

WHY DO THEY STAY? FACTORS IMPACTING TEACHER MOBILIZATION IN CHINESE ETHNIC MINORITY AREAS: BASED ON MASLOW'S HIERARCHY OF NEEDS THEORY

**VOLUME: 8 ISSUE: 2
FEBRUARY, 2024**

eISSN: 5733-6783

pISSN: 5532-7563

IMPACT FACTOR: 3.78

Zibin Wang

*College of Educational Science and Technology,
Northwest Minzu University,
Chengguan District, Lanzhou,
Gansu Province, China.*

Sha Shen

*College of Educational Science and Technology,
Northwest Minzu University,
Chengguan District, Lanzhou,
Gansu Province, China.*

Abstract

This study aimed to explore the factors impacting the stability of teacher teams in ethnic minority areas in China. The researchers investigated 4473 teachers in Ganan Tibetan Autonomous Prefecture using a descriptive survey research design with Maslow's hierarchy of needs theory as the theoretical framework. Key results found the most influential factor impacting teachers' intentions of mobilization was teachers' perceived satisfaction regarding affection/belongingness needs, followed by self-actualization, self-esteem, and physiological needs. The results indicated years of experience in education moderated the relationship between the teacher's perceived degree of satisfaction regarding self-actualization needs and their intentions of mobilization.

Keywords: *Teacher Mobilization, Maslow's Hierarchy of Needs Theory, Descriptive Survey Research, Ethnic Minority Areas.*

1. Introduction

China has always prioritized education. In 2015, the State Council launched the "Rural Teachers Support Plan (2015-2020)", emphasizing the strategic importance of building rural teacher teams (Central Government of China, 2015). Teachers in rural areas are crucial for rejuvenating education in less- developed regions (Liu & Ding, 2016). Hence, establishing stable, high-quality teacher teams, especially in primary and secondary schools, is essential for advancing rural public education in China (Guo, 2021). Yu and Hu (2013) emphasized that understanding the essence of teacher mobility is fundamental for understanding teacher team stability. Scholars

vary in defining teacher mobility, but a prevalent view sees it as teachers either "transferring schools" or "changing professions." Thus, "teacher mobility" and "teacher turnover" differ. The latter denotes a loss in educational resources detrimental to education's growth, while the former indicates a reshuffling of educational resources without reducing the teacher count. In contrast to mobility, team stability reflects teachers' inclination to persist in their primary teaching and research roles within a school.

Researchers (e.g., Monk, 2007; Yu & Hu, 2013) found the growing instability of teacher teams in rural areas due to economic and environmental disparities in urban regions impacting education quality. Prior studies identified various factors affecting the stability of teacher teams in rural schools, including instructional environment (Davis, 2002; Lowe, 2006), income and housing (Zheng & Wu, 2014), collective efficacy (Donohoo, 2016; Cobb & Krownapple, 2019), and school size (Qin & Sun, 2011). While schools aspire for stable teaching environments, teachers often switch schools, impacting teaching quality and student learning. Many studies have explored factors behind teacher mobility, primarily focusing on attributes of departing teachers. Hanushek and Rivkin (2004) observed that often, less effective teachers are the ones who leave. Nevertheless, the literature consistently highlights that teachers in low-achieving schools or those with high percentages of poor or minority students are more likely to move (Achinstein et al., 2010; Kraft et al., 2012; Cochran-Smith et al., 2012).

Both climate and instruction shape instructional environments. Within this, coherence in instructional programs is critical, ensuring alignment between teachers' perceptions and the school's mission (CCSR, 2009). Key elements such as teacher commitment, teacher-principal trust, and the principal's instructional leadership are pivotal in influencing a teacher's decision to stay. The quality of professional development and access to innovative ideas further reinforces this decision. The CCSR (Consortium on Chicago School Research) study delved into the importance of teacher working conditions. Notably, these conditions directly affect teaching quality and sway teacher attitudes and their decisions to remain in their roles. Part of the research focus was on high-stakes accountability and the availability of teaching resources. Brill and McCartney (2008) highlighted another crucial factor: student behavior. They found that disruptive behaviors can detrimentally impact the school climate, decreasing teacher satisfaction and increased turnover. A significant component of a teacher's professional experience is leadership. Teachers yearn for environments where they receive support and are acknowledged as professionals. Ultimately, adequate facilities and resources are instrumental in their retention decisions, with a lack thereof prompting many to leave (Brill & McCartney, 2008).

