



Research on Personalized Intervention Strategies for Delayed Degrees of Master's Students in Local Universities

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Abstract. This study focuses on the issue of delayed degrees among master's students in local universities (non-211/985 institutions). By analyzing the current situation and influencing factors of degree delays, personalized intervention strategies are proposed. The study adopts a literature review approach and incorporates the PDCA cycle and goal management theory from management studies to construct intervention strategies, including academic support, psychological counseling, and improvements in supervisor guidance. The implementation process of these strategies is presented through flowcharts. Finally, an evaluation method and indicators for assessing the effectiveness of personalized interventions are proposed.

Keywords: Non-key local universities, Master's students, Degree delay, Personalized intervention, Educational management

1 Introduction

The cultivation of master's students in local universities often faces various challenges. Non-key local universities, due to historical, geographical, and national policy factors, experience greater difficulties in training master's students compared to key universities^[1]. Resource constraints may include a lack of research funding, outdated experimental equipment, and insufficient academic resources. In terms of student quality, these universities often enroll students with varying academic backgrounds, weaker research foundations, and lower scientific research capabilities. Consequently, degree delays among master's students in local universities are relatively common. Degree delays negatively affect students' career development, such as missing optimal employment opportunities and increasing time costs. Additionally, they impact the quality and reputation of higher education institutions, affecting recruitment and social recognition.

This study aims to propose personalized intervention strategies to address the causes of degree delays, which has important practical significance. For non-key local universities, it provides feasible management solutions to optimize master's student training

processes and improve overall training quality. From the perspective of individual students, personalized support helps them overcome academic difficulties, complete their degrees on time, and achieve academic and career goals. Furthermore, this study contributes to the theoretical framework of graduate education management and promotes innovations in educational management practices.

This study seeks to comprehensively analyze the primary reasons for master's students' degree delays in local universities, covering academic, psychological, supervisory, and external environmental factors. Based on this analysis, targeted and feasible personalized intervention strategies are developed, and their implementation effectiveness is scientifically evaluated. The specific research questions include:

(1) What factors contribute to degree delays among master's students in local universities?

(2) How can effective personalized intervention strategies be constructed based on these factors?

(3) How can the effectiveness of these interventions be scientifically evaluated?

2 Theoretical Basis of Personalized Intervention Strategies

2.1 Goal Management Theory

Goal management theory emphasizes setting specific, measurable, and attainable goals, involving organizational members in goal formulation, and breaking down overall goals into personal objectives to align individual and organizational goals^[2]. In graduate education, this approach helps students complete academic tasks in stages, such as thesis proposal, mid-term review, thesis writing, and defense, thereby enhancing students' intrinsic motivation and learning initiative.

2.2 PDCA Cycle

The PDCA cycle includes four stages: Plan, Do, Check, and Act^[3]. In implementing intervention strategies:

(1) The planning stage identifies the main causes of degree delays and formulates personalized intervention strategies accordingly.

(2) The execution stage implements the interventions and provides necessary resources.

(3) The checking stage periodically evaluates intervention effectiveness and collects feedback from students and supervisors.

(4) The action stage adjusts intervention strategies based on evaluation results, optimizing implementation processes and forming a continuous improvement cycle.

2.3 Motivation Theory

Motivation theory suggests that appropriate incentives can stimulate individuals' enthusiasm and creativity^{[4]-[5]}. In graduate education, motivation can be enhanced by establishing scholarships and research incentives to encourage students to study and conduct research. Similarly, recognizing and rewarding supervisors' guidance work can increase their enthusiasm and guidance quality.

3 Analysis of the Current Status of Delayed Degrees Among Master's Students in Local Universities

Degree delays are influenced by multiple factors, including academic ability, supervisor guidance, psychological stress, and external environments.

3.1 Main Causes of Degree Delays

Insufficient Academic Ability.

Master's students in local universities often have weak research foundations and lack systematic research training at the undergraduate level. They struggle with thesis-related tasks such as topic selection, literature review, and research design, leading to slow thesis progress. Moreover, insufficient training in research methods exacerbates difficulties in addressing research challenges, increasing the risk of degree delays.

Issues in Supervisor Guidance.

