

## Article

# Proactive Personality and Career Adaptability of Chinese Female Pre-Service Teachers in Primary Schools: The Role of Calling

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**Abstract:** Career adaptability has attracted extensive attention from international scholars as one of the important factors predicting the future sustainability of individuals. Proactive personality and calling have a positive influence on individual career development and life satisfaction, with reference to promoting the sustainable development of individuals. This study focuses on the positive effects of career adaptability and calling on shaping female primary school pre-service teachers and provides suggestions for training excellent elementary school teachers and building quality primary education. This study investigated the relationship between proactive personality, calling, and career adaptability among 707 female pre-service elementary school teachers in Chinese universities. The results showed that proactive personality positively predicts calling and that proactive personality and calling positively predict career adaptability. Calling partially mediated the relationship between proactive personality and career adaptability. Therefore, it is possible to enhance calling by cultivating the proactive personality of female pre-service teachers in elementary schools, thus further promoting the career adaptability of this group. On this basis, effective strategies should be adopted in the future to improve the career adaptability of female pre-service teachers in elementary schools for the sustainable development of this group.

**Keywords:** female; pre-service teachers; primary school; proactive personality; career adaptability; calling



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## 1. Introduction

In China, pre-service teachers are generally college students majoring in education, trained by universities at all levels, and they are the future teacher reserve in schools and the new force in the construction of a highly qualified national teaching force [1,2]. Universities that train teachers always provide pre-service teacher training for teaching children various subjects, including language and mathematics, etc. [3]. Pre-service teachers have the status of “prospective teachers”, and their professionalism has an important impact on their future career development [4,5]. Over the past few decades, researchers have paid increasing attention to the career development of pre-service teachers. Researchers in various countries have conducted extensive studies on various aspects of pre-service teachers, mainly related to the following major areas. First, attention was paid to pre-service teachers’ career development, such as teaching behavior and teaching experience [6,7]. Second, it focused on the moral development of pre-service teachers, such as perceptions of teacher morality and teacher identities [8,9]. Third, emphasis was placed on the pre-service mental health of teachers, such as psychological resilience, well-being, mindfulness, and emotional regulation abilities [10].

Primary education plays a critical part in the future long-term improvement of students' lives, and the key to the maintainable improvement of primary education lies within the quality of the preparation of pre-service primary school teachers. Especially in China, pre-service teachers are usually trained by various normal universities [11]. However, some studies have found that Chinese pre-service elementary school teachers lack concern for their own career development, do not identify enough with their profession, and lack calling [12,13]. The majority of pre-service teachers are female, so it is important to focus on and study the career development of female pre-service teachers in elementary schools [8,14]. Career adaptability alludes to an individual's capacity to alter themselves to perform unsurprising errands in preparation for and for cooperation in work parts and erratic assignments caused by changes in work conditions from a sustainability viewpoint [15]. Proactive personality is a relatively stable personality or behavioral disposition in which individuals take positive actions to influence their surroundings in a way that is positive for organizational and personal development [16,17]. Calling is a strong and meaningful enthusiasm that individuals experience while working in a specific field [18]. All these factors are imperative variables that impact the improvement of one's career. Currently, there is a need for inquiry about the relationship between these factors among female pre-service primary school teachers.

Above all, this study aimed to use the Career Adapt-Abilities Scale—Short Form as a research instrument to obtain cross-sectional data to assess the relationship between career adaptability, proactive personality, and calling among Chinese female pre-service teachers in elementary schools, thus expanding the scope of the scale's use. Furthermore, using Chinese female pre-service primary school teachers as the study population enriches the scientific understanding of the relationship between career adaptability, proactive personality, and calling variables in this group. Last but not least, given the challenges within the proficient improvement of female pre-service teachers in primary school, this paper proposes feasible educational strategies to promote and ensure their sustainable development in their careers. Based on the above research objectives, the rest of the paper will be organized as follows. In the Literature Review section, we briefly explain the theoretical basis of this paper, and we focus on reviewing the literature on career adaptability, proactive personality, and calling and their relationships. In the Materials and Methods section, we describe in detail the source of participants, sample size, tools, and data analysis methods for this study. In the Results section of this study, we discuss the results of the data analysis. Finally, we provide an overview of the study findings and indicate the limitations of the study and possible directions for future research.

## 2. Literature Review

### 2.1. Career Adaptability

Career adaptability is a dynamic, multidimensional variable that empowers people to meet the requirements of career development through adaptable adapting styles and is a central concept in career construction theory [19]. Career construction theory holds that individual career development is actually a dynamic construction process of pursuing mutual adaptation of subjective self and objective external world [20]. The career construct theory with career adaptability as the core focuses on the individual and attaches importance to the influence of individual characteristics on individual career development [21]. It can be seen that the career construction theory argues that in the uncertain modern society, an individual's career needs to be developed and managed by themselves, especially for college students [22].

Career adaptability is made up of four primary components: concern, control, curiosity, and confidence [23]. Career concern alludes to people's career prospects and plans for the future [16]. Career control is related to an individual's capacity to embrace career responsibility, which means that an individual strengthens their career control through hard work and self-discipline [24]. Career curiosity indicates an individual's exploration of potential career opportunities, which leads to increased self-awareness and refinement

of career information to shape the possible self [25]. Career confidence emphasizes the individual's positive perception of pursuing career success and the confidence to make effective career decisions regardless of the risks and challenges faced [16].