Podolsky et al. (2016) posited that, notwithstanding the altruistic inclinations often associated with educators, the allure of more remunerative opportunities external to the teaching domain could significantly influence their vocational trajectories. Empirical evidence underscores the pivotal role of remuneration in shaping teacher retention and attrition patterns. Notably, novice and veteran educators frequently cite suboptimal compensation as a precipitant for vacating their positions or transitioning to other institutions (Loeb et al., 2005; Stockard & Lehman., 2004). Corroborating this assertion, Liu (2013) indicated that an enhanced salary structure would substantially influence the retention decisions of approximately 67% of educators. School type and workload significantly influence teachers' decisions to stay or relocate. An escalating workload, intensified by the modern focus on

performance, can diminish job satisfaction and erode vocational enjoyment (Smethem, 2007). Notably, among teachers who changed schools, 65% cited insufficient planning time, and 60% attributed their move to an excessive workload (Kersaint, 2005).

Kurtz (2015) highlighted teachers valuing intrinsic motivation and school climate over extrinsic factors for retention. According to Kurtz, "teachers were more motivated to stay at their current schools based on strong personal connections with students and staff members" (p. 130). This concept was further supported by Wiegand's (2003) research, which found that collegial friendships had a more decisive influence on teacher retention.

The CCSR (2009) emphasized school climate factors like collective responsibility and teacher-teacher trust, all feeding into intrinsic motivation and fostering a sense of belonging. Perricone et al. (2008) underscored the bond between teacher efficacy and retention decisions. Powell and Deal (2016) and Cobb and Krownapple (2019) delve into belonging, linking it to being valued and empowered within a community. The sense of belonging is intrinsically linked with self-efficacy, enhancing collective efficacy and shaping the dynamics within teacher teams (Donohoo, 2016).

While existing studies have focused on teacher-team stability in rural schools, little attention has been paid to ethnic minority areas in China, which face unique challenges in educational resources, geography, and cultural environment (Liu, 2013). The central government prioritizes education in these areas due to its impact on educational quality and regional stability (Wang, 2020). This study is, therefore, crucial for elevating teacher professionalism, mitigating brain drain, and enhancing public education in ethnic minority regions.

2. Theoretical Framework

This study, rooted in organizational theory, examines the reciprocity between institutions and their members (Bryk et al., 2010). Organizations fulfill members' career, compensation, and advancement needs, while members reciprocate with their skills, energy, and expertise (Lawson & Lawson, 2013). In education, nurturing this symbiosis is vital for retaining committed teacher teams. Maslow emphasized the role of internal organizational factors in shaping individual motivations (Patterson, 2019). He posited that personal needs and aspirations primarily align individuals with organizational objectives (Bolman & Deal, 2017).

The earliest contentions of Maslow's hierarchy of needs consisted of five sequential needs, including physiological, safety, affection/belongingness, self-esteem, and self-actualization (Maslow, 1987). Afterward, this concept evolved throughout time to the point that the basic needs were no longer considered as following the originally proposed sequential order (Patterson, 2019). Specifically, the varying types of needs became unfixed. Therefore, depending on different organizational factors and experiences within the individual's life, people could easily switch from one set of needs to another (McLeod, 2014).

The Hierarchy of Needs commences with the physiological "survival stage," emphasizing that primary motivations stem from basic needs, as seen in his portrayal of hunger as a dominant drive (Maslow, 1943). The subsequent "safety stage" highlights individuals' necessities, including an adequate working environment with sufficient lighting, privacy, and safety (Weller, 1982). Progressing to the third level, individuals seek affection and belongingness. Teachers' professional belongingness reduces feelings of isolation (Fisher & Royster, 2016) and is vital for fostering pride in their roles. As Cobb and Krownapple (2019) articulated, true belonging means being

acknowledged, appreciated, and respected within a community. This sense of belonging is intrinsically linked to teachers' self-efficacy, shaping collective efficacy within teams (Donohoo, 2016). Finally, self-actualization is an evolving process of adapting to new opportunities and challenges (Patterson, 2019).

In summary, Maslow's hierarchy of needs is relevant to teacher professions, as challenges like stress, dissatisfaction, retention, and turnover predominantly stem from interpersonal issues (Fisher & Royster, 2016). Utilizing this organizational theory based on Maslow's framework (Patterson, 2019) provided a foundation for this research. The study aimed to explore the determinants influencing teacher team stability in Gannan Tibetan Autonomous Prefecture and to understand the underlying reasons prompting teachers to consider leaving their positions.

3. Methodology

Research Design and Research Questions

This study was conducted using a descriptive survey research design. The primary goal of descriptive research is to observe a particular phenomenon, usually at a single moment in time. In addition, descriptive research aims to analyze a scenario by outlining key components, including events, behaviors, attitudes, experiences, knowledge, and socioeconomic and demographic characteristics (Kelley et al., 2003). Specifically, the researchers in this study aimed to address the following research questions:

What are the public-school teachers' perceptions regarding their intentions of mobilization in Gannan Tibetan Autonomous Prefecture?

