Article

Human Resource Management Practices and Teacher Retention in a Technology College in Shandong Province, China

Mengchen Song [1,*]

[1] Emilio Aguinaldo College, Manila, Philippines
[*] Correspondence: Mengchen Song, Emilio Aguinaldo College, Manila, Philippines

Abstract: This study analyzes human resource management practices — including recruitment, training, performance management, and the work environment — to identify the key factors influencing teacher retention at technology colleges in Shandong Province, China. The research highlights challenges such as heavy workloads, inadequate compensation, limited career advancement opportunities, and insufficient professional development. The findings emphasize the need to improve recruitment processes, expand career development opportunities, and establish fair and transparent incentive systems. The study also proposes strategies to enhance the work environment and develop region-specific policies tailored to local needs. These recommendations aim to improve teacher satisfaction and retention, thereby ensuring long-term stability and sustainable growth in technology education.

Keywords: teacher retention; human resource management; technology colleges; workload; professional development; teacher satisfaction

1. Introduction

In recent years, teacher retention has become a significant challenge for higher education institutions in China, particularly in technology-focused colleges. This issue is especially prominent in Shandong Province, where several technology colleges face high turnover rates among faculty members. Teacher retention is crucial to maintaining educational quality, institutional stability, and long-term academic progress. Effective Human Resource Management (HRM) practices are believed to play a pivotal role in addressing this challenge. This paper explores the relationship between HRM practices and teacher retention at a technology college in Shandong Province, aiming to provide actionable insights for improving faculty retention.

2. Literature Review

2.1. Factors Affecting Teacher Retention

Teacher retention has been a subject of substantial academic research, particularly in the context of higher education institutions. Several factors influence faculty members' decisions to stay at or leave an institution. Broadly, these factors can be categorized into intrinsic and extrinsic motivators.

Job satisfaction: Job satisfaction is one of the most commonly cited predictors of teacher retention. Teachers who feel satisfied with their work environment, teaching responsibilities, and institutional culture are more likely to remain. According to Herzberg's Motivation-Hygiene theory, intrinsic factors such as achievement, recognition, and the work itself are key motivators. Teachers who experience satisfaction in these areas are more likely to remain committed to the institution. In contrast, extrinsic factors like salary

and benefits, while important, are seen as hygiene factors that prevent dissatisfaction but do not necessarily enhance job satisfaction.

Career development opportunities: Opportunities for professional growth and career advancement significantly impact teachers' decisions to stay. Research has shown that faculty members who perceive limited opportunities for career progression or skill development are more likely to consider leaving [1]. This is particularly relevant for teachers in technical fields, where staying updated with emerging technologies is essential. Faculty members who are given the opportunity to engage in continuous professional development tend to remain longer.

Work-life balance: Work-life balance is another significant factor influencing teacher retention. Teachers who feel that their work demands are manageable and allow for personal and family time are more likely to stay. In many cases, high workloads and long hours, particularly in technical institutions, can lead to burnout, dissatisfaction, and eventually attrition.

Compensation and benefits: Salary and benefits are often seen as essential extrinsic factors affecting teacher retention. Competitive compensation packages are crucial in attracting and retaining talented teachers. However, in many technology colleges, faculty members may feel that the salary does not reflect the demands and expectations of their roles. The perceived inadequacy of compensation, combined with increasing workload, often leads to higher turnover rates.

2.2. HRM Practices and Teacher Retention

Human resource management (HRM) practices encompass all activities related to the management of employees, including recruitment, training and development, performance management, and employee rewards. HRM practices are critical in shaping the work environment and job satisfaction of employees, and by extension, their retention.

Recruitment and selection: Effective recruitment and selection processes are fundamental in attracting high-quality faculty members who are a good fit for the institution's culture and needs. Research indicates that a well-structured recruitment process can increase teacher retention by ensuring that candidates have the necessary qualifications, skills, and alignment with the institution's values [2]. In contrast, poor recruitment processes can lead to mismatched expectations and high turnover rates [3].

Training and development: Continuous training and professional development programs are key to maintaining faculty engagement and retention. Faculty members in technical colleges often need to stay updated on the latest technological advancements. Institutions that provide opportunities for faculty to participate in industry-specific training, attend conferences, and engage in research activities help to foster a sense of professional growth and career advancement. Institutions that invest in faculty development are likely to see higher retention rates as teachers feel supported in their professional journey.