Limited supervisor resources result in excessive student-to-supervisor ratios, leading to infrequent and ineffective guidance. Some supervisors, burdened with research and teaching tasks, cannot devote sufficient time and energy to mentoring students. Additionally, vague and non-targeted guidance fails to address students' key academic challenges, leaving them directionless in their research.

Psychological Stress and Adaptation Issues.

Graduate studies involve high academic pressure due to coursework, research tasks, and career planning. Many students experience significant psychological burdens, affecting learning efficiency^{[6]-[8]}. Career uncertainty and a lack of clear career goals also lead to low motivation. Furthermore, local universities often lag in psychological support systems, lacking professional counseling services to help students cope with stress.

External Environmental Factors.

Economic constraints force some students to engage in part-time jobs, diverting their focus from studies^[9]. Taking part-time jobs causes students to have to leave school and go to the part-time job location, and they can only return to school after finishing the job. On the one hand, the back-and-forth between the two places will result in time costs, which means less time is available for studying. On the other hand, after returning

to school from a part-time job, students will have residual attention from the job, which requires them to spend more time to focus and enter a deep learning state. Insufficient family support, such as lack of understanding or encouragement, can negatively affect students' academic motivation. Additionally, competitive job markets and uncertain industry trends contribute to anxiety and hinder academic progress.

4 Construction of Personalized Intervention Strategies

4.1 Academic Support Strategies

We offer training courses on research methods and academic writing, and invite experts and scholars from inside and outside the school to give lectures. The course content covers aspects such as literature retrieval and reading, research design, data analysis methods, and paper writing standards, so as to systematically improve the scientific research capabilities of graduate students. We regularly organize academic lectures and seminars to encourage graduate students to share their scientific research experience and results and create a good academic atmosphere. We strengthen the construction of library resources and increase the number of professional books and journals related to the discipline. We provide database access support to ensure that graduate students can easily access cutting-edge academic literature at home and abroad. We also establish an academic resource sharing platform to promote the exchange and sharing of academic resources between teachers and students on campus.

4.2 Psychological Counseling Strategies

Mental Health Education.

Offer courses related to mental health, such as emotion management, to help graduate students master methods and skills to cope with psychological stress. The course adopts a variety of teaching methods, such as theoretical explanation, case analysis, and group discussion, to improve students' participation and learning effect. Invite psychological experts to hold mental health lectures to popularize mental health knowledge and enhance students' awareness of mental health care.

Psychological Counseling Services.

Set up a special psychological counseling room, equipped with professional psychological counselors, to provide individual counseling and group counseling services for graduate students. Individual counseling provides one-on-one counseling for students' specific psychological problems to help students solve psychological problems. Group counseling promotes communication and interaction between students and enhances students' social skills by organizing theme activities, such as team building and other group activities, thereby alleviating students' psychological pressure.

4.3 Improvement Strategies for Tutor Guidance

Tutor Training and Evaluation Mechanism.

Regularly organize tutor training, including scientific research guidance methods, student psychological counseling, communication skills, etc., to improve tutors' guidance ability and comprehensive quality. Establish a mentor evaluation system to evaluate mentors from multiple dimensions such as guidance frequency, guidance effect, and student satisfaction. The evaluation results are linked to the mentor's performance appraisal, professional title promotion, etc., to encourage mentors to improve the quality of guidance.

Optimization of Mentor-student Interaction Mechanism.

Establish a regular guidance and feedback mechanism, and mentors and students have face-to-face communication every week or every two weeks to understand the students' learning progress and problems encountered, and provide guidance and suggestions in a timely manner. Promote the joint guidance model of the mentor team, with a guidance team composed of multiple mentors to jointly guide a group of graduate students, give full play to the professional advantages of different mentors, and provide students with more comprehensive and in-depth guidance.

4.4 Other support Measures

Time Management and Career Planning Guidance.

Offer time management courses to help students master scientific time management methods and reasonably arrange study, research and life time. Carry out career planning guidance activities, invite corporate human resources experts and alumni to give career planning lectures and consultations to students, help students clarify their career goals, and formulate reasonable career development plans.

Financial Support and Scholarship Policy.

Establish special scholarships for graduate students to provide financial assistance to students with financial difficulties and reduce their financial pressure. Improve scholarship policies, increase rewards for outstanding graduate students, and encourage students to study hard and carry out scientific research. At the same time, actively expand off-campus internships and part-time opportunities to provide students with more work-study positions.

