AN ANALYSIS OF THE CAUSES OF PROFESSIONAL DEVELOPMENT OF ELEMENTARY SCHOOL TEACHERS IN YUNNAN PROVINCE BY INVOLUTION

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A Dissertation Submitted in Partial
Fulfillment of the Requirements for the Degree of
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ABSTRACT

Title of Dissertation	AN ANALYSIS OF THE CAUSES OF PROFESSIONALDEVELOPMENT OF ELEMENTARY SCHOOLTEACHERS IN YUNNAN PROVINCE BYINVOLUTION
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After the "double reduction" policy was implemented in Yunnan, it was not possible to completely achieve a balanced transition between the various stages of education within a short period of time, and the professional development of primary school teachers showed a clear appearance of "involution". The imbalance in management mechanisms leads to the involution of teachers' professional development motivation, the imbalance in incentive mechanisms leads to the involution of teachers' professional development quality, and the imbalance in evaluation mechanisms leads to the involution of teachers' professional development evaluation. This paper explores the suitability of each element in the SOR theory and the theory of involution for the professional development of primary school teachers, and examines the scientific management mechanism, healthy competition mechanism and multiple evaluation mechanism for the professional development of primary school teachers, in order to provide a basis for primary school administrators to make decisions on teacher management and development, and to provide reference for education authorities to coordinate the formulation of relevant policies.

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CHAPTER 1

INTRODUCTION

1.1   Research Background

1.1.1   Realistic Background

In recent years, the phenomenon of "involution" has become the focus of social attention, referring to the inefficient and unhealthy competition within the system and the weakening of individual values caused by the top-down overall environment and the lack of total opportunities. According to Oxford University Professor Xiang (2020), the "involution" of modern society is a gyroscopic death cycle, a highly dynamic trap that is very energy-consuming, showing the accumulation of quantity and stagnation of quality. He argues that this phenomenon occurs because highly integrated market competition has become the basic way of organizing society and allocating resources, and he points out that this phenomenon has become widespread in all walks of life. In the field of elementary education, the professional development of elementary school teachers has also shown a clear appearance of "involution".

Currently, China is carrying out large-scale basic education reform in China, and the overall career development of elementary school teachers, a key factor in the success or failure of basic education reform, is not optimistic. According to the "China Primary School Teachers' Stress Survey Report", welfare treatment and reducing teaching pressure are the highest expectations of elementary school teachers, accounting for 49% and 25% respectively. On the one hand, the increasing teaching stress of teachers due to exam-oriented education, and on the other hand, the imbalance between the value of teachers' labor and their labor compensation prevent them from having positive cognitive evaluation and emotional experience of the profession itself.

First, starting in September 2021, all primary and secondary schools in mainland China will begin to fully implement "double reduction," which refers to effectively reducing the excessive homework burden and the burden of out-of-school training for students in compulsory education. In particular, homework is not allowed for students in grades 1 and 2, and students in other grades are expected to complete their homework in school under the supervision of teachers (Ministry of Education of the People's Republic of China, 2021). In addition, elementary school teachers are required to take on a large number of transactional tasks outside of teaching, such as completing 3-5 online platforms of learning per day, summarizing and organizing various student profiles, watching students' lunch breaks, and so on. In terms of appraisal, the school's evaluation of teachers contains various quantitative scores such as lesson plan books, lecture record books, classroom evaluation manuals, and student performance analysis manuals. The teacher performance appraisal mechanism is single and backward, and the evaluation method that places too much emphasis on process standardization is not conducive to teachers' improvement of teaching efficiency and effectiveness. In the current situation of limited school size, saturated student population and no increase in the number of teachers, the workload of elementary school teachers has increased significantly, and too many responsibilities that originally did not belong to teachers consume a lot of time and energy, teaching is no longer the central task of teachers, and the professional development of elementary school teachers is seriously hindered.

Secondly, the overall education structure in Yunnan Province is immature, with secondary and vocational education lagging behind, and there is a general disconnect between basic education and secondary education and uneven development. In the current education system, most students are involved in extracurricular training due to the long-established "score-based theory", and after-school time has become a regular practice of on-demand tuition. After the "double reduction" policy was implemented in Yunnan, it was not possible to achieve a balanced transition between education stages in a short period of time, and homework was drastically reduced, making it difficult to control students' fragmented time. With extra-curricular tutoring institutions forced to close, students' tutoring needs are eventually shifted to the school, with teachers within the school taking on the extra-

curricular subtracted burden. The workload of elementary school teachers is increasing, but the corresponding teaching ability is difficult to improve in the short term, showing an "increasing quantity, but stagnant quality" in-volume performance.

Third, Yunnan Province is in an underdeveloped region in western China, and the country attaches great importance to the development of basic education. Data show that by the end of 2020, the number of elementary school students in Yunnan province is 3,795,100 (2018), 3,851,000 (2019), and 3,982,200 (2020); the number of full-time elementary school teachers is 228,400 (2018), 230,800 (2019), and 237,300 (2020); the elementary school The qualification rates of full-time teachers are 99.76% (2018), 99.8% (2019), and 99.86% (2020), respectively (CPC Yunnan Provincial Party Committee Education Working Committee Yunnan Provincial Department of Education, 2016). It can be seen that the state, in order to guarantee the public welfare and universality of compulsory education, has firstly given strong support from the teacher level, with the number of full-time teachers increasing year by year and strict requirements made for the professionalism and qualifications of full-time teachers. In addition, the recruitment conditions within the elementary school teacher establishment in Yunnan Province clearly stipulate that candidates with a master's degree or higher are exempted from the written examination session and can participate directly in the interview. Recent bachelor's degree graduates take the initiative to participate in academic upgrading in order to take more initiative and competitive advantage in the competition for school entry recruitment. Through the analysis of the survey on the motivation of the examination, the proportion of those who need to improve their employment competitiveness due to employment pressure is 52.7% (CPC Yunnan Provincial Party Committee Education Working Committee Yunnan Provincial Department of Education, 2016); restricted by the personnel system, elementary school teachers are divided into two working statuses: within the establishment and outside the establishment, and the ratio of recruitment and entry within the establishment is only 9.7:1 (CPC Yunnan Provincial Party Committee Education Working Committee Yunnan Provincial Department of Education, 2016), most teachers can only work in the employment status outside the establishment As a result, teachers are forced to compete for qualifications and status from the entry stage, and after joining, teachers outside the establishment continue to actively

participate in examinations in order to change their status, presenting an inward expression of "scarcity of quality resources". This is a manifestation of the "scarcity of quality resources".

Finally, a comprehensive analysis of several representative model elementary school in Yunnan Province shows that the composition of their current teacher incentive performance distribution, elementary school teachers' job rank allowance accounts for 65-70%, indicating that the longer the teachers' working years the higher the rank and the higher the reward coefficient, and the job rank plays a decisive role in performance distribution; education and teaching rewards only account for 5%-10%, which is difficult to play an influential role in teachers' profession, leading to Lack of initiative in education and teaching, poor innovation, and stagnation in personal development (Source: Primary School of Yunnan Normal University, Mingtong Primary School in Kunming, and Qujing Second Primary School). The imbalance in performance distribution, the decrease in job satisfaction, the influence on teachers' professional values, and the excessive energy devoted to ineffective competition and internal consumption, as well as the "inactivity" of teachers' essential work in education and teaching, show the characteristics of "individual development stagnation and unreasonable competition mechanism".

Based on the above realistic background, it is important to study a more reasonable and diversified teacher evaluation system and incentive mechanism, so as to promote benign competition among teachers, effectively reduce teachers' burden, and promote teachers' professional development for school management and teachers' sustainable development.

1.1.2 Theoretical Background

The essence of the theory of involution is that a certain social phenomenon or development model forms a situation of "involutionless development" at a specific stage of development, and the ultimate effect of involution is the overall inflation of the industry sector and the continuous devaluation of individual efforts (Yang, 2017). Currently, scholars have introduced the concept of "involution" to various fields to see how the ineffective consumption caused by the involution effect affects different targets. According to Zhang (2017), the professionalization of teachers has moved

from the process of group professionalization and individual passive professionalization to the stage of active professionalization of individual teachers. This phenomenon is consistent with the basic manifestation of "involution," which is a pattern that, when it reaches a certain level and form, does not continue to develop but continues to refine internally, showing a dynamic stagnation (Ji, 2010).

In terms of intrinsic motivation, Mushayikwa and Lubben (2009) used rooting theory to show that teachers' "self-direction" is considered a potential key to successful professional development, including the ability to teach effectively and to make effective connections within the teaching profession. Competence. Teachers' self-awareness of professional development is critical to the process and quality of education. The reason for teachers' lack of motivation for professional development is the inertia and restraint of the education system reform, which does not stimulate teachers' enthusiasm, needs, and motivation to pursue their own professional development (Miao & Xue, 2017). The elementary school level is part of the state's compulsory education, and there is no competitive pressure for further education per se. However, the prevalence of top-down "meritocracy" in high school, middle school, and elementary school due to high school promotion pressure is evidence that elementary education is already using the same competitive mechanisms as those in secondary and higher education to evaluate teachers and students in compulsory education. Teachers' performance evaluation, inflow and exit, training opportunities, subject assignment, and promotion all operate within the established authority of the school. In this pattern, school development shows a significant section orientation rather than professional orientation (Yang, 2017), resulting in teachers being forced to engage in competition. Whereas competitiveness is an important dimension of personality, overly competitive and benign competitive attitudes not only reflect individual personality traits, but also have different effects on both individual learning and work (Chen, Li, & Lu, 2003).

From the analysis of external factors, according to the stimulus-organism-response (SOR) theory, a stimulus is a stimulus from an external source that can have an impact on the psychological cognitive or perceptual state of the target population, thus triggering a series of psychological responses that are eventually transformed into behavioral responses (Mehrabian & Russell, 1974).

The role of the teacher is important in the teaching and learning process, and a motivating learning environment can directly influence students' motivation to achieve in school (Daniels, 2011). Conversely, students' learning styles and knowledge acquisition can likewise influence teachers' teaching strategies and motivation (Campbell et al., 2001). On the other hand, Firestone and Pennell (1993) developed the concept of "teacher professional commitment" and constructed a framework for assessing variability in their research by identifying seven key external motivators: job characteristics, feedback, progress, involvement, collaboration, learning opportunities, and resources. Collaboration, learning opportunities, and resources. He also pointed out that rationalizing the pay-for-performance structure and increasing teachers' managerial involvement, teaching collaboration, and feedback can build good differential incentives and avoid excessive competition.

Therefore, both external and internal factors, the lagging management, incentive and evaluation mechanisms are the main reasons for the imbalance of professional development of teachers in elementary school. Under the influence of the perverse value position of "test scores as the guide" and "job rank as the goal", teachers' professional development is severely constrained, which brings excessive professional burden to individual teachers. We need to explore the root causes of the problem and the scientific and reasonable solutions. Therefore, it is imperative to transform the theory of teacher professional development into the internal motivation of teacher professional development by stimulating the motivation of teacher professional development through institutional changes. On the basis of improving the mechanisms, elementary school teachers are guided to adjust the deviations in teaching and personal career planning with correct professional values and competitive attitudes in order to achieve the unity of personal development and organizational development and to break the dilemma of internalization.

1.2   Problem Statement

From the background introduction, it can be found that the lagging reform of the teacher personnel system in Yunnan Province has pushed up the pressure of extreme competition for elementary school teachers from the entry stage. The

excessive competition caused by the need to obtain status within the establishment has led to a constant, passive demand for elementary school teachers to raise their educational level, pushing the knowledge universality expected of elementary school teachers to knowledge specialization and affecting the formation and stability of teachers' professional values. In fact, education at the elementary school level favors behavioral habits and learning methods and requires comprehensive control of children's physical and mental formation; teachers with higher education levels have more specialized knowledge of subject systems, high theoretical levels, and weak practical teaching skills; the elementary school level requires comprehensive development, and the required full-time teachers should have comprehensive knowledge to adapt to the special environment of elementary school education (Jiang, 2021). At the same time, for teachers who have already obtained the status of establishment, they put a lot of energy into promotion assessment in order to obtain a higher job rank and enjoy better salary as soon as possible, which leads to detachment from teaching reality and lack of attention to students and classrooms.

At the same time, the top-down test selection from high school has forced elementary school students and parents to bear the score anxiety that originally did not belong to compulsory education, and the long-established mechanism of "extracurricular tuition" to raise scores ended with the implementation of the national "double reduction" policy. The long-standing "extra-curricular tuition" mechanism, which ended with the implementation of the national "double reduction" policy, was eventually transferred to the teaching pressure of elementary school teachers. In addition, too many things other than teaching take up teachers' time, which leads to burnout and ineffective self-consumption.

Therefore, it is of great theoretical and practical significance to study a more reasonable and diversified teacher evaluation system and incentive mechanism on the basis of the existing school organization structure, so as to promote benign competition among teachers and break the internal volume.

1.3   Purpose of the Study

From the existing literature, no research has been conducted on the professional development of elementary school teachers using the underlying theory and model of SOR, and the concept of involution has not been introduced into it. Relevant studies have selected independent variables in terms of student performance, incentive policies, and individual development plans, and have not yet considered the ineffective consumption caused by excessive competition that can hinder teachers' professional development and how to measure the negative impact of such hindrance on teachers. Based on this, the purpose of this paper is to examine the following.

Firstly, this paper adopts the SOR theory, introduces the characteristics of "involution" into the evaluation of elementary school teachers' professional development, and uses competitive attitudes and teachers' professional values as mediating variables to explore the key influence and mechanism of individual subjective will in the formation process of elementary school teachers' professional development involution, and examines how the appearance of elementary school teachers' professional development fits with the phenomenon of involution. Second, we study the correlation between students' academic status, teachers' professional development motivation, teachers' incentives and competitive attitudes and professional values, and find a breakthrough point from the "stimulus" factors corresponding to the basic theory to build a more effective incentive mechanism. Third, to explore the correlation between teachers' performance evaluation, competitive attitudes and professional values and the degree of correlation, to study the role of reasonable evaluation mechanism in promoting teachers' professional development, to discuss the effect of excessive competition in aggravating the professional development of elementary school teachers, to explore the necessity and rationality of a benign competition mechanism, and to provide a basis for decision making in school teacher management and a reference for individual development of elementary school teachers.

1.4   Research Questions

The research questions in this paper revolve around the following four areas.

First, on the basis of previous scholars' research findings, which point out that factors such as students' academic status, professional development motivation, and teachers' incentives can have a critical impact on teachers' professional well-being, this paper investigates whether these factors are the direct causes of the professional development of elementary school teachers' involution.

Second, previous scholars have used the Competitive Attitudes Scale to measure different professional groups and have completed a revision of the Chinese version of the Competitive Attitudes Scale, demonstrating that excessive competition and healthy competition are both influential in different populations. Combining the common features of "involution," this paper examines how the two different competitive attitudes play a role in the process of involution in elementary school teachers' professional development.

Third, based on the SOR theory, the mediating role of the organism was added to the "stimulus-response" interval to investigate whether individual subjective consciousness plays a mediating role in the formation of professional development of elementary school teachers. The effect sizes of several mediating variables were also examined.

Fourth, based on previous scholars' research on teachers' professional development dynamics, we explore whether it plays an influential role between students' academic status and the professional development of elementary school teachers' involution.

1.5   Research Significance

1.5.1   Theoretical Implications

The authors reviewed and studied a large amount of literature in the Chinese database Zhiwang Research and Google Science, and used the online platform to collect and organize relevant information. In the face of the emerging phenomenon of "educational involution", research focuses on students, parents and extracurricular

tutoring institutions, but rarely on teachers. There is a lack of discussion on the "professional involution of teachers", no explanation of the professional development process of elementary school teachers using involution theory, and no scientific indicators for measuring the involution of teachers' professional development. More importantly, there is no systematic research on the causes of professional development involution in elementary school teachers using basic theories and models. Therefore, based on the SOR theory, this paper uses two competitive attitudes and professional values as the "organismic influences" (mediating variables) in the theory, and the proposed innovations are.

1) Based on the SOR relationship orientation, organismic influence is introduced as a mediating variable in the process of the analysis of the causes of involution to explore the influence of individual subjective consciousness on the pathway of involution formation and to demonstrate the key role of individual will in the process of involution formation.

Previous scholarly studies on the theory of involution have not considered the influence of competitive attitudes, when in fact subjective will plays an extremely important role in the degree of involution. It is manifested in industrial competition as rising industry standards and at the level of personal development as over-competitive attitudes toward careers.

2) to add to and improve the applicability of the theory of involution in the field of professional development of elementary school teachers, and to discuss ways and means of avoiding the creation of involution in terms of formation mechanisms.

3) Construct a scientific and reasonable evaluation system for teachers' professional development, and enrich and enhance the connotation and theoretical guidance of SOR theory in the process of elementary school teachers' professional development.

1.5.2   Realistic Significance

This study will verify the suitability of each element of SOR theory and involution theory for elementary school teachers' professional development one by one, and fully integrate them with the actual situation to study the scientific

management mechanism, benign competition mechanism and multiple evaluation mechanism for elementary school teachers' professional development within the policy environment, provide elementary school administrators with a basis for teacher management and development decisions, provide reference for the educational authorities to coordinate the formulation of relevant policies, and actively The study will provide a basis for primary school administrators to make decisions on teacher management and development, provide a reference for education authorities to coordinate the formulation of relevant policies, and play an active role in guiding the experience of the research subjects.

1.6   Summary of this Chapter

Firstly, the problem of equity in basic education in China is becoming more and more prominent, and there are problems such as monopoly of quality educational resources, expansion of market-oriented education, and the tendency of utilitarianization of education, etc. The "imbalance of management mechanism" leads to the inward roll of teachers' professional development motivation (Yang, Zhang, & Zhang, 2021). Secondly, teachers' professional anxiety increases dramatically due to the high teaching pressure and the lack of scientific and effective incentives, which leads to the lack of educational innovation and pedagogical changes in elementary school teachers and the situation of self-slacking and self-consumption. Thirdly, the single imbalance of teachers' performance appraisal, competitive evaluation mechanism dominates for a long time, and instead of focusing on the actual education and teaching level, the years of work are the main basis for promotion; on the other hand, elementary school as primary education links, it is unreasonable to assess the number of scientific research achievements and papers of elementary school teachers in the teacher evaluation mechanism, "imbalance of evaluation mechanism " leading to the in-volume of teachers' professional development evaluation (Yang, 2017). Based on this, it is important to use SOR grounded theory to carry out research on the involution of elementary school teachers' professional development, which is conducive to exploring more effective ways of mitigation.

CHAPTER 2

REVIEW OF LITERATURE

This chapter introduces the academic evolution of the theory of "involution" and its concrete manifestations in the professional development of elementary school teachers through a review of the literature in the field. It introduces the concepts of students' academic status, teachers' professional development motivation, and teachers' incentives, as well as their influence on the professional values of elementary school teachers, with reference to previous scholarly research. In addition, the results of literature related to competitive attitudes are compiled, and through this study, the joint effects of the above factors are examined to explore the working conditions presented by teachers in different competitive states, and ultimately to uncover the causes that lead to the involution of professional development of elementary school teachers in Yunnan Province. The relationships among the variables and their influential pathways are sorted out to lay the theoretical foundation and provide research references for this study.

2.1 SOR Stimulus-Organism-Response Theory

SOR (Stimulus-Organism-Response), or stimulus-organism-response theory, was proposed by Mehrabian and Russell (1974) to explain the influence of the environment on human psychology and behavior. SOR states that a stimulus is a stimulus from the outside that can have an effect on the psychological cognitive or perceptual state of the target population SOR states that a stimulus is an external stimulus that can have an impact on the target population's psychological cognitive or perceptual state and thus trigger a series of psychological response processes. It is believed that the external environment stimulates the individual's psyche and causes

changes in emotional and cognitive states, which in turn produce certain behavioral outcomes (Mehrabian & Russell, 1974).

The theory assumes that there is an intermediary between stimulus and response, rather than the stimulus acting directly on the response, and that individual behavior is mediated by the internal state of the organism - consciousness - as a link, and behavior is governed by consciousness. The famous developmental psychologist J.P. Piaget, whose cognitivist viewpoint is the basis of SOR theory, believes that the interaction between subject and object is regulated by individual subjective initiative and that the process of mental development is an active constructive process of self-selection and self-regulation of the subject. The subject does not receive stimuli mechanically and respond passively in learning, but actively and selectively acquires them and processes them.

The SOR theory consists of three components: Stimulus is the "trigger" that triggers changes in the internal and external states of the individual; Organism is the emotional and cognitive mediated state that occurs when the individual interacts with external stimuli; and Response is the internal and external behavioral "response" generated by the stimulus activity. Organism refers to the emotionally and cognitively mediated state that occurs when an individual interacts with external stimuli; and the internal and external behavioral "response"(Response) generated by the external stimulus activity, with the internal response being reflected in the individual's mental attitude and the external response being reflected in the individual's performance behavior. The theory is mostly used to explain consumer buying behavior and organizational behavior, but in recent years it has been widely used to study how the environmental characteristics of various fields affect users' psychological state and user behavior. As shown in Figure 2.1, corporate marketing and socio-cultural phenomena are stimulating factors that stimulate consumer purchase psychology from different dimensions to finalize the purchase behavior and form the evaluation experience.

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│  │ Corporate marketing│ │  │  │Psychological factors│ │  │  │     Purchase       │ │
│  │    activities      │ │  │  │ Motivation         │ │  │  │ Trial              │ │
│  │ Product            │ │  │  │ Perception         │ │  │  │ Repeat purchase    │ │
│  │ Promotion          │ │  │  │ Learn              │ │  │  │                    │ │
│  │ Price              │ │  │  │ Personality        │ │  │  │                    │ │
│  │ PR                 │ │  │  │ Attitude           │ │  │  │                    │ │
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│  │ Social and Cultural│ │  │  │ Needs identification│ │  │  │                    │ │
│  │ Phenomena          │ │  │  │ Pre-purchase search │ │  │  │                    │ │
│  │ Family             │ │  │  │ Program evaluation  │ │  │  │ Program evaluation │ │
│  │ Informal organization│ │  │ │                    │ │  │  │                    │ │
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Figure 2.1 Schiffman Consumer Behavior Model Based on SOR Theory

2.2   Involutional Theory

2.2.1   Academic Evolution of Involutional Theory

The theory of involution originally belonged to the field of sociological research. The concept of "involution" was first introduced by the German philosopher Immanuel Kant in the 18th century to describe the evolutionary process of human society, and he contrasted it with the theory of evolution. Later, the anthropologist Alexander Golden Weiser used the term "involution" to describe a certain type of cultural pattern that, after reaching a certain final form, neither stabilizes nor transforms itself into a new form, but instead continues to Instead, it becomes more complex internally. He gives the example of the late development of Gothic art, in which the basic form of art reaches its limit, the basic structural features of art are fixed, and the sources of creativity are exhausted, but art still develops, only in a situation where all the edges are fixed, and this development can only be expressed in internal refinement, the so-called "magnificence This development can only be

expressed in internal refinement, so-called "magnificence," but in fact there is no more expansive creation. In short, "involution" earlier meant "the process of continuous internal refinement and complexity of a system under strictly limited conditions of external expansion."

After an MIT Center for International Studies study in Indonesia in the 1950s, anthropologist Clifford Geertz, in his book "The Involution of Agriculture in the Process of Ecological Change in Indo-West Asia," pointed out that in Java, Indonesia, local agricultural development was in a curiously inefficient pattern, and he first used the concept of " He first used the concept of "agricultural involution" to describe this lack of capital inputs, limited land, and a surplus of labor. Later, Prasenjit Duara, a social historian, borrowed and developed the concept of Gertzian involution and applied it to the field of political science. He pointed out that, as institutions expand and the state faces ever-increasing resource requirements, the state has no way to increase extraction and reduce pressure by improving efficiency on the original personnel and existing institutions, but can only obtain an absolute increase in the amount of resources by constantly replicating or expanding the original profit-making economic system, the economic efficiency of which decreases with the increase in size relative to the size of the state. This phenomenon is called regime involution, and in 1992, scholar Huang Zongzhi used the concept of involution to analyze China's rural economy and social change in his book Smallholder Families and Rural Development in the Yangtze Delta, referring to the way growth is obtained by investing large amounts of labor on limited land, also known as involutional growth.

2.2.2 Variable Relations of Involutional Theory

The latest research on involution comes from Dutch scholar Tiokhin, Yan, and Morgan (2021). He and his co-workers have developed a numerical model to reveal the dangers of "involution" to the scientific community. This study proposes and validates their hypothesis that the incentive to prioritize discovery undermines the reliability of science and that scientists take shortcuts to be the first to publish (Tiokhin et al., 2021). Tiokhin et al. (2021) are not the first group to suggest that competition has pernicious consequences. pernicious consequences, but they were the

first to devise models that allowed one to explore more precisely what effects such competition would have.

Select an open research question

Collecting data for research questions

Before collecting data
Snatched by competitors

Achievement of target sample size
Complete data collection

a 1-a

Give up the current Problem Study

Continue to current Problem Study

Perform significance test
Publish data and get rewarded
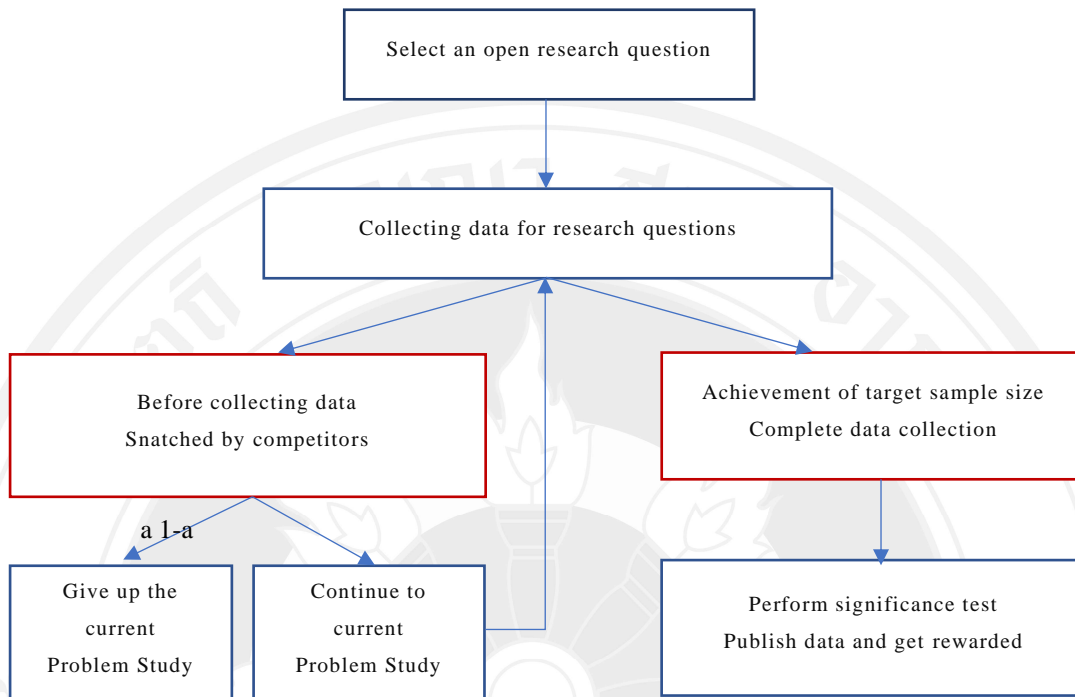
Figure 2.2   Tiokhin Hypothetical Model: A Model of Scientists' Behavioral Flow
            Within a Generation

As shown in Figure 2.2, a scientist's career begins when he or she is assigned an open research problem. Each "scientist" works diligently to collect data for a range of research questions according to different programming strategies. Some collect more meaningful large data sets than others, while others tend to abandon the research problem. If someone publishes a result first, some remain persistent. As more discoveries and results are made, some "scientists" are rewarded, and those who win the most awards are more likely to pass on their methodological experience to the next generation of researchers. While another scientist publishes on the problem, scientists in the same field continue to collect data on the same problem until they reach a pre-specified sample size for their goal, or simply abandon the study after being preempted by a competitor. This process continues until the end of the career of the current generation of scientists, at which time all scientists retire.