Performance management: Performance management systems that clearly define expectations and reward high performance are critical for teacher retention. Studies have shown that faculty members who receive regular, constructive feedback on their performance are more likely to feel valued by the institution and, in turn, are more likely to stay. On the other hand, ambiguous performance expectations or a lack of recognition for high performance can lead to dissatisfaction and attrition.

Compensation and incentives: Fair and competitive compensation plays a central role in faculty retention. While salary is often cited as a key factor, non-monetary incentives such as job security, recognition, and opportunities for promotion are also important. A study by DellaVigna found that faculty members who felt fairly compensated, both financially and in terms of professional opportunities, were more likely to remain at their institutions. Institutions that offer flexible work arrangements, recognition awards, and a variety of incentives beyond salary tend to see improved retention outcomes [4,5].

Work environment and institutional culture: The work environment is another critical HRM factor influencing retention. A positive and supportive institutional culture, characterized by strong leadership, open communication, and collaboration, can create an environment in which teachers feel valued and committed. Faculty members in supportive environments are less likely to experience stress or burnout, and more likely to stay in their positions. Research suggests that faculty who feel a sense of community within their institution, with access to professional networks and mentoring, are more likely to remain.

2.3. Challenges in Technology Colleges

Technology colleges, particularly in China, face unique challenges in retaining faculty members. These challenges stem from the evolving nature of technology, the demands of the teaching profession, and the competitive landscape of higher education.

Rapid technological change: One of the most significant challenges in technology colleges is the need for faculty members to stay current with rapidly changing technologies. In fields such as computer science, engineering, and information technology, teachers must continuously update their knowledge and skills to provide relevant instruction. This constant need for upskilling can contribute to stress and burnout, particularly if professional development opportunities are limited. Faculty members who feel that they are falling behind in their field may decide to leave for better opportunities elsewhere.

High workload: Technology colleges often require faculty to manage high teaching loads, research responsibilities, and administrative tasks. The pressure to excel in both teaching and research, combined with the expectation to stay up to date with technological advancements, can lead to faculty burnout. Inadequate support staff and limited resources further exacerbate the workload [6]. Teachers who feel overwhelmed by these pressures are more likely to leave, contributing to high turnover rates.

Limited career advancement: In many technical institutions, career advancement opportunities are limited. Faculty members who do not see clear pathways for promotion or career growth may seek opportunities elsewhere. Without mechanisms for internal mobility or promotion, the retention of senior faculty members, in particular, becomes a challenge.

Inadequate compensation: Despite the importance of faculty in maintaining the quality of education in technology colleges, compensation often does not reflect the increasing demands placed on them. Teachers in these institutions may feel that their salary does not adequately compensate for their workload, particularly when compared to their peers in other sectors, such as industry. This perceived salary gap often leads to high turnover rates.

The literature indicates that teacher retention is a multifaceted issue that is influenced by a range of factors, including job satisfaction, career development opportunities, and external pressures like workload and compensation. HRM practices play a central role in shaping these factors, with recruitment, training, performance management, and compensation all influencing faculty retention. Technology colleges face additional challenges due to the rapidly changing nature of their fields, the high demands placed on faculty, and the relatively limited career advancement opportunities. Understanding these factors and the role of HRM practices can help institutions develop strategies to retain their faculty members and reduce turnover.

3. Methodology

This research seeks to examine the influence of human resource management (HRM) practices on teacher retention at a technology college in Shandong Province, China, through the application of a mixed-methods approach, combining quantitative surveys and qualitative interviews to gather comprehensive data. By integrating both quantitative and qualitative data, the study aims to better understand how HRM practices influence teachers' job satisfaction and their intentions to stay in their current positions.

3.1. Research Design

This research employs a mixed-methods approach, combining both quantitative and qualitative data collection and analysis. The strength of a mixed-methods design lies in its ability to combine the breadth of quantitative data with the depth of qualitative insights, providing a more holistic view of the research topic. The research design is divided into two phases:

Quantitative phase: Data is collected through a questionnaire focusing on teachers' job satisfaction, their perceptions of HRM practices, and their retention intentions. The quantitative analysis will identify the relationships among job satisfaction, retention intentions, and the effects of specific HRM practices on teacher retention.