What are the factors impacting teachers' intentions of mobilization in Gannan Tibetan Autonomous Prefecture?

Whether the factors have the same effects on teachers in different proficiency levels?

Site Selection and Participants

Site Selection

China's multi-ethnicity, a hallmark of its diverse heritage, propels its national development. Every ethnic group in China has contributed to its storied history, emphasizing the importance of unity as a cornerstone of national strength. Positioned on the Qinghai-Tibet Plateau's northeastern edge, Gannan Tibetan Autonomous Prefecture, with its notable average altitude of over 3,000 meters, stands as one of the 30 ethnic minority autonomous regions in the nation. Gannan's strategic location has historically been pivotal for cultural and economic exchanges between the mainland and Tibetan areas. This rich interaction underscores the significance of Tibetan culture in China's vast cultural landscape.

Prioritizing education in Gannan is about preserving this cultural heritage and stimulating local economic progression. To paint a clearer picture of education in the region: Gannan houses 730,700 residents, 54.2% of whom are Tibetans. Of the 506 schools, 223 are boarding schools, accounting for 44.96%. Of the 112,500 students in Gannan, 40.07% are Tibetan-Chinese bilinguals, and 80,013 (72.71%) are enrolled in boarding schools. As of 2022, the Gannan Education Bureau notes that the prefecture employs 10,351 full-time primary and secondary school educators.

Participants

Before commencing the study involving human subjects, the research proposal was approved by the Institutional Review Board (IRB) of Northwest Minzu University. Using purposive (Sparkes & Smith, 2013) and simple random sampling (Gay et al., 2014), 4473 primary and secondary school teachers from Gannan Tibetan Autonomous

Prefecture were recruited voluntarily, ensuring no sampling bias. Table 1 details the participants' characteristics. Of the 4473 teachers, 57.1% were female, and the majority (52.6%) was aged 31-40. Notably, 82.7% were indigenous to Gannan. By school type, 33.2% taught in day schools, 35.7% in boarding schools, and 31.1% in mixed institutions. Over half (52.6%) worked in rural schools. Regarding the working experience, most participants (41.3%) had been in teaching positions under four years. Finally, most participants (79.2%) held Bachelor's degrees.

Table 1: Characteristics of Teachers

Category	Response	n= 4473	Percentage
Gender	Male	1991	42.9
	Female	2552	57.1
Age	Under 30 years	912	20.4
	31-40 years	2353	52.6
	41-50 years	882	19.7
	51 years or more	326	7.3
	Yes	3701	82.7
	No	772	17.3
	Day School	1487	33.2
	Boarding School	1597	35.7
	Mixed	1389	31.1
	Urban	2121	47.4
	Rural	2352	52.6
	Less than 4 years	1849	41.3
	4-8 years	1279	28.6
	More than 8 years	1345	30.1
	Below Bachelor's Degree	855	19.1
	Bachelor's Degree	3542	79.2
	Master's Degree	76	1.7
	Doctoral Degree	0	0

Data Collection

The cross-sectional survey design (McMillan, 2000) was used in collecting quantitative data. The survey instrument was self-developed based on the aforementioned theoretical framework, encompassing five distinct dimensions as independent variables. These dimensions, from Dimension 1 to Dimension 5, respectively gauge teachers' perceived satisfaction levels related to their physiological needs, safety needs, affection needs, self-esteem needs, and self-actualization needs. For all dimensions, the Likert-type scale with a rate from 1 to 5 (1 means "strongly disagree," 5 means "strongly agree") was used for participants to respond about their perspectives on each survey item.

Using Stata 17.0, the survey instrument's reliability and validity were assessed. As shown in Table 2, all scales displayed acceptable Cronbach's alpha values between 0.64 and 0.86, with an overall alpha of 0.82, indicating strong internal consistency. Validity tests in Table 3 revealed a determinant of the correlation matrix near zero, a significant Bartlett's test of sphericity (chi-square = 50321.788), and a KMO measure of 0.854, signifying suitable intercorrelation of variables and sample adequacy for factor analysis. Hence, the questionnaire is confirmed as both reliable and valid for this study.