The a in the model determines the likelihood of being abandoned and represents the subjective competitive attitude and personal will of the experimenter when subjected to the constraint, a very critical factor that determines whether the work continues or not.

Tiokhin et al. (2021) model documents the successful strategies developed by 500 generations of virtual scientists for different virtual environments. The results show that if the system gives a greater reward to the first to publish their findings, then everyone will be more inclined to rush their research and collect less data, leading to findings fraught with instability. When the difference in payoffs was less pronounced, these virtual scientists tended to slow down publication and collect larger sample sizes. Another important finding of their study is that encouraging negative, skeptical research can reduce the overall quality of research. Because even if the study sample size is small and there are no interesting new findings, scientists may still be rewarded. But the study also found that if they simply questioned for the sake of questioning and did not focus on the quality of the research, scientists were likely to "do the best they could" and do the worst research they could.

The above studies significantly illustrate the logical relationship between the theory of involution, and it can be seen that the causes of involution can be either due to some external conditions or internal mechanisms, among which the individual competitive will also plays a key role in influencing it. At the same time, the developmental pattern of involution may occur both in some specific areas and in some particular regions.

2.2.3 Basic Features of Involution

1) The development of a model has reached a high level stage

When a field is in the emerging or development of the rising period, the input of all factors is relatively stable, supply and demand can achieve equilibrium, once reached a high level stage, such as the economic theory of "profit maximization", in the scale of production capacity will produce two kinds of risk: one is blind expansion, one is involution. As the effect of high quality and high return has been formed in the early stage, those who have the conditions will choose to expand the scale for more benefits; on the contrary, when there are no conditions for

expansion, they can only start from within, constantly improving, optimizing and refining, but because the scale is established, so the endless self-consumption will bring unhealthy competition. Therefore, involution only occurs at the stage when a model has reached a high level of development (Li & Wu, 2020).

2) Only the accumulation of quantity, no quality improvement

Involution has a basic feature: quantity increases but quality innovation stagnates, a kind of growth without development, with external expansion and no internal development, which essentially belongs to diminishing marginal benefits (Huang, 1994). When the space for development of things is restricted and progress cannot be obtained by breaking the external fetters, in order to ensure the high standard that has been reached so far, only incremental growth can continue, with great input for very little benefit, leading to a state of serious imbalance. And the basic shape of the industry is fixed, repetitive and refined labor will not bring innovation and change, but will only continue to push up the industry standard, making the opportunity more and more unfair.

3) Limited and scarce quality resources

Uneven development exists in any country and region, there are gradient differences in every industry sector, and quality resources are always scarce (Park, Lalwani, & Silvera, 2020). In the education industry, quality education refers to the education process and educational outcomes that are collectively referred to as quality education through an efficient operating system that promotes the comprehensive and harmonious development of the educated person's quality to meet the educated person's self-growth needs and the society's requirements for the educated person's quality. The quality educational resources that can play a role in enhancing and promoting development in the above-mentioned educational process are the quality educational resources (Fu, 2004). It is usually judged by quality schools, excellent individual teachers in schools, and high-quality teaching facilities and materials.

4) Lack of scientific and reasonable competition and exit mechanism

The purpose of involution, which is to gain a more obvious competitive advantage and fight for better resources, is ultimately due to the absence of corresponding follow-up guarantees and exit mechanisms that meet psychological

expectations. When a field has reached an advanced stage of maturity and does not have external conditions for optimization, it cannot afford the losses associated with exit (Yang, 2017). The single and unbalanced evaluation mechanism, the imperfection of various social security systems, and the risks to be taken in case of competitive failure lead to a double pressure from internal and external sources. As mentioned earlier, this "forced" competition is the only way to satisfy and maintain the stagnation of the status quo in a given period of time. Because once you do not participate in this competition, you will face the situation of being eliminated and overtaken.

2.2.4 Suitability of SOR Theory to this Study

The variables of this study were included in the SOR relationship mechanism, and three aspects, student academic status, teacher professional development motivation, and teacher incentives, played a stimulating role as independent variables in the relationship. This stimuli increases teachers' identification with the organization's value goals and leads them to continuously optimize their original knowledge structure while actively exploring new knowledge, forming a closed loop of stimulus-organism-response thinking and action, which is consistent with SOR theory. The degree of professional development of teachers is the result of response after the stimuli of these three variables, and "organism" (Organism) refers to the emotional and cognitive mediators produced by individuals when interacting with external stimuli, which belongs to subjective will. the above-mentioned stimulus processes play a connecting role; ultimately, the psychological state influences the behavioral outcome, producing different involutional degree responses (dependent variables). Therefore, SOR theory can be applied to this study and can be combined with involution theory for innovation.

2.2.5 Summary of this Section

SOR, as a cognitivist-related theory, emphasizes the mediating effect of Organism, indicating that behavioral outcomes are subjectively and objectively co-acted. At the same time, the theory of involution, from the initial scope of economics research, can be used to explain the current irrational internal competition, internal

consumption or stagnation in various fields, indicating that in the current special period of rapid economic and social development in China, the situation of changing forms of development, increasingly concentrated inputs, but lower and lower results are prevalent. Based on the SOR model, combined with the theory of involution, it provides a new analytical perspective for analyzing the typical problems in a specific period and in a specific field.

2.3   Introduction of Independent Variables

Based on the above theoretical adaptations, this study identified three independent variables: students' academic status, teachers' professional development motivation, and teachers' incentives; three mediating variables: benign competitive attitudes, overly competitive attitudes, and elementary teachers' professional values; and one dependent variable: elementary teachers' professional development involution. The basic meanings of each variable, as well as the interrelationships and influencing factors among the variables, are described separately below.

2.3.1   Students' Academic Status

Academic performance can be measured by test scores or academic grades, and the more specific the definition and measurement of learning outcomes, the more likely it is that causal influences will be found (Cohen, 1987). It has been pointed out that learning status is an overall response to students' learning, and an important indicator of the quality of teaching and learning in schools, and should be analyzed from three perspectives: learning emotions, personal expectations, and achievement differences (Li, 2014). Learning refers not only to the external objective factors that students need to undertake in order to complete their learning tasks, but also to their inner subjective feelings such as their emotional experience in learning (Tong, 2014), which is not only a reflection of students' own ability to learn knowledge, but also an important component of teachers' teaching effectiveness.

Meanwhile, students' academic status includes both in-school and out-of-school learning (Rubie-Davies et al., 2012). Within the school, elementary school teachers must work according to the textbook syllabus and are strictly prohibited from

over-teaching (Zhang & Zhu, 2021); out-of-school learning is mainly through after-school tutorials to achieve higher academic scores, and also includes online teaching online courses that are now widely used (Wang, Ju, Wang, & Wu, 2021).

In teaching activities, students' academic achievement as a relatively stable student characteristic directly influences teachers' differential treatment behavior (Nurmi, 2012), and students' academic achievement triggers teachers to form different self-teaching expectations, which in turn indirectly influences teachers to make higher demands on their own development (Cooper, 1979). In practice, low academic achievement is often accompanied by lower peer acceptance, problem behaviors, and lower motivation to participate in classroom activities, causing teachers to adopt more positive behaviors to improve the situation (Jones & Dindia, 2004; Kiuru et al., 2015; Nurmi, 2012), and student academic achievement affects teachers' treatment of students' positive deviant behaviors, and teachers' own sense of efficacy.

Previous research has found that during teacher-student interactions, teachers first form judgments about the contextual control of student-teacher interactions based on their perceptions of students' academic achievement and then act accordingly (Cooper, Lam, & Turoscy, 1980; Nurmi, 2012; Skinner, 1996). Teachers are inclined to give more positive behaviors to students with higher academic achievement because they have more content and subject matter to choose from and because such students often perform in response to teacher expectations (Cooper et al., 1980), and conversely the better the academic achievement of such students, the more valuable the teacher's work. Enhancing students' motivation in classroom learning is the core of improving teachers' teaching effectiveness. Subject achievement scores are the most intuitive measure of students' classroom knowledge mastery and teachers' teaching level, but students' academic status is not just an indicator of test scores, but should be considered comprehensively in terms of students' ideology and morality, practical application, and innovative thinking, as well as combining in-school performance and independent learning outside of class to make scientific and comprehensive judgments (Chen, Xu, Wang, Zhang, & Xiao, 2009).

2.3.2 Concepts Related to Teacher Professional Development

1) Energetic (Agency)

Seligman, the father of positive psychology, defines efficacy as the individual's belief that he or she can influence the world. It contains three components, first, efficacy, which is one's expectation of one's ability to achieve one's goals in the future; second, optimism, which is a futuristic belief in one's ability to achieve those goals in the future; and third, imagination, which is the expectation of being able to achieve a wide range of goals beyond the limits of space and time (Sethi & Seligman, 1994). It is generally considered as a positive, selective response or answer by the individual in the face of stimuli and influences brought from outside or within, a positive response that does not contain negative elements.

2) Teacher Professional Development (Teacher Professional Development)

In psychological research, teacher professional development is defined as the process of continuous development and improvement of teachers as professionals in terms of professional thinking, professional knowledge, and professional competence, i.e., from novice to expert teachers (Yue, Xie, & Hoo, 2020). Teacher professional development mainly includes three aspects of developmental motivation, developmental quality, and developmental evaluation (Wen, & Liu, 2014). comprehensively considers the comprehensive professional quality of teachers while reflecting their abilities at different stages of professional development. Teacher professional development is achieved through their own subjective practical activities inspired by the intrinsic motivation of the teacher subject and characterized mainly by diversity, autonomy and sustainability (Zhang & Huan, 2016). According to Li (2016), teachers' professional development toward autonomy is an inevitable process, which is achieved by awakening self-awareness, enhancing self-identity, emphasizing self-reflection, and formulating self-planning.

3) Teacher Professional Development Initiative

It refers to the personal qualities that develop in the course of teachers' professional development practices as individual teachers make proactive choices and exert influence toward their chosen goals in order to change their own professional development situation and the professional development environment in which they

find themselves. Teacher professional development motivation emphasizes the link between personal will and action, and is the initiative of teachers to make changes. Teacher professional development motivation can be divided into personal motivation and environmental motivation, including: setting teaching goals, selecting and using teaching strategies, teachers' evaluation and reflection on their own educational and teaching activities, and teachers' self-regulation throughout the educational and teaching process. Zhang (2012) considered that there were five main measures: teaching efficacy, role responsibility, self-adjustment, professional identity, and decision-making participation. Among them, teaching efficacy corresponds to "efficacy" in the concept of motivation, role responsibility and self-regulation correspond to "optimism" in the concept of motivation, and professional identity and decision-making participation correspond to "imagination" in the concept of motivation. ".

In terms of teaching efficacy, scholars such as Ye (2021) noted that teacher efficacy affects their proactive and creative behaviors as enablers, and that teachers with a strong sense of efficacy are more willing to accept new teaching ideas and try new teaching methods to meet students' needs more effectively. Teachers actively screen information for usefulness and consciously reject useless information during the teaching process (Galloway, Seltzer, & Whitfield, 1980). It is the degree of subjective effort of teachers who actively and continuously think about teaching situations and their own teaching behaviors, and constantly explore ways and means to improve teaching effectiveness (Cai, Shen, & Lei, 2016).

The role responsibility aspect refers to the fact that when teachers view education as a narrowly technical job (e.g., transmitting knowledge), their dynamism is limited, whereas the professional role facilitates teachers to demonstrate normative and standard actions and to act flexibly and creatively (Zhang, 2012).

In terms of self-adjustment, psychologists point out that new ways of working and living are necessary to free oneself from work constraints and work interpersonal relationships. Mokhele and Jita (2010) argued that teachers need to maintain and develop continuous learning and critical reflection throughout their careers; the key to alleviating teachers' occupational stress The key is teachers' own management to continuously achieve more scientific and rational self-control by

adjusting their personal work style, interpersonal relationships, and shaping their sense of self-efficacy, moral values, and psychological quality (Jiang, 2011).

In terms of professional identity, it is emphasized that the degree of teachers' professional identity and the construction of their professional identity affect teachers' dynamic choices and practices regarding teaching, their own development directions, and the allocation of their energy, and that teachers' professional identity affects teachers' educational and teaching behaviors and value judgments at a deep level (Li, 2014).

In terms of decision-making participation, Coleman found that communication between leaders and decision participants is smoother when the relationship between the two parties is closer. Hu, (2014) noted that school decision making is necessarily limited without teacher participation. Empowering teachers to participate in school decision making can increase teachers' motivation in teaching and learning while allowing them to continuously improve their own quality. Teacher participation in decision making helps to increase teachers' enthusiasm and professional satisfaction. Teachers also appreciate administrators who involve them in decision-making. Participation in decision making helps to improve the relationship between teachers and administrators, and helps to create a work atmosphere and interpersonal environment that is fluid, comfortable, democratic, harmonious, and stimulates teachers' creativity (Kong, 2013).

4) Summary of this section

It can be seen that teachers' professional development motivation is an ideal state based on the teaching profession, which is a combination of individual internal motivation and external environment. Synthesizing previous results, this study summarized teachers' professional development motivation into five aspects: teaching skills, personal role perceptions, professional identity, ability to adjust autonomously, and decision-making involvement, which can accurately respond to the determinants of teachers' various aspects in the professional development process, and therefore chose it as an important independent variable to study its influence on the degree of involution.

2.3.3 Teacher Incentives

1) Motivate Mechanism (Motivate Mechanism)

Vroom (1964) first proposed the "expectancy theory", according to his formula of expectancy theory: the power of motivation comes from the product of effectiveness and expectancy. According to his formula of expectancy theory, the power of motivation comes from the product of valence and expectation, i.e., the utility of motivation = expectancy x valence ($M = V*E$), and he pointed out that the control of the magnitude of individual behavior is achieved by changing the correlation between a certain reward and a certain performance and the value of reward itself. Later, management scientists Locke & Huse (1967) proposed the "goal-setting theory", which includes three dimensions: difficulty, clarity and acceptability of goals, and refers to the process of maximizing employees' commitment to the organization and their work through specific methods and management systems. Taken together, motivation is the process of making employees work hard to achieve organizational goals by meeting their needs. In terms of content, it can be divided into material incentive and spiritual incentive, and the role includes positive incentive and negative incentive, where positive incentive is to be able to gain through efforts, negative incentive is to reduce mistakes or offset risks through efforts, negative incentive is a kind of binding incentive, and the combination of positive and negative incentive is considered the most effective incentive mechanism.

2) Teacher incentive mechanism

Based on the professional characteristics of teachers, the whole process of their motivation from the generation of work motivation to taking action is emphasized in teacher management, which includes psychological factors and behavioral competencies. Therefore, based on the SOR (stimulus-organism-response) theory and the findings of Porter and Lawler (1968) comprehensive motivation model, this study aims to comprehensively understand the necessity of "motivation" in the teaching profession and to present the dynamic process of external stimuli, individual internal conditions, behavioral performance and behavioral outcomes. The aim is to present the dynamic process of external stimuli, individual internal conditions, behavioral performance and behavioral outcomes in order to study the motivational mechanism of teachers more comprehensively.

Teacher motivation mechanism mainly contains performance, spiritual motivation, and external motivation (Wei, 2020).

Performance includes salary, job title promotion, and sense of security, which belong to the low level and the most basic and main needs (Brooks & Shell, 2006), Fan and Fu (2011) study that the implementation of performance pay in compulsory education schools must be based on teachers' actual performance and contribution, insist on more work and more pay, superior performance and superior pay, appropriately The performance pay is the most intuitive measurement and assessment of work ability.

In terms of spiritual motivation, teachers, first of all, as natural beings, need to obtain the necessary means of living through professional labor, and unlike other professions, teachers must undertake both knowledge transmission and spiritual leadership (Ye, 1997). Currently, China is carrying out a large-scale reform of basic education, and teachers are ranked as the first factor affecting the success or failure of educational reform. Focusing on spiritual and emotional motivation can enhance teachers' professional well-being and prevent some teachers from pursuing fame and profit, and through career planning and honor recognition, teachers' professional identity and sense of honor can be enhanced (Bai & Xu, 2021).

As for external motivation, it mainly refers to social orientation and policy support (Gius, 2013). The multidimensional incentive mechanism construction based on the hierarchy of needs theory, combined with development incentive, job promotion incentive and care and love incentive, can guide teachers to improve their own needs level and goal pursuit on the one hand, and is a key point for the success of school management on the other hand (Liu 2012). Teacher incentive mechanism is important to improve the comprehensive quality of teachers, give full play to the role of teachers, and maximize the motivation of teachers' work.

Synthesizing the research results of previous scholars, this study proposes that teacher incentive mechanism refers to the complex in which educational administrators construct a rewarding system with promotion, requirements and evaluation in order to stimulate teachers' professional vitality, promote teachers' professional improvement and individual development, and finally achieve teaching management goals.

2.4 Introduction to Intermediate Variables

2.4.1 Competitive Attitudes

Competitive attitude is a stable psychological reaction tendency held by individuals when they react to competitive events, and is divided into two types: excessive competitive attitude and benign competitive attitude (Li et al., 2001). In studying competitive attitudes, it is important to combine competitive behavior with motivation: this is the behavioral performance of individuals who compete with others in the pursuit and realization of benefits. Due to the influence of upbringing, cultural background and other factors, different individuals have their own unique competitive behaviors and motivations, which are the main external expressions of individual competitive attitudes (Cen & Nie, 2005).

1) Healthy competition attitude

Benign competitive attitudes are about finding one's own goals in living together with others while engaging in some common exploratory activities to achieve those goals, not necessarily by excluding others in order to achieve one's own goals (Cen & Nie, 2005). Ryckman, Hammer, Kaczor, and Gold (1990) showed that such individuals are not overly concerned with the good or bad results when completing tasks, they are more concerned with They are more concerned with the enjoyment from the task itself and focus on self-discovery and self-improvement rather than comparing themselves with others. Individuals' benign competitive attitudes are related to their gender, occupation, and education level, and the social role that individuals assume is one of the determinants of benign competitive attitudes (Li, Lin, Chen, Guopeng, & Wang, Wei, 2001).

2) Excessive competitive attitude

In his work, Horney (1937) defined the concept of excessive competitiveness. It refers to an uncontrolled need of the individual to win in competition in order to maintain or increase the sense of self-worth at any cost. This extreme competitive attitude is harmful to the development of the individual and leads to a certain extent to the development of neurotic symptoms. Overcompetitive attitudes are a complete rejection and hostility towards others in order to achieve individual goals. Sampson (1977) referred to over competitiveness as "extreme

individualism", and Ryckman et al. (1990) and other scholars in the development of the Overcompetitive Attitudes Scale pointed out that in the field of education that the extent to which excessive competition affects students' academic performance is significant, and that among students, subjects who perceive themselves to be overly competitive have poorer mental health. Individuals' over competitiveness is related to their literacy level, which is caused by a combination of objective competitive pressure and subjective competitive evaluation, and over competitiveness can have a negative impact on individual development and individual functioning (Li et al., 2001).

Existing research proves that both overcompetitive and benign competitive attitudes have an impact on individuals' psychological well-being and are two distinct properties that represent two different psychological traits associated with competition and have an effect on individuals' subjective consciousness (Chen et al., 2003). Ryckman, Hammer, Kaczor, and Gold (1996) also concluded that overcompetitive individuals behave more competitively and benign competitive attitudes are more conducive to the development of individual qualities.

2.4.2 Professional Values of Elementary School Teachers

1) Professional values

Career values are the key to career development (Weis & Schank, 2002). Career values, also called work values or career choice, are an important part of values, and career values have a profound impact on a person's life. Regarding career values, domestic and foreign scholars have proposed their own operational definitions from different perspectives. Super (1970), a leading scholar in this field, believes that occupational values are the work-related goals that individuals pursue, i.e., the intrinsic needs of individuals and the traits and attributes of work that they pursue when engaging in activities. Three categories were developed. Domestic Chinese scholars have also proposed relevant definitions, and a more representative one is Huang (1994), who believes that occupational values are people's evaluations of the needs of social occupations, and they are a reflection of life values in occupational issues.

2) Professional values of teachers

Super (1957) applied the categorization approach to the examination of the characteristics of teachers' work and was the first to introduce the concept of teachers' professional values, which he considered as the intrinsic needs of individuals and the traits or attributes of teachers' work that they pursue when engaging in their activities. Kallberg (1997) defined teachers' values in two ways: job needs and job satisfaction. He asserts that work values are the degree to which a person identifies with and respects the work that he or she does. As applied to teachers' work values, they are normative behaviors that reflect the conditions teachers seek in their work situations and are able to adapt to them. In terms of Feather's theory, teacher values are an individually driven system that provides guidelines for teachers' thoughts and actions as their surroundings change, while individual professional values change and adapt to new circumstances. The professional values of teachers are a combination of the goals, behaviors, and situations in which they are placed, and they are a reflection of this combination in the context of teachers' work. After combining previous results and referring to the current situation of the teaching profession in China, domestic researchers have proposed a more widely used definition: professional values of teachers are a series of conceptual systems based on human systems, social and cultural needs, and the results of teachers' professional behaviors and work, and are accompanied by a long-term socialization process to form the precipitation and sublimation of views, concepts, and attitudes toward the teaching profession, which affects individuals' It has an impact on individuals' career choices and influences their attitudes toward work (Yu, Sprague, Egan, Castleman, & Leury, 2001).

3) Professional values of elementary school teachers

On the basis of previous studies, Yang and Mi (2008) proposed professional values of elementary school teachers in line with China's national conditions. They argued that elementary school teachers' professional values have long been dominated by extrinsic professional values, including survival and dedication, i.e., for livelihood and reputation, etc. However, in the midst of rapid economic and social development, elementary school teachers' salaries are generally lower than those of other professions, so teachers find it difficult to take into account the development of their intrinsic professional values and neglect the enhancement of

professional knowledge and skills and professionalism. Intrinsic professional values are divided into enjoyable and developmental types, and two scholars' studies show that elementary school teachers who favor intrinsic professional values are more conducive to their own professional development. That is, elementary school teachers' professional values are a belief and attitude that aim at their own development, actively engage in their own professional development and their own comprehensive quality improvement, always maintain their enthusiasm for their work, and improve the degree of effective teaching.

2.5   Dependent Variables

The dependent variable identified in this study was: elementary teachers' professional development involution.

As mentioned earlier, teachers' professional development includes three aspects of developmental motivation, developmental quality, and developmental evaluation (Wen, & Liu, 2014). The three aspects mentioned above were used as research dimensions to confirm whether they conform to the main performance characteristics of involution under the influence of independent and mediating variables, and to deduce professional development involution in reverse.

At the level of developmental motivation, sustainable work motivation comes from respecting the autonomous model of teachers' professional development and guiding development with contextualization and personalization (Filipe et al., 2015), and administrators should improve and perfect teachers' incentive mechanisms to enhance teachers' professional identity and happiness as a way to provide personal motivation for teachers' professional development (Yue et al., 2020). In addition, performance is a unified concept of efficiency and quality, and income distribution through performance is an important institutional tool to motivate teachers to improve their work effectiveness (Jin & Hu, 2021).

At the level of development quality, Zhang (2010) argues that the process of teacher quality should not only focus on scores, achievements and outputs, but also on the state of the teachers themselves during the education process. In addition to teachers' own efforts, teachers' professional development also requires external

support. Tiered and categorized training based on the enhancement of educational and teaching practices and comprehensive literacy can provide inclusive, diversified and high-quality educational support for teachers' continuous development and create a quality environment for teachers' growth (Lu, 2018). In addition, it is necessary to monitor whether the diminishing marginal effects of educational inputs occur and whether there is "quantitative improvement" and "qualitative stagnation" in educational outcomes (Sun, 2020), which are consistent with the characteristics of involution and reflect the quality of teachers' professional development. The results of this study are consistent with the characteristics of involution and reflect the causes of involution at the level of teacher professional development.

At the level of developmental evaluation, Ryckman, Thornton, and Butler (1994) point out that in a professional employee appraisal system, the person in charge at all levels should make regular, comprehensive and systematic evaluation of the employees under his or her supervision one of the main management tasks. This comprehensive appraisal combined with the usual ad hoc or special visits in a specific environment or for a specific purpose can effectively enhance the employee's motivation and creativity towards the workplace. Chinese scholars have found that challenging evaluations partially mediate the relationship between challenging pressure and employee creativity (Zhang & Zhu, 2021), and that optimizing the knowledge structure of elementary school teachers and emphasizing process and comprehensive evaluations can more rationally evaluate teachers' professional development (Yao & Yang, 2020).

In summary, professional development of elementary school teachers is a dynamic process that includes scientific assessment and selection, reasonable posting after entry, precise and effective job training, and actual acquisition in line with individual performance (Lu, 2018). Therefore, the causes that cause the professional development of elementary school teachers to be involuted require a comprehensive discussion of each of these influencing factors and a full study of their relationships and mechanisms of action.

2.6 Expressions of "Internalization" in the Professional Development Process of Elementary School Teachers

The explanatory power of "internalization" in school development lies in the uniqueness of the theory of internalization itself as a perspective for analysis, thus revealing the relevance and thoroughness of the theory of "internalization" to the development of teachers and students. The main features of the theory are the gradual weakening of the educational character of the school, and the teachers' promotion of competition as a criterion for evaluation, which has led to a combination of imitation and neglect of change.