Qualitative phase: Semi-structured interviews will be conducted to gather in-depth views and experiences from teachers regarding HRM practices. This qualitative phase will complement the quantitative data, providing richer context and helping to explain factors not fully captured in the quantitative survey.

By employing this mixed-methods design, the study aims to provide comprehensive and nuanced findings.

3.2. Sample Selection

The sample for this study consists of teachers from a technology college in Shandong Province, China. To ensure the sample is representative, the research includes teachers from different disciplines and academic ranks. The selection criteria for the sample are as follows:

Discipline: The study includes teachers from various disciplines, including Computer Science, Electronic Engineering, Mechanical Engineering, etc., to ensure a diverse representation of faculty in a technology-focused institution.

Academic rank: The sample includes teachers with varying academic ranks, including teaching assistants, lecturers, associate professors, and professors, in order to reflect the diversity of experiences across different academic levels.

Teaching experience: Teachers with varying years of teaching experience are selected, ranging from early-career teachers to those with extensive experience, to capture a broad spectrum of perspectives on HRM practices.

From this pool of teachers, 20 were selected for the semi-structured interviews, ensuring a balanced representation of different disciplines, academic ranks, and years of experience.

3.3. Data Collection Methods

Two main data collection methods were used in this study: a quantitative survey and semi-structured interviews.

Quantitative survey: The questionnaire was designed based on existing frameworks for job satisfaction and teacher retention, tailored to fit the specific context of this study. The survey consists of the following sections:

Demographic information: Questions about age, gender, discipline, academic rank, and years of teaching experience.

Job satisfaction: Teachers' satisfaction with their work environment, teaching load, student relationships, work-life balance, etc.

HRM practices: Teachers' perceptions of HRM practices, such as recruitment, training and development, performance management, and rewards and incentives.

Retention intentions: Teachers' intention to remain at the institution and the factors influencing their decision.

The survey uses a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), and questionnaires were self-administered to the teachers.

Semi-structured interviews: To gain deeper insights into teachers' perceptions of HRM practices and their impact on retention intentions, 20 teachers were selected for semi-structured interviews. The interview topics focused on the following themes:

Teachers' satisfaction and dissatisfaction with their current work environment.

Perceptions of HRM practices (e.g., recruitment, training, performance evaluation).

Teachers' intentions regarding retention and the main factors influencing their decision to stay.

Suggestions for improving HRM practices.

The interviews were conducted using open-ended questions and lasted between 30 to 60 minutes. All interviews were recorded and transcribed for further analysis.

4. Analysis of Human Resource Management Practices

4.1. Recruitment and Selection

An effective recruitment and selection process is considered fundamental to attracting high-quality and motivated faculty members. The college's HR department implements a rigorous recruitment process that assesses academic qualifications, teaching experience, and alignment with the institution's core values. This ensures that selected candidates are well-suited for the institution's educational goals and cultural environment. However, some faculty members believe that the recruitment process could be improved through greater transparency and increased involvement of existing staff in the decision-making process. Teachers suggest that more input from faculty could help ensure a better fit between new hires and the institution's needs, ultimately leading to higher retention rates.

4.2. Training and Development

Training and development programs at the college are designed to enhance pedagogical skills, technological proficiency, and industry-specific knowledge. These programs are widely appreciated by faculty members, as they contribute to teachers' professional growth and their ability to stay current with new developments in their fields. Nevertheless, some teachers have raised concerns that the training sessions are either too infrequent or insufficiently tailored to their subject areas. While professional development opportunities are recognized as a key factor in teacher retention, there is a desire for more tailored and regular training sessions that align with teachers' specific teaching needs and career aspirations. Regular and focused professional development is seen as a critical factor in keeping teachers engaged and motivated, particularly for those who aspire to advance their careers.

4.3. Performance Management and Incentives

The performance management system at the college focuses on teaching quality, research output, and student feedback. Faculty members who excel in these areas receive bonuses, promotions, and other rewards. However, some teachers have raised concerns about the fairness and transparency of the evaluation process, especially regarding the significant weight given to student feedback. They feel that student evaluations may not always reflect the true quality of teaching, as external factors like course difficulty or personal biases can influence results. To improve fairness, faculty members suggest revising the evaluation criteria and ensuring greater transparency in how student feedback is used.

