiangsu Qixia Normal School aims to cultivate rural primary school teachers with the goal of "saving the poverty of millions of villages, transforming the foolishness of millions of farmers and workers, and fighting for the face of the entire nation". Hunan Provincial Hengshan Rural Normal School aims to cultivate rural primary school teachers and talents in implementing rural education transformation. Applicants must have the qualifications of "graduating from junior high school, familiar with rural conditions and rural life, willing to serve in rural normal schools for life, physically strong, and able to work hard"^[17]. The Laiyang Simple Rural Normal School in Shandong Province aims to "popularize rural education and improve the lives of farmers"... The training goals of modern rural normal schools cannot be separated from "agriculture", so as to cultivate teachers who truly love the countryside

and are committed to improving rural education and development.

As Drucker put it, clarity and specificity of goals are the key to organizational success. Drawing on the experience of modern rural teacher education, with the goal of cultivating rural teachers with local sentiment, universities should formulate the goal of cultivating public funded normal students with rural characteristics combined with targeted training and employment requirements, based on policy values and needs, the role and professional cultivation of rural teachers. These goals should cover teacher ethics, teaching abilities, subject literacy, practical skills, *etc.*, and have operability and evaluability. Goal setting needs to balance the macro orientation of education and individual growth, ensuring coordination and consistency between personal development and training objectives.

4.2 Motivating students' learning intrinsic drive Learning intrinsic drive, as an endogenous psychological driving force for learning, is an important component of deep learning participation. The negative learning phenomena such as classroom silence, learning procrastination, and learning fatigue among college students are directly related to insufficient internal drive to some extent^[18]. Throughout the process of teacher education, there has been relatively insufficient attention paid to the professional awareness of teachers, especially to the public funded normal students who are in the student stage, resulting in a generally weak professional awareness among normal students^[19]. This is one of the main reasons for their academic laziness. How to stimulate the self motivation of public funded normal students in professional learning? Firstly, as mentioned earlier, it is necessary to have a firm professional awareness, clarify the history, current situation, prospects, and social value of the profession through the guidance of counselors and teachers, and strengthen its responsibility and mission to cultivate rural talents and promote rural development. Through practical activities such as educational internships, teaching observation, and community service, professional identity and sense of belonging could be enhanced. At the same time, it should encourage participation in scientific research projects and academic competitions, cultivate research abilities and innovative spirit, and enhance professional competence. Educational practice plays an important role in cultivating the teaching beliefs of public funded normal students, and is a practical support and effective carrier for strengthening and improving the teaching beliefs of public funded normal students, and an effective path to enhance the professional strength of public funded normal students as teachers^[20]. It should apply the professional knowledge learned in the teaching practice environment to help rural school students achieve ideal academic results, allowing them to personally experience how their learning outcomes affect the development of rural education, thereby stimulating their self motivation. In addition, it also has an important impact on the learning motivation of public funded normal students by creating a positive and upward learning atmosphere. Schools can create a positive and upward learning atmosphere by organizing various forms of learning activities and competitions. This will help stimulate students' awareness of competition and participation, and improve their learning enthusiasm and initiative. Moreover, a complete evaluation system is built for collecting and analyzing the

learning outcomes and performance data of public funded normal students. This system can include various aspects such as classroom performance evaluation, homework and exam evaluation, and practical teaching evaluation. The evaluation system should be able to comprehensively and objectively reflect the learning outcomes and growth trajectory of public funded normal students. At the same time, reasonable time nodes and milestones should be set based on the training cycle and training objectives. These time nodes and milestones should be matched with the learning progress and growth trajectory of public funded normal students, reflecting the level they should reach at different stages.

4.3 Redefining the role of managers Redefining the role of managers is crucial for stimulating the learning motivation of public funded normal students and improving the quality of education.