In contrast to the four main characteristics of involution described earlier in this paper, combing through previous research in the literature reveals the following four states of involution exhibited in the professional development process of elementary school teachers.

1) Perceived stages of professional development of elementary school teachers

The originator of the study of teacher professional development stages was the American scholar Fuller (1969), who developed the Teacher Concern Questionnaire, which became the beginning of teacher development theory research. According to Fuller (1969), teachers' professional development is divided into three stages: the normative primary stage, the personalized secondary stage, and the core advanced stage, which correspond to the three stages of concern for survival, concern for context, and concern for students, respectively.

The first stage is the primary stage, which is concerned with survival. In this stage, most of the teachers are new or have been employed for a short time, entering a new work environment and needing other colleagues or school leaders to make a good impression. Therefore, they will focus their efforts on interpersonal relationships. Because of the need to integrate into the collective environment as soon as possible, the desire to be accepted by colleagues, the desire to be appreciated by leaders, and more importantly, the desire to be welcomed by students, interpersonal relationships are definitely the first step for new teachers to start their work.

The next stage is the intermediate stage, which is concerned with the contextual stage. When the interpersonal relationship is stable and also recognized by the students. Generally, teachers shift their focus to teaching itself and care more about students' grades or scores because their work ability will be recognized when students' grades improve. Also, a teacher's teaching performance is an important basis for future promotion and title evaluation.

Finally, there is the advanced stage, the student-focused stage. Teachers at this stage are more experienced and have no room for further advancement in their positions. They shift their focus from focusing on the students' subject knowledge to focusing on the students' own inner world, their individual differences, and teaching them according to their needs to promote their healthy growth.

The following are three stages of teacher professional development that exhibit different manifestations of involution.

First, teachers in the early stages of norming are concerned with survival (secondary teachers). Usually young teachers who have just graduated and are new to the profession will focus their development on interpersonal coordination and collective integration (Lin & Yang, 2012). Although this group of teachers is at the junior level in terms of group stage, in reality, their induction process is a competition of education and assessment. At present, the recruitment conditions within the elementary school teacher establishment in Yunnan Province clearly stipulate that candidates with master's degree or above are exempted from the written examination session and can directly participate in the interview. Recent undergraduate graduates take the initiative to participate in education improvement in order to take more initiative and competitive advantage in the competition of school entry recruitment. Through the analysis of the survey on the motivation of graduate school, the proportion of those who need to improve their employment competitiveness due to employment pressure is over 50% (CPC Yunnan Provincial Party Committee Education Working Committee Yunnan Provincial Department of Education, 2016). Therefore, elementary school teachers at the primary stage of professional development, the characteristics of involution are mainly manifested in

the entry competition link, as well as for the adaptation to the position and interpersonal relationship handling.

Second, teachers in the intermediate stage of personalization focus on context (Level 1 teachers). Teachers in this segment have achieved stable interpersonal relationships, with student support and leadership recognition at work. This is the time when the focus of development shifts to teaching itself and when the characteristics of personal professional development are most pronounced in terms of involution. Teachers at this stage continue to learn a great deal about teaching methods and interdisciplinary knowledge, actively participate in various subject competitions, and even conduct research projects in the course of their elementary education in order to seek more capital for promotions and job evaluations. Teachers actively engage in "competition for points" and "competition for rewards" with the ultimate goal of gaining more points in the promotion assessment. However, for elementary school students, what teachers need most is to make the limited knowledge they have interesting, and to teach subject learning thinking, supplemented by appropriate innovative extensions. Science-based teachers do not fit the learning characteristics of the elementary school level and are typical of the involutional phenotype.

Third, teachers at the advanced stage of caucusing focus on students (advanced teachers). According to the growth stages of teacher development proposed by Berliner (1980), senior elementary school teachers belong to the expert stage, a group of teachers with rich teaching experience and good control and skill in classroom teaching. In terms of career level, they are already at the highest level of elementary school teachers, and there is no more room for higher promotion under the current management system. Zhou and Ning (2020) found that the main effect of workload on job title reached a significant level in their study of occupational stress among elementary school teachers, and that senior teachers' occupational stress was significantly higher than other stages because most senior teachers were required to take on more teaching tasks and administrative work. In fact, the focus of this group of teachers has returned from focusing on students' subject knowledge to students and education itself, paying more attention to students' inner world and moral growth, and to students' individuality (Fuller, 1969), too much teaching tasks and administrative

work, resulting in the fragmentation of subjective will and objective status quo. The few senior teachers who do not have administrative tasks are more likely to make higher demands on their students to meet the actual teaching level required of senior teachers. At the same time, within the framework of a constant school size and a constant number of teachers, the proportion of senior teachers will become larger and larger, and the advantages of the position will gradually fade away, which actually brings about the consequence of "devaluation of the title".

The above analysis shows that each of the three stages of elementary school teachers' professional development has its own focus and shows different characteristics of involution, which is consistent with the elements of involutional theory, which has explanatory power for the process of elementary school teachers' professional development.

2) The relationship between quantity and quality

The elementary school level is a compulsory state education, a right guaranteed by law, and does not in itself involve competitive pressure for further education. As mentioned earlier, the primary level teachers' proper responsibility is to impart knowledge and help students acquire learning methods and skills (Schuck, et al., 2018). However, current research shows that top-down "meritocracy" in high school, middle school, and elementary schools, caused by pressure to advance to high school, is prevalent, and that elementary education is already using competitive mechanisms at the secondary and higher education levels to evaluate teachers and students at the compulsory education level (Zhou, 2021). Schools use students' academic status as an important indicator to measure teachers' individual work ability, and it is clear that this assessment is not scientific at the elementary level.

On the one hand, in order to ensure the quality of teaching, teachers have to continuously improve their professional skills and teaching methods, spend a lot of time and energy on learning and progressing after work, attend various further training, complete self-reflection, write teaching journals, educational blogs, etc., and at the same time, they need to extensively explore knowledge and learn the latest achievements in their disciplines to meet their own and students' evolving needs. On the other hand, under the current management system, too many tasks other than teaching are taken up by teachers, such as completing various online points platforms,

attending a large number of centralized meetings, and cooperating with internal and external inspections at all levels, etc. Too much energy is distracted, and teachers' professional pressure increases, burnout is obvious, and professional happiness declines.

3) Uneven distribution and development of quality teachers

The current balanced development of education in China does not meet the requirements of social development, and this problem exists in both economically developed and less developed regions. In developed regions with very large foreign populations, or in cities that have developed rapidly in recent years, such as North China, the lack of quality educational resources is obvious because of their limited stock of resources and relatively few traditional schools to meet the large amount of new growth; it is even more obvious in underdeveloped regions like Yunnan Province, where the number of public schools is too small, the standard of private schools is uneven, and the development of rural education lags behind, etc. This is a direct result of the scarcity of quality teaching resources (Fu, 2020). Competitive school development evaluation has led to competition for quality students and the seizure of quality resources. In schools with high quality resources, teachers' growth and development space is obviously more secure, and such schools have obvious "institutional advantages" and teacher development is more phased and orderly (Hua & Miao, 2015), therefore, capable and quality teachers are concentrated in a few areas with obvious professional preference for a more privileged work experience. In addition, the solidified model of the teaching force and the lack of inter-school staff exchange and rotation exacerbate the intensity of competition among outstanding teachers.

4) Lack of scientific and reasonable career planning for teachers

Teachers' performance appraisal, inflow and exit, training opportunities, subject assignment, and job promotion all operate within the established power state of the school and conform to the typical characteristics of involution. In this pattern, school development exhibits a significant section orientation rather than a professional orientation (Yang, 2017). Elementary school teachers, who were originally tasked with knowledge popularization, were forced to shift from empirical to research-based and from teaching to expert. In terms of

individual teachers' growth expectations and personal orientation, not everyone is suitable for a highly competitive academic, research-oriented career path. As a more secure career within the system, teaching is recognized as an "iron rice bowl," so teachers' own career plans are one-sided and homogeneous. In addition, the teacher appraisal mechanism cannot be separated from institutional constraints, and the appraisal method is difficult to weigh the relationship between performance and work reality, which can easily lead to unfair and incomplete evaluation (Meng, & Yuan, 2014), resulting in deviations between teachers' subjective individual expectations and their sense of accomplishment. At the current stage of primary education with regional enrollment, the contradictions between the continuous growth of student population and the shortage of teachers' number, personalized education needs and the structural lack of teachers' team, all reflect the comprehensive reform and development of the education field on human resources teacher team building not only to introduce talents, but also to divert unqualified teachers out, i.e., to establish a sound teacher withdrawal mechanism.

5) Lack of scientific and reasonable exit mechanism

Teacher withdrawal refers to teachers leaving their former schools and teaching positions through certain ways and channels (Cao, 2015). It can be divided into voluntary withdrawal and mandatory withdrawal based on individual wishes (An, 2011). By improving the teacher exit mechanism, teachers who are unqualified or incompetent can be effectively screened and removed, in order to motivate teachers to learn and motivate them to continuously renew themselves on the one hand; on the other hand, the overall vitality of the teaching force can be improved (Xu & Wang, 2019).

However, there is currently a problem of difficulty in the implementation of withdrawal of teachers in primary and secondary schools, and the institutional design regarding teacher withdrawal is difficult to implement in practice. In public schools, the criteria, procedures, monitoring mechanisms, and supporting measures for dismissing teachers and the protection of teachers' legitimate rights and interests are imperfect, and schools are unable to effectively address such problems (Huo, Fan, & Wang, 2021). First, the current withdrawal mechanism is unclear in the determination of withdrawal and lacks scientific assessment criteria (Wang & Gao,

2016); second, the withdrawal procedure is not yet standardized enough and lacks corresponding laws and regulations as a basis, resulting in ambiguous operating subjects and unclear rights and responsibilities between schools and education authorities (Xu & Wang, 2019); third, the lack of social security system and re-employment training mechanism after withdrawal Third, the lack of social security system and re-employment training mechanism after withdrawal leads to teachers' reluctance to withdraw easily even if they are unwilling or incompetent to teach. Teachers have misconceptions about the "lifelong teaching career" and interpret the exit mechanism one-sidedly as facing the pressure of dismissal and the risk of leaving their jobs (Wang & Gao, 2016). Under such circumstances, it is difficult to break the long-established dilemma of teachers being able to enter but not leave, resulting in teachers constantly pressuring themselves and falling into internal coiling. For schools, this is not conducive to the rational allocation of human resources, nor to the utilization of teacher resources.

6) Subsections of this section

Analyzing the current problems in the process of elementary school teachers' professional development, it can be seen that in China's current education system, elementary school teachers at different stages and in different regions are overburdened and stagnant in their development. At a certain stage of development in terms of school size, structure and proportion, teacher staffing and campus hardware construction have fully met the needs of school development, but instead, at the individual teacher development at the level of individual teacher development, the educational function has not been brought into the most balanced state. The above is in line with the basic characteristics of the theory of involution, which indicates that the theory of involution has good applicability to this study.

2.7 Variable Relations

2.7.1 Factors Influencing Students' Academic Status

Zhao and Xu (2012) showed that classroom performance is a series of implicit and explicit performances that students produce autonomously when they learn knowledge and skills in classroom situations. Student classroom performance

positively and significantly influences teachers' creative teaching (Liu & Cui, 2020). The degree of students' cooperation and receptiveness is the main issue that teachers face in their work and is one of the important environmental factors that affect their professional development motivation. When students' in-school learning is effective, teachers are able to have more control and autonomy in the teaching process and can complete their work according to the conventional teaching ideas; conversely, when students' academic status is poor, teachers need to devote more time and energy to study teaching methods and improve their own teaching, when their professional development motivation is fully mobilized.

On the other hand, Chinese primary school students have long been involved in extracurricular tutoring on a large scale, and the main reason for participating in extracurricular training is to improve their grades and prepare for entrance exams (Pei et al., 2018), and in a sense, the existence of extracurricular tutoring institutions has somewhat reduced the work pressure of teachers within schools. However, in September 2021, China issued a strict "double reduction" policy, which required further reduction of the burden of homework and out-of-school training for students in compulsory education from the national level. As the number of out-of-school training institutions plummeted, the demand for student tutoring was completely shifted to schools, leading to a sharp increase in teaching pressure on teachers. In fact, the main reason for the excessive amount of homework for students is that teachers do not have a good grasp of the teaching requirements and can only compensate for the problems caused by the poor quality of classroom teaching by practicing a large number of topics, which is why students have long needed to seek extracurricular tutoring. Therefore, the key to improving the quality of school education is for teachers to be able to grasp the teaching content precisely, as required by the curriculum standards. The improvement of teaching quality needs to be supported by a high quality team of teachers to improve their educational concepts and professionalism (Ni, 2021).

From previous scholars' research, it can be seen that students' academic situation contains both in-class and out-of-class, and there exists online learning and offline learning. Influenced by the new crown epidemic, online teaching has become an important means, and under the current situation that extracurricular learning is

prohibited, the mixed online and offline learning mode has broken the restrictions of time and space on learning to a certain extent, which has put forward higher requirements on teachers' comprehensive quality, and in addition to regular classroom teaching, teachers also need to undertake online courses, and face more challenges in terms of teaching mode and lesson preparation and teaching research (Long, Lu, & Jin 2021).

2.7.2 Factors Influencing Teachers' Professional Development Dynamics

1) The relationship between teachers' professional development motivation and professional values of elementary school teachers

Some scholars have shown that due to the special nature of their profession, teachers are influenced by the recognition of their performance in time and space and their social status, which makes them tend to emphasize external professional values, such as organizational recognition , student and parental support, and social evaluation, and thus tend to neglect their self-development and have difficulty in upholding their internal professional values (Yang & Mi, 2008). These extrinsic professional values can correspond to the "environmental motivation" category of the Teacher Professional Development Motivation Scale (Zhang, 2012).

As mentioned earlier, teachers' professional development motivation is a personal quality, and the process of giving full play to their personal motivation in the practice of professional development is actually a gradual process in which teachers actively engage in self-direction, self-motivation, self-evaluation and self-reflection, which reflects teachers' self-regulation and self-regulation of their professional development activities and can have an important impact on the formation and stability of their professional values. This process reflects teachers' self-management and self-regulation of their professional development activities, and can have an important impact on the formation and stability of their professional values.

Conversely, teachers' professional values are subordinate to their personal value system, and the important reference criteria that teachers use to measure the value of their work are: the importance of the profession itself and the coincidence of social significance. Only based on such a starting point will

individuals choose the teaching profession and give full play to their subjective initiative in their work and strive to achieve their personal pursuits (Ma & Li, 2013). Therefore, teachers' professional development motivation affects the stability and change of professional values.

2) The relationship between teacher professional development motivation and teacher professional development in-volume

As analyzed previously, teacher professional development activism refers to the personal quality that develops in the process of teachers' professional development practices as individual teachers actively make choices and exert influence toward their chosen goals in order to change their own professional development situation and the professional development environment in which they find themselves (Zhang, 2012). The emphasis is on the link between personal will and action, and the changes made by teachers on their own initiative. Teacher professional development motivation consists of five main dimensions: teaching skills, role responsibility, professional identity, autonomous adjustment, and decision-making participation (Qi, et al., 2020), but teachers have always worked within highly administrative elementary school organizations, and the pedagogical tools and teaching models available are very limited. In the existing institutional system, schools organize top-down teacher training, teaching competitions, increase the amount of classroom time, etc. The underlying motivation for teachers to accomplish these tasks is to increase their scores for assessment rather than out of their own developmental needs. The single drive of the management mechanism results in insufficient motivation for individual teachers' professional development, and when individual development motivation deviates, the role of subjective motivation inevitably turns into passive acceptance and implementation.

3) The role of teacher professional development dynamics in mediating between students' academic status and teachers' professional development involution

In terms of the five dimensions of teachers' professional development motivation, role perception and autonomous adjustment are job challenges that generate positive motivation when the level of stress is appropriate, while emotional demands of job hindrances, pressure from promotion exams and poor student

academic performance and student misbehavior can cause emotional drain on teachers, reduce their level of commitment to their work, trigger burnout, and affect their professional development motivation (Qi, Wang, & Wu, 2020). As mentioned earlier, students' academic status, as an important independent variable, represents a key external factor that affects teachers' professional development motivation. Guo and Cao (2021) found a linear relationship between teachers' subject matter expertise and students' academic achievement after examining teachers' core literacy based on student performance.

    4) The mediating role of teachers' professional development dynamics between students' academic status and elementary school teachers' professional values

    Studies have pointed out that teachers, as one of the important others in students' learning careers, the various types of support they provide to students are important factors influencing students' academic achievement (Chen, Zhang, Cheng, Hu, & Liu, 2018), and the role of students' academic self-efficacy as subjects of the learning process in linking teacher support and academic achievement has also received attention (Lei, Xu, Shao, & Sang, 2015). As mentioned earlier, elementary school teachers' professional development dynamics is a proactive and continuous process of teachers thinking about teaching situations and their own teaching behaviors, and continuously exploring ways and means to improve teaching effectiveness (Cai et al., 2016), and teachers support students by encouraging them through professional emotional enhancement, spending time to help and support them, treating them fairly, and giving them opportunities to make choices (Klem & Connell, 2004; Wang & Holcombe, 2010), and students who perceive teacher support are more motivated and perform better in school. The Teacher Expectancy Model suggests that students' perceptions of teacher behavior and thus internal psychological changes ultimately affect academic performance (Brophy & Good, 1970). It is evident that the professional development of elementary school teachers in the field of teaching is the result of the interaction between the individual and the environment, and the individual's professional development dynamics determines the teacher's love for the profession, responsibility, self-directed learning, continuous reflection and autonomous innovation (Cai et al., 2016).

5) The chain mediating role of teachers' professional development dynamics and elementary school teachers' professional values between students' academic status and elementary school teachers' professional development involution

According to Yang and Mi (2008), the higher the degree of professional development motivation of elementary school teachers, the better the teachers' classroom management organization, the more they can motivate students, the more students can get good teaching results, the higher the teachers' personal achievement follows, and at the same time the sense of achievement promotes teachers to love their work more, forming a virtuous circle.

As mentioned earlier, "involution" constitutes a relatively closed loop that overstates the connection between effortful behavior and benign outcomes (Cui & Zhang, 2022). Currently, the problem of professional emotional exhaustion among elementary school teachers is relatively serious and directly affects the stability of professional values, the main reason for which is the low level of self-efficacy and professional development motivation in teaching, resulting in high levels of cognitive level exhaustion. Some scholars have pointed out that in the teaching process, elementary school teachers should transform from "resource teachers" to "inspirational teachers" and grow into individuals with more independent inquiry, goal awareness, value-seeking, and leadership construction in the professional development process, and no longer They are no longer limited to simple comparisons and competition with others, thus breaking the inward scroll (Xu & Ma, 2021).

2.7.3 Factors Influencing Teachers' Incentives

Motivation refers to the systematic activity of an organization to motivate, guide, maintain and naturalize the behavior of its members by designing appropriate external forms of rewards and work environment, with certain behavioral norms and punitive measures, and with the help of information communication, in order to effectively achieve the goals of the organization and its individual members (Liu, 1998). The complete motivation includes both spiritual and material benefits to stimulate and encourage, as well as punitive discipline and naturalization (Hu, 2008).

1) The relationship between teacher incentives and professional values of elementary school teachers

Teacher incentives greatly affect the level of teachers' mental health, and teachers in good incentives have higher levels of professional commitment and more stable professional values, and are willing to dedicate themselves to education, which is conducive to improving teaching quality (Cheng & Qian, 2021).

Figure 2.3 Portlaoise Integrated Incentive Model
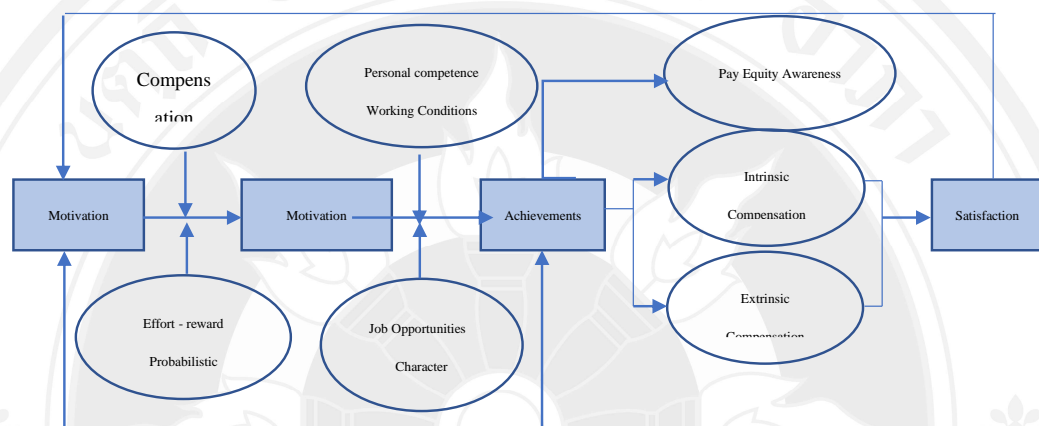
As shown in Figure 2.3, the logical relationship of Porter Lawler's integrated motivation model is: people's hard work leads to good performance, performance is rewarded accordingly, and finally satisfaction is generated by satisfying needs. It is an idealized model based on the premise that people in an organization are stable. Teachers in a school organization are relatively stable and less mobile, so the model is a good reference for teacher motivation. In any job, the pay that workers get from it and the subjective feelings during the work process will have an impact on the starting motivation of the work behavior itself (Gius, 2013). Taking inspiration from the model, previous scholars have achieved research results that confirm that improving the effectiveness of teacher motivation and optimizing motivational strategies can have an impact on teachers' work motivation (Fan & Fu, 2011; Zhang, Zhang, & Yin, 2021) and play a role in the formation and stability of elementary school teachers' professional values.

In summary, this study takes teacher incentives as the independent variable and sets three dimensions of performance, spiritual motivation, and external motivation in the teacher incentive mechanism variables in order to give more reasonable and comprehensive incentive effects.

2) The relationship between teacher incentives and attitudes of healthy competition

Guo (2015) found that mental motivation from general self-efficacy had a significant regression effect on two competitive attitudes of employees, suggesting that incentives can predict employees' competitive attitudes.

Akgun, Dag, and Bulut (2008) showed that environmental uncertainty factors significantly moderate performance at the emotional level. As mentioned earlier, teacher incentives, a rewarding system with promotion, demands, and evaluation, are important independent variables in this study to stimulate changes in individual psychological states that have a direct impact on teachers' subjective intentions and motivation. Previous research has shown that elementary school teachers have a significantly lower sense of personal achievement relative to teachers at the secondary school level, and they are more inclined to attribute any lack of success or substandard performance at work to their own lack of competence, which prevents them from generating motivation. The weaker the benign competitive attitudes and the stronger the overly competitive attitudes of elementary school teachers, the higher the degree of burnout exhibited (Fan, Yu, & Zeng, 2009).

3) The relationship between teacher incentives and overly competitive attitudes

In terms of fairness, over-competitive teachers' social capital and power operations aggravate teachers' anxiety and powerlessness, leading to teachers' perception of the low motivational value of title evaluation (Wang, 2020), and the current incentive mechanism does not really play a positive guiding role. It is difficult for primary and secondary schools to carry out measurement and differentiation in the face of vague performance descriptions, and the evaluation of teachers' professional competence requires high professionalism of the evaluators, which is largely beyond the capacity of grassroots schools. Faced with this reality, the usual practice of grassroots schools is to substitute for teacher professional competencies and make

simplifications. One of these substitution factors is academic level and the other is years of teaching experience. The school believes that academic qualifications are representative of teachers' cognitive abilities, teaching abilities, interpersonal motivation and attitudes, and other important qualities, and that the higher the qualifications, the stronger the professional competence of teachers. This understanding often leads schools to attach importance to "what kind of education" rather than what kind of ability, and teachers with high education have an advantage in the title evaluation. This has, to some extent, transformed the competition among teachers for title promotion into a competition for academic qualifications (Xu, 2021).

In addition, the teacher incentive mechanism should not only focus on rewarding measures or setting too many restraining means, but must take teachers' expectations as the starting point, so that teachers' personal pursuit goals and school organizational management goals can be unified. First of all, scientific and reasonable internal school competition is an important part of teachers' incentive, such as basic teaching skills assessment, subject teaching competition, personal comprehensive quality competition, etc. In the current national policy environment, competition-type evaluation will still be the key way to select talents in schools. Second, incentives must be implemented fairly and justly based on teachers' work performance; otherwise, teachers are prone to work inertia, leading to a decrease in professional development motivation (Liu & Wang, 2021). Third, if only negative incentives are emphasized, the incentive system will become a hindrance to teachers' motivation and creativity (Belfield & Heywood, 2008). More importantly, the incentive mechanism itself should play a guiding and regulating role in teachers' expectations, helping teachers to achieve personal professional development with a healthy competitive attitude and avoiding the negative consequences of excessive competition (Wei, 2020). Only if managers focus on teachers' inner feelings, analyze and improve the performance evaluation program, and especially focus on teacher communication during the construction and implementation of the program, can the performance evaluation program really work, and the design intention of motivating and uniting teachers through performance evaluation, increasing the stability of the teaching force and promoting sustainable school development can finally be realized (Xue & Tang, 2017).

4) The relationship between teacher incentives and teacher professional development involution

Shulman proposed that a teacher should be a person who facilitates student learning, and more specifically, cognitive, emotional, and psychomotor growth (Shulman), which shows that the incentive appraisal system for teachers should comprehensively measure a combination of external and internal motivation. In terms of external motivation, organizational support represents the support that employees feel from the organization, including a sense of fairness, leadership support, organizational rewards, and good working conditions (Yang, 2006). Based on the full understanding of organizational support, the external motivation of teachers' incentive mechanism is the support from the school in terms of policies, resources and personnel for teachers' professional development, including platform, further training opportunities, incentives, personnel cooperation, teaching environment, etc. For internal incentive, it is a comprehensive investigation in terms of teaching quality, workload, satisfaction, and innovation effectiveness according to teachers' work reality (Guo, 2021).

Xu (2021) found that school actors, based on their perceived legitimacy pressure, adopted a goal-substituting action strategy to transform the evaluation requirements of "teacher ethics, performance, and competence" into a quantitative assessment approach for teachers, and both schools and teachers worked around the quantitative assessment indicators, which led to This has led to the internalization of the evaluation of primary and secondary school teachers' titles. On the other hand, the incentive mechanism for elementary school teachers should be fully integrated with the reality, fully consider the universality and fun of primary education, and reduce the scientific research requirements for teachers; meanwhile, there are corresponding assessment requirements for classroom management and student safety. The better and more scientific the incentive mechanism is, the lower the degree of teacher professional development involution.