Career adaptability is important for an individual's development throughout their career, and an expanding number of studies have centered on the effect of career adaptability on an individual's work and learning [23]. Some researchers have found factors positively associated with the presentation of employee career adaptability, such as emotional intelligence, optimism, psychological safety, career satisfaction, perceived career success, job satisfaction, and life satisfaction [26–31]. In the field of education research, a handful of observational studies have determined that college students' career adaptability is related to many positive career variables, such as academic persistence, academic satisfaction, future work self, and self-esteem [32,33]. However, few researchers have focused on which variables affect the career adaptability of pre-service teachers who are college students.

### 2.2. Proactive Personality

Proactive personality is concerned with individuals taking positive action to influence their surroundings, thereby promoting personal development. Proactive individuals are more likely to adopt adaptive behaviors rather than being passively subjected to their environment [34,35]. In addition, they, more often than not, effectively select, make, and impact the work environment to extend the probability of career success [36]. Thus, people who are proactive are more likely to make progress at work and succeed in their careers.

Numerous studies have shown that proactive personality is a key variable influencing people's career development [37,38]. Employees' proactive personality significantly predicts job satisfaction, resilience, and creativity [39–41]. In addition, variables such as mindfulness and thriving at work are all positively correlated with employees' proactive personality [42,43].

Specifically for a group such as college students, studies have shown that proactive personality among college students is adversely related to career decision-making difficulties, stress, anxiety, and depression, whereas it emphatically correlated with meaning in life and life satisfaction [39,44]. Other studies have found similar significant correlations between college students' proactive personality and career outcomes such as entrepreneurial intention, entrepreneurial behavior, and professional self-efficacy [45,46].

### 2.3. Calling

Calling has attracted considerable attention for several decades. Scholars from different countries have studied calling in different groups, such as doctors and musicians [47,48]. Many concepts have been proposed about calling, some of which are one-dimensional and some are multidimensional [49–52]. Duffy and Dik (2013) point out that calling is best understood as a multidimensional structure [53]. Zhang et al. (2015) considered calling as a sacred and sublime term based on traditional Chinese culture, a term that includes the three aspects of altruism, guiding force, and meaning and purpose [54]. Calling within the current thinking is often described as a transcendent summons, originating outside the self, based on a way of gaining a sense of purpose or meaning in approaching a specific career role, and using other-oriented values and goals as a primary source of motivation [55].

The predictors and outcomes of calling have long been the focus of many researchers [56]. Calling was moderately related with career commitment, job satisfaction, and organizational commitment, and weakly related with withdrawal intentions [57]. In an overview of 232 working adults in Germany, the presence of calling and living a calling were significantly related to work assets in terms of decision-making autonomy, task significance, and social support at work [58]. There are many variables related to the calling, such as meaningful work [59].

In samples of undergraduate students from the United States and South Korea, researchers speculated that perceiving a calling was positively correlated with life satisfaction [60]. Another survey, using a sample of Malaysian college students, found a positive

relationship between calling, resilience, and work readiness [61]. From previously published studies, it is not difficult to discover that researchers have focused more on the aftereffects of calling but less on the antecedents of calling. In other words, researchers have paid less attention to the formation of calling.

#### 2.4. The Relationship among Proactive Personality, Calling, and Career Adaptability

##### 2.4.1. The Relationship between Proactive Personality and Career Adaptability

Based on previous studies, it is easy to discover that proactive personality is a strong predictor of career adaptability [16,62]. The relationship between university students' proactive personality and career adaptability has also been investigated, for example, the proactive personality of Chinese university students positively predicted future work self and career adaptability [63,64]. Previous results have shown that proactive personality is one of the most influential antecedents of career adaptability.

##### 2.4.2. The Relationship between Proactive Personality and Calling

In spite of the fact that a few studies have indicated that proactive personality emphatically predicts calling, inquiries on the relationship between proactive personality and calling remains scarce. Proactive personality, that is, a person's tendency to take and keep up action to influence the surroundings [17], appears to be an important contributor to the formation of calling. In other words, more proactive people are more likely to proactive activity, control their environment, and tirelessly seek after their objectives. One study inspected the relationship between calling and proactive personality utilizing Chinese college students and found a positive correlation between these two variables [65].

##### 2.4.3. The Relationship between Career Adaptability and Calling

The relationship between career adaptability and calling has been frequently studied, with calling positioned temporally before career adaptability. Praskova et al. (2014) asserted that calling and career adaptability have a direct positive relationship, according to which calling is best situated as an indicator of career adaptability instead of as a result of it [66]. Douglas and Duffy (2015) contended that calling is related to career decision-making self-efficacy, in portion due to expanded career concern, curiosity, and career confidence [67]. A few other researchers have, moreover, found a positive relationship between career success and career adaptability [68–70].

In conclusion, based on the discussion of the impact of proactive personality on calling and the role of calling within the improvement of career adaptability, calling may be an interceding variable within the impact of proactive personality on career adaptability. To put it simply, individual proactive personality can shape calling, which in turn facilitates the development of adaptive resources to improve career adaptability. Therefore, this study was conducted with female pre-service teachers in primary schools in an attempt to study the relationship between proactive personality, calling, and career adaptability in this population.