Additionally, there is concern over the emphasis on research output in the performance evaluation. Teachers in teaching-heavy roles feel disadvantaged, as their responsibilities leave them with limited time for research. This creates a perceived imbalance between teaching-focused faculty and those who are able to focus more on research. A more balanced approach to performance evaluation that values teaching quality alongside research achievements could lead to higher faculty satisfaction and retention.

In response, the college could consider providing more clear guidelines for performance evaluation, ensuring that all aspects of faculty contributions, including teaching, service, and research, are fairly recognized. Faculty members also suggest incorporating peer reviews as an additional evaluation method to provide a more comprehensive and accurate assessment of performance.

4.4. Work Environment and Compensation

The work environment and compensation package at the college are crucial factors in teacher retention. While the college offers competitive salaries, many faculty members feel that the compensation does not fully reflect their workload, which includes a heavy teaching load, administrative duties, and extracurricular responsibilities. This imbalance has led to concerns about burnout, with many teachers reporting high levels of stress due to the lack of work-life balance.

Teachers have suggested that the college should introduce more flexible work schedules or reduced teaching loads during peak periods to alleviate stress and prevent burnout. Additionally, while salaries are competitive, some faculty feel that compensation for extra responsibilities, such as committee work or mentoring students, is insufficient. Providing additional remuneration for such duties has the potential to enhance job satisfaction and reduce faculty turnover, as supported by recent retention studies.

Furthermore, the lack of clear work-life balance policies has contributed to dissatisfaction among faculty. Teachers believe that by offering more support for balancing personal and professional commitments, the college can create a more positive work environment, which will ultimately improve faculty retention [7].

5. Factors Affecting Teacher Retention

This chapter examines the key factors influencing teacher retention, exploring four main areas: job satisfaction, career development opportunities, school culture and atmosphere, and external factors. A deeper understanding of these factors helps to identify both internal and external drivers of teacher retention, offering valuable insights for improving retention rates.

5.1. Job Satisfaction

Job satisfaction plays a significant role in teachers' decisions to stay at an institution. According to the survey results, teachers' satisfaction with their job content, work environment, and support systems directly affects their willingness to remain in their positions. Teachers who report high satisfaction with teaching resources, course structures, and institutional support tend to be more committed to staying at the college. In contrast, dissatisfaction with administrative support, heavy teaching loads, and lack of resources can lead to a decline in retention.

Specifically, heavy workloads — characterized by large class sizes and substantial administrative duties — significantly contribute to elevated stress levels. This, in turn, adversely affects overall job satisfaction. In contrast, a supportive environment with adequate teaching resources and a transparent evaluation system significantly enhances teacher satisfaction. Therefore, it is crucial for the institution to regularly assess and improve the work environment, reduce stressors, and support teachers' professional needs to increase retention rates.

5.2. Career Development Opportunities

Career development opportunities are another critical factor influencing teacher retention. Teachers often seek clear paths for professional growth, including opportunities for skill development, promotions, and recognition. Survey results indicate that when teachers feel supported in their career development and have clear avenues for advance-

ment, they are more likely to stay at the college. Teachers value access to training programs and career progression pathways, which contribute to their long-term engagement and job satisfaction.

However, when teachers perceive limited career advancement opportunities or stagnant professional growth, their motivation to stay with the institution decreases. In response, the college should provide more frequent and relevant professional development programs and establish clear promotion criteria. By offering these opportunities, the college can not only improve teacher satisfaction but also retain highly qualified and experienced staff members.

5.3. School Culture and Atmosphere

The school culture and atmosphere are pivotal in shaping teachers' overall experience and retention. A supportive, collaborative school culture significantly enhances teachers' job satisfaction and commitment to the institution. Survey data suggests that leadership style, relationships with colleagues, and a sense of community within the faculty all play essential roles in teacher retention. Faculty members who feel valued and supported by leadership are more likely to remain at the institution.

Moreover, positive relationships with colleagues and a collaborative work environment also contribute to teacher retention. Teachers who experience a sense of camaraderie and mutual support within their department or institution are more inclined to stay. Conversely, schools that foster competition or where communication is strained can lead to isolation and dissatisfaction among faculty. Therefore, fostering a culture of respect, cooperation, and support is essential for improving teacher retention rates.