According to Li and He (2021), there are various motivational tools for employees' job performance, which are mainly divided into external and internal motivation, while spiritual motivation, as one of the most important components of the psychological structure of the self, is an

important part of internal motivation, and its motivational effect on job performance has been confirmed in both theoretical and practical studies. The specificity of teachers' profession, the recognized temporal and spatial degrees of job performance, and social status make elementary school teachers pay more attention to their external professional values, thus making it difficult for them to develop themselves and uphold their internal professional values (Yang & Mi, 2008). This compulsory acceleration of work pace caused by external forces, which is transformed into a form of motivation and push for individual progress, can increase guilt and intensify involutional competition for teachers who fail to meet time pace requirements (Ren & Liu, 2021).

2.7.4 The Mediating Role of Healthy Competitive Attitudes

Competitive attitude emphasizes a "psychological reaction tendency", which is determined by three factors: "cognitive, emotional and behavioral intentions" (Lu, 2011). A positive psychological attitude toward competition creates an appropriate level of tension in individuals, which is conducive to stimulating their potential, enhancing their motivation, and improving the efficiency of their thinking activities (Chen, 2000). As mentioned earlier, the whole professional development process of teachers is a long and dynamic change process, and teachers at different stages have different professional abilities, mentality and goals, and different needs. When the teacher motivation mechanism is relatively scientific and perfect, it can be targeted to use appropriate motivation strategies to maximize the potential of teachers at different stages and mobilize their initiative and motivation (Su, 2013).

As a key factor of motivation, the title system is an important part of the evaluation and management system of elementary school teachers. A scientific and reasonable incentive mechanism can, on the one hand, effectively evaluate and examine teachers' work commitment and performance, and provide a basis for promotion and salary rewards; on the other hand, it provides milestones for teachers' development through standard setting, provides assistance for teachers' future work ability development, and promotes teachers' professional growth and development (Wu & Wu, 2020), so that the personal expectations and harmonious overall

competitive atmosphere formed achieve synchronization of resource allocation and quality improvement, and avoid the generation of involution.

2.7.5 The Mediating Role of Overly Competitive Attitudes

In the incentive mechanism of elementary school teachers, job titles become the ultimate goal of teachers, and the disparity between different titles is very obvious according to the current teacher salary system. As a decisive channel for teachers' salary level, the title promotion system has become one of the most important ways to motivate teachers. Teachers play for the limited number of places, and the title evaluation becomes a process of "not being good, but being better than others". In order to compete for the limited number of places, teachers show themselves by suppressing others in the process of competing for titles, and use all kinds of ways to improve their competitive advantage (Wu & Wu, 2020).

Elementary school teachers face numerous role transitions and multiple role expectations, and teachers themselves already have different personality traits and life goals (Ma, 2014). The aforementioned studies suggest that the current incentive policy releases too many signals of instrumental value to teachers, and the symbolic capital or intangible assets brought by the title rank drive teachers to cater to the regulations, and the guiding function of title review is obscured. In the context of direct linkage between titles and teachers' interests and the lifelong system of titles, teachers' promotion deviates from its initial purpose, and the vicious competition of title evaluation drives some teachers to neglect the cultivation of teachers' professionalism and disregard the fundamental value of education and teaching simply for the purpose of chasing title promotion, which forms the alienation of the promotion system and becomes a distorted and excessive competitive attitude (Wu & Wu, 2020). Ryckman et al. (1994) study pointed out that over-competition is influenced by individual personality factors and is more likely to develop self-consumption. In essence, involution is the dynamic stagnation that results from the evolution of competitive anxiety into over competition.

2.7.6 The Mediating Role of Professional Values of Elementary School Teachers

1) The mediating role of elementary school teachers' professional values between teachers' professional incentives and teachers' professional development involution

This study explores the mediating role of professional values and competitive attitudes of elementary school teachers. In SOR theory, they jointly represent an identity process, and therefore incentives are the stimulus in this relational chain. First, teaching is the focus and center of the whole school management activities, and the effectiveness of teaching directly affects the success or failure of school management activities. Therefore, incentives are very important for teachers' teaching. Secondly, teachers are the main guides of teaching and learning, so stimulating teachers' energy can directly improve the efficiency of management. From the perspective of elementary school teachers, it can be seen that the self-control and self-control of primary school students are not enough, and teachers' teaching work is relatively difficult, so a reasonable incentive mechanism can promote teachers to devote themselves to teaching, improve teachers' work motivation, and then generate teaching motivation (Wei, 2020). According to the different contents of motivation, we pay attention to teachers' actual needs, help them form correct and stable professional values, experience professional happiness, and avoid falling into professional development involution.

The ideal elementary school teachers' professional values are the continuous motivation for their professional development (He, 2010). Zhang (2017) noted that to reasonably mobilize teachers' professional development motivation, it is not enough to provide organizational and material support; teachers must recognize the value of professional development for themselves and transform their achievements in professional development activities into an internal experience of professional values in order to enhance their sense of professional value. Professional stress can play a role in motivation when the level of stress is appropriate; when excessive emotional demands, promotion exam pressure, and student behavior can bring emotional drain on teachers, reduce their level of

commitment to their work, trigger burnout, and affect their professional development motivation (Qi et al., 2020). The greatest motivation for sustaining teachers' professional development comes from teachers' intrinsic emotional needs and their correct value judgments about their profession (Li, 2010), and teachers' professional values promote teachers' professional development through professional beliefs and professional emotions.

2) The mediating role of elementary school teachers' professional values between teachers' professional development dynamics and teachers' professional development involution

The more positive teachers' professional values tend to be, the more competent they are in teaching, the more positive they are in education, and the more committed they are to innovation in teaching (He, 2010). According to previous scholars, every teacher expects performance evaluations to accurately describe their performance at work and objectively judge the extent of their contribution to the organization, and they all expect to be treated fairly in the evaluation (Belfield & Heywood, 2008). Endowments also vary across individuals, and not everyone is suited to a highly competitive, academic, or research-oriented path (Bramwell, Reilly, Lilly, Kronish, & Chennabathni, 2011). Teachers want in-service training programs to improve their business competencies through continuous professional development, and a scientific in-service training model can guide teachers to establish the right professional values and make sound plans for individual development (Phin, 2014). Teachers filter the usefulness of information in the teaching process and consciously reject unfamiliar information. Yet the reality is that the tools that help improve teaching and learning are often done without teacher involvement. Examples include textbook development and curriculum guides. Educational authorities and school authorities believe that curriculum competitions, various types of teacher practices and training can improve the quality of teaching and learning. However, as individual teachers, relying solely on these activities to improve teaching and gain professional development is a short-term behavior (Galloway et al., 1980).

In addition, Jiang (2014) argues that in the process of teachers' professional growth, their own quality development is more important than skills training. By considering elementary education as a platform for realizing self-worth, and by considering success and work in elementary education as part of their lives and one of the sources of joy in life, elementary teachers' professional identity will increase significantly and their professional values will become more stable and mature (Guo & Wang, 2020).

Through the aforementioned literature combing, it was found that career values as the subjective will of individual teachers, including: the stability of the career itself, the adaptability of personal abilities, the social status of the teaching profession, the career rewards, and other aspects, all influence teachers' career choice motivation and personal development goals (Guo, & Wang, 2020). The researchers in this paper argue that the scale and degree of school development are relatively fixed, and when quality resources reach saturation and cannot be expanded in the short term, teachers' efforts to cater to the current evaluation mechanism that favors competition are highly likely to cause distortion of professional values, leading to excessive competition with ineffective internal consumption and increased involution.

2.8   Theoretical Framework

Based on SOR theory, this study draws the hypothetical model of involutional factors for professional development of elementary school teachers in Yunnan Province based on SOR theory as follows.

Figure 2.4 A Model of the Factors of Involutional Professional Development of
Elementary School Teachers in Yunnan Province Based on SOR Theory

2.9   Conceptual Framework
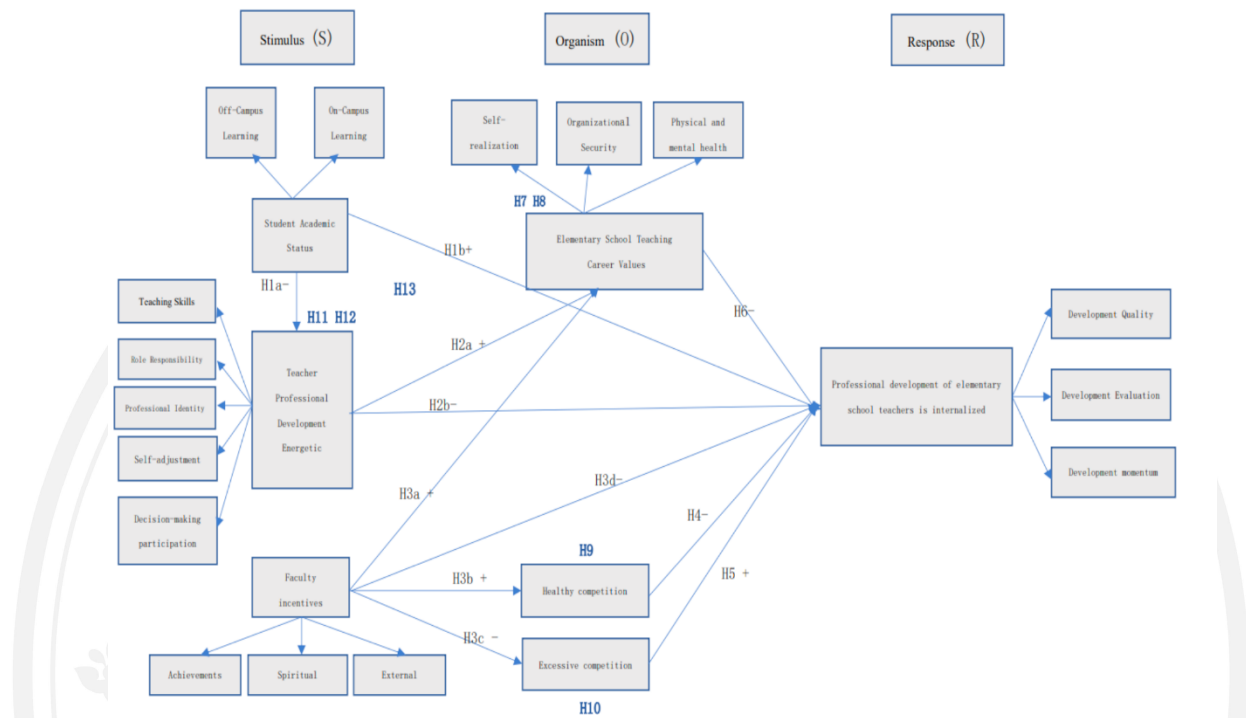
Figure 2.5 Conceptual Framework Diagram of this Study

2.10   Research Hypothesis

In this paper, based on the experience and inspiration summarized by combing the relevant literature, based on relevant theories and combined with this study, the author has compiled the research hypotheses and predictions summarized in the following table.

Table 2.1 Summary of Study Hypotheses

Research Hypothesis
H1a. Primary school students' academic status is negatively related to teachers' professional development motivation.
H1b. academic status of elementary school students is positively associated with the professional development of elementary school teachers endogeneity.
H2a.Teachers' professional development motivation is positively related to elementary school teachers' professional values.
H2b.Teacher professional development motivation is negatively related to professional development of elementary school teachers by involution.
H3a.Teacher incentives are positively related to elementary school teachers' professional values.
H3b. Teacher incentives are positively associated with attitudes of healthy competition.
H3c. Teacher incentives are negatively associated with overly competitive attitudes.
H3d. teacher incentives are negatively related to the professional development of elementary school teachers by involution.
H4. benign competitive attitudes are negatively related to professional development of elementary school teachers endogeneity.
H5. Overcompetitive attitudes are positively associated with professional development of elementary school teachers' involutional.
H6. Professional values of elementary school teachers are negatively related to the endogeneity of professional development of elementary school teachers.
H7. Professional values of elementary school teachers play a mediating role between teachers' incentives and professional development of elementary school teachers' involution.
H8. The mediating role of professional values of elementary school teachers between teachers' professional development dynamics and elementary school teachers' professional development involution.
H9. benign competitive attitudes mediate the relationship between teacher incentives and the professional development of elementary school teachers' involution.

Research Hypothesis

H10. Excessive Competitive Attitudes Mediate the Role Between Teacher Incentives and Professional Development Involution in Elementary School Teachers.

H11. Teacher professional development dynamism mediates between students' academic status and professional development of elementary school teachers' involution.

H12. Teacher professional development motivation mediates the relationship between students' academic status and elementary school teachers' professional values.

H13. Teachers' professional development motivation and elementary school teachers' professional values play a chain mediating role between students' academic status and elementary school teachers' professional development involution.
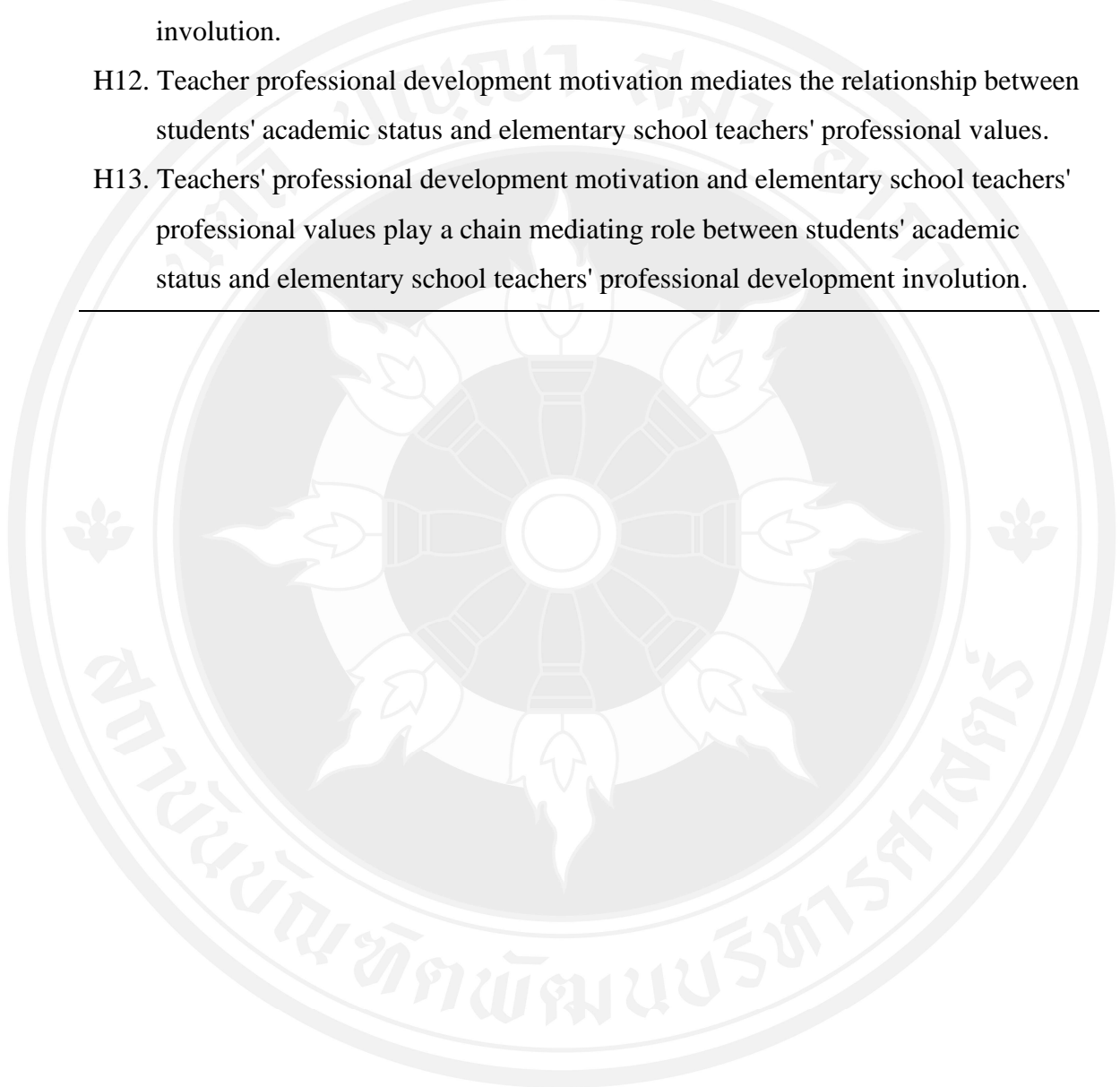
CHAPTER 3

RESEARCH METHODOLOGY

3.1   Introduction of the Research Object

Although Yunnan Province is located in the less developed area in western China, the number of senior teachers in elementary school in Yunnan Province is 77,480, ranking first in China, and the number of senior teachers accounts for 32.6% of the total number of teachers; for teachers whose working years in each level of posts are not up to the standard, they can take items such as teaching competition points and essay points to improve their overall score in order to get promotion in a short time. However, the teaching level of elementary school in Yunnan Province has always been in the lower middle class of the country, which is an unscientific and unreasonable situation, indicating that the level of teachers' title positions is not directly related to the teaching level, and there is a serious imbalance in the current teacher reward policy. (Ministry of Education of the People's Republic of China, 2021) From the above, it can be seen that the professional development of elementary school teachers in Yunnan Province is characterized by "high job title and high competition", which is very representative.

Three "first-class model elementary school" in Yunnan Province were selected as the target population: Yunnan Normal University Affiliated Primary School, Kunming Ming tong Primary School, and Qujing Second Primary School.

According to the Yunnan Provincial Department of Education, as provincial first-class schools, the comprehensive assessment scores of the three schools must meet the following criteria: first, the scores of the two major parts of school conditions and school management must each reach more than 85% of their total scores; second, the combined scores of school conditions scores, school management scores, and efficiency plus scores must reach more than 90% of the total scores; third, all the required standards must meet the a-level requirements.

At the same time, the high teaching standards required of first-class schools and the more rigorous assessment of teachers have led to a markedly competitive approach to teachers' personal professional development. In fact, the current school ranking and evaluation mechanism equates school development with improving school competitiveness, leading to the common phenomenon of competition for quality educational resources. This competition has led to a constant quest for "higher ranking and higher grade", which tends to ignore the realities of institutions, policies, economic and cultural levels, etc., and does not take into account the actual development of the school itself, causing internalized pressure on teachers' professional development.

Therefore, based on the current competitive evaluation orientation of schools, resulting in the concentration of high-quality educational resources, the balanced development of schools at all levels has not yet been achieved and can only be passively driven by external forces rather than from the internal developmental dynamics of schools. In this paper, when selecting the research subjects, the professional development status of teachers in each grade school was fully considered, and the research sample that was at the highest grade was selected, and the highly competitive characteristics met the research needs. In addition, because the management model of first-class schools can play an exemplary role and there is a situation of "being imitated," studying the causes of teacher professional development involution in these schools can provide more actionable and inspiring measures for other elementary school at all levels, which can prevent involution to a certain extent.

Table 3.1 Statistical Table of The Base Situation of the Research Subjects

School	Number of students	Number of teachers	Teacher Education Passing Rate	Senior Teacher Percentage of	Maximum Performance Components Factor and Percentage
Yunnan Normal University Affiliated Primary Schools	5127	223	100%	28.4%	Post allowance 65%
Kunming Mingtong Primary School	2123	105	100%	27.8%	Job allowance 70%
Qujing Second Primary School	3984	187	100%	27.2%	Job allowance 70%

Source: Yunnan Provincial Department of Education (2020).

As shown in Figure 3.1, all three schools are at the top of the region in terms of number of students and number of teachers, and all of them have a 100% teacher qualification rate, which is higher than the provincial average of 99.86%. There is a high degree of similarity in terms of teacher team structure and performance allocation methods, and the schools have all reached a mature, high-quality advanced stage of development, with teacher professional development showing a state of involution. In summary, the subjects of this thesis have representativeness, homogeneity and objectivity.

3.2   Sampling Method

1)   Whole group sampling and simple random sampling were used in this study

Whole-group sampling, also known as cluster sampling, is a way of organizing sampling in which the sample units are selected as a whole group and a comprehensive survey is conducted on each of the groups sampled. The overall units

are grouped into a number of non-crossing, non-repetitive sets, called clusters; then the cluster as a sampling unit to draw samples of a sampling method. When applying whole-group sampling, it is required that each group has a good representation.

Simple random sampling, is a sampling method in which n units from the overall N units are arbitrarily selected as a sample, so that each possible sample has an equal probability of being drawn.

2) The sampling steps are as follows

Firstly, whole-group sampling was conducted, and according to the development level of elementary school education stage in Yunnan Province, elementary school in the province were divided by the Yunnan Provincial Department of Education into first-class first grade schools, first-class second grade schools, and first-class third grade schools. Elementary school of different levels formed three non-overlapping sections, each section being a group.

Second, in the current cluster of first-class elementary school in Yunnan Province, the number is 38, and three schools were selected as the study population. Using simple random sampling, from this cluster, three schools were selected, and all teachers in the selected schools were used as the sample size.

3.3   Measurement Tools

A total of seven variables were used in this study: students' academic status, teachers' professional development motivation, teachers' incentives, elementary teachers' professional values, benign competitive attitudes, overly competitive attitudes, and teacher professional development involution, with a total of 44 question items. The scales selected were multi-item scales previously developed and used by domestic and international researchers, and all measurement instruments had good reliability and validity.

In this study, a 5-point Likert scale was used, and the scale evaluation and judgment criteria were.

1 = completely disagree 2 = disagree 3 = uncertain 4 = agree 5 = strongly agree

3.4   Research Methodology

This study completed the preliminary literature combing and study through online databases, book reading, and offline discussions, focusing on studying, adding to, and exploring the causes of the involutional manifestations presented in the process of teachers' professional development. On the basis of SOR theory, the Competitive Attitude Scale was introduced to construct the theoretical research model of this paper.

The questionnaire analysis method was also used to obtain first-hand survey data efficiently and conveniently. In this study, there were 44 formal questions, and the questionnaire recall was based on the principle of Hair, Black, Babin, Anderson, and Tatham (2006) about the ratio of the number of validly returned questionnaires to the number of sample questions not less than 5:1 or 10:1. According to the current composition of the number of teachers, it was determined that a sample size of not less than 500 and no less than 440 valid questionnaires were recovered to meet the study requirements.

A total of 515 subjects have been counted in the previous section, so 515 questionnaires will eventually be distributed in this study. Finally, SPSS statistical analysis software was used to conduct exploratory analysis statistics on the data, and then AMOS was used to conduct validation factor analysis, model fit analysis, and hypothesis testing.

3.5   Questionnaire Pretest

In order to verify the accuracy and reliability of the scale and to ensure the scientific validity and value of this study, two indicators of validity and reliability analysis were measured first. Before conducting the formal research, the reliability and validity of the scale were tested using the sample data from the pre-study, and the questionnaire was further tested and revised according to the results of the reliability and validity.

A total of 77 questionnaires were distributed in the pre-study and 77 were returned, of which 72 were valid, with an effective rate of 88.57%. The total sample

of the pre-study was 72, of which 16 were outside the establishment, accounting for 22.2% of the total; 17 were first-level teachers, accounting for 23.6% of the total; 26 were second-level teachers, accounting for 36.1% of the total; and 13 were senior teachers, accounting for 18.1% of the total. The teaching subjects of the pre-study sample were concentrated in the categories of language, mathematics, English and music, physical education and aesthetics, and the education level was mainly undergraduate; the teaching years were mainly less than 5 years and more than 15 years.

In the existing promotion policy for elementary school teachers, the post grade score accounts for 65%-70%, and the grade level depends on the length of working years, in a sense, as long as the length of service is reached, they can be promoted to senior teachers regardless of other factors. At the same time, young teachers who need to get more points in promotion can only rely on a lot of publishing papers, participating in class competitions, etc. to get 30%-35% of the points. Thus years of teaching experience is a very specific influencing factor.

3.6   Questionnaire Dimensions and Question Items

The questionnaire contains two parts: basic information and cause investigation.

The first part is the basic information, a total of four questions, respectively: education, teaching subjects, years of teaching, job rank.

Table 3.2 below shows the information related to the second part of the questionnaire, with a total of 44 questions

Table 3.2 Questionnaire Question Information on the Causes of the in-Volume
Professional Development Motivation of Elementary School Teachers

Variables	Latent Variable	Title Item	Source
Dependent variable.	Development momentum	1, 2	(Jiang, 2008; Peterson et al., 1995).
Professional Development for Elementary School Teachers Internal Volume	Development Quality	3, 4	(Jiang, 2008; Lepak et al., 2003).
	Development Evaluation	5, 6	(Director et al., 1995; Scott et al., 1994).
Independent variable.	Off-Campus Learning	7, 8, 9	(Liu, Qing & Wang, 2018).
Student Academic Status	On-Campus Learning	10, 11	(Jiang, 2008).
Independent variable.	Teaching Skills	12, 13, 14, 15	(Sang et al., 2020).
Teacher professional development dynamics	Role Responsibility	16, 17	(Sang et al., 2020; Janssen, 2000).
	Professional Identity	18, 19, 20	(Schuber, 1970; Sang et al., 2020).
	Self-adjustment	21, 22	(Rothwell et al., 2008; Zhang, 2017).
	Decision-making participation	23, 24	(Sang et al., 2020).
Independent variable.	Achievements	25, 26, 27, 28	(Gong et al., 2009; Heneman et al., 2000; Yang, et al., 2015).
Faculty incentives	Spiritual Inspiration	29, 30	(Shan, et al., 2015; Zhang, 2017).
	External	31	(Podsakoff et al., 1990; Zhang,

Variables	Latent Variable	Title Item	Source
	Incentives		2017).
Intermediate variables. Healthy competition attitude.		32, 33	(Chen et al., 2018; Reckman et al., 1989).
Intermediate variables. Overly competitive attitude.		34, 35	(Reckman et al., 1989).
Intermediate variables.	Self-realization	36, 37	(Super, 1970).
Professional values of	Organizational Security	38, 39, 40	(Crossley, 2007; Super, 1970).
elementary school teachers.	Physical and mental health	41, 42, 43, 44	(Super, 1970; Zhou, et al., 2013).

3.7 Analysis of Pretest Results

3.7.1 Pretest Reliability Test

The Cronbach' a value is the most common way used to measure fixed distance scale scales, with a Cronbach' a coefficient between 0 and 1. It is generally accepted that an a-coefficient greater than 0.7 indicates high internal consistency and high reliability, greater than 0.5 is considered credible, and less than 0.35 indicates low internal consistency and low reliability. In this study, Cronbach's Alpha Coefficient was used to test the reliability of the questionnaire. The statistical data results related to the reliability test of this questionnaire were analyzed by SPSS. 25 statistical software. The reliability results of the pre-study are shown in Table 3.3 and 3.4.