Given the above literature review, this study specifically raises the following three questions:

- Can proactive personality significantly and positively predict career adaptability?
- Can calling significantly and positively predict career adaptability?
- Does the calling play a moderating role between proactive personality and career adaptability?

Based on the findings of the previous scholars, we propose the following hypotheses.

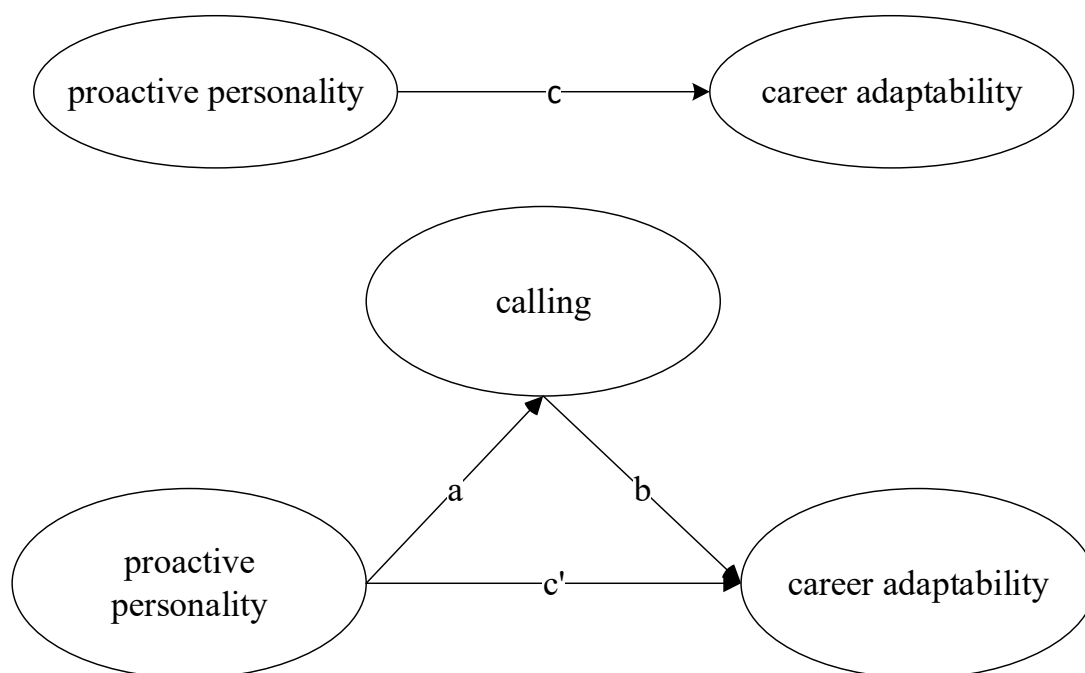
**Hypothesis 1 (H1).** *Proactive personality and calling of female pre-service primary school teachers are positively related.*

**Hypothesis 2 (H2).** *Proactive personality and career adaptability of female pre-service primary school teachers are positively correlated.*

**Hypothesis 3 (H3).** *Calling and career adaptability of female pre-service primary school teachers are positively correlated.*

**Hypothesis 4 (H4).** *Female pre-service primary school teachers' calling partially mediates the relationship between proactive personality and career adaptability.*

The specific hypothetical model is shown in Figure 1, a, b, and c represent direct effect, and c' is an indirect effect.



**Figure 1.** The hypothetical model for this study.

### 3. Materials and Methods

#### 3.1. Participants

All data for this quantitative study came from a university in an eastern coastal city in China. After developing the questionnaire, we contacted school counselors and invited to help us share our online survey with students. Probability sampling combined with purposive sampling was used in this study. All of these college students majored in primary school education and belonged to the group of pre-service teachers. In this study, a sample of 1003 pre-service teachers was collected, of which 707 were valid, and the valid recall rate of the sample was 70.5%. Of the total valid sample, the number of freshmen was 193, the number of sophomores was 132, the number of juniors was 223, and the number of seniors was 252. The data collection time period for this study was from June to July 2021. All university students who participated in the questionnaire were notified that their personal information will be kept confidential and that the data utilized in this study will be used for research purposes only. Each participant received a gift of RMB 2 as a token of appreciation for completing the questionnaire.

#### 3.2. Instruments

##### 3.2.1. Proactive Personality Scale

The personal initiative/questionnaire was utilized to assess proactive personality. Previously, Li et al. selected these items to measure proactive personality, which showed good reliability [71]. The scale consists of six items, including the following four dimensions: action orientation, change orientation, opportunity recognition and utilization, and realizing changes. Basic information about the scale can be found in Appendix A, Table A1.



Likert's five-point scoring method was used during this study. The higher the score of participants, the higher the proactive personality. The Cronbach's alpha for this study was 0.902, and the AVE was 0.675.