Table 2: Reliability Test Results

	Scale Names	Cronbach's alpha	Survey items	Item numbers
Survey scales	Factors related to "physiological needs"	0.71	Q13 - Q17	5
	Factors related to "safety needs"	0.75	Q18 - Q22	5
	Factors related to "affection needs"	0.86	Q23 - Q27	5
	Factors related to "self-esteem needs"	0.84	Q28 - Q32	5
	Factors related to "self-actualization needs"	0.64	Q33 - Q37	5
	Entire Scale	0.82	Q13 - Q37	25

Table 3: Validity Test Results

Determinant of the correlation matrix Det = 0.000	Bartlett test of sphericity Chi-square = 50321.788 Degrees of freedom = 300 p-value = 0.000 H0: variables are not intercorrelated
---	--

Kaiser-Meyer-Olkin Measure of Sampling Adequacy KMO = 0.854

Data Analysis

Computational procedures of statistics enable the researchers to investigate the patterns and meanings of numerical data by summarizing the large data sets (Leedy & Ormord, 2016). Stata 17.0 was used to analyze the quantitative data in this study. In this study, the researchers thoroughly examined the quantitative data obtained from survey responses using a multifaceted analytical method. First, the analysis of descriptive statistics was utilized to determine each dimension's mean, standard deviation, maximum, and minimum values.

Transitioning to the second phase, emphasis was placed on discerning the interconnectedness among the five predictor variables. Utilizing the Pearson correlation coefficient as a metric (Pallant, 2016), the interrelationships between these dimensions were delineated. Furthermore, their associative strengths with the dependent variable were meticulously assessed, providing foundational insights for subsequent regression analyses.

In the third analytical phase, a multiple linear regression model was constructed (Neter et al., 1996), incorporating the five predictor variables to ascertain their respective impacts on the dependent variable. This model facilitated the quantification of each predictor's contribution and its statistical significance to the outcome variable. Ensuring the robustness of our findings, diagnostics were conducted to mitigate issues such as multicollinearity. In summary, the systematic and methodical analytical approach adopted herein not only ensured the precision and validity of the findings but also bolstered the academic rigor of our contributions to the literature.

Results

Results of Descriptive Statistics

During the phase of analysis of descriptive statistics, the researchers conducted a rigorous evaluation of the key statistical indicators of each dimension in the survey instrument, including the mean, maximum, minimum, and standard deviation values. As presented in Table 4, participants exhibited the lowest satisfaction level in meeting

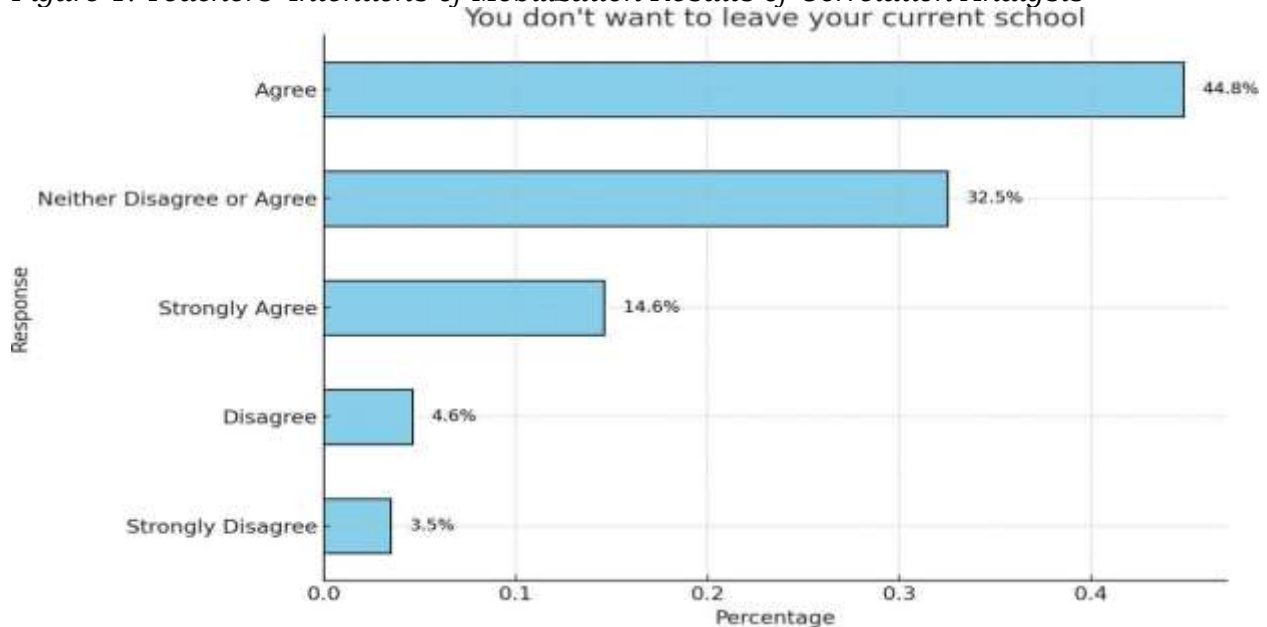
physiological needs, with a mean score of 2.31. In contrast, participants expressed substantial satisfaction with safety needs (mean of 3.72) and affection needs (mean of 3.61). Notably, the satisfaction regarding self-esteem needs (mean of 3.74) is the highest among the categories. For self-actualization needs, the participants exhibited a moderate satisfaction degree, with a mean score of 3.50. Overall, Gannan Prefecture teachers are most content with their self-esteem needs and least with their physiological ones.