Firstly, the identity of a manager should shift from a commander to a guide. It should establish partnerships with normal students and actively interact with them to jointly develop learning goals and plans, rather than just serving as supervisors. A good teacher-student relationship has a significant impact on the learning motivation of public funded normal students. It should motivate and inspire normal students, and understand the needs and goals of each normal student, in order to provide personalized support and guidance. Teachers should communicate deeply with students with a positive attitude, provide effective suggestions based on professional competence and experience, optimize teacher – student interaction with sincerity and a sense of responsibility, and promote harmonious learning together^[21]. Secondly, the identity of a manager should shift from being a controller to a coach, providing feedback, guidance, and support to help students improve their abilities and performance. Coaching managers need to possess good listening skills, empathy, and communication skills, and be able to focus on the personal development and growth of team members. Managers can also provide employment and career planning advice to help them better enter teaching positions. Finally, managers should also continue to learn and improve themselves, constantly learning and enhancing their abilities and qualities to adapt to the constantly changing environment and needs. It should pay attention to new management concepts, technologies, and methods, and try to apply them to practical work.

In short, redefining the role of managers requires them to have a broader perspective, higher qualities, and abilities. It should pay attention to the overall interests and development of the team. Only in this way can managers better lead public funded normal students to face challenges and achieve success.

4.4 Providing continuous feedback It should encourage students to regularly reflect on their learning progress and career goals to optimize their learning motivation and strategies. Cultivating the teaching reflection ability of public funded normal students is crucial for the professional development, improvement of teaching quality, and reflection of professional competence of teachers^[22]. At present, there are problems in cultivating the reflective ability of normal students in China, such as vague understanding and single content, which affect the improvement of students' comprehensive quality and professional skills. Public funded normal students need to cultivate their teaching reflection ability to pro-

mote the internalization of theory and practice, and achieve integrated development from pre employment to post employment^[23].

It is crucial for maintaining a feedback mechanism by regularly collecting and analyzing feedback. This helps to understand student performance, identify areas for improvement, and propose improvement plans based on this. Providing continuous feedback to public funded normal students is key to promoting their educational skills improvement, cultivating outstanding educational talents, and improving the quality of education. For practical training courses with different skills, multi-dimensional evaluation methods such as student self-evaluation to promote self reflection, student mutual evaluation and communication, and teacher feedback to provide professional advice are used to implement comprehensive assessment of skill standards for students, urging them to improve the quality and effectiveness of skill training, and enabling them to receive feedback on the results of a certain stage^[24]. Teachers and students can exchange information through feedback mechanisms to optimize teaching methods. Students generate current learning outcomes and provide process evaluation data based on the teacher's teaching content and learning objectives. Teachers collect process evaluation data to understand current teaching outcomes and provide feedback to improve student learning performance. This feedback can cover multiple aspects, including correcting errors, providing reasonable learning methods, and other suggestions, as well as measures to motivate learning motivation, such as praise and criticism^[25].

5 Conclusion

In summary, this paper proposes a systematic solution strategy to address the problems in the cultivation of public funded targeted normal students, such as insufficient scale, uneven quality, weak teaching beliefs, and high default rates. It is recommended that universities set clear, specific, and measurable learning and career goals for public funded normal students during the training process, in order to stimulate their self motivation; provide regular feedback to help them understand progress and achievements; and guide them to strengthen their identification with rural education and the teaching profession, and increase their willingness to teach. The policy of cultivating public funded normal students is crucial for the construction of rural education teacher teams. Universities need to accurately transport talents according to the needs of rural schools and promote the balanced development of urban and rural education. This paper proposes to build a scientific enrollment and training system, reduce training costs, cultivate high-quality education professionals, and improve the quality of rural education, to achieve sustainable development and rural revitalization of rural education.

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optimal scheduling schemes for construction equipment scheduling, decision makers may consider all scheduling sets that are optimal for the main objective, and then find the best scheduling for the secondary objective within these special scheduling sets. For example, it is worth further combining the main target time limit and the secondary target cost.

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