### 3.2.2. Brief Calling Scale

The Brief Calling Scale was used to measure the calling of pre-service teachers. The scale was designed by Steger et al. [72]. The scale consists of four items, including two dimensions of presence and search. Basic information on the Brief Calling Scale can be viewed in Appendix A, Table A2. Likert's five-point score was used, ranging from 1 to 5, where 1 means strongly disagree and 5 indicates strongly agree. The higher the score, the stronger the calling. The Cronbach's alpha for this study was 0.876, and the AVE was 0.730.

### 3.2.3. Career Adapt-Abilities Scale—Short Form

The Career Adapt-Abilities Scale—Short Form (CAAS-SF) was devised by Yu et al. [73]. The scale contains a total of 12 items, including four dimensions, namely, concern, control, curiosity, and confidence. Basic information on CAAS-SF can be seen in Appendix A, Table A3. A five-point Likert score was used, where 1 means strongly disagree and 5 means strongly agree. The higher the score, the higher the career adaptability in the project. The Cronbach's alpha for this study was 0.945, and the AVE was 0.632.

### 3.3. Data Analysis

To make sure that the scale has satisfactory psychometric properties, the data were analyzed using SPSS 25.0 to test the common methods bias and to evaluate the reliability of the scale by Cronbach's alpha coefficient. To ascertain the suitability of the sample distribution for the ensuing analysis, descriptive statistics were used to quantify the distribution. The correlation among the three variables was tested to evaluate whether the model can be established. A complete model was constructed using the Amos 24.0 structural equation model to examine the relationship among proactive personality, calling, and career adaptability.

## 4. Results

### 4.1. Common Method Deviation Test

In this study, data collection was conducted through an online questionnaire. However, self-reporting may bring up the issue of common method bias [74,75]. Therefore, the present study takes into account the recommendations of previous researchers and will test for common method bias using one-factor model, two-factor model, and three-factor model respectively, in order to control for potential unmeasurable factors [76]. Specifically, by including the common method bias factor as a latent variable in the structural equation model, the common method bias factor is included in the structural equation model and all measurement items are allowed to have loadings on this factor. A low fit index of the controlled model implies that there is no serious common method bias [22]. From Table 1, we can observe the variation of the fit index as follows:  $\Delta RMSEA = 0.00$ ,  $\Delta SRMR = 0.01$ ,  $\Delta IFI = 0.00$ , and  $\Delta GFI = 0.02$ . The change in each fit index was less than 0.03, which indicates that the model is not significantly improved, suggesting that there is no serious common method bias problem in the measurements [77].

**Table 1.** Results of validation factor analysis.

Models	RMSEA	SRMR	IFI	AGFI
Three-factor model	0.09	0.05	0.96	0.89
Two-factor model	0.11	0.05	0.96	0.87
One-factor model	0.19	0.04	0.96	0.81

#### 4.2. Descriptive Statistic

The minimum values, maximum values, means, and standard deviations of proactive personality, calling, and career adaptability were analyzed, as shown in Table 2.

**Table 2.** Descriptive statistics.

Variable	Min.	Max.	Average	SD
Proactive personality	6	30	21.68	4.12
Action orientation	1	5	3.67	0.83
Change orientation	2	10	7.60	1.51
Opportunity recognition and utilization	2	10	7.03	1.56
Realizing changes	1	5	3.38	0.87
Calling	4	20	15.13	2.78
Presence	2	10	7.59	1.54
Search	2	10	7.54	1.51
Career adaptability	29	60	49.26	6.87
Concern	6	15	11.97	2.00
Control	6	15	12.17	1.92
Curiosity	6	15	12.49	1.84
Confidence	6	15	12.63	1.93

In terms of proactive personality, the average value for proactive personality was significantly higher than the median, which indicates that the proactive personality of female pre-service teachers in primary school was at a somewhat high level. Values for action orientation, change orientation, opportunity recognition, utilization, and realizing changes were higher than the median, which indicated that female pre-service teachers in primary school had a high degree of proactive personality in all areas.

Similar to the case for proactive personality, the average value for calling was also significantly higher than the median, which indicated that female pre-service teachers in primary school had a strong level of calling. The average of the two dimensions of calling was also higher than the median. In China, there is a long tradition of valuing education and having high respect for teachers. Those who choose teaching as a career usually have high levels of calling.

In line with calling, the average values for career adaptability and the four dimensions of female pre-service teachers in primary school were well above the median, implying a high level of career adaptability for participants. In China, teaching is a vocation that calls for lifelong learning. Even pre-service teachers are required to be well prepared to adapt to a variety of changes and challenges.

#### 4.3. Correlation Analysis

This study examined the correlations between the dimensions of proactive personality, calling, and career adaptability of pre-service female primary school teachers through Pearson correlation coefficients. The results of the data related to the above variables are shown in Table 3.

As listed in Table 3, all dimensions displayed a significant correlation ( $p < 0.01$ ). Cronbach's alpha reliability values of the scales used are reported in Table 3 on the diagonals. Among them, the proactive personality of pre-service female primary school teachers was positively correlated with their calling and career adaptability ( $p < 0.01$ ). Specifically, the correlation coefficient between proactive personality and calling was 0.40, which shows a moderate degree of correlation. The correlation coefficient between calling and career adaptability was 0.59, which indicates a moderate degree of correlation. The correlation coefficient between proactive personality and career adaptability was 0.60, which shows that the two variables are moderately correlated.

