



# The Influence Study of Transformational Leadership in University on Teachers' Organizational Commitment: The Construction and Verification of a Theoretical Model

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## Abstract

There is close relationship between teacher's organizational commitment in university and educational quality. How did the leadership in university take effect on teacher's organizational commitment? It is an urgent problem to explore and solve. This paper proposes a theoretical analytical model including transformational leadership, goal setting, self-efficacy, goal self-concordance and organizational commitment on the basis of discussing the function and relationship of mediating factor about self-efficacy, goal setting and goal self-concordance between transformational leadership in university and teacher's organizational commitment. Using the sample of 309 data in China and Structural Equation Model, the present research empirically tests the direct and indirect effect of transformational leadership. The research changes our views on the role of goal setting, self-efficacy and goal self-concordance in the function mechanism of transformational leadership. At the same time, the results provide some references for leaders of universities on how to perfect the effectiveness of leadership by improving teachers' autonomous motivation and organizational commitment.

**Key words:** Transformational leadership; Goal setting; Self-efficacy; Goal self-concordance; Organizational commitment

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## INTRODUCTION

Since the 1990s, the reform and development of Chinese higher education have entered into a rapid development period. By the end of 2009, every kind of national higher education overall scale have exceeded 29,790,000 people. The higher education gross matriculation rate attained 24.4%. The total number of graduates in study reached 1,405,000 people, of which PhD candidates 246,300, master students 1,158,600. The nation altogether has ordinary colleges 2,305, including undergraduate course universities 1,090, High Vocational Education and technical colleges 1,215, ordinary college and university teaching and administration staff 2,111,500, of which there are full-time teachers 1,295,200 (2009 National Education Statistics Bulletin, Ministry of Education in China).

Higher education in China has already entered into the popular stage recognized by international standard. The government has set up the solid basis for higher education sustained and healthy development through increasing investment, pushing the reform of the system of higher education in running schools, investing and logistics. From variety index coming to judge, China's higher education has already become a great power in the world. At the same time, with the rapid expansion of scale of higher education in China, some contradictions and problems existed in the educational administration; for example, the status of quality and level of education are incompatible with the number of growth gradually become the focus of attention.

According to the investigation of Chinese higher education quality in 2006, 70.91% of the public expressed "not satisfied" and "very dissatisfied", and deemed that the quality of higher education had declined after the university increased enrollment (2006 Chinese education blue book).

Thus on the present, it is the inevitable actual problem for the development of higher education in china to strengthen the internal management, promote the

prestige and credibility, and modify the contradiction and disharmony between the quality and quantity.

The key to improve the quality and level of education lies in the teachers and leaders at all levels of university.

As for as the teachers in university are concerned, they not only undertake the heavy teaching task but also hold the duties of scientific research, academic development and ideological education. It is the critical factor for a university development whether it possesses a teacher troop rich in the innovative and good professional ethics. However, the management of university teachers is a big problem. As a special group, the needs of them have their own characteristics; in comparison with the material need, they are more concerned about the spiritual needs, having stronger needs for achievement and development.

Teachers general have a strong independent consciousness, higher achievement motivation and independent values. They pay more attention to the display of specialty, emphasize the self-realization. Teachers in university usually have a highly mobile wish. At the same time, under the new situation and the market economy environment, the mental attitude of university teacher in China has also had a big change. Some of teacher who crave "the secondary occupation", do not invest the main energy into the teaching and the scientific effort. Some teacher's occupational ethics, academic morals, professional dedication seriously slipped. Moreover, some outstanding faculties chose to leave the original post to seek place and working for more conducive to display their expertise. There are many reasons for the university teachers leaving job. The material remuneration is an aspect, but more often are not approve the organization atmosphere and environment, lose the trust to the leader.

The above questions for the university teachers in China which appeared in the new time often showed the low levels of organizational commitment. The so-called organizational commitment is generally defined as a self-identity of a member to the specific organization and the goal, and a psychological phenomenon of maintaining organizational membership, known as the organization's loyalty of members, the approval degree and the participation degree to the organization.

The organizational commitment is an important research field of organizational behavior. From the 1960s, particularly in the recent 20 years, this domain has aroused researchers' enormous interest. Realizing that the teacher this kind of human resources are more important than any other resources, organizational commitment can effectively forecast the staff work effort and turnover intention comparing with numerous organizational behavior indexes, and the teachers rich in organizational commitment are more likely to creative work; therefore, the scholars in the educational fields start to pay attention to the teacher's organizational commitment.