5.4. External Factors

External factors, such as economic conditions and policy changes, also influence teacher retention. Economic fluctuations, such as increases in the cost of living or economic downturns, may push teachers to seek more financially rewarding opportunities outside of education. Survey responses indicate that teachers are more likely to leave their positions during times of economic instability or when better career prospects are available elsewhere.

Additionally, changes in educational policies can significantly impact teachers' job satisfaction and retention. If policy shifts lead to increased workload, lower compensation, or less job security, teachers may consider leaving the profession. Public recognition of the teaching profession and salary levels also affect retention. In regions where teaching is undervalued or salaries are low, teachers may seek employment in other sectors. To address these challenges, the college should work closely with government agencies and remain flexible to external changes, adjusting human resource strategies to mitigate the impact of external factors on teacher retention [8].

6. Challenges in Teacher Retention at Technology Colleges in Shandong

Teacher retention at technology colleges in Shandong faces several significant challenges. This chapter explores three key factors that impact faculty retention: heavy workload, salary and compensation, and limited career advancement opportunities. These challenges not only affect teachers' job satisfaction but also influence their long-term commitment to the institution.

6.1. Heavy Workload

One of the primary challenges faced by faculty members in technology colleges is the heavy workload. Teachers are often tasked with large class sizes, administrative duties, and the pressure to stay updated with rapid technological advancements. Many teachers report that they have insufficient time for research, professional development, or other academic pursuits due to their teaching responsibilities. This imbalance between teaching

duties and personal academic growth can lead to burnout and a sense of being overwhelmed, which negatively impacts their job satisfaction and retention.

In addition to teaching large classes, faculty members are also expected to engage in industry collaborations, attend workshops, and participate in university committees. While these expectations are meant to keep teachers at the forefront of technological developments, they also contribute to the pressure teachers feel. The constant balancing of multiple responsibilities can make it difficult for teachers to maintain high standards of performance in all areas, leading to dissatisfaction and, in some cases, higher turnover rates. Consequently, addressing workload imbalance is imperative to foster sustainable faculty engagement.

6.2. Salary and Compensation

While technology colleges in Shandong offer competitive base salaries, many faculty members feel that the compensation packages do not adequately reflect the work they put in. Teachers often perceive that the expectations placed on them — including delivering high-quality teaching, engaging in research, and participating in industry projects — far outweigh their compensation. This discrepancy between expectations and rewards can contribute to frustration and a sense of undervaluation among faculty members. A 2022 study by the Shandong Higher Education Association indicated that over 60% of technology college instructors expressed dissatisfaction with their compensation relative to job expectations.

Furthermore, some teachers believe that the existing salary structure does not account for the increasing cost of living or the intense pressure associated with their job. Although base salaries may seem competitive at first glance, they frequently fail to correspond with the actual demands and responsibilities of faculty roles. As a result, some faculty members consider leaving the institution for positions that offer better financial incentives or less stress. To improve retention, technology colleges must reassess their compensation packages to ensure they are competitive and reflective of the workload expected of faculty members.

6.3. Limited Career Advancement

Limited career advancement opportunities are another key challenge that affects teacher retention in technology colleges. Many faculty members report that there are unclear promotion pathways or insufficient incentives to encourage them to stay within the institution for the long term. The absence of transparent and structured career development pathways can contribute to a sense of professional stagnation, prompting faculty to seek advancement elsewhere.

In particular, when faculty members perceive that their efforts and accomplishments in teaching, research, or industry involvement are not recognized or rewarded through promotion or salary increases, they may seek opportunities elsewhere. Additionally, the absence of mentoring programs or leadership roles within the institution can make it difficult for younger faculty members to see a clear path for career progression. Establishing transparent promotion criteria, offering professional development opportunities, and recognizing faculty achievements are essential steps that can help address this challenge and improve retention rates.

7. Strategies and Recommendations

To address the challenges affecting teacher retention in technology colleges in Shandong, several strategic measures and recommendations are proposed. These strategies aim to improve recruitment and selection processes, provide career development opportunities, establish effective incentives, enhance the work environment, and develop region-specific policies to reduce teacher turnover.