**Table 3.** Correlation analysis of each variable.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Proactive personality	1												
2. Action orientation	0.79 **	1											
3. Change orientation	0.89 **	0.66 **	1										
4. Opportunity recognition and utilization	0.92 **	0.64 **	0.72 **	1									
5. Realizing changes	0.78 **	0.48 **	0.56 **	0.72 **	1								
6. Calling	0.40 **	0.32 **	0.40 **	0.35 **	0.25 **	1							
7. Presence	0.40 **	0.32 **	0.39 **	0.35 **	0.27 **	0.92 **	1						
8. Search	0.33 **	0.26 **	0.35 **	0.29 **	0.18 **	0.91 **	0.67 **	1					
9. Career adaptability	0.60 **	0.52 **	0.59 **	0.51 **	0.40 **	0.59 **	0.57 **	0.52 **	1				
10. Concern	0.56 **	0.48 **	0.54 **	0.49 **	0.39 **	0.58 **	0.55 **	0.50 **	0.87 **	1			
11. Control	0.51 **	0.46 **	0.49 **	0.44 **	0.36 **	0.50 **	0.46 **	0.44 **	0.89 **	0.70 **	1		
12. Curiosity	0.52 **	0.46 **	0.53 **	0.44 **	0.33 **	0.55 **	0.52 **	0.48 **	0.93 **	0.74 **	0.76 **	1	
13. Confidence	0.54 **	0.47 **	0.54 **	0.46 **	0.35 **	0.50 **	0.49 **	0.43 **	0.89 **	0.65 **	0.71 **	0.83 **	1

Note: \*\*  $p < 0.01$ .

#### 4.4. Regression Analysis

Since proactive personality is strongly correlated with each dimension, multiple stepwise regression analysis is prone to multicollinearity if the three variables are directly selected, and the conditions for applying multiple linear regression are not available. Therefore, to eliminate this problem, simple linear regression was used in this investigation, and the specific data outcomes were classified into the following three categories.

##### 4.4.1. Regression Analysis of Proactive Personality and Career Adaptability

In this investigation, the independent variable was defined as four-dimensional proactive personality, and the dependent variable was set as career adaptability. Through simple linear regression analysis, the data presented in Table 4 were obtained.

**Table 4.** Regression analysis data.

Career Adaptability	$R^2$	$F$	$\beta$
Proactive personality	0.360	395.785	0.600
Action orientation	0.275	266.814	0.524
Change orientation	0.345	371.629	0.588
Opportunity recognition and utilization	0.263	251.061	0.512
Realizing changes	0.162	135.847	0.402

Note: \*\*\*  $p < 0.001$ .

##### 4.4.2. Regression Analysis of Proactive Personality and Calling

In this investigation, proactive personality and its four dimensions were set as the independent variables and calling was set as the dependent variable. The results of the regression analysis are shown in Table 5.

**Table 5.** Regression analysis data.

Calling	$R^2$	$F$	$\beta$
Proactive personality	0.157	131.201	0.396
Action orientation	0.099	77.750	0.315
Change orientation	0.163	137.182	0.404
Opportunity recognition and utilization	0.122	97.743	0.349
Realizing changes	0.062	339.290	0.249

Note: \*\*\*  $p < 0.001$ .



#### 4.4.3. Regression Analysis of Calling and Career Adaptability

In this survey, calling and its two dimensions were set as independent variables and career adaptability and its four dimensions were set as the dependent variable. The results of the regression analysis are shown in Table 6.

**Table 6.** Regression analysis data.

Independent Variable	Dependent Variable	R <sup>2</sup>	F	β
Calling	Career adaptability	0.353	385.229	0.594
Presence		0.319	330.624	0.565
Search		0.271	262.199	0.521
Calling	Concern	0.332	350.893	0.576
Presence		0.305	309.073	0.552
Search		0.251	235.928	0.501
Calling	Control	0.246	230.411	0.496
Presence		0.215	192.965	0.464
Search		0.196	172.193	0.443
Calling	Curiosity	0.299	300.586	0.547
Presence		0.266	254.988	0.515
Search		0.234	214.825	0.483
Calling	Confidence	0.252	237.357	0.502
Presence		0.235	216.843	0.485
Search		0.186	161.287	0.431

Note: \*\*\*  $p < 0.001$ .