Table 4: Results of Descriptive Statistics

Variables	Mean	SD	Min	Max
Factors related to “physiological needs”	2.31	0.65	1.00	5.00
Factors related to “safety needs”	3.72	0.64	1.00	5.00
Factors related to “affection needs”	3.61	0.72	1.00	5.00
Factors related to “self-esteem needs”	3.74	0.65	1.00	5.00
Factors related to “self-actualization needs”	3.50	0.58	1.00	5.00

Next, the researchers investigated participants’ intentions of mobilization using one survey question: “you don’t want to leave your current school.” This survey item asked participants to rate their perspectives on a Likert scale of 1 to 5 (1=Strongly Disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, and 5= Strongly Agree). The results indicated that most teachers in Gannan (44.8%) preferred to stay, while 32.5% remained neutral. A mere 3.5% expressed strong intentions to leave. These findings underscore that most teachers in Gannan Prefecture either lean towards or are ambivalent about remaining at their current institutions.

Figure 1: Teachers’ Intentions of Mobilization Results of Correlation Analysis



After descriptive statistics, the study delved into correlation analysis to understand relationships among key variables. This method helps determine the magnitude and direction of variable associations, setting the stage for subsequent regression analyses (Cohen et al., 2013). As seen in Table 5, the strongest correlation exists between teachers' satisfaction with affection needs and their retention intent, trailed by self-actualization and self-esteem needs. This highlights the pivotal role of

these needs in influencing teachers' decisions to stay. On the other hand, the ties between physiological and safety needs with retention intent, while significant, are weaker. Additionally, the limited correlations among independent variables dispel multicollinearity worries, paving the way for reliable multivariate linear regression (Bryk & Raudenbush, 1987).

Table 5: Results of Correlation Analysis

Variable	Y	X1	X2	X3	X4	X5
Y	1.0***					
X1	0.05***	1.0***				
X2	0.05***	0.73***	1.0***			
X3	0.55***	0.02	0.04***	1.0***		
X4	0.41***	-0.10***	-0.09***	0.58***	1.0***	
X5	0.45***	-0.10***	-0.07***	0.61***	0.58**	1.0***

* p<0.05, ** p<0.01, *** p<0.001 Y:Teachers' willingness to stay
 X1:Factors related to "physiological needs" X2:Factors related to "safety needs"
 X3:Factors related to "affection needs" X4:Factors related to "self-esteem needs"
 X5:Factors related to "self- actualization needs"

Results of Multiple Linear Regression

Based on the prior descriptive statistics and correlation analysis results, researchers incorporated five independent variables and one dependent variable into a multiple linear regression model for examination. The researchers explored whether teachers' satisfaction with their physiological needs, safety needs, affections needs, self-esteem needs and self-actualization needs could significantly predict their intentions to stay at the current position. The results of the regression model are presented in Table 6. The regression equation as follows:
 $Y=0.2417+0.0166*X1+0.0015*X2+0.9897*X3+0.0261*X4+0.0513*X5$

Table 6: Results of Multiple Linear Regressions

Source	ss	df	MS	Number of obs=4473 F(5, 4467) = 443.50 Prob > F = 0.0000 R-squared = 0.3317 Adj R-squared = 0.3310 Root MSE = .74432				
Model	1228.514	5	245.7028					
Residual	2474.748	4467	.554006837					
Total	3703.262	4472	.828099885					
Y	Coefficient	Std. err.	t	P> t	95% conf. interval	VIF	1/VIF	
X1	.0166567	.0050134	3.32	< 0.001	.006827 .026485	2.16	0.46	5
X2	.0015089	.0050909	0.30	0.767	-.008471 .011489	2.16	0.46	5
X3	.0989786	.0042143	23.49	< 0.001	.090716 .107240	1.87	0.53	8
X4	.0261098	.0045038	5.80	< 0.001	.01728 .034939	1.86	0.54	6
X5	.0513977	.0052371	9.81	< 0.001	.041130 .061664	1.73	0.57	9
cons	.2417402	.0903209	2.68	0.007	.064666 .418813			5 8