Table 3.3 Internal Consistency Test of the Scores of Each Dimensional Indicator of
the Pre-survey Questionnaire (n = 72)

	Average of Scales after Deletion of Items	Scaled Variance after Removal of Terms	The Corrected Term is the Same as Total Correlation	Cloning of Bach Alpha after Deletion of Items
A1	144.722	1100.626	0.630	0.965
A2	144.889	1110.410	0.500	0.965
A3	144.875	1099.998	0.603	0.965
A4	145.208	1095.322	0.625	0.965
A5	144.847	1103.314	0.610	0.965
A6	144.833	1101.239	0.585	0.965
D1	145.000	1108.056	0.552	0.965
D2	144.944	1094.898	0.663	0.965
D3	145.097	1104.145	0.558	0.965
D4	144.875	1094.590	0.696	0.965
D5	145.139	1108.037	0.574	0.965
D6	145.000	1102.930	0.595	0.965
D7	145.014	1094.718	0.676	0.965
B1	144.639	1095.530	0.658	0.965
B2	144.806	1091.314	0.718	0.964
B3	145.014	1104.183	0.571	0.965
B4	145.014	1099.141	0.618	0.965
B5	144.972	1100.647	0.614	0.965
C1	145.833	1088.141	0.687	0.965
C2	145.833	1085.380	0.635	0.965
C3	145.750	1086.556	0.704	0.965
C4	145.944	1096.870	0.590	0.965
C5	145.667	1089.211	0.668	0.965
C6	145.986	1096.859	0.642	0.965

	Average of Scales after Deletion of Items	Scaled Variance after Removal of Terms	The Corrected Term is the Same as Total Correlation	Cloning of Bach Alpha after Deletion of Items
C7	145.875	1088.505	0.661	0.965
C8	145.861	1091.868	0.634	0.965
C9	145.778	1089.049	0.676	0.965
C10	145.903	1093.019	0.639	0.965
C11	145.833	1080.732	0.704	0.964
C12	145.694	1091.849	0.632	0.965
C13	145.778	1084.795	0.665	0.965
F1	144.722	1110.401	0.522	0.965
F2	145.000	1109.155	0.467	0.966
F3	144.597	1097.399	0.623	0.965
F4	144.583	1110.556	0.529	0.965
F5	144.583	1109.063	0.566	0.965
F6	144.694	1101.173	0.628	0.965
F7	144.542	1103.181	0.568	0.965
F8	144.819	1090.629	0.703	0.965
F9	144.889	1098.804	0.653	0.965
E1	145.500	1092.282	0.578	0.965
E2	145.708	1102.435	0.511	0.965
E3	145.472	1101.013	0.583	0.965
E4	145.347	1107.159	0.509	0.965

From the item analysis in Table 3.3, we can see that the correlation between the corrected items of each question and the total is greater than 0.5, which indicates that the correlation between the question items and the scale is high. The cloned Bach Alpha of each question after item deletion did not exceed the total scale, indicating that the questionnaire was reasonably designed and the items had good consistency.

Table 3.4 Reliability Test Results

Indicators	Cronbach Alpha	Number of Questions
Professional Development for Elementary School Teachers Internal Volume.	0.916	6
Student Academic Status.	0.916	5
Professional development dynamics.	0.978	13
Faculty incentives.	0.928	7
Healthy competition attitude.	0.901	2
Overly competitive attitude.	0.937	2
Professional values of elementary school teachers.	0.937	9
Total Table.	0.966	44

From Tables 3.4, it can be seen that the reliability coefficients of the professional development of elementary school teachers' involution were 0.916, students' academic status 0.916, professional development motivation 0.978, teachers' incentives 0.928, benign competitive attitude 0.901, excessive competitive attitude 0.937, and elementary school teachers' professional values 0.937, and the Cronbach 's Alpha values for all variables were greater than 0.80 and the reliability coefficient of the total scale was 0.966, indicating that the reliability of the questionnaire data was good.

3.7.2 Predictive Trial Exploratory Factor Analysis (EFA)

In order to test the factor structure, i.e., the structural validity, of the evaluation questionnaire in this study, an exploratory factor analysis was first conducted. Exploratory factor analysis aims to simplify the structure by transforming most of the variables that are difficult to explain but are related to each other into a few factors that are conceptually meaningful and more independent of each other, so that the least number of common factors can explain the maximum amount of total variance.

1) About KMO and Bartlett's sphere test

The questionnaire pretest was first subjected to the KMO and Bartlett's sphere test as a response to the question of whether the division of the scale was appropriate in this paper. As shown in Figure 3.5, the KMO value was 0.793, which was greater than the minimum criterion of KMO ≥ 0.5; in addition, the significant coefficient of Bartlett's sphere test was 0.000 < 0.01, indicating that the design was correlated among the variables and was able to conduct factor analysis.

Table 3.5 KMO and Bartlett's Test

KMO The number of sample suitability measures.		.793
Bartlett sphericity test	Approximate cardinality	3321.449
	Degree of freedom	946
	Significance	.000

Secondly, by using principal component analysis to extract the common factors, the cumulative variance explained reached 77.913%, which is greater than the minimum standard of 50% prescribed by academia, and then the maximum number of factors was extracted as 7 under the criterion of eigenvalue greater than 1 according to the principal component characteristics, which matched the division of the seven dimensions of the original scale, as shown in Table 3.6.

Table 3.6 Total Variance Explained

Ingredients	Initial Eigenvalue			Extraction of the Sum of Squares of Loads			Sum of Squared Rotating Loads		
	Total	Percentage of Variance	Cumulative %	Total	Percentage of Variance	Cumulative %	Total	Percentage of Variance	Cumulative %
1	17.966	40.832	40.832	17.966	40.832	40.832	10.938	24.858	24.858
2	7.583	17.235	58.067	7.583	17.235	58.067	6.655	15.126	39.984
3	2.301	5.231	63.298	2.301	5.231	63.298	4.849	11.021	51.005
4	1.870	4.251	67.549	1.870	4.251	67.549	4.496	10.219	61.224
5	1.822	4.141	71.690	1.822	4.141	71.690	3.542	8.050	69.274
6	1.597	3.629	75.319	1.597	3.629	75.319	2.000	4.546	73.820
7	1.142	2.594	77.913	1.142	2.594	77.913	1.801	4.093	77.913

Note: Extraction method: principal component analysis

Then again, the rotated component matrix was obtained by principal component analysis, and the rotated loadings of each common factor were greater than 0.4, which met the requirements of academia, indicating that the variables in the study passed the validity test and no further adjustment was made. Each factor question item matched with the initial test questionnaire, and the correlation between each factor and the total score was significant, indicating that the initial test questionnaire was reasonably designed and had good validity.

Table 3.7 Rotated Component Matrix

	Ingredients						
	1	**2**	**3**	**4**	**5**	**6**	**7**
A1	-	-	-	0.707	-	-	-
A2	-	-	-	0.820	-	-	-
A3	-	-	-	0.713	-	-	-
A4	-	-	-	0.675	-	-	-
A5	-	-	-	0.742	-	-	-
A6	-	-	-	0.699	-	-	-
D1	-	-	0.690	-	-	-	-
D2	-	-	0.659	-	-	-	-
D3	-	-	0.767	-	-	-	-
D4	-	-	0.698	-	-	-	-
D5	-	-	0.622	-	-	-	-
D6	-	-	0.769	-	-	-	-
D7	-	-	0.785	-	-	-	-
B1	-	-	-	-	0.548	-	-
B2	-	-	-	-	0.707	-	-
B3	-	-	-	-	0.850	-	-
B4	-	-	-	-	0.761	-	-
B5	-	-	-	-	0.560	-	-
C1	0.853	-	-	-	-	-	-
C2	0.874	-	-	-	-	-	-

	Ingredients						
	1	**2**	**3**	**4**	**5**	**6**	**7**
C3	0.876		-	-	-	-	-
C4	0.917	-	-	-	-	-	-
C5	0.861	-	-	-	-	-	-
C6	0.879	-	-	-	-	-	-
C7	0.879	-	-	-	-	-	-
C8	0.807	-	-	-	-	-	-
C9	0.902	-	-	-	-	-	-
C10	0.899	-	-	-	-	-	-
C11	0.877	-	-	-	-	-	-
C12	0.813	-	-	-	-	-	-
C13	0.848	-	-	-	-	-	-
F1	-	0.720	-	-	-	-	-
F2	-	0.768	-	-	-	-	-
F3	-	0.677	-	-	-	-	-
F4	-	0.770	-	-	-	-	-
F5	-	0.827	-	-	-	-	-
F6	-	0.748	-	-	-	-	-
F7	-	0.779	-	-	-	-	-
F8	-	0.737	-	-	-	-	-
F9	-	0.670	-	-	-	-	-
E1	-	-	-	-	-	0.805	-
E2	-	-	-	-	-	0.810	-
E3	-	-	-	-	-	-	0.705
E4	-	-	-	-	-	-	0.806

3.8   Data Analysis Process

After the pretest has achieved the desired effect, this paper will further complete the analysis of the total sample scale data.

First, descriptive statistical analysis and normality tests were performed on the total data collected. Descriptive statistics is the use of tabulation and classification, graphs and calculation of generalized data to describe the activities of data characteristics. Descriptive statistical analysis involves statistical description of the data related to all variables in the survey aggregate, including frequency analysis, concentration trend analysis, dispersion analysis, distribution, and some basic statistical graphs of the data. At the same time, in statistical analysis, it is usually assumed that the distribution of the total to which the sample belongs is normal, so it is necessary to check whether the sample data conform to normal distribution using two indicators of skewness and kurtosis.

Second, this paper will conduct an ANOVA test for each variable, with the purpose of decomposing the total variance (fluctuation) of the observed data into factor effects and experimental errors according to the different causes of variation, and making a quantitative analysis of them to discover the significance of the differences between multiple groups of data and to compare the importance of various causes in the total variation as a basis for further statistical inference. The analysis of variance (ANOVA) was conducted before the analysis of variance (ANOVA). Before conducting ANOVA, the input data are tested for normality, and the data are tested for normality to determine the appropriate test to use. When the measured data conform to the normal distribution, the difference of the data mean is statistically significant, and then the t-test, regression analysis, etc. are usually chosen (Qiu, 2019).

Third, the reliability of the questionnaire was analyzed by reliability test for the total sample data, which is a test of the degree of consistency of the results obtained when the same subject is repeatedly measured using the same method. The validity was also examined by KMO and Bartlett's sphere test to analyze whether the questionnaire design can accurately measure the degree of influence on the dependent variable of this paper.

Fourth, exploratory factor analysis (EFA), exploratory factor analysis helps to establish new hypotheses and develop new theories. After completing the reliability test, appropriate methods are adopted according to the KMO values, and generally the factor loadings are estimated by using principal component analysis, the direct cross-rotation method, and the great likelihood method.

Fifth, validated factor analysis (CFA), tests whether the relationship between a factor and the corresponding measure term is consistent with the hypothesized relationship designed in this paper. The test is done through structural equation modeling, and the goodness-of-fit test will be completed in this paper using AMOS.

Sixth, the overall research model hypothesis validation, this paper uses the PROCESS plug-in for model path testing and mediation testing, including simple mediation, parallel mediation, and chain mediation, and examines the significance of mediation effects and compares the degree of influence of each mediation path on the dependent variable.

Finally, based on the above complete analysis, the hypotheses proposed in this paper are tested to see if they are valid. The specific theoretical and practical implications of each step, as well as the criteria for judging the results, will be described in detail in the next chapter.

CHAPTER 4

DISCUSSION OF RESULTS

4.1   Data Collection

The questionnaire for this study was distributed through a QR code generated from the Questionnaire Star website, and the respondents were from three first-class model elementary school in Yunnan Province, namely, Yunnan Normal University Affiliated Primary School, Kunming City Ming Tong Primary School, and Qujing City No. 2 Primary School, with a total of 515 teachers currently working in all three schools, as shown in Table 4.1.

Table 4.1 Sample Size Statistics

Source	Number of Teachers	Effective Sample Size
Primary School Affiliated to Yunnan Normal University.	223	217
Kunming Mingtong Primary School.	105	104
Qujing Second Primary School.	187	182
Total	515	503

Source: Yunnan Provincial Department of Education (2020).

A total of 515 questionnaires were distributed, and 503 valid questionnaires were obtained by eliminating invalid questionnaires, with a valid return rate of 92.6%. The questionnaire took analogies from four aspects of teachers' education, teaching subjects, years of teaching, and job rank, and the sample statistics are shown in Figure 4.2.

Table 4.2 Demographic Characteristics Statistics

Variables	Projects	Frequency	Percentage
Academic qualifications	Undergraduate	405	80.5
	Master's degree and above	72	14.3
	Specialty	26	5.2
Subjects taught	Civics, Labor and Technology	17	3.4
	Information, Science	23	4.6
	Phonics, Physical Education, and Sports	106	21.1
	Language, Mathematics and English	357	71
Years of teaching experience	10-15 years	40	8
	More than 15 years	216	42.9
	5-10 years	47	9.3
	Less than 5 years	200	39.8
	Outside the establishment	94	18.7
Job Grade	Secondary teachers	159	31.6
	Senior Teacher	118	23.5
	Level 1 Teachers	132	26.2
	Total	503	100

As can be seen from the above table, among the 503 valid samples, teachers' education is mainly bachelor's degree, teaching subjects are concentrated in language, mathematics, English, phonetics, physical education and aesthetics, teaching years are polarized, young teachers who have taught for less than 5 years and teachers who have taught for more than 15 years are more concentrated, job ranks are relatively balanced, the number of second-level teachers is slightly more, and teachers outside the establishment account for 18.7%.

4.2   Normality Test and Descriptive Statistical Analysis

Since structural equation models have the statistical prerequisites that the data are normally distributed and that the variables are linearly related and correlated, the conclusions are not credible if the data are severely skewed, nonlinearly related between variables, or pseudo correlated. Therefore, the normality test is performed before constructing the model in order to choose the correct statistical method.

A normal distribution, also called a normal distribution, refers to a distribution of frequencies. Before doing a comparative analysis, it is necessary to verify whether the overall population represented by the sample data obeys a normal distribution in order to choose the correct statistical method. In this paper, we use the Kurtosis-Kurtosis test, which is a statistical quantity describing the flatness of the distribution pattern of all values of a variable, and Skewness, which is a measure of how much the probability distribution of a random variable deviates from the normal distribution, and is a numerical characteristic of the degree of asymmetry in the distribution of statistical data. In the textbook Statistics (7th ed.) (Jia, 2018), skewness is defined using third-order moments, and kurtosis is the fourth-order central moment divided by the square of the variance of the probability distribution, minus 3, which is subtracted to make the kurtosis of the normal distribution 0. In the case of a normal distribution, the value of the kurtosis coefficient is 3. A kurtosis coefficient greater than 3 indicates that the observed quantity is more concentrated and has a shorter tail than the normal distribution; a kurtosis less than 3 coefficients indicate that the observed quantities are less concentrated and have longer tails than the normal distribution, similar to the uniform distribution of a rectangle (Jia, 2018). The normality test of the variables in

this study is shown in Table 4.3, and all variables have absolute values of skewness close to 1 and absolute values of kurtosis < 3, indicating that the variables show normal or near-normal distributions, which are suitable for structural equation modeling.

Table 4.3 Results of Normality Test

Dimensionality	Indicators	Minimum Value	Maximum Value	Skewness	Kurtosis
Professional Development of Elementary School Teachers Is Internalized	Development Quality	1.000	5.000	1.155	0.464
	Development Evaluation	1.000	5.000	1.208	0.403
	Development Momentum	1.000	5.000	1.385	0.751
Student Academic Status	Off-Campus Learning	1.000	5.000	1.288	0.827
	On-Campus Learning	1.000	5.000	1.368	0.955
Professional Development Dynamics	Teaching Skills	1.000	5.000	-0.682	0.471
	Role Responsibility	1.000	5.000	-0.959	0.271
	Professional Identity	1.000	5.000	-1.062	1.185
	Self-Adjustment	1.000	5.000	-0.596	0.892
	Decision-Making Participation	1.000	5.000	-0.490	0.133
	Achievements	1.250	5.000	-0.293	-0.705
Faculty Incentives	Spiritual Inspiration	1.000	5.000	-0.549	-0.802
	External Incentives	1.000	5.000	-0.498	-0.852
Overly Competitive Attitude		1.000	5.000	1.588	1.936

Dimensionality	Indicators	Minimum Value	Maximum Value	Skewness	Kurtosis
Healthy Competition Attitude		1.000	5.000	-1.163	0.785
Professional Values Of Elementary School Teachers	Self-Realization	1.000	5.000	-1.149	1.609
	Organizational Security	1.000	5.000	-1.069	1.503
	Physical And Mental Health	1.000	5.000	-1.058	0.990

The following test of variance of means (ANOVA) for the four factors of education, subject taught, years of teaching, and job rank was conducted. Factor variance test was proposed by R.A. Fisher, also known as variability test or F-test, which is used to test the significance of the difference between the means of two or more samples, comparing whether there is a difference between the means of different groups, using the frequency school (Frequentist) 95% confidence interval. The principle is to calculate the ratio of the difference between groups to the difference within groups, and the larger the F value, the smaller the significance coefficient p. When $p < 0.05$, there is a significant difference, and it is generally considered borderline significant when $0.05 < p < 0.1$ (Qiu, 2019).

Table 4.4 Analysis of Differences in Academic Qualifications

Dimensionality	Group	Number of Cases	M±SD	F	p
Professional development of elementary school teachers is internalized	Specialty	26	2.03±1.04	0.071	0.931
	Undergraduate	405	2.05±0.88		
	Graduate Students	72	1.99±0.9		
Student Academic Status	Specialty	26	2.13±1.01	1.064	0.346
	Undergraduate	405	2.02±1		
	Graduate Students	72	1.76±0.79		
Professional	Specialty	26	3.43±0.8	0.077	0.926

Dimensionality	Group	Number of Cases	M±SD	F	p
development dynamics					
	Undergraduate	405	3.48±0.63		
	Graduate Students	72	3.48±0.74		
Faculty incentives	Specialty	26	3.81±0.91	3.934	**0.02**
	Undergraduate	405	3.43±0.95		
	Graduate Students	72	3.82±0.87		
Overly competitive attitude	Specialty	26	2.14±1.04	0.301	0.74
	Undergraduate	405	1.98±1.05		
	Graduate Students	72	2.02±0.96		
Healthy competition attitude	Specialty	26	3.56±1.19	1.976	0.14
	Undergraduate	405	3.97±1.02		
	Graduate Students	72	3.93±1.05		
Professional values of elementary school teachers	Specialty	26	3.93±1.05	2.975	0.052
	Undergraduate	405	4.1±0.86		
	Graduate Students	72	4.46±0.23		

Table 4.4 ANOVA results show that there is no significant difference between teacher education and professional development in-volume $p = 0.931, 0.931 > 0.05$; no significant difference between teacher education and students' academic status $p = 0.346, 0.346 > 0.05$; no significant difference between teacher education and professional development dynamics $p = 0.916, 0.926 > 0.05$, no significant difference; Significance coefficient between teacher education and excessive competition $p = 0.74, 0.74 > 0.05$, no significant difference; Significance coefficient between teacher education and benign competition $p = 0.14, 0.14 > 0.05$, no significant difference; Significance coefficient between teacher education and professional values of elementary school teachers $p = 0.052, 0.052 > 0.05$, no significant difference; significant coefficient between teacher education and teacher incentives $p = 0.02, 0.02 < 0.05$, there is a borderline significant difference, and the score of graduate degree is significantly greater than other degrees.

Table 4.5 Analysis of Differences in the Subjects Taught

Dimensionality	Group	Number of cases	M±SD	F	p
Professional Development for Elementary School Teachers Internal Volume	Civics, Labor and Technology.	17	1.99±0.87	0.349	0.79
	Information, Science.	23	1.93±0.64		
	Phonics, Physical Education, and Sports.	106	2±0.78		
	Language, Mathematics and English.	357	2.07±0.93		
Student Academic Status	Civics, Labor and Technology.	17	2.42±1.31	1.163	0.324
	Information, Science.	23	2.01±0.88		
	Phonics, Physical Education, and Sports.	106	1.94±0.91		
	Language, Mathematics and English.	357	2.02±1.01		
Professional Development Energetic	Civics, Labor and Technology.	17	3.56±0.69	0.541	0.654
	Information, Science.	23	3.59±0.44		
	Phonics, Physical Education, and Sports.	106	3.43±0.59		
	Language, Mathematics and English.	357	3.48±0.67		
Teacher Motivation Mechanism	Civics, Labor and Technology.	17	3.12±1.17	0.866	0.459
	Information, Science.	23	3.44±0.78		
	Phonics, Physical Education, and Sports.	106	3.46±0.98		
	Language, Mathematics and English.	357	3.49±0.94		
Overly competitive attitude	Civics, Labor and Technology.	17	1.94±1.2	0.012	0.998
	Information, Science.	23	2±1		
	Phonics, Physical Education, and Sports.	106	1.99±0.95		
	Language, Mathematics and English.	357	1.99±1.06		
Healthy competition Attitude	Civics, Labor and Technology.	17	4.09±0.91	0.895	0.444
	Information, Science.	23	4.2±0.58		
	Phonics, Physical Education, and Sports.	106	4.01±0.94		
	Language, Mathematics and English.	357	3.91±1.09		
Professional values of elementary school teachers	Civics, Labor and Technology.	17	4.07±0.79	0.772	0.51
	Information, Science.	23	4.37±0.33		
	Phonics, Physical Education, and Sports.	106	4.11±0.88		
	Language, Mathematics and English.	357	4.09±0.87		

As shown in Table 4.5, the p-values of significance coefficients between teacher's teaching discipline and professional development in-volume, student academic status, professional development motivation, teacher incentives, excessive competition, healthy competition, and professional values of elementary school teachers were 0.79, 0.324, 0.654, 0.459, 0.998, 0.444, and 0.51, respectively, which were all greater than 0.01 and not significantly different.

Table 4.6 Analysis of Differences in Years of Teaching Experience

Dimensionality	Group	Number of Cases	M±SD	F	p
Professional development of elementary school teachers is internalized	Less than 5 years	200	2.05±0.89	0.682	0.563
	5-10 years	47	2.19±0.88		
	10-15 years	40	2.12±0.97		
	More than 15 years	216	2±0.88		
Student Academic Status	Less than 5 years	200	1.99±0.97	0.303	0.823
	5-10 years	47	2.09±1.12		
	10-15 years	40	1.93±0.87		
	More than 15 years	216	2.04±1.01		
Professional Development Energetic	Less than 5 years	200	3.49±0.65	0.169	0.918
	5-10 years	47	3.47±0.61		
	10-15 years	40	3.51±0.77		
	More than 15 years	216	3.45±0.62		
Faculty incentives	Less than 5 years	200	3.5±0.96	0.946	0.418
	5-10 years	47	3.29±0.97		
	10-15 years	40	3.61±0.95		
	More than 15 years	216	3.46±0.93		
Overly competitive attitude	Less than 5 years	200	1.96±1.09	0.542	0.654
	5-10 years	47	2.11±1.04		
	10-15 years	40	2.13±1.25		
	More than 15 years	216	1.96±0.95		
	Less than 5 years	200	4.03±1.01	0.639	0.59
	5-10 years	47	3.9±1.07		
Healthy competition attitude	10-15 years	40	3.86±1.16		
	More than 15 years	216	3.9±1.03		

Dimensionality	Group	Number of Cases	M±SD	F	p
Elementary School Teaching Career Values	Less than 5 years	200	4.14±0.85	1.134	0.335
	5-10 years	47	4.16±0.82		
	10-15 years	40	4.28±0.7		
	More than 15 years	216	4.04±0.88		

As shown in Table 4.6, the p-values of significance coefficients were 0.563, 0.823, 0.918, 0.418, 0.654, 0.59, and 0.335, respectively, between teachers' years of teaching and professional development involution, students' academic status, professional development motivation, teachers' incentives, excessive competition, healthy competition, and teachers' professional values, all of which were not significantly different.

Table 4.7 Analysis of Differences in Job Grades

Dimensionality	Group	Number of Cases	M±SD	F	p
Professional development in-volume	Outside the establishment	94	2.15±0.92	0.616	0.605
	Level 1 Teachers	132	2±0.88		
	Secondary teachers	159	2.07±0.89		
	Senior Teacher	118	2.01±0.88		
Student Academic Status	Outside the establishment	94	2.06±1.13	0.305	0.822
	Level 1 Teachers	132	1.97±0.96		
	Secondary teachers	159	2.06±0.96		
	Senior Teacher	118	1.98±0.96		
Professional development dynamics	Outside the establishment	94	3.53±0.59	0.689	0.559
	Level 1 Teachers	132	3.42±0.73		
	Secondary teachers	159	3.47±0.7		
	Senior Teacher	118	3.5±0.49		
Faculty incentives	Outside the establishment	94	3.53±0.99		
	Level 1 Teachers	132	3.46±0.96	0.16	0.923
	Secondary teachers	159	3.46±0.97		
	Senior Teacher	118	3.45±0.88		
Overly competitive attitude	Outside the establishment	94	2.09±1.14	0.841	0.472

Dimensionality	Group	Number of Cases	M±SD	F	p
	Level 1 Teachers	132	1.92±0.98		
	Secondary teachers	159	2.04±1.17		
	Senior Teacher	118	1.9±0.8		
Healthy competition attitude	Outside the establishment	94	3.94±1.04	0.569	0.636
	Level 1 Teachers	132	3.97±1.08		
	Secondary teachers	159	4.01±1.04		
	Senior Teacher	118	3.85±0.98		
Professional Values of Teachers	Outside the establishment	94	3.99±0.99	1.444	0.229
	Level 1 Teachers	132	4.15±0.81		
	Secondary teachers	159	4.19±0.8		
	Senior Teacher	118	4.04±0.82		

As shown in Table 4.7, the p-values of significance coefficients were 0.605, 0.822, 0.559, 0.923, 0.472, 0.636, and 0.229 between teacher job rank and elementary teachers' professional development involution, students' academic status, professional development motivation, teachers' incentives, overcompetitive attitudes, benign competitive attitudes, and elementary teachers' professional values, respectively, with no significant differences.

In summary, except for the borderline significant differences in teacher education among teacher incentives, there were no significant differences between or within groups for the remaining variables, reflecting variance chi-square to some extent. Descriptive statistical analysis is shown in Table 4.8.