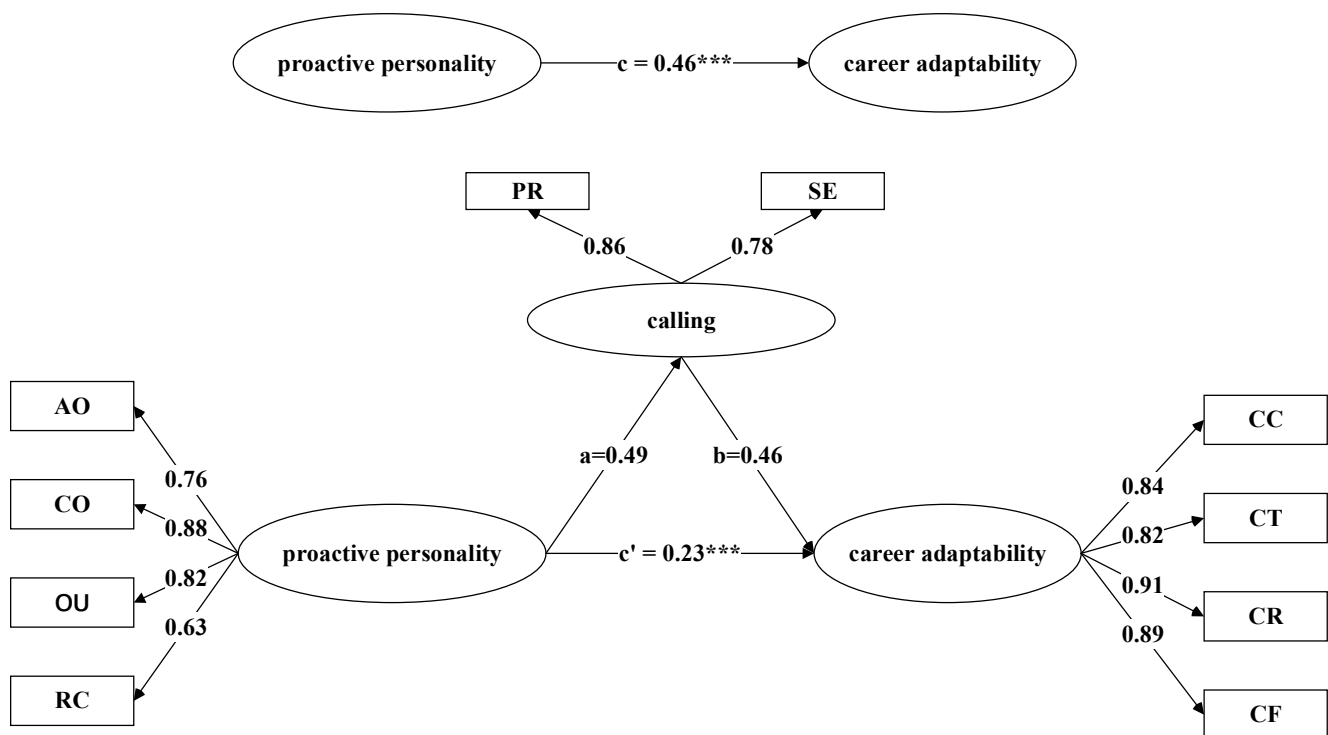
#### 4.5. Mediating Effect

The data in Table 7 indicate that calling has a significant mediating impact on proactive personality and career adaptability. In the 95% confidence interval [0.163, 0.290], the value 0 was not in the above interval. Therefore, it was concluded from Table 3 that proactive personality has a significant direct impact on career adaptability, and 0 was not in the interval (0.347, 0.536). Therefore, the calling of female pre-service teachers in primary schools partially mediated the relationship between proactive personality and career adaptability. Therefore, Hypothesis 3 was verified.

**Table 7.** Bootstrap analysis of mediating effect significance test.

Path	Direct/Intermediate Effect Value	95% Bootstrap Confidence Interval	
		BootLLCI	BootULCI
Direct effect			
Proactive personality→Calling	0.493	0.389	0.582
Proactive personality→Career adaptability	0.455	0.365	0.552
Calling→Career adaptability	0.455	0.361	0.543
Indirect effect			
Proactive personality→Calling→Career adaptability	0.225	0.163	0.290

This study built a structural equation model of proactive personality, calling, and career adaptability to further validate the mediating role of calling. To evaluate the fitting degree of the model, Amos 24.0 was utilized to make an analysis of the relevant fitting indexes one by one. The result displayed that  $X^2/df = 2.905$  and RMSEA (root mean square error of approximation) = 0.052, which meets the requirement of less than 0.08, NFI (normed fit index) = 0.982, IFI (incremental fit index) = 0.988, CFI (comparative fit index) = 0.988, TLI (Tucker–Lewis index) = 0.982, RFI (relative fit index) = 0.972, all of satisfied the requirement above 0.95, which indicates that the model was well-fitting. Moreover, the final structural equation model shown in Figure 2 was constructed in the current study.



**Figure 2.** Path map of mediating role of calling. Note: \*\*\*  $p < 0.001$ , AO: action orientation, CO: change orientation, OU: opportunity recognition and utilization, RC: realizing changes, CC: concern, CT: control, CR: curiosity, CF: confidence, PR: presence, SE: search.

As can be seen in Figure 2, the mediating effect of female pre-service teachers in primary schools' calling between proactive personality and career adaptability was  $0.493 \times 0.455 = 0.225$  ( $p < 0.001$ ). The direct effect of proactive personality on career adaptability was 0.455, and the overall impact of proactive personality on career adaptability was  $0.225 + 0.455 = 0.680$ . The mediating effect accounted for 33.09% of the total effect.

## 5. Discussion

### 5.1. The Relationship between Proactive Personality and Career Adaptability

Consistent with previous studies, the present study revealed a positive relationship between proactive personality and career adaptability [16,64], meaning that, the higher the proactive personality level the female pre-service teachers exhibited in primary schools, the stronger the career adaptability they possessed in their future jobs. Specifically, the results of the study pointed out that female pre-service teachers with high levels of proactivity were more likely to develop adaptive resources in their professional environment.