Dependent Variable : Y:Teachers' willingness to stay Independent Variables:

X1:Factors related to “physiological needs” X2:Factors related to “safety needs”
X3:Factors related to “affection needs” X4:Factors related to “self-esteem needs”
X5:Factors related to “self- actualization needs”

The regression model evidenced significance with an R square of 0.33 and $F(5,4472)=443.501, p<.001$. Teachers' satisfaction with affection/belongingness needs emerged as the most potent predictor of their intent to stay among the factors examined. Closely following were their perceptions of self-actualization and self-esteem needs, which similarly demonstrated significant positive correlations with retention intent. In addition, physiological needs were found to have a meaningful relationship with the intention to remain, and safety needs did not significantly predict the same. In essence, the satisfaction concerning affection/belongingness, self- actualization, self-esteem, and physiological needs were pivotal in influencing teachers' decisions to continue in their current positions. Upon establishing the regression model, conducting the VIF test is imperative. The VIF (Variance Inflation Factor) is a significant index to indicate multicollinearity among independent variables. A high VIF value typically signals the presence of multicollinearity, potentially compromising the model's stability and precision (Chatterjee & Hadi, 2013). As delineated in Table 6, the VIF values for all independent variables within the model are consistently below 10, effectively ruling out concerns of multicollinearity.

Discussions

This study aimed to investigate the current situation of teachers' intentions of mobilization and understand the factors impacting teachers' intentions of mobilization in Gannan Tibetan Autonomous Prefecture. The results indicated teachers in Ganan had a lower-middle level of intentions to leave their current school. In addition, teachers' intention of mobilization was affected by their perceived degree of satisfaction regarding various psychological requirements based on Maslow's hierarchy of needs. Previous studies have shown the instability of teacher teams in economically underdeveloped areas is intensifying due to the differences in economic and environmental conditions between rural and urban regions (Yu & Hu, 2013). Compared with other areas in mainland China, Gannan Prefecture has relatively harsh natural conditions and inconvenient transportation, resulting in teachers' inclination to leave, especially for teachers who are not indigenous residents.

The theoretical framework of this study was developed based on Maslow's theory of the hierarchy of needs, which could be applied to an organization and its employees' performance (Gordon, 1965). In addition, the theory indicated individuals' behaviors are based on the perceived degree of satisfaction regarding various needs. Therefore, individuals' behaviors can be maintained only when particular needs are satisfied (Jerome, 2013). Scholars in previous studies found the stability of teacher teams was impacted by factors related to the school environment (Davis, 2002; Lowe, 2006), teachers' income and housing (Zheng & Wu, 2014), collective efficacy (Donohoo, 2016), belonging (Cobb & Krownapple, 2019), and school culture (Qin & Sun, 2011). The findings of this research are consistent with most of Maslow's theory and in line with the theoretical framework construction in this study. Specifically, the researchers found the physiological needs, needs for affection/belongingness, self- esteem, and self-actualization all affected the teachers' intentions of mobilization in Gannan Tibetan Autonomous Prefecture.

Patterson (2019) claimed that individuals' safety needs would impact employees' organizational commitment, which is crucial concerning the organization's stability.

However, the results of this study indicated teachers' perceived degree of satisfaction regarding the safety needs did not significantly influence their intentions of mobilization, which is inconsistent with Maslow's theory and the findings in existing studies. The potential reason is that around 75% of teachers who participated in this study were indigenous residents. There is an old Chinese saying, "Home is where the heart is at ease," which means individuals would feel a strong sense of safety as long as their families accompanied them. Therefore, even though teachers in Gannan felt unsatisfied with their safety needs resulting from adverse natural environments, inconvenient transportation, and a shortage of resources, they still feel safe because Gannan is their home.

Over the years, researchers and scholars have tended to criticize and doubt Maslow's theory that fulfilling individuals' lower level of needs is the prerequisite for them to pursue other needs at higher levels (Jerome, 2013). For example, Ingersoll (2012) found some external factors, such as income and working environment, have fewer effects than internal factors (Billingley et al., 2004), including self-esteem and self-actualization in affecting teachers' intentions of mobilization. The researchers in this study found that among all types of needs, the need for affection/belongingness and the needs for self-actualization were the two most influential factors impacting teachers' intentions of mobilization in Gannan Tibetan Autonomous Prefecture. The findings in this study could provide a new perspective for future research and verify the significance of self-actualization proposed by the humanistic theory (Snyder & Glick, 1986).