5 PDCA Cycle Flowchart

Figure 1 illustrates the PDCA cycle applied to degree delay intervention. The process starts with planning, where reasons for delays are identified and intervention strategies are formulated. Execution follows, implementing these strategies while providing necessary support. The checking phase evaluates effectiveness and collects feedback, leading to the action phase where interventions are adjusted and successful experiences are

promoted. In the realm of emotional support, Professor Iain Stewart and Professor Roberto Fernandez from MIT have established exemplary models worth emulating. Professor Stewart employs highly empathetic guidance to help students overcome self-perception dilemmas during academic growth. He innovatively redefined graduate education as a "journey of academic exploration" rather than a competition, a philosophy that effectively alleviates students' performance anxiety. Regarding mentorship systems, Forsyth Tech Community College's innovative practices serve as a model demonstration. Forsyth Tech has implemented a "Student Care Team" approach within its mentorship framework, integrating academic advisors, financial counselors, and other support personnel. Through this model, students receive a welcome letter upon enrollment introducing both their academic advisors and faculty mentors, ensuring they gain essential guidance and support from the very beginning of the semester. This cyclical process.

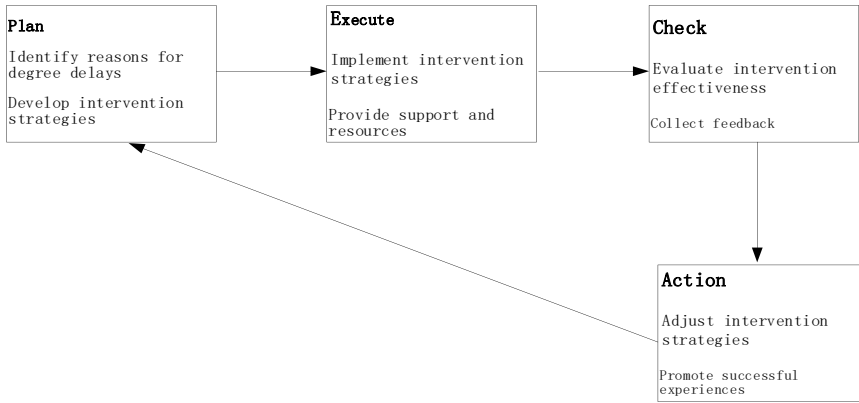


Fig. 1. PDCA cycle flowchart.

6 Evaluation Methods and Indicators for Personalized Intervention Effectiveness

This study aims to evaluate the effectiveness of intervention strategies in reducing the rate of degree delays by comparing pre- and post-intervention data. By analyzing the proportion of students experiencing delays before and after the intervention, we can assess whether these measures have contributed to a significant decline in degree postponements. Additionally, student satisfaction and psychological well-being improvements will be examined through comprehensive surveys and mental health assessments. These surveys will cover various aspects such as academic support, psychological counseling, and faculty mentorship, allowing students to provide feedback on the effectiveness of each intervention. Furthermore, mental health evaluations will help measure improvements in students' emotional well-being, particularly in areas such as anxiety and depression. Lastly, the quality of faculty mentorship will be assessed through a combination of quantitative and qualitative measures, including mentorship frequency, effectiveness, and student feedback. By collecting students' opinions and

suggestions regarding faculty guidance, we aim to analyze how mentorship quality has improved throughout the intervention process. Overall, this study provides a holistic assessment of the intervention strategies' impact on reducing degree delays, enhancing student satisfaction and mental health, and improving faculty mentorship quality.

7 Conclusions

This study identifies academic deficiencies, inadequate mentorship, psychological stress, and external challenges as key factors contributing to degree delays among master's students in non-key local universities. By integrating the PDCA cycle and goal management theory, personalized interventions—such as academic training, psychological support, optimized mentorship, and financial aid—are proposed to systematically address these issues, with dynamic adjustments based on continuous feedback. The effectiveness is measured through reduced delay rates, higher student satisfaction, and improved mentorship quality, fostering a supportive environment for graduate education. Future research should focus on discipline-specific adaptations, long-term impact assessments, and technology-driven solutions to enhance the precision and sustainability of interventions in resource-limited settings.

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