Table 4.8 Description and Results of Correlation Analysis

Variables	Average Value	Standard Deviation	1	2	3	4	5	6	7
Professional Development Internalization.	2.05	0.89	1	-	-	-	-	-	-
Student Academic Status.	2.02	0.99	.521**	1	-	-	-	-	-
Professional development dynamics.	3.47	0.64	-.411**	-.335**	1	-	-	-	-
Faculty incentives.	3.47	0.95	-.501**	-.321**	.462**	1	-	-	-
Overly competitive attitude.	1.99	1.04	.315**	.135**	-.176**	-.131**	1	-	-
Healthy competition attitude.	3.95	1.03	-.351**	-.204**	.231**	.163**	-.197**	1	-
Professional values of elementary school teachers.	4.11	0.85	-.528**	-.363**	.444**	.436**	-.305**	.358**	1

According to the results of the analysis in Table 4.8, the means and standard deviations of the variables were

The mean scores of elementary school teachers' professional development involutional (M = 2.05, SD = 0.89), students' academic status (M = 2.02, SD = 0.99) were less than average by 3 points; professional development motivation (M = 3.47, SD = 0.64), teachers' incentives (M = 3.47 , SD = 0.95), overcompetitive attitudes (M = 1.99, SD = 1.04), benign competitive attitudes (M = 3.94, SD = 1.03), and professional values of elementary school teachers (M = 4.11, SD = 0.85). It can be seen that the means of the variables ranged from 1.99 to 4.11 and the standard deviations varied from 0.64 to 1.04.

The results of the correlations show that the correlation coefficients r between the variables were analyzed as follows.

There was a significant positive correlation between elementary teachers' professional development involution and students' academic status (r = 0.521, p < 0.01) at the 1% level ; elementary teachers' professional development involution and professional development motivation (r = -0.411, p < 0.01), elementary teachers' professional development involution and teachers' motivation (r = -0.501, p < 0.01),

elementary teachers' professional development involution and development involutional and benign competitive attitudes (r = -0.351, p < 0.01), a significant negative relationship at the 1% level between elementary teachers' professional development involutional and elementary teachers' professional values (r = -0.528, p < 0.01); a significant negative relationship at the 1% level between students' academic status and professional development motivation (r = -0.335, p < 0.01); a significant negative correlation; a significant positive correlation between teacher incentives and benign competitive attitudes (r = 0.163, p < 0.01) at the 1% level; and a significant positive correlation between teacher incentives and elementary school teachers' professional values (r = 0.436, p < 0.01) at the 1% level.

In conclusion, there is a significant two-by-two relationship between the variables, which is suitable for structural equation modeling.

4.3   Reliability Test

4.3.1   Reliability Analysis

In this study, Cronbach a coefficient (Cronbach 's Alpha Coefficient) was used to test the reliability of the questionnaire.

Reliability is the degree of reliability of a data or indicator itself, including accuracy and stability. Nunnally (1978) stated that reliability analysis tests the stability of a measurement item's measure of a research concept to produce consistent results, also known as reliability analysis. Cronbach' a (internal consistency coefficient) value is the most commonly used reliability test and was proposed by Cronbach in 1951. Usually Cranbach' s a coefficient intervenes between 0 and 1, and the closer it is to 1, the higher the reliability of the measurement. It is generally accepted that an a-coefficient greater than 0.7 indicates high internal consistency and high reliability, greater than 0.5 is reliable, and less than 0.35 indicates low internal consistency and low reliability (Yates & Stone, 1992).

On this basis, the corrected item total correlation (CITC value) is analyzed, which indicates the correlation coefficient between the product difference of the corresponding question item and the total score of other questions. Usually, a value greater than 0.4 indicates that a question item has a high correlation with another

question item.

The results of the internal consistency test of the final questionnaire were obtained after analysis by SPSS 25 statistical software as shown in Table 4.9.

Table 4.9 Internal Consistency Test for the Scores of Each Dimensional Indicator of the Study Questionnaire (n = 503)

	Corrected Term to Total Correlation	Cloning of Bach Alpha after Deletion of Items
A1	0.724	0.798
A2	0.734	0.812
A3	0.607	0.789
A4	0.776	0.824
A5	0.714	0.772
A6	0.723	0.803
B1	0.679	0.837
B2	0.698	0.781
B3	0.679	0.795
B4	0.656	0.821
B5	0.715	0.784
C1	0.621	0.763
C2	0.765	0.861
C3	0.699	0.767
C4	0.631	0.769
C5	0.661	0.843
C6	0.714	0.865
C7	0.747	0.831
C8	0.676	0.794
C9	0.725	0.844
C10	0.676	0.837
C11	0.629	0.846
C12	0.812	0.932

	Corrected Term to Total Correlation	Cloning of Bach Alpha after Deletion of Items
C13	0.724	0.843
D1	0.769	0.875
D2	0.677	0.865
D3	0.735	0.883
D4	0.650	0.795
D5	0.721	0.851
D6	0.772	0.893
D7	0.701	0.864
G1	0.624	0.791
G2	0.739	0.873
G3	0.698	0.821
G4	0.772	0.864
F1	0.804	0.917
F2	0.673	0.833
F3	0.774	0.814
F4	0.766	0.865
F5	0.672	0.852
F6	0.795	0.901
F7	0.864	0.935
F8	0.768	0.833
F9	0.743	0.845

The analysis shows that the corrected item-total correlation for each question item is greater than 0.5, indicating a high correlation between the question item and the scale.

Table 4.10 Reliability Test Results

Indicators	Cronbach Alpha	Number of Questions
Professional development of elementary school teachers is internalized	0.846	6
Student Academic Status	0.932	5
Professional development dynamics	0.884	13
Faculty incentives	0.869	7
Healthy competition attitude	0.798	2
Overly competitive attitude	0.806	2
Professional values of elementary school teachers	0.930	9
Total Table	0.774	44

The reliability coefficient of the questionnaire was 0.774, and the reliability coefficient of each variable was 0.846 for elementary school teachers' professional development, 0.931 for students' academic status, 0.884 for professional development motivation, 0.869 for teachers' incentives, 0.869 for healthy competition, 0.806 for excessive competition, and 0.930 for primary school teachers' professional values. The larger the Alpha coefficient, the higher the reliability, and the reliability of each scale and the total scale is greater than 0.7, indicating that the questionnaire has good reliability.

4.3.2 Validity Analysis

Validity refers to the generation of a data or indicator that needs to fit the thing it is intended to measure, i.e., the change in the indicator is representative of the change in that thing. According to the sixth edition of Quantitative Research and Statistical Analysis published by Chongqing University, validity testing is to respond to whether the measurement results can reveal the true characteristics of what is being measured (Qiu, 2019).

The validity of the questionnaire scales was analyzed by KMO and Bartlett's sphere test as a response to the question of whether the classification of the scales in this paper was appropriate. The questionnaire had structural validity when the KMO test coefficient was > 0.5 and the p-value of the significance probability of Bartlett's χ^2 statistic was < 0.05.

The KMO test is a Measure of Sampling Adequacy proposed by Kaiser, Meyer and Olkin, which is a test of the relative magnitude of the simple and partial correlation coefficients between the original variables. The KMO statistic is taken as a value between 0 and 1. The closer the KMO value is to 1, the stronger the correlation between the variables and the more suitable the original variables are for factor analysis; the closer the KMO value is to 0, the weaker the correlation between the variables and the less suitable the original variables are for factor analysis (Chen, 2016).

Bartlet' s sphericity test is mainly used to test the distribution of the data and the independence between the variables. There is an option about bartlett's sphericity test during factor analysis in SPSS, if the sig value (p) is less than 0.05, the data is spherically distributed.

Table 4.11 KMO and Bartlett's Test

KMO Sampling suitability number.		. 919
Bartlett's sphericity test	Approximate cardinality	14207.688
	Degree of freedom	946
	Significance	.000

Table 4.12 Validity Test Results

Indicators	KMO	P
Professional development of elementary school teachers is internalized.	0.795	< 0.001
Student Academic Status.	0.863	< 0.001
Professional development dynamics.	0.879	< 0.001
Faculty incentives.	0.839	< 0.001
Overly competitive attitude.	0.500	< 0.001
Healthy competition attitude.	0.500	< 0.001
Professional values of elementary school teachers.	0.939	< 0.001
Total Table.	0.919	< 0.001

As seen in Table 4.11 and 4.12, the total scale KMO value was 0.919, which is greater than the minimum standard of KMO ≥ 0.5; in addition, the Bartlett's sphere test had a significant coefficient of $0.000 < 0.001$, an approximate *chi-square* (χ^2) of 14207.688, and a degree of freedom of 946, indicating that the designed variables are correlated and can be factor analyzed. In terms of individual variables, the K M O value of each variable was greater than 0.795 for the professional development in-volume scale, 0.863 for students' academic status, 0.879 for professional development motivation KMO, 0.839 for teacher incentives KMO, and 0.939 for elementary teachers' professional values KMO, due to the fact that there were only two question items for overly competitive and benign competitive attitudes. In summary, the overall validity of the questionnaire variable scales is good and suitable for factor analysis.

4.4   Factor Analysis

4.4.1   Exploratory Factor Analysis

In order to test the factorial structure of the evaluation questionnaire of this study, an exploratory factor analysis was first conducted on the final scale. Exploratory factor analysis aims to simplify the structure by transforming most of the

variables that are difficult to interpret but correlated with each other into a few factors that are conceptually meaningful and more independent of each other, so that the least number of common factors can explain the maximum amount of total variance.

By extracting the common factors through principal component analysis, considering that the exploratory factors were conducted under the uncertainty of measurement dimensions, there was a part of data information loss, so according to the original scale dimension division, this paper adopted the limited extraction of common factors method, and the number of factors was set to 7. The seven factors with eigenvalues of principal components greater than 1 were extracted, and the cumulative variance contribution rate (Cumulative) cumulative contribution rate is 60.791%, which is greater than the common minimum standard of 50% in academia (Wu, 2019), as shown in Table 4.13.

Table 4.13 Total Variance Explained

Component	Initial Eigenvalues				Extracted Load Sum of Squares		Rotated Load Sum of Squares		
	Total	Variance %	Cumulative	%	Total	Variance %	Cumulative	%	
1	13.	13829.	85929.	85913.	13829.	85929.	8595.	95613.	53613.536
2	3.	3947.	71437.	5733.	3947.	71437.	5734.	89911.	13524.671
3	3.	0596.	95244.	5253.	0596.	95244.	5254.	3929.	98134.651
4	2.	4425.	55150.	0762.	4425.	55150.	0764.	3539.	89444.545
5	1.	8664.	24254.	3171.	8664.	24254.	3172.	6646.	05450.599
6	1.	7473.	97158.	2881.	7473.	97158.	2882.	5285.	74656.345
7	1.	5413	.	50361	.		7912.396 4.44660.791		

Note: Extraction method: principal component analysis

Next, the rotated component matrix is obtained, and the larger the loading coefficient (absolute value) is the closer to 1, which proves that the variable is more closely related to the common factor, and the variable contributes enough information to the common factor and is a representative variable of the common factor, i.e., the variable is attributed to the common factor. As shown in Table 4.14, the loadings of

each common factor after rotation were above 0.6, which was greater than the minimum standard of 0.45, indicating that the variables in the study passed the validity test, the question items of each factor matched the questionnaire, and the correlation between each factor and the total score was significant, indicating that the final scale was reasonably designed and had good validity.

Table 4.14 Component Matrix after Rotationa

| | Ingredients | | | | | | | | | | |
	1	2	3	4	5	6	7	8	9	10	11
A1	-	-	-	-	-	-	-	0.763	-	-	-
A2	-	-	-	-	-	-	-	0.791	-	-	-
A3	-	-	-	-	-	-	-	0.768	-	-	-
A4	-	-	-	-	-	-	0.821	-	-	-	-
A5	-	-	-	-	-	-	0.760	-	-	-	-
A6	-	-	-	-	-	-	0.824	-	-	-	-
B1	-	0.911	-	-	-	-	-	-	-	-	-
B2	-	0.885	-	-	-	-	-	-	-	-	-
B3	-	0.845	-	-	-	-	-	-	-	-	-
B4	-	0.813	-	-	-	-	-	-	-	-	-
B5	-	0.767	-	-	-	-	-	-	-	-	-
C1	-	-	-	-	-	-	-	-	0.731	-	-
C10	-	-	-	-	-	0.775	-	-	-	-	-
C11	-	-	-	-	-	0.788	-	-	-	-	-
C12	-	-	-	-	-	0.782	-	-	-	-	-
C13	-	-	-	-	-	-	-	-	-	-	-
C2	-	-	-	-	-	-	-	-	0.733	-	-
C3	-	-	-	-	-	-	-	-	0.719	-	-
C4	-	-	-	0.859	-	-	-	-	-	-	-
C5	-	-	-	0.872	-	-	-	-	-	-	-
C6	-	-	-	0.887	-	-	-	-	-	-	-
C7	-	-	-	-	0.672	-	-	-	-	-	-
C8	-	-	-	-	0.698	-	-	-	-	-	-
C9	-	-	-	-	0.723	-	-	-	-	-	-
D1	-	-	0.661	-	-	-	-	-	-	-	-
D2	-	-	0.678	-	-	-	-	-	-	-	-
D3	-	-	0.654	-	-	-	-	-	-	-	-

	Ingredients										
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
D4	-	-	0.689	-	-	-	-	-	-	-	-
D5	-	-	0.669	-	-	-	-	-	-	-	-
D6	-	-	0.728	-	-	-	-	-	-	-	-
D7	-	-	0.712	-	-	-	-	-	-	-	-
F1	0.752	-	-	-	-	-	-	-	-	-	-
F2	0.766	-	-	-	-	-	-	-	-	-	-
F3	0.805	-	-	-	-	-	-	-	-	-	-
F4	0.772	-	-	-	-	-	-	-	-	-	-
F5	0.803	-	-	-	-	-	-	-	-	-	-
F6	0.767	-	-	-	-	-	-	-	-	-	-
F7	0.786	-	-	-	-	-	-	-	-	-	-
F8	0.645	-	-	-	-	-	-	-	-	-	-
F9	0.641	-	-	-	-	-	-	-	-	-	-
G1	-	-	-	-	-	-	-	-	-	0.864	-
G2	-	-	-	-	-	-	-	-	-	0.836	-
H1	-	-	-	-	-	-	-	-	-	-	0.835
H2	-	-	-	-	-	-	-	-	-	-	0.838

Note: 1) Extraction method: Principal component analysis method.

2) Rotation method: Kaiser normalized maximum variance method.

3) The rotation has converged after 8 iterations.

4.4.2   Validated Factor Analysis (CFA)

After completing the exploratory factor analysis, the validating factor analysis (CFA) was conducted using AMOS software in combination with dimensional classification. The validation factor analysis was used to verify the hypothetical model structure, the correspondence between the scale items and the latent variables, and whether the relationship between the latent variables was consistent with the actual situation. motivation, latent variable X3 = teacher incentives, latent variable M1 = benign competitive attitudes, latent variable M2 = overly competitive attitudes, and latent variable M3 = elementary school teachers' professional values)
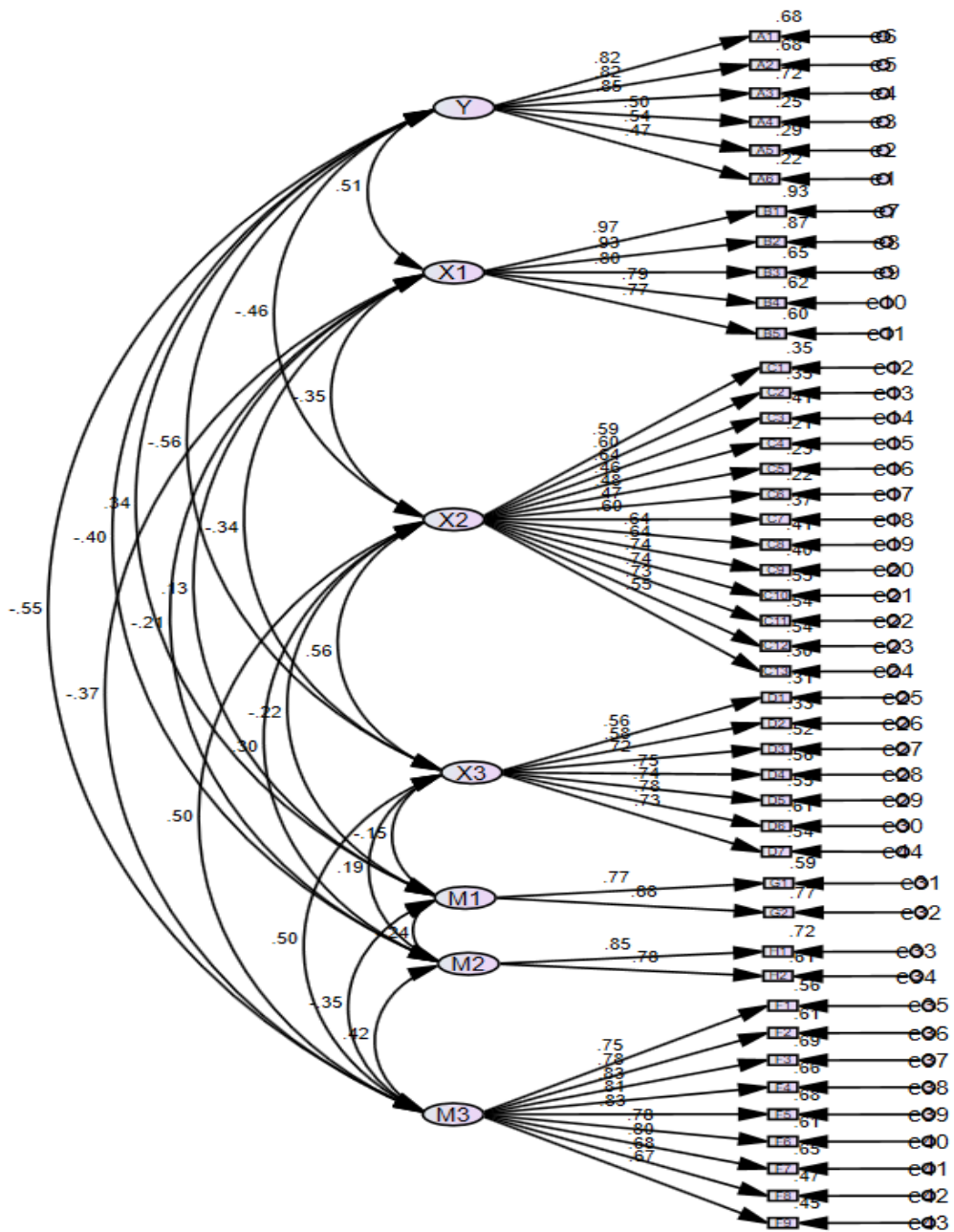
Figure 4.1 Initial Model Validation Factor Analysis

4.5   Hypothesis Validation of the Overall Research Model

In order to further explore the influencing factors and mediating effects of the involution, this paper performs a model fit test, which is operated using Amos 23. software. This study uses Maximum Likelihood Estimation (MLE) to test the fit of the factors. MLE was first proposed by Gauss (1821) and widely applied by Fisher (1912) between 1921 and 1922. Commonly used test indices include: chi-square test for goodness of fit (χ^2), root mean square error of approximation (RMSEA), comparative fit index (CFI), goodness of fit (GFI), and parsimonious fit index (RMSEA, PNFI).

The chi-square value χ^2 used together with the degrees of freedom df in the goodness-of-fit test (χ^2 goodness-of-fit test) can indicate the probability of model correctness. χ^2 /df is a statistic that directly tests the similarity between the sample covariance matrix and the estimated variance matrix, and is a rough estimate with a theoretical expectation of 1. A chi-square degree of freedom ratio of $1 < \chi^2$ /df < 3 indicates good model fitness, and $3 < \chi^2$ /df < 5 indicates that the model is acceptable overall. Since the chi-square values are easily affected by the sample size, when the sample size is large, the chi-square values become relatively larger and the significance probability value p becomes smaller, and model correction must be performed to effectively fit the sample data. Thus, if the hypothesized model is judged to be fit to the sample data in the case of large samples, other fitness statistics must also be considered in addition to the reference CMIN value (Wu, 2019). In practical studies, when the sample size is large, χ^2 /df values below 5 are acceptable.

The general criteria for discriminating RMSEA values are: < 0.05 indicates good model fitness; < 0.08 indicates the presence of reasonable approximation error and fair model fitness; between 0.08 and 0.10, the model fitness is average; > 0.10 indicates unsatisfactory model fitness (Wu, 2019). Scholars Hu and Bentler (1999) proposed a discriminant based on the assumption that if the RMSEA value is less than 0.06, the model is assumed to be well fit to the observed data.

The baseline comparative fit statistics output by AMOS include five types of normative fit index (NFI), goodness-of-fit index (RFI), IFI, Tucker-Lewis index (TLI), and comparative fit index (CFI), which are baseline comparisons (Baseline Comparisons) estimators. The general discriminant between TLI, NFI values and CFI

values criterion is > 0.900, but scholars Hu and Bentler (1999) further argue that a well-adapted hypothetical model with TLI values, NFI values and CFI values should ideally be close to 0.95 in the case of large samples (Wu, 2019).

4.5.1 Overall Model Fit Analysis

In this study, several main indices of χ^2 /df, p, CFI, GFI, RMSEA, PNFI, and PCFI were selected to test the fit of the model and to perform the modified model test with a sample size of 503 for the analysis. the results of the analysis are shown in Table 4.15.

Table 4.15 Overall Study Model Initial Hypothesis Validation Fit Metrics (n = 503)

Fitting Index	Inspection Standards	Test Value	Test Results
CMIN/DF	< 3	3.745	Acceptable
RMSEA	< 0.08	0.074	Conformity
GFI	> 0.9	0.903	Conformity
IFI	> 0.9	0.927	Conformity
CFI	> 0.9	0.927	Conformity
PNFI	> 0.5	0.746	Conformity
PCFI	> 0.5	0.766	Conformity

The results of the initial model fit key indicators are: root mean square error of approximation RMSEA 0.074 < 0.08, GFI = 0.903 > 0.9, IFI = 0.927 > 0.9, CFI = 0.927 > 0.9, PNFI = 0.746 > 0.5, PCFI = 0.766 > 0.5, are in line with the test; $3 < \chi^2$ / df = 3.745 < 5, which is within the acceptable range, but 3.745 > 3, indicating that there is still room for improvement in the initial study model fit and model correction can be performed.
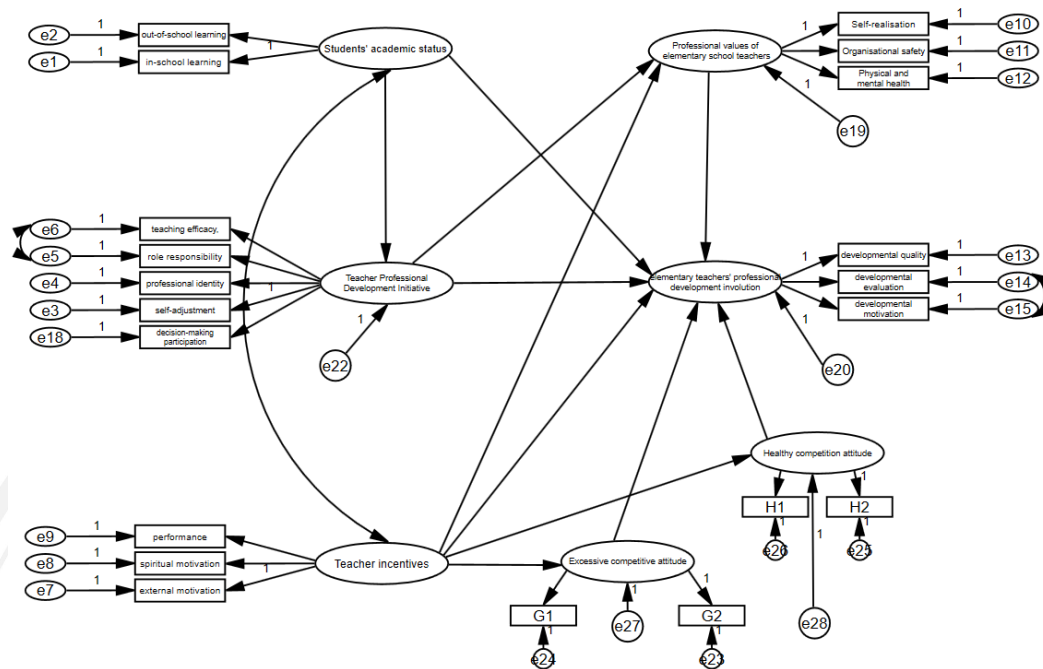
Figure 4.2 Structural Equation Model of the Study

The final model path diagram is obtained by correcting the index MI, parameter definition, and parameter testing. The structural equation model is shown in

The respective data after correction are shown in Table 4.16, 4.17, 4.18, 4.19, and 4.20.

Table 4.16 CMIN Test

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	54	357.586	156	.000	2.292
Saturated model	210	.000	0	-	-
Independence model	20	6076.753	190	.000	31.983

Table 4.17 RMSEA Test

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.051	.044	.058	.420
Independence model	.248	.243	.254	.000

Table 4.18 RMR GFI Test

Model	RMR	GFI	AGFI	PGFI
Default model	.037	.933	.910	.693
Saturated model	.000	1.000	-	-
Independence model	.318	.306	.233	.277

Table 4.19 Baseline Comparisons Baseline Comparison Tests

Model	NFIDelta1	RFIrho1	IFIDelta2	TLIrho2	CFI
Default model	.941	.928	.966	.958	.966
Saturated model	1.000	-	1.000	-	1.000
Independence model	.000	.000	.000	.000	.000

Table 4.20 Parsimony-Adjusted Measures Test

Model	PRATIO	PNFI	PCFI
Default model	.821	.773	.793
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

A comparison of the values of each fitness index before and after the model correction is shown in Table 4.21.