4. Conclusion

This study makes a significant and novel contribution regarding the importance of the stability of teacher teams in economically underdeveloped areas. As a country with diverse culture, China has seen education as a vital method to promote the development of ethnic minority regions. Establishing high-quality and stable teacher teams ensure children in ethnic minority regions have equal opportunities to receive educational services with their peer in mainland China. This is the only study investigating a significant number of educators in Tibetan ethnic minority areas. In addition, this study provided a novel perspective that indicated how teachers' intentions of mobilization were impacted by Maslow's hierarchy of needs theory.

References

- Achinstein, B., Ogawa, R., Sexton, D., & Freitas, C. (2010). Retaining teachers of color: A pressing problem and a potential strategy for 'hard-to-staff' schools. *Review of educational research*, 80(1), 71-107.
- Bolman, L. G., & Deal, T. E. (2017). *Reframing organizations: Artistry, choice, and leadership*. John Wiley & Sons.
- Brill, S. & McCartney, A. (2008). *Politics & Policy*. 36(5), 750-774.
- Bryk, A. S., & Raudenbush, S. W. (1987). Application of hierarchical linear models to assessing change. *Psychological bulletin*, 101(1), 147.
- Billingsley, B., Carlson, E., & Klein, S. (2004). The working conditions and induction support of early career special educators. *Exceptional Children*, 70(3), 333-347.
- Bryk, A. S., Sebring, P. B., Allensworth, E., Easton, J. Q., & Luppescu, S. (2010). *Organizing schools for improvement: Lessons from Chicago*. Chicago: University

- of Chicago Press.
- Consortium on Chicago School Research (CCSR) (2009). Teacher Mobility in Chicago Public Schools. Retrieved from: <https://consortium.uchicago.edu/>
- Central Government of China. (2015). Rural Teachers Support Plan (2015-2020). Retrieved from [http:// www.gov.cn](http://www.gov.cn). Accessed July, 2022.
- Chatterjee, S., & Hadi, A. S. (2013). Regression analysis by example. John Wiley & Sons.
- Cobb, F., & Krownapple, J. (2019). Belonging through a culture of dignity. San Diego, CA: Mini and Todd Press. 37-64.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). Applied multiple regression/correlation analysis for the behavioral sciences. Routledge.
- Cochran-Smith, M., McQuillan, P., Mitchell, K., Terrel, D., Barnatt, J., D'Souza, L, John, C., Shakman, K., Lam, K. and Gleeson, A. (2012). A longitudinal study of teaching practice and early career decisions a cautionary tale. American educational research journal. 844-880.
- Davis, M. S. (2002). An investigation of factors related to teacher retention in small rural school districts in Montana. Montana State University.
- Donohoo, J. (2016). Collective Efficacy: How Educators' Beliefs Impact Student Learning. Thousand Oaks, CA.: Corwin Publisher.
- Fisher, M. H., & Royster, D. (2016). Mathematics teachers' support and retention: Using Maslow's hierarchy to understand teachers' needs. International Journal of Mathematical Education in Science and Technology, 47(7), 993-1008.
- Ganan Educational Bureau. (2022). Retrieved from <http://zwfw.gansu.gov.cn>
- Gordon, G.G (1965). The relationship of satisfiers and dissatisfiers to productivity, turnover and morale. American Psychologist. 20, 499-502.
- Guo, L. (2021). Jiyu shuangyinsu lilun de Jinan shi L qu zhongxiaoxue jiaoshi duiwu jili jizhi yanjiu [Research on the incentive mechanism of primary and secondary school teachers in L district of Jinan city based on the two-way factor theory]. Shandong University, China (Master's Thesis).
- Gay, L. R., Mills, G. E., & Airasian, P. W. (2014). Educational research: Competencies for analysis and applications. Boston: Pearson.
- Hanushek, E., Klain, J., and Rivkin, S. (2004). Why public schools lose teachers. Journal of human resources, 39(2): 326-354.
- Ingersoll, R. M. (2012). Beginning teacher induction what the data tell us. Phi Delta Kappan, 93(8), 47-51.
- Jerome, N. (2013). Application of the Maslow's hierarchy of need theory; impacts and implications on organizational culture, human resource and employee's performance. International Journal of Business and Management Invention.
- Kurtz, M. (2015). Teacher retention and why do they stay? Edgewood College.