Action orientation is one of the core dimensions of proactive personality, which means that individuals actively participate in new opportunities. Taking primary school female pre-service teachers, for example, the higher the score in action orientation they fetched, the more prominent the individuals' career adaptability would present, and thus the more likely the individuals were to pay attention to external opportunities and combine them with their career development. In other words, individuals with high scores in the action orientation were more likely to pay attention to the academic and employment opportunities in their outside world.

The dimension of proactive personality also includes change orientation. The dimension emphasizes that when individuals encounter problems, they will immediately find solutions. For primary school female pre-service teachers, the higher the score of change orientation they got, the higher the level of career adaptability they tended to show. If a primary school female pre-service teacher has better performance in change orientation, it

means that when they encountered difficulties in their career, they were more likely to adopt a positive and quick response, taking proactive control of their own career development.

Opportunity recognition and utilization is also an important dimension of proactive personality, which emphasizes an individual's ability to quickly capture and then seize opportunities to achieve their goals. If primary school female pre-service teachers scored higher in this dimension, they would accordingly develop a higher level of career adaptability. This means that individuals who perform better in opportunity recognition and utilization are more likely to seek and seize career opportunities to focus on their professional development, especially those that are closely related to primary school teacher employment.

As one of the dimensions of proactive personality, realizing changes focuses on the realization of individual ideas, which reflects the individual's action. In this study, the higher the score for realizing changes the primary school female pre-service teachers obtained, the stronger the career adaptability they would develop. Namely, they were more likely to plan and design their learning more effectively and purposely under the guidance of targeted training in schools and to be well equipped for the upcoming career requirements as primary school teachers.

### *5.2. The Relationship between Proactive Personality and Calling*

The findings showed that the higher the score of the proactive personality of female pre-service teachers in primary schools, the higher their score in calling. When primary school female pre-service teachers had a proactive personality, they were more likely to find their calling and then take some actions to prepare themselves for their careers in a variety of ways.

From the results of this study, it was identified that individuals with high action orientation were more likely to have and find their calling. Calling has special value for pre-service teachers in primary school because education is a nurturing activity, and these individuals are significantly influenced by the teachers around them. Simply put, those individuals showing better action orientation were more likely to grasp opportunities and form calling in the interaction with the environment and further have a relatively positive impact on the surroundings [78].

Depending on the interpretation of the change direction of pre-service female teachers in primary schools, it was evident that the higher the score for this dimension, the higher the sense of calling. This result indicates that individuals with a strong sense of change direction would adjust themselves immediately when stuck in problems, which was of a positive significance for finding calling. In other words, in the process of looking for calling, they were more likely to not be blocked by setbacks and to respond to them quickly by finding a way out until they finally meet their calling [79].

As a key dimension of proactive personality, the higher the opportunity recognition and utilization, the higher the score of calling. On one hand, when individuals can actively identify and make use of the opportunities around them, they were more likely to find their calling earlier. On the other hand, when individuals had not found their calling, those with a strong sense of opportunity recognition and utilization were more likely to take the initiative to find and discover their calling.

Realizing changes has positive implications for an individual's career development and is an essential dimension of proactive personality. For female pre-service teachers in primary schools, when they were more inclined to put their ideas into practice, they were more likely to further explore their professional callings, to continue to clarify their callings within the prepare of career exploration, and to integrate their callings into their lifelong career development process.

### *5.3. The Relationship between Calling and Career Adaptability*

The study comprehensively investigated the relationship between calling and career adaptability. The findings of the present study showed that there was a positive correlation

between calling and career adaptability of pre-service female primary school teachers. Similar to previous research, some nuances of the relationship between calling and career adaptability were examined in the present survey [70]. In particular, the presence of a calling was closely related to career concern, career control, career curiosity, and career confidence, which was aligned with the research results of Douglass and Duffy [67]. The search for a calling was also positively correlated with the four dimensions of career adaptability.

Specifically, the higher the score of calling, the more likely the pre-service female primary school teachers were to have higher career concern, that is, they were more likely to be aware of the education or career choices they would make shortly and to spontaneously prepare themselves for the potential career. For example, they may prepare in advance to obtain the teacher qualification required for future employment at the university level.

This survey uncovered that the higher the score of calling, the higher the career control. When primary school pre-service female teachers had an intense sense of calling, they would positively make their own choices and take responsibility for those choices as well as further for their careers.

Career curiosity is also another important dimension of career adaptability; it implies the discovery of possible self and career opportunities [23]. This study found that primary school pre-service female teachers with high calling had higher career curiosity. As a negative example, when pre-service female teachers have a weaker sense of career curiosity, it is less possible for them to find opportunities for personal career growth and also more difficult for them to make a detailed investigation before making their career choices.

Finally, career confidence is also considered to be one of the critical dimensions of career adaptability. This study found that the lower the score of female pre-service teachers' calling, the weaker their career confidence would be formed in daily life. What does this mean? This result showed that when primary school female pre-service teachers had strong career confidence, they would probably feel that they can overcome potential career barriers on their own by learning new theories or developing new skills and perform excellently regardless of the variety and complexity of the challenges or trouble they may face.