Table 4.21 Comparison Table of Indicators before and after the Amendment

Statistical Test Volume	Adaptation Standards	Before Model Correction	After Model Correction
Absolute suitability index			
RMR value	< 0.05	0.043	0.037
RMSEA value	< 0.08	0.074	0.051
GIF	> 0.9	0.903	0.933
AGIF	> 0.9	0.871	0.910
Value Added Suitability Index			
NFI	> 0.9	0.903	0.941
RFI	> 0.9	0.883	0.928
IFI	> 0.9	0.927	0.966
TLI (NNFI)	> 0.9	0.911	0.958
CFI	> 0.9	0.927	0.966
Minimalist suitability index			
PNFI	> 0.5	0.746	0.773
PCFI	> 0.5	0.766	0.793
χ^2 /df	Good when $1 < \chi 2$ /df < 3. $3 < \chi 2/df < 5$, acceptable	3.745	2.292

Table 4.22 Fitted Indicators for Overall Study Model Hypothesis Validation after
Correction (n = 503)

Fitting index	Inspection standards	Test value	Test results
CMIN/DF	< 3	2.292	Conformity
RMSEA	< 0.08	0.051	Conformity
GFI	> 0.9	0.933	Conformity
IFI	> 0.9	0.966	Conformity
CFI	> 0.9	0.966	Conformity
PNFI	> 0.5	0.773	Conformity
PCFI	> 0.5	0.793	Conformity

As shown in Figure 4.22, the corrected results showed that: χ^2 = 357.586, p <
0.001, a significant result, χ^2 /df = 2.292 < 3, RMSEA 0.051 < 0.08, GFI = 0.933 >
0.9, IFI = 0.927 > 0.9, CFI = 0.966 > 0.9, PNFI = 0.773 > 0.5, and PCFI = 0.793 >
0.5, indicating a better fit of the modified study model.

4.5.2 Hypothesis Testing

Hypothesis testing (hypothesis testing) is a statistical inference method used to
determine whether the difference between sample and sample, sample and total is
caused by sampling error or essential difference. Commonly used hypothesis testing
methods include Z-test, t-test, chi-square test, F-test, etc. (Shen, 2017).

1) Path Inspection

Path analysis is a form of structural equation modeling. Path analysis
generally uses the test method of regression analysis for hypothesis testing and has to
fit the model with the help of mathematical and statistical methods and principles, and
then compare the strengths and weaknesses of the model and find the most suitable
model. In this paper, we use AMOS23. software to conduct path tests on the model
and explore the role of each variable in influencing the professional development of
elementary school teachers to be involuted.

This study examines the results of the path test analysis of the structural equation model, including the standardized regression coefficient β values, t-test values, and p-test values among the latent variables. The standardized regression weights are the standardized regression coefficient values (β values). The standardized regression coefficient values are the path coefficients between the variables, and this path coefficient is the standardized direct effect value. The path coefficient value β is the positive or negative value of the standardized regression coefficient indicating the direction of the influence relationship between the variables, and a positive path coefficient β value indicates that its direct effect on the effector variable is positive, and a negative path coefficient β value indicates that its direct effect on the effector variable is negative. R. absolute value >1.96, indicating that the estimated value reaches 0.05 significant level; P value mainly indicates the significance of the influence relationship, usually when P < 0.05, it means that the two variables are significantly correlated at 95% confidence level, and it is considered that there is a strong and significant influence relationship between the two variables, and when P < 0.001, it will show " *** " symbol, and the significance probability value p > 0.001, then the actual value of p value will be presented directly in the P column (Wu, 2019).

Table 4.23 Regression Path Analysis of the Overall Study Model

Assumptions	Paths			β	S.E.	C.R. (t)	P
H1a	Professional development dynamics.	<--	Academic status of elementary school students.	-0.420	0.035	-8.174	***
H1b	Professional development of elementary school teachers is internalized.	<--	Academic status of elementary school students.	0.294	0.039	6.471	***
H2a	Professional values of elementary school teachers.	<--	Teacher professional development dynamics.	0.359	0.053	7.507	***
H2b	Professional	<--	Teacher	-0.059	0.056	-1.323	0.186

Assumptions	Paths			β	S.E.	C.R. (t)	P
	development of elementary school teachers is internalized.		professional development dynamics.				
H3a	Professional values of elementary school teachers.	<--	Faculty incentives.	0.366	0.038	7.692	***
H3b	Healthy competition attitude.	<--	Faculty incentives.	0.217	0.052	3.733	***
H3c	Overly competitive attitude.	<--	Faculty incentives.	-0.192	0.057	-3.517	***
H3d	Professional development of elementary school teachers is internalized.	<--	Faculty incentives.	-0.255	0.043	-5.390	***
H4	Professional development of elementary school teachers is internalized.	<--	Healthy competition attitude.	-0.165	0.038	-4.368	***
H5	Professional development of elementary school teachers is internalized.	<--	Overly competitive attitude.	0.160	0.035	3.980	***
H6	Professional development of elementary school teachers is internalized.	<--	Professional values of elementary school teachers.	-0.210	0.049	-4.787	***

Note * p < .05, ** p < .01, *** p < .001

As shown in Table 4.23, The results of the analysis based on the path test are as follows.

The path coefficient between elementary school students' academic status and teachers' professional development motivation was negative, β = -0.418, ｜C.R.｜ = 8.174 > 1.96, p < 0.001, and hypothesis H1a held.

The path coefficient of involution between elementary school students' academic status and elementary school teachers' professional development was positive, β = 0.294, C.R. = 6.471 > 1.96, p < 0.001, and hypothesis H1b held.

The path coefficient of teachers' professional development motivation and elementary school teachers' professional values was positive, β = 0.359, C.R. = 7.507 > 1.96, p < 0.001, and hypothesis H2a held.

The path coefficient β = -0.059, ｜C.R.｜ = 1.323 < 1.96, and p = 0.186 > 0.05 for teacher professional development motivation and elementary school teacher professional development involution, hypothesis H2b is not valid.

The path coefficient between teacher incentives and elementary school teachers' professional values was positive, β = 0.366, C.R. = 7.692 > 1.96, p < 0.001, and hypothesis H3a held.

The path coefficient of teacher incentives and benign competitive attitudes was positive, β = 0.217, C.R. = 3.733 > 1.96, p < 0.001, and hypothesis H3b held.

Negative path coefficients for teacher incentives and overcompetitive attitudes, β = -0.192, ｜C.R.｜ = 3.517 > 1.96, p< 0.001, and hypothesis H3c holds.

The path coefficient of teacher incentives and professional development of elementary school teachers was negative, β = -0.255, ｜C.R.｜ = 5.390 > 1.96, p < 0.001, and the hypothesis H3d held.

The path coefficient of benign competitive attitudes and professional development of elementary school teachers' involution was negative, β = -0.165, ｜C.R.｜ = 4.368 > 1.96, p < 0.001, and hypothesis H4 held.

The path coefficient between overly competitive attitudes and elementary teachers' professional development involution and was positive, β = 0.160, C.R. = 3.980 > 1.96, p < 0.01, hypothesis H5 holds.

The path coefficient between the professional values of elementary school teachers and the professional development of elementary school teachers' involution was β = -0.210.

｜C.R.｜= 4.787 > 1.96, p < 0.001), hypothesis H6 holds.

2) Intermediary test

To further examine the mediating effects of professional development motivation, competitive attitudes, and elementary school teachers' professional values, this study continued to use the Bootstrap method to repeat sampling of the original data to form a new sample with a capacity of 2000.

The principle of the bootstrap method is to treat the sample as a whole, and assume that there is a sample of N. The sample is sampled with put-back until the value drawn is equal to N. The N cases are a sample, and the process is repeated K times to obtain K samples, each of which can be calculated as a mediating effect thus obtaining a sampling distribution consisting of the product of K coefficients, and further obtaining the coefficient The confidence interval of the product of the coefficients is further obtained. In addition, the Bootstrap confidence interval of the indirect effect must be examined whether it contains 0, that is, between the lower limit of the interval and the upper limit of the interval, it cannot pass through 0. The upper and lower limits need to have the same positive and negative sign, which indicates significant.

MacKinnon, Krull, and Lockwood (2000) makes a careful distinction between the mediation effect and the masking effect (suppressing effect). Specifically, the mediating effect variable reduces the total effect between the independent variable and the dependent variable. The difference between the two is that the mediating effect variable is in the causal chain between the independent variable and the dependent variable, while the masking effect increases the total effect between the independent variable and the dependent variable. Wen et al., (2014) study pointed out that when the sign of both direct and mediating effects is negative, it is explained by negative effect significant and negative mediating significant, and when the sign of direct and mediating effects are not consistent, it is explained by masking effect.

(1) General Intermediary Inspection

A total of six common mediators are presented in this paper and analyzed by SPSS-process V3.4 with a Bootstrap sample size of 2000 and 95% confidence interval. The main reported effect values, mediated effect sizes, mediated effect significance, and mediated effect shares. The results of the tests are shown in Table 4.24
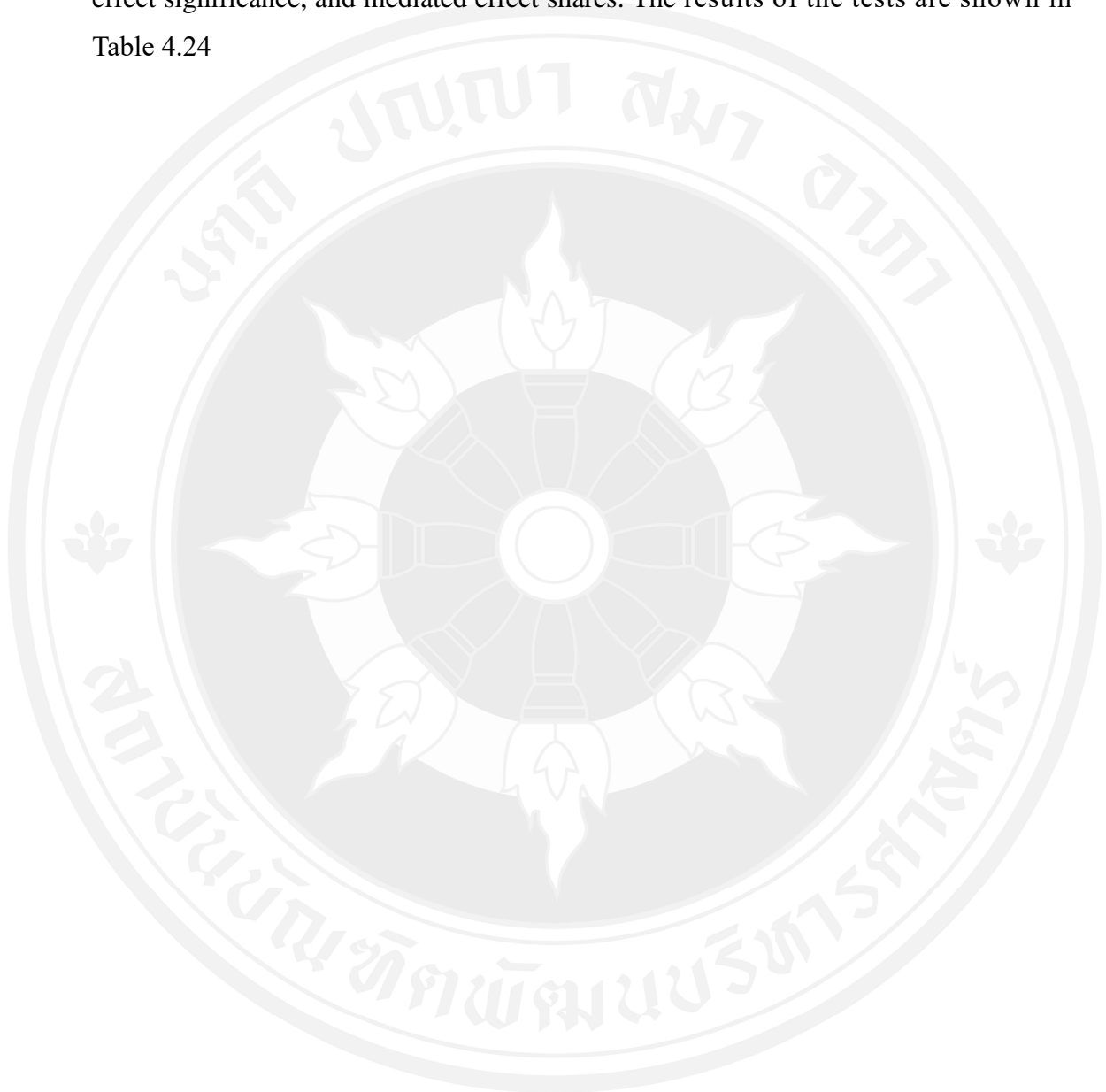
Table 4.24 Ordinary Intermediary Test Results

Intermediary Path	Se Total	Total T	Total P	Effect Type	Effect Value	Intermediary Effect Ratio	Bc95% Lower Limit	Bc95% Upper Limit
H7 Teacher Incentives - Professional Values of Elementary School Teachers - Professional Development of Elementary School Teachers Internalized	0.036	-12.964	0.000	Total effect	-0.470	33.20%	-0.541	-0.399
				Direct effect	-0.314		-0.386	-0.241
				Intermediary Effect	-0.156		-0.227	-0.096
H8 Teacher professional development dynamics - Professional values of elementary school	0.056	-10.094	0.000	Total effect	-0.568	46.49%	-0.678	-0.457
				Direct effect	-0.304		-0.416	0.192
				Intermediary Effect	-0.264		-0.360	-0.171

Intermediary Path	Se Total	Total T	Total P	Effect Type	Effect Value	Intermediary Effect Ratio	Bc95% Lower Limit	Bc95% Upper Limit
teachers - Professional development of elementary school teachers internalized								
H9 Teacher Incentives-Benign Competitive Attitudes-Elementary Teachers' Professional Development Internalized	0.036	-12.964	0.000	Total effect	-0.470	8.94%	-0.541	-0.399
				Direct effect	-0.427		-0.496	-0.359
				Intermediary Effect	-0.042		-0.077	-0.015
H10 Teacher incentives-overly competitive attitudes-	0.036	-12.964	0.000	Total effect	-0.470	6.60%	-0.541	-0.399
				Direct effect	-0.439		-0.507	-0.370
				Intermediary effect	-0.031		-0.060	-0.009

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Intermediary Path	Se Total	Total T	Total P	Effect Type	Effect Value	Intermediary Effect Ratio	Bc95% Lower Limit	Bc95% Upper Limit
internalizing professional development of elementary school teachers				y Effect				
H11 Academic status of elementary school students-Teacher professional development energetics- Elementary school teacher professional development involution	0.034	13.666	0.000	Total effect	0.466	17.17%	0.399	0.533
				Direct effect	0.386		0.318	0.454

Intermediary Path	Se Total	Total T	Total P	Effect Type	Effect Value	Intermediary Effect Ratio	Bc95% Lower Limit	Bc95% Upper Limit
H12 Academic status of elementary school students - Teacher professional development motivation - Professional values of elementary school teachers	0.036	-8.718	0.000	Intermediary Effect	0.080		0.044	0.129
				Total effect	-0.310	33.55%	-0.380	-0.240
				Direct effect	-0.206		-0.275	-0.137
				Intermediary Effect	-0.104		-0.161	-0.057

Note: The results of the analysis show that

Path 1, ｜ t ｜ = 12.964 > 1.96, p < 0.001, mediating effect BC 95% confidence interval (-0.227, -0.096) does not contain 0, indicating that there is a mediating role of professional values of elementary school teachers between teacher incentives and professional development involution, with a mediating effect of 33.2%, and hypothesis H7 holds.

Path 2, ｜ t ｜ = 10.094 >1.96, p < 0.001, mediating effect BC 95% confidence interval (-0.360, -0.171) does not contain 0, indicating that there is a mediating role of professional values of elementary school teachers between teachers' professional development motivation and teachers' professional development involution, with a mediating effect of 46.49%, hypothesis H8 holds.

Path 3, ｜ t ｜ = 12.964 > 1.96, p < 0.001, mediating effect BC 95% confidence interval (-0.077, -0.015) does not contain 0, indicating that there is a mediating effect of benign competitive attitudes between teacher incentives and professional development of elementary school teachers' involution, with a mediating effect of 8.94%, and hypothesis H9 holds.

Path 4, ｜ t ｜ = 12.964 > 1.96, p < 0.001, mediating effect BC 95% confidence interval (-0.060, -0.009) does not contain 0, indicating that there is a mediating effect of excessive competitive attitude between teacher incentives and professional development of elementary school teachers inwardly, with a mediating effect of 6.6%, and hypothesis H10 holds.

Path 5, t = 13.666 > 1.96, p < 0.001, mediating effect BC 95% confidence interval (0.044, 0.129) does not contain 0, indicating that there is a mediating effect of teacher professional development motivation between the academic status of elementary school students and the professional development of elementary school teachers in the involution, with a mediating effect of 17.17%, and hypothesis H11 holds.

Path 6, ｜ t ｜ = 8.718 > 1.96, p < 0.001, mediating effect BC95% confidence interval (-0.161, -0.057) does not contain 0, indicating that there is a mediating effect of teacher professional development motivation between elementary school students' academic status and elementary school teachers' professional values, with a mediating effect of 33.55%, hypothesis H12 holds.

In addition, it can be seen that the hypothesis that the values of the total effect standard error SE, t-value, and BC 95% confidence interval are the same for H7, H9, and H10 indicates the existence of three parallel mediators, and the mediating effects account for 33.20%, 8.94%, and 6.60% from largest to smallest, respectively, and the parallel mediation test will be conducted next to examine whether the effect sizes of the three mediating variables match this.

(2) Parallel Mediation Test

In the model of this paper, there are three parallel mediators between the self variable teacher incentives and the dependent variable elementary teachers' professional development involution: elementary teachers' professional values, benign competitive attitudes, and overcompetitive attitudes. Therefore the effect of parallel mediators is next explored.

Table 4.25 Parallel Mediation Test

Effect Value	Boot SE	Boot LL CI	Boot UL CI
-.1570	.0331	-.2237	-.0963
Professional Values for Elementary School Teachers -.1124	.0291	-.1740	-.0621
Healthy Competition -.0256	.0106	-.0486	-.0072
Excessive Competition -.0190	.0089	-.0400	-.0044
(C1) -.0868	.0314	-.1500	-.0308
(C2) -.0934	.0294	-.1552	-.0408
(c3) -.0066	.0130	-.0332	.0180
(C1) Professional values of elementary school teachers minus healthy competition			
(C2) Professional values of elementary school teachers minus excessive competition			
(C3) benign competition minus excessive competition			

According to the results of the analysis in Table 4.25, it can be seen that the three parallel mediators are elementary teachers' professional values, benign competitive attitudes, and overly competitive attitudes with mediated effect values of -.1124, -.0256, and -.0190, respectively, and their effect size ranking is consistent with the results of the ordinary mediation test.

(3) Chain Intermediary Test

In this paper, H13 is assumed to be a chain mediator and is analyzed using SPSS-process V3.4 as follows.

Table 4.26 Results of Chain Intermediary Analysis

Intermediary Path	Effect Type	Effect Value	Intermediary Effect as A Percentage T P	BC95% Confidence Interval	
				Lower Limit	Upper Limit
Academic status of elementary school students - Teacher professional development motivation - Professional values of elementary school teachers - Professional development of elementary school teachers internalized	Total effect	0.466	32.62% 13.666.000	0.399	0.533
	Direct effect	0.314		0.248	0.379
	Intermediary Effect	0.152		-0.096	-0.215

Intermediate Effect Value BootSE BootLLCI BootULCI

Total intermediary effect .152 .031 .096 .215

Ind1 .043 .018 .012 .083

Ind2 .072 .023 .032 .120

Ind3 .037 .011 .019 .060

(C1) -.029 .031 -.090 .032

(c2) .007 .020 -.034 .048

(c3) .036 .022 -.003 .083

(C1) Ind1 minus Ind2

(C2) Ind1 minus Ind3

(C3) Ind2 minus Ind3

Chain intermediary impact path

Intermediary Path	Effect Type	Effect Value	Intermediary Effect as A Percentage T P	BC95% Confidence Interval	
				Lower Limit	Upper Limit
Ind1 Student academic status -> Teacher professional development motivation -> Professional development of elementary school teachers is involuted.					
Ind2 Student academic status -> Professional values of elementary school teachers -> Professional development of elementary school teachers inwardly.					
Ind3 Student academic status -> Teacher professional development motivation -> Professional values of elementary school teachers -> Professional development of elementary school teachers is involuted.					

As shown in Figure 4.26, t = 13.66 > 1.96, p < 0.001, BC 95% confidence interval (-0.096, -0.215) does not contain 0, indicating that teacher professional development motivation and elementary school teachers' professional values, play a chain mediating role between students' academic status and elementary school teachers' professional development involution, with a mediating effect of 32.62%, hypothesis H13 holds.

In summary, 17 of the 18 hypotheses proposed in the hypothesis section of this paper were verified to be valid and 1 hypothesis was not. The hypotheses were supported as shown in Table 4.27:

Table 4.27 Summary of Support for the Research Hypotheses in this Paper

Assumptions	Content	Results
H1a	Elementary school students' academic status is negatively related to teachers' professional development motivation.	Established
H1b	Elementary school students' academic status is positively associated with teacher professional development involution.	Established
H2a	Teacher professional development motivation is positively related to elementary school teachers' professional values.	Established
H2b	Teacher professional development motivation is	Not

Assumptions	Content	Results
	negatively related to teacher professional development involution.	Established
H3a	Teacher incentives are positively related to elementary school teachers' professional values.	Established
H3b	Teacher incentives are positively associated with attitudes of healthy competition.	Established
H3c	Teacher incentives are negatively associated with overly competitive attitudes.	Established
H3d	Teacher incentives are negatively associated with teacher professional development involution.	Established
H4	Benign competitive attitudes are negatively associated with teacher professional development involution.	Established
H5	Excessive competitive attitudes are positively associated with teacher professional development involution.	Established
H6	Elementary school teachers' professional values are negatively related to teacher professional development endogeneity.	Established
H7	Professional values of elementary school teachers play a mediating role between teacher incentives and the internalization of teacher professional development.	Established
H8	The mediating role of elementary school teachers' professional values between teachers' professional development dynamics and teachers' professional development involution.	Established
H9	Benign competitive attitudes mediate between teacher incentives and teacher professional development involution.	Established

Assumptions	Content	Results
H10	Excessive Competitive Attitudes Mediate Between Teacher Incentives and Teacher Professional Development Internalization.	Established
H11	Teacher professional development dynamics mediates between student academic status and teacher professional development involution.	Established
H12	Teacher professional development motivation mediates the relationship between students' academic status and elementary school teachers' professional values.	Established
H13	Teacher professional development motivation and elementary school teacher professional values play a chain mediating role between students' academic status and elementary school teacher professional development involution.	Established

4.6   Discussion of Results

This chapter provides further validation of the final sample based on the pretest of the questionnaire. Descriptive statistical analysis, data normality test, ANOVA, reliability test, fit correction, factor analysis (EFA, CFA), and model hypothesis testing were completed mainly using SPSS, process plug-in, and AOMS software. The analysis results were consistent with the initial hypotheses and were able to respond to the research questions.

The direct effect effects among seven variables were verified, and three mediating variables all played a role, and the mediating effects were elementary school teachers' professional values, benign competitive attitudes, and overcompetitive attitudes from the largest to the smallest. Using statistical parametric tests, the constructed model was explained, and the rationality and applicability of the SOR theory-based model of professional development involution of elementary school teachers in Yunnan Province were proved, and the factors causing professional

development involution of elementary school teachers in Yunnan Province were attributed, while providing referenceable data support for the proposed countermeasures.

CHAPTER 5

SUMMARY

Based on the analysis in the previous chapter, the research model constructed in this paper correlated well among the variables, and 17 of the 18 research hypotheses were tested. It was demonstrated that students' academic status, teachers' professional development motivation, teachers' incentives, elementary teachers' professional values, and two competitive attitudes are the six main factors that contribute to the involution of elementary teachers' professional development and work together in its formation. Among the three mediating variables, elementary school teachers' professional values play a key role and competitive attitudes have a weak mediating role. This chapter will respond to the four research questions raised in the previous section based on the results of the data analysis, discuss the theoretical significance of the mechanisms of action and the practical guidance of each variable, and propose specific suggested countermeasures.

5.1 Interpretation of Research Question 1: Analysis of the Role of Independent Variables

The first research question posed in this paper is whether three factors, student academic status, teacher professional development motivation, and teacher incentives, can act directly on the professional development of elementary school teachers to involute.

1) Students' academic status

As mentioned earlier, elementary school teachers' professional development is involuted in three main areas: developmental motivation, developmental quality, and developmental evaluation. The model analysis showed that there was a strong and significant relationship between students' academic status and elementary school teachers' professional development involution. The current

evaluation system of elementary school teachers' professional development is unreasonable, taking students' academic status as an important indicator for evaluating teachers' developmental quality. Therefore, the better students' performance, the more motivated teachers are to grow and the higher external evaluation they receive, which pushes up teachers' pursuit of students' academic performance and forms internal consumption of self-development. Above, it is proved that students' academic status can directly influence the professional development of elementary school teachers to internalize, and the hypothesis H1b of this paper is valid.

Also, the analysis of the path test results showed that there was a strong and significant relationship between student academic status and professional development motivation. Student academic status plays an important role in the generation of teachers' differential behaviors and can effectively predict the behaviors of opportunity privilege, emotional support, and instructional control in teachers' differential behaviors. The original hypothesis H1a suggests that when academic status is good, teachers can reduce their time and effort; when students' learning status is poor, teachers must give full play to their professional development initiative and make more adjustments and improvements in teaching methods and approaches to promote student achievement. At the same time, the factor of "out-of-school training" shows that elementary school teachers generally agree that out-of-school training can, to a certain extent, compensate for students' lack of knowledge in school and reduce the pressure of teachers in school, which may also lead to the influence of elementary school teachers' professional development motivation. Based on the above analysis, students' academic status is negatively related to teachers' professional development motivation, and hypothesis H1a holds.

2) Teacher professional development dynamics

The regression analysis showed that the significance between teachers' professional development motivation and elementary school teachers' professional values was good. The hypothesis H2a of this paper holds and also verifies the findings of previous scholars. Teacher professional development motivation is a personal quality and behavioral state associated with autonomy and internal motivation, including personal motivation and environmental motivation. It can be seen that, with the social shift of elementary school teachers' professional development, professional

development motivation has a more critical role in promoting teachers' professional development. Improving elementary school teachers' self-efficacy and creating a constructive social and cultural environment can promote the stable formation of elementary school teachers' professional values and is an effective way to ensure the quality of their professional development.

Regarding the explanation of the unsupportable hypothesis: this paper proposes hypothesis H2b that teacher professional development dynamism shows a negative relationship with teacher professional development involution. Based on the data analysis, it is clear that in the hypothesis of a negatively correlated relationship, the two variables are not significantly correlated, and it also indicates that the increase in professional development motivation of elementary school teachers does not prevent their involution without the intervention of other variables. Therefore, the original hypothesis H2b is not valid. The relationship between the two after the inclusion of mediating variables will be continued later.