- Kersaint, G. (2005). Teacher attrition: A costly loss to the nation and to the states. Alliance for Excellent Education. Issue Brief August.
- Kelley, K., Clark, B., Brown, V., & Sitzia, J. (2003). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Health Care*, 15(3), 261-266.
- Kraft, M., Papay, J., Charner-Laird, M., Johnson, S., Ng, M., & Einhorn, S. (2012). Committed to their students but in need of support: How school content influences teacher turnover in high-poverty, urban schools. Working paper, The Project on the Next Generation of Teachers, Harvard Graduate School of Education. (Cambridge, MA).
- Liu. (2013). Xibei shaoshu minzu diqu zhongxiaoxue jiaoshi liudong xianzhuang, yuanyin yu duice yanjiu [Current situation and countermeasures of primary and secondary school teacher's turnover in minority nationality regions. Northwest Normal University, China.
- Lowe, J. M. (2006). Rural education: Attracting and retaining teachers in small schools. *Rural Educator*, 27(2), 28-32.
- Liu, G., & Ding, Q. (2016). Zai hang gaoxiao qingnian jiaoshi duiwu wendingxing yingxiang yinsu yanjiu [A research on influence factors of young university teachers' stability in Hangzhou]. *Journal of Hangzhou Dianzi University*, 4, 23-27.
- Loeb, S., Darling-Hammond, L., & Luczak, J. (2005). How teaching conditions predict teacher turnover. *Peabody journal of education*. 80(3): 44-70.
- Lawson, M. A., & Lawson, H. A. (2013). New conceptual frameworks for student engagement research, policy, and practice. *Review of Educational Research*, 83(3), 432- 479.
- Leedy, P. D., & Ormrod, J. E. (2016). *Practical research: Planning and design*. Boston: Pearson.
- Maslow, A. H. (1987). *Motivation and personality* (3rd ed.). Delhi, India: Pearson Education.
- Maslow, A. H. (1943). A theory of human motivation. *PsycholRev*.
- McLeod, S. (2014). Maslow's hierarchy of need. Retrieved from: <https://www.simplypsychology.org/maslow.html>.
- Mcmillan, J. H. (2000). *Educational Research: Fundamentals for the Consumer*. New York: Addison Wesley Longman Inc.
- Monk, D. H. (2007). Recruiting and retaining high-quality teachers in rural areas. *The future of children*, 155- 174.
- Neter, J., Kutner, M. H., Nachtsheim, C. J., & Wasserman, W. (1996). *Applied linear statistical models* (4th ed.). Irwin.
- Patterson, J. A. (2019). *Teacher Mobilization: A Case Study on Organizational Factors & The Movement of Teachers within an Urban District*. Georgia State University.
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using*

- SPSS program (6th ed.). London, UK: McGraw-Hill Education.
- Perrachione, B., Rosser, V., & Petersen, G. (2008). Why do they stay? Elementary teachers' perceptions of job satisfaction and retention. *Professional Educator*, 32(2).
- Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). Solving the teacher shortage: How to attract and retain excellent educators. Learning Policy Institute.
- Powell, K. D., & Deal, T. E. (2016). The problem with othering: Towards inclusiveness and belonging. *Othering and Belonging*. 1(1), 14-39.
- Qin, Y., & Sun, Y. (2011). Xuexiao buju tiaozheng: zhuiqiu yu xiandu [Research on the pursuit and constrains in adjusting school layout]. *Educational research*, 6, 94-101.
- Smethem, L. (2007). Retention and intention in teaching careers: Will the new generation stay? *Teachers and teaching*. 13(5): 465-480.
- Snyder, M., & Glick, P. (1986). Self-fulfilling prophecy: The psychology of belief in astrology. *The Humanist*, 46, 20-25.
- Stockard, J., & Lehman, M. (2004). Influences on the satisfaction and retention of 1st year teachers: The importance of effective school management. *Educational administration quarterly*, 40(5), 742- 771.
- Sparkes, A.C., & Smith, B. (2013). *Qualitative Research Methods in Sport, Exercise and Health: From Process to Product* (1st ed.). Routledge.
- Wang. (2020). Minzu xiangzhen diqu jiaoshi duiwu de wendingxing jiqi duice [An investigation regarding the stability of teacher teams in ethnic minority areas]. *China Academic Journal Electronic Publishing House*, 53-54.
- Wiegand, C. (2003). Factors leading to the retention of K-12 public school teachers: Why do they stay? University of the Pacific. (Doctoral Dissertation).
- Weller, L. D. (1982). Principals, meet Maslow: A prescription for teacher retention. *NASSP Bulletin*, 66(456), 32- 36.
- Yu, Y., & Hu, X. (2013). Nongcun zhongxiaoxue jiaoshi liushi de wenti, guiyin ji chonggou [The issue of teachers' turnover in rural primary and secondary schools]. *Journal of Southwest University*, 5, 71- 76.
- Zheng, X., & Wu, X. (2014). Woguo nongcun jiaoshi duiwu jianshe yu zhichixing zhengce de sikao [Chinese rural teachers and the supportive policies]. *Journal of Hebei Normal University*, 1, 5-10.