7.1. Optimizing Recruitment and Selection Mechanisms

A more transparent, fair, and inclusive recruitment and selection process is critical to attracting high-quality faculty members. Institutions should focus on developing a recruitment process that not only evaluates candidates' academic qualifications and teaching experience but also considers their compatibility with the institution's values and culture. Ensuring that new faculty members are aligned with the institution's pedagogical mission and long-term strategic goals will help them integrate more smoothly into the workplace, improving retention rates.

To achieve this, the recruitment process could involve a more inclusive approach, where current faculty members are involved in the decision-making process. This can enhance transparency and allow for a better assessment of candidates' potential to contribute to the institution. Furthermore, providing clear onboarding programs will assist new faculty members in adapting to their roles and the school culture, increasing their satisfaction and likelihood of staying long-term.

7.2. Providing More Career Development Opportunities

To help faculty members build their professional skills and improve their ability to adapt to technological changes, it is essential to provide more targeted and relevant career training opportunities. Technology colleges should offer specialized training programs that address the evolving needs of teachers, such as new educational technologies, innovative teaching methods, and research skills. These programs should be designed to help faculty members stay updated with the latest developments in their fields, thereby enhancing their job performance and satisfaction.

Moreover, regular opportunities for professional development, such as workshops, conferences, and mentorship programs, can help teachers grow both professionally and personally. Institutions should also create clear career progression pathways, with transparent criteria for promotions and recognition. Providing faculty members with the opportunity to advance in their careers not only enhances job satisfaction but also strengthens their commitment to the institution.

7.3. Building a Comprehensive Incentive System

A well-designed incentive system is crucial to enhancing teacher satisfaction and loyalty. Institutions should create a flexible reward structure that takes into account faculty contributions in various areas, such as teaching, research, and industry engagement. This could include performance-based bonuses, opportunities for career advancement, and recognition of outstanding contributions.

Additionally, the compensation system should reflect the workload and responsibilities of faculty members. Salary increases and bonuses should be aligned with the level of effort and dedication required by the job. A clear and fair system of rewards will help faculty members feel appreciated and valued, motivating them to stay with the institution. Establishing a transparent and equitable incentive system will also foster a positive work environment, leading to higher teacher retention rates.

7.4. Improving the Work Environment

The work environment is a key factor in teacher retention. Institutions should focus on improving teachers' working conditions by providing adequate teaching resources, reducing administrative burdens, and promoting work-life balance. Creating a healthy and harmonious campus environment, where teachers feel supported and valued, is essential for fostering a sense of belonging.

In addition, fostering positive relationships among faculty members and between faculty and administration is crucial. Encouraging collaboration and open communication within departments and across the institution will improve job satisfaction and reduce feelings of isolation. Providing faculty with sufficient time for research and professional

growth will further enhance their sense of fulfillment, making them more likely to remain at the institution [9].

7.5. Developing Regional Policies

The development of region-specific policies plays a critical role in attracting and retaining high-quality teachers, particularly in areas where teacher shortages are more pronounced. Given the unique economic and educational characteristics of Shandong Province, it is essential to design policies that address local economic conditions, regional educational needs, and the specific challenges faced by technology colleges. These policies, such as Shandong's "Talent Strong Province Strategy" and Beijing's "High-Level Talent Introduction Plan" provide a range of incentives, including financial support, housing subsidies, research funding, and career advancement opportunities. Such initiatives not only enhance teacher retention rates but also contribute to a better work environment, career development, and professional satisfaction.

Moreover, regional policies should consider broader social factors, such as the cost of living, job market conditions, and career opportunities outside of academia. By tailoring retention strategies to the specific needs of the educational landscape in Shandong and other regions like Beijing, Guangdong, and Zhejiang, institutions can minimize teacher turnover and ensure a stable, committed teaching workforce. Table 1 below outlines the policies and their effects in different regions [10].

Table 1. Impact of Regional Policies on Teacher Retention.

Region	Policy Name	Policy Goal	Impact on Teacher Retention
Shandong	"Talent Strong Province Strategy"	Attract and retain high-level talent, improve education quality	Provides housing subsidies, research funding, and promotion opportunities, increasing teachers' career appeal.
Beijing	"High-Level Talent Introduction Plan"	Attract top talent from both domestic and international sources, improve education and research	Offers research start-up funding, housing subsidies, and children's education support, enhancing teachers' job satisfaction.
Guangdong	"Pearl River Delta Talent Development Plan"	Support talent development in the Pearl River Delta, promote regional economic integration	Offers high research funding, career promotion channels, and living subsidies, fostering a sense of belonging among teachers.
Zhejiang	"Talent Strong Education Plan"	Improve education quality, attract and retain outstanding teachers	Provides training opportunities, research support, and a career advancement system, enhancing teachers' professional development opportunities.