Firestone and Pennell (1993) pointed out that as the works of teachers was difficult to observe and control, so commitment is a decisive factor. Organizational commitment can influence the quality of education development. In the educational organization, Armon (1995) concluded that the level of number commitment to the organization was one of the most important factors relate to the success of education. Szilagy and Wallace (1998) pointed out that the higher the organizational commitment, the better performance in the school (Lu, 2005). Kushman (1992) pointed out that the teacher was the core of school. Whether the teacher identified school, willing to dedicate, or participated actively in the work was the important factor for improving the school effectiveness. Therefore, discussing the teachers organizational commitment not only helps the school to know the centripetal force and loyalty, promote the morale of teacher, but also help school attain rapid and long-term development.

In brief, teacher's organizational commitment is the belt between the teacher and school, and is an important indicator for strengthening organizational cohesive force. The high and low about the teachers organizational commitment is closely related to the teacher job attitude, work performance and burnout, turnover, and influence the performance level of whole school. It will be an important task for leaders at all levels that how to strengthen the level of teacher's organizational commitment.

There are many factors to influence the organizational commitment. The past research showed that leadership was closely related to the employee organizational commitment. In any organization, the leader is always at the core position and plays an important role for the entire organization success and failure. The quality and behavior of the leader often cause the different group atmosphere and organizational internal environment, exert an effect on the employee's positivity and initiative and thus bring about the change of employee organizational commitment.

For the leaders in university in China, under the background of rapid development for higher education, every university in china widespread carried out the reform of college. The power of management and academic quality in college will be exerted and embodied fully by decentralizing power and management emphasis. The university in China is setting up and fulfilling the system focusing on the central of college. It will make the college become the entity of management and running. Now the college has become the most important component for the university in China. It is the practical unit which integrates teaching, research, subject building and students together. From the current situation view, the leader in college is closest to the teacher and student; to a certain degree, the teachers work attitude often rest with the leadership efficiency. Therefore, this study chooses the college's leaders and their subordinate teachers in China as the research object.

Confronting the rapid increasing scale and number of higher education, the college's leaders in China are facing with more and more heavy task. At the same time, their leadership behavior will meet the new challenge in the increasingly complex and mutable environment. How to manage the numerous employees and promote their organizational commitment will meet new complex problems (Zaccaro & Klimoski, 2001). It is the requirement for the leaders in university to ensure the decision-making and leadership behavior rich of science and control the uncertain circumstances.

However, the transformational leadership is just the leadership theory which adapt to the new situation, new environment and new task. From the point of leadership, the transformational leadership is accordant with the complicated and mutable social background. This theory is newest and has the important research worth. The transformational leadership breaks the thinking pattern simulating another, promotes the employee work motivation and level to higher degree by the method of giving them confidence, expressing organizational vision clearly, stimulating the employee potential and affording individual consideration.

Day, Harris and Hadfield (2001) once concluded the research about leadership behavior in school. Among them, forming the collective sense of worth, emphasizing the vision, laying stress on spiritual encouragement as well as offering support and consideration have been believed that these are the most effective leadership behavior, while all of these are the core behaviors of transformational leadership. Past research showed that transformational leadership was a course of interrelationship and transaction between the leaders and employees. The transformational Leader can make employees work together, trust each other, promote employee motivation and then produce the work result exceeding expectation through idealized influence, charisma, inspiration and forming the common worth orientation.

As to transformational leadership, there is important worth and illumination for the university leadership, especially for the characteristic and need of teachers. In the organization of higher education, transformational leadership can take positive effect on teacher attitude. This question has got the common view of researchers. But the processes by which transformational leaders exert their influence on the teacher's motivation and performance are not adequately addressed in the literature. How to produce these effects? What course existed in this act? There is no answer for leaders in university.

Therefore, this study theme locates in studying the process and mechanism by which transformational leadership takes effect on the teacher organizational commitment as an example of university in China.

## 1. THEORETICAL FRAMEWORK

### 1.1 Review of Literature

#### 1.1.1 Transformational Leadership

The concept of transformational leadership was put forward firstly by Burns in 1978 in the book named 《leadership》. On the basis of these, Bass developed and perfected further the transformational leadership theory. He thought that transformational leadership was a course which the enthusiasm for the job of leader and subordinate could be inspired and the occupation moral and work motivation would promote a high level.