3) Teacher incentive mechanism

From the relationship of variables, it can be seen that the overall experience of elementary school teachers' incentive mechanism in Yunnan Province is not positive, which is closely related to the serious shortage of indicators, exaggerated evaluation, excessive competition, and the "honorary title" of title evaluation conditions, and teachers' poor experience of professionalism of title evaluation.

Within the framework of the incentive mechanism dominated by administrative logic, the current quantitative evaluation mechanism in the elementary school context is dominated by administrative forces, and the assessment and evaluation methods are relatively homogeneous. In the three schools selected in this paper's sample, job title allowances accounted for more than 65% of the total, while comprehensive consideration of teaching performance and individual competencies was lacking. The analysis shows that the reason for teachers' general overwork is due to the increase in external pressure and constraints such as administrative directive-oriented performance appraisal and quantitative evaluation. The time pressure and anxiety brought about by job competition can negatively affect teachers' physical and mental health, their life status, and their sense of belonging to the organization. The hypothesis H3d proposed in this paper is valid and confirms the findings of previous

scholars that teacher incentives can act directly on the professional development of elementary school teachers to involute, and the more reasonable and perfect the incentives are, the lower the degree of professional development of teachers to involute. Taken together, the analysis for research question 1 was confirmed.

5.2 Explanation of Research Question 2: Analysis of the Role of the Mediating Variable "Healthy Competition, Excessive Competition"

The second research question posed in this paper is whether benign versus hypercompetitive attitudes, which have been suggested to be influential in different work populations, play a role in the process of professional development involution of elementary school teachers.

1) Direct effect

A direct hypothesis test confirmed that both benign competitive attitudes and overly competitive attitudes can directly contribute to elementary teachers' professional development involution, with a negative correlation between benign competitive attitudes and elementary teachers' professional development involution, and a positive correlation between overly competitive attitudes and elementary teachers' professional development involution.

Teacher burnout was significantly negatively correlated with benign competitive attitudes and positively correlated with overcompetitive attitudes, and the weaker the benign competitive attitudes and the stronger the overcompetitive attitudes of elementary school teachers, the higher their burnout levels. ". Therefore, hypotheses H4 and H5 hold in this paper, responding to research question 2.

2) Intermediary effect

A mediation test confirmed that benign competitive attitudes and overly competitive attitudes can play a mediating role between teacher incentives and the professional development of elementary school teachers' involution.

Likewise, competitive attitudes have an impact on employee behavior; benign competitive attitudes are a catalyst for organizational harmony and performance improvement, while excessive competition is undoubtedly a destructive factor in organizational culture. This further reveals that when performance is

combined with internal and external motivation and works, individuals are more likely to hold a good, positive belief in environmental challenges, including coping with pressure from competition, and therefore hold a virtuous competitive attitude; when the motivational approach focuses only on external rewards or only on internal spiritual shaping, it can cause individuals to develop low efficacy and choose to combat and belittle others to improve their own form of self, thus leads to the creation of overcompetitive attitudes. Excessive competition often seriously affects the harmony of interpersonal relationships and culture of the organization, and in the long run, will cause hindrance to the development of the organization.

In summary, the results of the data analysis in this paper verify the conclusions of other researchers, and the two hypotheses H9 and H10 in this paper are valid and complementary to research question 2.

5.3   Explanation of Research Question 3: Analysis of The Role of the Mediating Variable "Professional Values of Elementary School Teachers"

The third research question posed in this paper is to explore the mechanism of action between the independent and dependent variables of elementary school teachers' professional values as an individual subjective consciousness that is consistent with the "organism" position in SOR theory.

The mediation test showed that there was a significant effect of elementary school teachers' professional values between the independent variable teacher motivation and the dependent variable elementary school teachers' professional development involution, and a significant effect of elementary school teachers' professional values between the independent variable teacher professional development motivation and the dependent variable elementary school teachers' professional development involution.

At the same time, since no literature was collected on the relationship between the independent variable of students' academic status and the mediating variable of elementary school teachers' professional values to support their direct effect, the model added "teachers' professional development motivation" as a mediator between

them, forming a general mediator H12, and a chain mediator H13, which ultimately influenced the dependent variable The model also includes the mediator H12 and the chain mediator H13, which ultimately influence the dependent variable. The analysis of the data showed that teacher professional development motivation mediated the relationship between students' academic status and elementary school teachers' professional values as proposed in H12, while teacher professional development motivation and elementary school teachers' professional values mediated the relationship between students' academic status and elementary school teachers' professional development in a chained manner as proposed in H13, which met the evaluation criteria of each indicator. Hypotheses H12 and H13 were valid.

It can be confirmed that the professional values of elementary school teachers constructed by the three dimensions of self-actualization, organizational safety, and physical and mental health in this paper can reflect teachers' beliefs and attitudes toward their essential work. The stability or otherwise of elementary school teachers' professional values plays a direct role in the degree of teachers' professional development involution, and at the same time, it plays a mediating role between teachers' motivation and involution, and professional development motivation and involution. Based on the specificity of education and the teaching profession, teachers' professional values should be service-oriented, self-fulfilling and self-developing, so that they can maintain a good mental state and the right way to deal with various changes in their work, achieve free and autonomous professional development, and avoid involution.

As a result, hypotheses H6, H7, and H8 hold true, explaining research question 3, validating previous findings, and identifying mediating effects between students' academic status and teachers' professional values, complementing the scholarship of other researchers.

5.4 Interpretation of Research Question 4: The Mediating Role of Teachers' Professional Development Dynamics

Research question 4 in this paper is whether teacher professional development dynamics play an impact between student academic status and teacher professional development involution.

From the previous test, it is clear that teacher professional development motivation plays a positive mediating role between students' academic status and the professional development of elementary school teachers' internalization. The previous section has analyzed and verified that students' academic status shows a negative relationship with teachers' professional development motivation, and students' academic performance triggers teachers to form different self-teaching expectations, which in turn indirectly influences teachers to make higher demands on their own development. indicates that when academic status is better, teachers can invest less time and energy and their motivation is not fully exercised; when students' academic status is worse, teachers must give full play to their professional development dynamics and make more adjustments and improvements in teaching methods and approaches in order to promote student achievement and get caught up in personal development in-volume. Meanwhile, the original hypothesis H2b, which proposed that teachers' professional development dynamism and teachers' professional development involution show a negative correlation, has been rejected in the previous section, which shows that the original hypothesis H11 is valid. Research question 4 was confirmed that teacher professional development dynamism played a mediating role between student academic status and teacher professional development involution.

5.5 Combined Explanation of Mediating Variable Effects

A comprehensive analysis of the mediation tests showed that the professional values of elementary school teachers play a fully mediating role. In the previous explanation of the unsupportable hypothesis H2, the new hypothesis H8 was formed by adding "professional values of elementary school teachers" as a mediating

variable. positive negative influence role, and that correct and reasonable professional values can weaken the degree of involution.

Second, benign competitive attitudes and overcompetitive attitudes play a partially mediating role, with a low mediating effect ratio. In fact, the negative effects from institutional environmental pressures are, to some extent, masked by teachers' positive feelings of internal motivation for career pursuits, and the sense of excessive competition is gradually internalized and misinterpreted as benign competition for personal effort. Elementary school teachers have a much lower sense of personal accomplishment and are more inclined to attribute their lack of success at work to their own lack of competence, resulting in a much lesser sense of job accomplishment. Thus, competitive attitudes still need to be considered as an important indicator.

The analysis of the role of mediating variables also indicates that individual subjective will, as a cognitive mediator, plays a key conscious dominant role in the production of the final behavioral outcome, consistent with the mechanism of action of SOR theory.

5.6   Conclusion and Countermeasures

5.6.1   Research Findings

In summary, it can be seen that the internalization of education is a kind of anxious state in which the surface "prosperity" and the substance "stagnation" are mixed together in the development of the subject (Long, 2021). Tang, and Li (2021), elementary school teachers' motivation for professional development is limited under the existing assessment and incentive mechanism, and their professional values are deviated and excessive competition is advocated, which eventually leads to a lack of motivation for professional development, a single evaluation of professional development, and a weakened quality of professional development, and they fall into an involutional pattern.

The innovation of this paper is to combine the SOR model, based on the traditional theory of involution, to shift the research object from the profession to the individual, add the key influence of personal values and competitive attitudes on the

degree of involution, and supplement the formation mechanism of the theory of involution. While traditional theories focus on explaining the universal manifestations and consequences of involution, this paper focuses on the phenomenon of professional development involution in elementary school teachers' professions in Yunnan Province, and designs research hypotheses and models based on the specific manifestations that fit the characteristics of involution in order to deduce the causes of professional development involution in elementary school teachers. The findings revealed that for individuals, excessive competition dominated by self-awareness is closely related to the formation of involution, while when individuals in a group enter the state of involution, it pushes up the industry involution in the whole field.

The lack of a scientific and reasonable salary system and competition mechanism in the process of individual teachers' professional development; the lack of differentiated incentives and scientific performance assessment mechanisms; the above-mentioned factors have caused individual teachers' professional values to deviate and excessive competition to prevail, which ultimately exacerbates the effect of professional development in the elementary school teachers' group.

The root cause of this is that with the reform of government office efficiency and streamlining, redundant and inefficient posts will be eliminated, and the elementary school teachers, as a group of institutions, will also develop in the direction of streamlining and efficiency; the current quantitative evaluation mechanism of elementary school teachers in Yunnan Province is dominated by administrative forces, and teachers can only cope with the pressure by extending their working hours, which causes damage to their physical and mental health. At the same time, a large number of excellent college graduates have entered the primary education profession and become the main force of young teachers, creating a greater competitive pressure, academic competition, gender balance, interdisciplinary teaching in addition, new and old teachers will continue to find new directions for their efforts under the normalized competition. In short, the future of elementary school teachers in the establishment of positions will continue to reduce from the number, forming a more severe professional development of internalization.

5.6.2 Research Response

Combining the above analysis, this paper proposes the countermeasures of "guidance in individual awareness and intervention in evaluation mechanism".

1) Correctly guide expectations

With their training and expertise, experience and insight, as well as professional concern and commitment, elementary school teachers influence the learning process of their students and work to promote the free and comprehensive development of the individual teacher. Teacher growth requires a greater focus on "professionalism," guiding elementary teachers' role perceptions, deeper understanding of the profession and its developmental changes, reasonable regulation of teacher expectations, and attention to the physical and mental health of elementary teachers, especially their psychological health.

2) Ensure fair incentive

The key point is to improve the fairness and professionalism of the teacher incentive mechanism, reform the promotion and assessment mechanism of elementary school teachers, eliminate the difference in treatment between "within the establishment" and "outside the establishment", ensure the scope of teacher appointment and evaluation content is comprehensive, improve the supervision of title evaluation, and improve the level of government. The governmental level of the department ensures the fairness of performance distribution, builds a comprehensive evaluation index system suitable for teachers' work, and enhances the professionalism of job evaluation; promotes the conceptual shift and strategic optimization of elementary school teachers' incentives, follows the basic principles of differential incentives, fair competition and the combination of material and spiritual incentives, fully balances the relationship between work content and salary performance, highlights the intrinsic rewards of work, and makes teachers feel fair and well-treated, and gain a high sense of professional identity and job satisfaction.

3) Reducing the burden on teachers

Respect the individual differences of students and teachers, carry out stratified education for students as early as possible, improve the secondary and higher education system that is compatible with the "double reduction policy" as soon as possible, and fundamentally change the "score-based" selection mechanism for

further education; finally, adopt positive administrative interventions to Lastly, we should take active administrative interventions to reduce the interference of non-teaching things and cancel non-essential inspection and exchange activities; for non-examined subject classes, such as "art, music and sports", we should introduce formal third-party organizations and use social resources to assist students in after-school tutoring, so as to reduce the workload of elementary school teachers at the institutional level.

To summarize, at the institutional level, there is an urgent need for diversified development of teaching evaluation models; at the teacher level, there is a shift from resourceful to inspiring teachers, giving students the opportunity to find meaning in learning and the courage to break through educational boundaries; and at the social level, competition and development are properly guided and self-worth identity transformation is sought (Xu & Ma, 2021).

5.6.3 Research Limitations

It can be seen that the theory of involution provides a good analytical framework of explanatory power for this paper, and the findings are conducive to broadening the research ideas of elementary school teachers' professional development. The sample selected for this paper is three first-class model schools in Yunnan Province, and the research results can reflect the situation of this category of elementary school, which is very revealing for the professional development leadership and teacher team building of the schools concerned. However, as mentioned earlier, the sample schools occupy certain advantages in terms of balanced allocation of educational resources and other aspects, and the sample is homogeneous; however, the actual situation of teachers' professional development in schools of other grades should be viewed differently, and according to the current grade measurement in Yunnan Province, the development of second and third grade schools has not yet reached the highest level, and their educational resources are relatively backward, so the findings of this paper have some limitations. In practice, each school can use the developmental goal evaluation to supplement and improve in its own situation. For schools of all levels, which are still in the stage of continuous improvement, they can

draw on the findings of the sample schools in the development process to circumvent the internalization of teachers' professional development.

5.6.4 Future Research Directions

In the future, it can be further subdivided into different geographical locations such as urban, rural, and remote areas to explore the impact of regional economic development levels on the professional development of elementary school teachers' involution; meanwhile, schools at different development levels can be sampled separately to explore more detailed and comprehensive teacher management strategies. In addition, the three variables of incentives, professional values, and competitive attitudes are common measures that exist across industries, and the findings and countermeasures of this paper are also applicable in the study of involution in other fields.
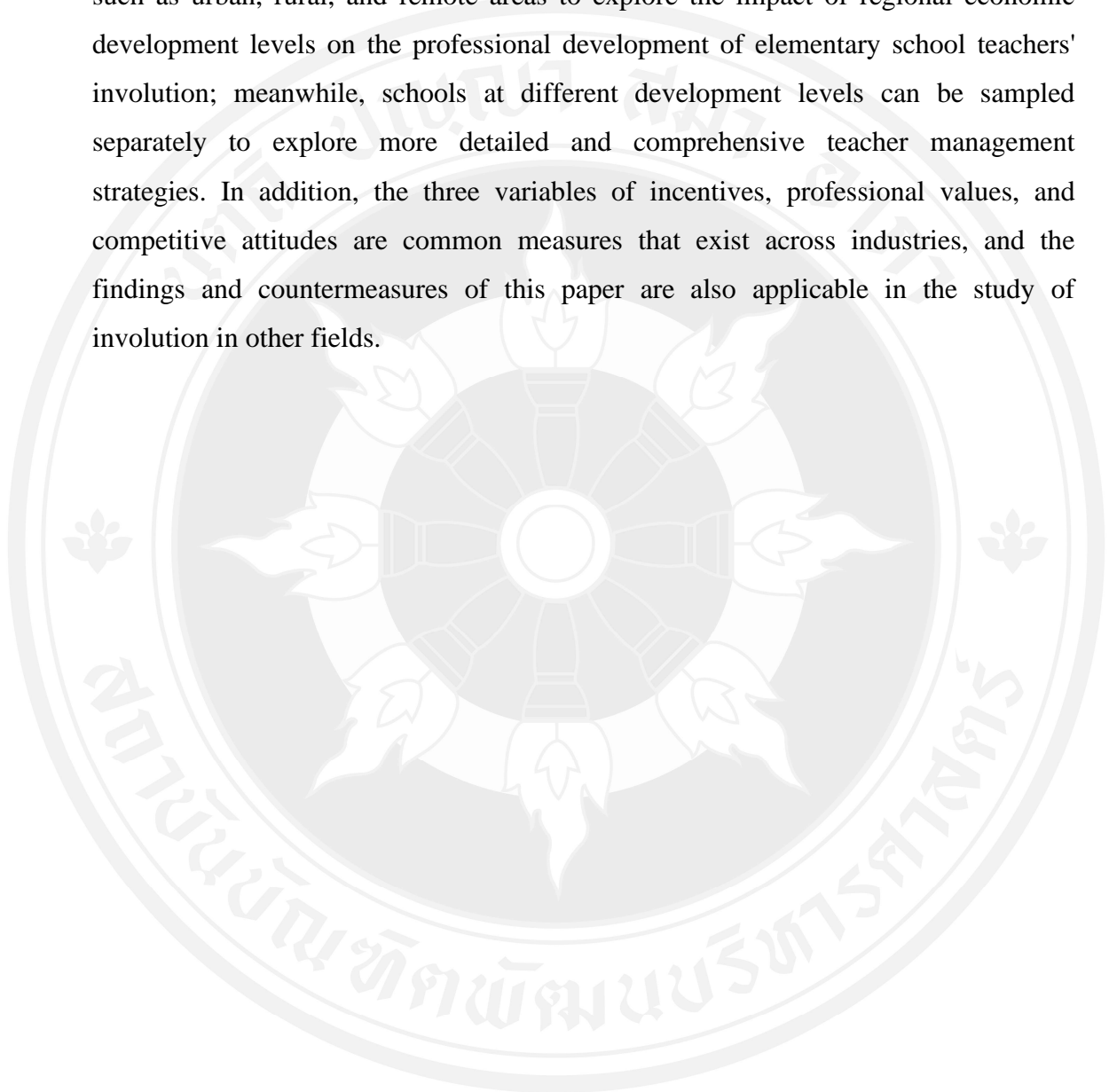
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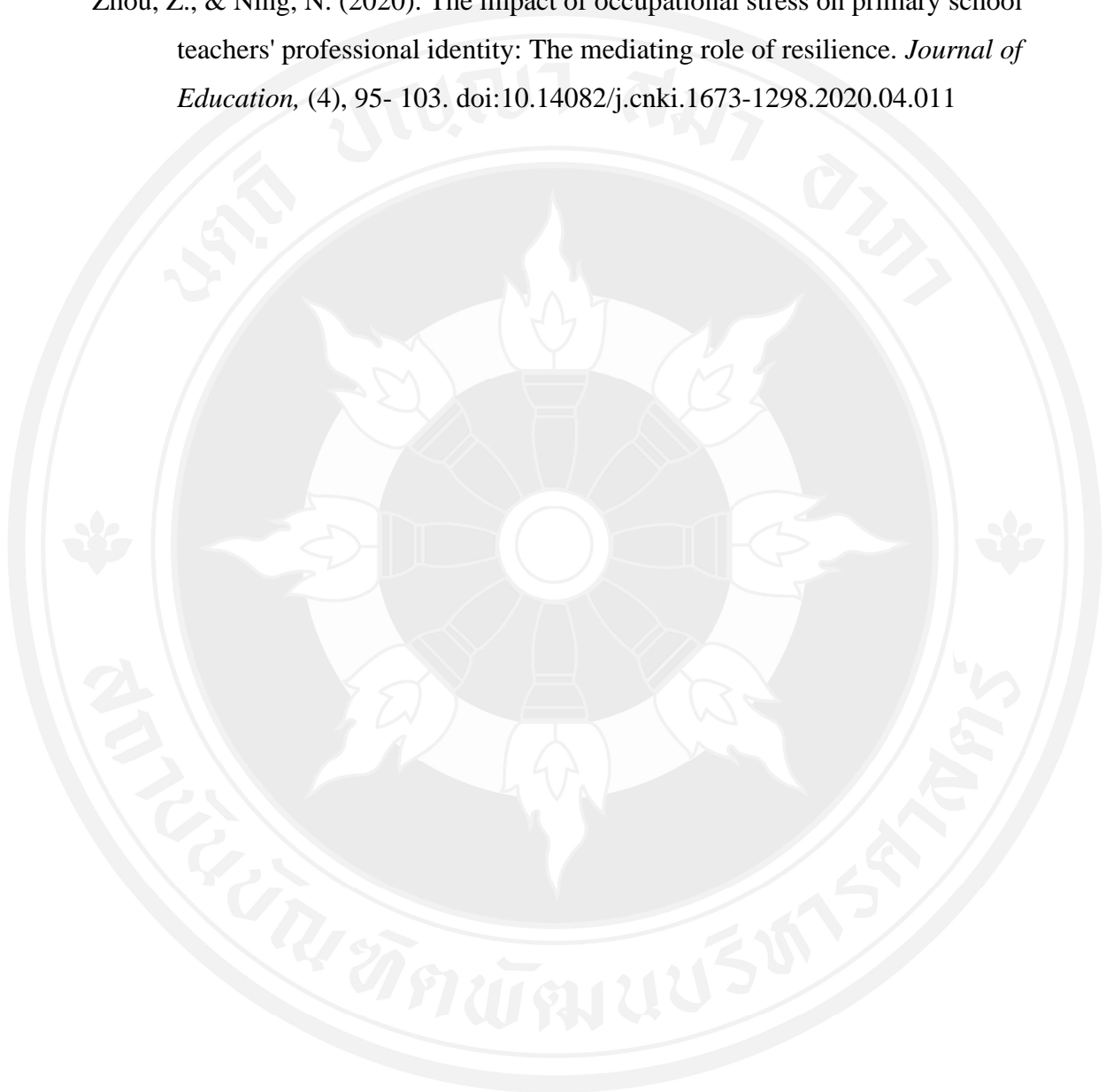
APPENDIX

Questionnaire on the Causes of Internalization of Professional Development of Primary School Teachers

Dear teachers.

Hello! The research group is conducting a study on the causes and countermeasures of professional development of elementary school teachers' internalization, and your feedback is very important to this study. Please fill out the questionnaire according to your actual teaching work and real ideas. The questionnaire is anonymous, all questions are compulsory, and the results will be used for academic research only. We sincerely thank you for your support and cooperation.

Part I Basic Information (4 questions in total)

1. Your education (Single-choice)
   ○ Specialist ○ Bachelor's degree ○ Master's degree and above ○ Others

2. Your teaching discipline (Single-choice)
   ○ Language, mathematics, English ○ Audio, physical education, and aesthetics ○ Civics, labor and technology ○ Information, science

3. Your years of teaching experience (Single-choice)
   ○ Less than 5 years ○ 5-10 years ○ 10-15 years ○ More than 15 years

4. Your job rank (Single-choice)
   ○ Outside the establishment ○ Second grade teacher ○ First grade teacher ○ Senior teacher

Part II Investigation of Causes (44 questions in total)

This part is a scoring question, please assess the corresponding score and fill in the corresponding numbers according to your personal and your unit's actual situation.

(1 = strongly disagree 2 = disagree 3 = uncertain 4 = agree 5 = strongly agree)

1. The school can provide me with more training and further training opportunities to achieve self-improvement (Please fill in the number 1-5 to score)

   1 for strongly disagree, 5 for strongly agree, your rating is _____

2. I have clear and planned goals and objectives for my work (Please fill in the numbers 1-5 to score)

   1 for strongly disagree, 5 for strongly agree, your rating is _____

3. I think working in my current school can reflect my value (Please fill in 1-5 numbers to score)

   1 for strongly disagree, 5 for strongly agree, your rating is _____

4. My strengths have been brought into play in education and teaching (Please fill in the numbers 1-5 to score)

   1 for strongly disagree, 5 for strongly agree, your rating is _____

5. I know what kind of potential I have (Please fill in the number 1-5 to score)

   1 for strongly disagree, 5 for strongly agree, your rating is _____

6. In order to realize new ideas in teaching, I will find ways to get the required resources (Please fill in the numbers 1-5 to score)

   1 for strongly disagree, 5 for strongly agree, your rating is _____

7. I think it is necessary for students to attend extra-curricular classes selectively
(Please fill in the numbers from 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

8. I think that students who attend off-campus tutoring have better classroom
performance in school (please fill in the numbers 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

9. Students participating in off-campus tutoring can reduce my teaching load ()
(Please fill in the numbers 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

10. I am satisfied with the performance of the students in the class I teach (Please fill
in the number from 1 to 5 to rate)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

11. Students can cooperate with my classroom teaching work (Please fill in the
number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

12. I can skillfully teach the important and difficult points of subject knowledge so
that students can understand the content (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

13. I will choose appropriate teaching strategies to teach according to students' level
and characteristics (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

14. I will evaluate a student from many aspects, not only academic achievement
(Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

15. I like to change or try different teaching methods in my teaching (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

16. As a teacher, my role is to assist students in discovering and exploring (Please fill in 1-5 numbers to score the questions)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

17. As a teacher, I must continue to learn and continuously explore the content of the curriculum and materials (Please fill in the numbers 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

18. I can proudly introduce my work (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

19. I think teachers are well respected by parents (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

20. I feel the happiness of being a teacher (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

21. When working on a problem, I can quickly gather relevant information and solve it (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

22. I can do self-guidance, self-motivation, self-evaluation and reflection in time (Please fill in 1-5 numbers to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

23. I will give my opinion on matters related to the curriculum and teaching of the school (Please fill in the numbers 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

24. I actively seek to participate in the management decisions of my school (Please fill in the numbers 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

25. The quality of my work is higher than the standard specified in this post (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

26. I am satisfied with the current salary level (Please fill in 1-5 numbers to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

27. I understand the salary system of the unit and the salary difference of different positions (Please fill in the numbers 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

28. I think the performance appraisal standard is easy to achieve (Please fill in 1-5 numbers to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

29. The unit treats me with great respect (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

30. Organizational recognition makes me feel a sense of accomplishment (Please fill in the number from 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

31. I hope to get recognition and support from experts, leaders, parents, students and colleagues (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

32. I like competition because it gives me the opportunity to discover my own ability (Please fill in the numbers 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

33. Competition makes me show my potential and talent, so I feel it makes me happy (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

34. Failure in competition makes me feel less valuable as a person (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

35. I can disregard the loss of other aspects, as long as I can gain an advantage in the competition (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

36. Work can make me more social (Please fill in 1-5 numbers to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

37. I think my work is very meaningful and I can realize my ideal (Please fill in 1-5 numbers to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

38. My job has a good insurance and welfare system (Please fill in the number 1-5 to score)

    1 for strongly disagree, 5 for strongly agree, your rating is _____

39. My job will not be easily dismissed or laid off (Please fill in the number 1-5 to score)

 1 for strongly disagree, 5 for strongly agree, your rating is ____

40. Leaving the unit is a very difficult thing for me (Please fill in the number 1-5 to score)

 1 for strongly disagree, 5 for strongly agree, your rating is ____

41. I feel very tired inside (please fill in the number 1-5 to score)

 1 for strongly disagree, 5 for strongly agree, your rating is ____

42. The definition of professional success cannot exclude family harmony and happiness (please fill in the number 1-5 to score)

 1 for strongly disagree, 5 for strongly agree, your rating is ____

43. The work achievement is great, if there is no healthy body, it is not considered a professional success (please fill in 1-5 numbers to score)

 1 for strongly disagree, 5 for strongly agree, your rating is ____

44. Professional success is to have enough time to enjoy life after work (Please fill in the number 1-5 to score)

 1 for strongly disagree, 5 for strongly agree, your rating is ____

BIOGRAPHY

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