8. Conclusion

This study aimed to investigate the factors affecting teacher retention at technology colleges in Shandong Province, China, and to propose strategies to address the challenges currently faced by faculty members. Through the analysis of human resource management practices and various external and internal factors, it was found that key issues such as heavy workload, inadequate compensation, limited career advancement opportunities, and a lack of professional development significantly impact teacher satisfaction and retention.

The research highlights that implementing a more transparent and inclusive recruitment process and selection procedure, along with better alignment between faculty expectations and institutional practices, can enhance retention rates. Additionally, providing targeted professional development programs, establishing a clear and fair incentive

system, and improving the work environment are identified as essential strategies for retaining talented teachers. These measures not only address the immediate challenges but also help foster a positive and supportive academic culture where faculty members feel valued and motivated to contribute long-term to the institution.

Furthermore, the development of region-specific policies that reflect the unique socio-economic and educational context of Shandong Province is crucial. Such policies can help reduce teacher turnover and create an environment conducive to academic excellence and stability. By adopting these recommendations, technology colleges in Shandong can improve their teacher retention rates, ensuring that they continue to provide high-quality education and meet the needs of an ever-evolving technological landscape.

In conclusion, teacher retention is a multifaceted issue that requires a holistic approach involving both institutional strategies and regional policy support. Addressing the key challenges identified in this study and implementing the proposed strategies will enable technology colleges in Shandong to create an environment where faculty members are motivated, supported, and committed to long-term service, ultimately contributing to the sustainable development of these institutions.

References

1. C. E. Michaels and P. E. Spector, "Causes of employee turnover: A test of the Mobley, Griffeth, Hand, and Meglino model," *J. Appl. Psychol.*, vol. 67, no. 1, pp. 53–59, 1982, doi: 10.1037/0021-9010.67.1.53.
2. D. E. Guest, "Human resource management and performance: a review and research agenda," *Int. J. Hum. Resour. Manag.*, vol. 8, no. 3, pp. 263–276, 1997, doi: 10.1080/095851997341630.
3. D. Buchanan et al., "No going back: A review of the literature on sustaining organizational change," *Int. J. Manag. Rev.*, vol. 7, no. 3, pp. 189–205, 2005, doi: 10.1111/j.1468-2370.2005.00111.x.
4. S. DellaVigna, "Psychology and economics: Evidence from the field," *J. Econ. Lit.*, vol. 47, no. 2, pp. 315–372, 2009, doi: 10.1257/jel.47.2.315
5. P. E. Spector, *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA: Sage Publications, 1997. ISBN: 9780761989233
6. C. Maslach and M. P. Leiter, "Understanding the burnout experience: Recent research and its implications for psychiatry," *World Psychiatry*, vol. 15, no. 2, pp. 103–111, 2016, doi: 10.1002/wps.20311.
7. H. C. U. Mondejar and J. M. R. Asio, "Human resource management practices and job satisfaction: Basis for development of a teacher retention framework," *Int. J. Multidiscip. Appl. Bus. Educ. Res.*, vol. 3, no. 9, pp. 1630–1641, 2022, doi: 10.11594/ijmaber.03.09.04.
8. T. Geiger and M. Pivovarova, "The effects of working conditions on teacher retention," *Teach. Teach.*, vol. 24, no. 6, pp. 604–625, 2018, doi: 10.1080/13540602.2018.1457524.
9. S. Ruhland, "Factors that influence the turnover and retention of Minnesota's technical college teachers," *J. Vocat. Educ. Res.*, vol. 26, no. 1, pp. 56–76, 2001, doi: 10.5328/JVER26.1.56.
10. J. P. Papay, A. Bacher-Hicks, L. C. Page, and W. H. Marinell, "The challenge of teacher retention in urban schools: Evidence of variation from a cross-site analysis," *Educ. Res.*, vol. 46, no. 8, pp. 434–448, 2017, doi: 10.3102/0013189X17735812.