#### 5.4. Mediating Effect

This research explored the interrelationships between proactive personality, calling, and career adaptability in a diverse sample of Chinese female pre-service primary school teachers. In line with the previously presented mediation model, it uncovered that the positive relationship between proactive personality and career adaptability could be mediated by the calling of female pre-service teachers. In this investigation, the mediating effect accounted for 33.09% of the total effect. To some extent, these discoveries integrate career construction theory, proactive personality theory, and calling and, thus, together interpret the process of adaptive resource development [80,81].

The results showed that the positive effect of proactive personality on career adaptability of pre-service female primary school teachers was partly mediated by calling. In other words, the higher the score of proactive personality, the more likely the pre-service female primary school teachers were to pay more attention to and show more curiosity in their future teaching career, and have more confidence and sense of control, so they have much more possibility to shape a sense of calling in the interaction with the environment. At the same time, the calling reflects the individual's positive value orientation, positive emotion, and attitude towards a particular field of occupation [81], so it may also play a specific guiding role in shaping the career adaptability of pre-service female primary school teachers. The results of this study can be used as an important supplement in the discovery of the influence mechanism of personality factors represented by proactive personality on the career adaptability of primary school female pre-service teachers.

## 6. Conclusions

This study was conducted with female pre-service teachers in primary schools, and the primary findings were as follows. First, career adaptability and its dimensions were

positively correlated with proactive personality and calling; specifically, the higher the proactive personality and calling, the higher the level of career adaptability of primary school female pre-service teachers. Second, calling played a mediating role between proactive personality and career adaptability. Therefore, the proactive personality of pre-service female teachers in primary schools influenced career adaptability through their calling. In a nutshell, it is valuable to analyze the relationship among proactive personality, calling, and career adaptability of primary school female pre-service teachers in Chinese universities. Especially within the background of the COVID-19 epidemic, when pre-service female teachers in primary schools have a higher proactive personality and higher levels of calling, they are more apt to develop strong career adaptability and become excellent teachers serving elementary education in the future.

## 7. Suggestions

For primary school female pre-service teachers, sustainable career development is an important topic that requires lifelong studying. This study provides some important enlightenment for colleges and universities to cultivate professional primary school pre-service teachers and pays more attention to the sustainable development of pre-service teachers. For simplicity, this study summarizes the suggestions as follows.

Firstly, this study provided some theoretical basis for colleges and universities to cultivate professional and high-quality pre-service teachers in primary schools and help these individuals to set up a sense of sustainable career development. Schools can pay attention to the proactive personality and calling of pre-service female primary school teachers, which affect their career adaptability. For example, those courses targeted at the variables affecting career adaptability should be pertinently included in the existing professional curriculum system of pre-service teachers to enhance the career adaptability of primary school female pre-service teachers. When primary school female pre-service teachers have higher career adaptability, they are more likely to become excellent primary school teachers in the future, which in turn improves the quality of primary education and makes primary school students receive a better education. As time goes, this kind of virtuous cycle will yield a considerable bonus to our society.

Secondly, proactive personality is an important personality variable. This study showed that the proactive personality of pre-service female primary school teachers was a positive contributor to calling and career adaptability. Accordingly, the impact of proactive personality on the sustainable career development of pre-service female primary school teachers needs to be paid attention to. In the stage of higher education, by providing them with some intervening courses or activities, the proactive personality, calling, and career adaptability of pre-service female primary school teachers can be cultivated.

Thirdly, calling functioned as a mediator in the proactive personality and career adaptability of pre-service female primary school teachers. From the perspective of practical application, colleges and universities can incorporate calling into the professional training plan in helping pre-service female teachers to enhance their career adaptability.

## 8. Limitations

Although the present study somewhat improves our understanding of female pre-service teachers' proactive personality, calling, and career adaptability, there are some limitations. First, since the participants were all from the same university, they may not represent the common features among all the pre-service teachers. Future studies should enlarge the sample size and scope to avoid bias caused by sample selection. Second, considering the prevalence of COVID-19, the data of this study were all obtained from the online surveys of pre-service female teachers in primary schools, and there may be some deviation in the media for collecting data. Third, this survey was conducted using a cross-sectional design, and hence, the relationship between variables cannot be explained by causality. In this light, longitudinal studies are more plausible to elucidate the relationship

among the proactive personality, calling, and career adaptability of pre-service female primary school teachers.

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**Informed Consent Statement:** Informed consent was obtained from all participants included in the study.

**Data Availability Statement:** The data that support the findings of this study are available from the corresponding author. Restrictions apply to the availability of these data, which were used under license for this study. Data are available from the authors with the permission of Nanjing Normal University.

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## Appendix A

**Table A1.** Proactive Personality Scale.

No.	Items
1	Whenever there is a chance to get actively involved, I take it.
2	Whenever something goes wrong, I search for a solution immediately.
...	...

**Table A2.** Brief Calling Scale.

No.	Items
1	I have a calling to a particular kind of work.
2	I have a good understanding of my calling as it applies to my career.
...	...

**Table A3.** Career Adapt-Abilities Scale—Short Form, China.

No.	Items
1	Thinking about what my future will be like.
2	Preparing for the future.
...	...



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