Theory of Hierarchy of Needs of Maslow can be applied to explain the course which transformational leadership pays more attention to promote the intrinsic motivation of membership and lift the hierarchy of needs of subordinate to the state of self-actualization. Bass hold that transformational leadership stimulated the high hierarchy needs of subordinate mainly through letting the employee know the important significance of the task which they undertake, and then impel subordinate to exceed the individual benefit for the organization benefit, generating the performance surpassing the expectation.

By this token, transformational leadership is not just limited to looking to the leader as the course or application of skill such as control, correspondence, organization etc management factor; however, it pay more attention to promotion of leadership philosophy hierarchy and the innovation of leadership idea. It is a course by which leader peculiarity such as charisma and personality strength influence the followers, promote the need hierarchy and internal motivation of subordinate, encouraging the employee to challenge and excel themselves and to work hard for the higher goal. Transformational leadership theory was welcomed by the scholars and business when it was introduced. At present, transformational leadership theory has been the new hot point of leadership theory. It is one of the most popular and forefront of the leadership theory.

#### 1.1.2 Organizational Commitment

Becker put forward the concept of organizational commitment in 1960. He regarded the organizational commitment as a psychological phenomenon which employee has to stay in the organization with the increase of input to the organization. After the organizational commitment was advanced, it was paid close attention to by scholars. They brought forward various viewpoint and definitions from different angles.

For example, Allen and Meyer (1991) treated organizational commitment as a psychological tie which maintained the relation between organization and employee, and reduced the follower turnover at large. Organizational commitment can be divided into affective commitment, continuance commitment and normative commitment. Affective commitment is

the feeling dependence, self-identity and devotion of employee to the organization. The employee displays the loyalty and effort for the organization, showing the deep affection to the organization, while there is not material benefit. Continuance commitment is the cognition which employee will cause loss if they leave the organization, is a commitment which employee had to stay in the organization for not losing the treatment of many years investment. Normative commitment is the obligation which the employee maintains in the organization. It is the commitment which the employee chooses to remain in the organization due to the social responsibility by the influence of society. This division has been accepted by the academy.

### **1.1.3 Goal Setting**

Goal setting is the core topic in the research field of modern working motivation. It affects the action by influencing the action direction, tension and sustained time. Locke (1967) advanced the theory of goal-setting. He considered that the goal had the function of encouragement, turning the need of employee into motivation, and ensuring people would make effort along with the definite orientation.

Goal setting is a course by which it concretized the result individual, team and organization expecting, so then raise the action efficacy. The two basic dimensions are: goal content and goal intensity. Goal content can be divided into goal difficult and goal specificity. Specific and challenge goal take the notable influence on the work performance. While goal intensity includes goal importance and goal commitment, the former reflect the condition which goal can be chosen or accepted; the latter reflect the degree which the individual is attracted and work hard for attaining the goal in a persistent way. Goal setting has the difference of leader designating goal and individual goal. The goal setting in this study means a course which takes organizational vision and expectation integrated into the individual goal under the leader's support and guidance.

### **1.1.4 Self-efficacy**

Bandura regarded the self-efficacy as a confidence degree which people whether had the skill to accomplish some jobs in 1977. The concept of self-efficacy had been accepted widely since it was introduced thirty years ago. Scholars have conducted various theoretical and empirical, and now it has been an important psychological variable. Self-efficacy has level, intensity and extent. 1. Level dimension means the difficult or easy degree which someone thinks that he could finish and point to specific goal and action. The difference on this dimension caused that different people choose the different difficulty. 2. Intensity dimension means that the assurance degrees which people actualize specific goal and action. The intensity of self-efficacy may help people believe themselves have the ability to acquire final success. Even

if people face many difficulties, they will never abandon the goal setting. 3. Extent dimension means individual have confidence to finish the task that the concerned with self-efficacy.

### **1.1.5 Goal self-concordance**

Goal self-concordance is the accordance degree which the goal of individual with the intrinsic interesting and sense of worth. Sheldon and Elliot think that goal self concordance reflect that the goal from individual setting root in the self-identity degree of individual to the goal itself from heart. If the individual is driven by selfhood and takes on the strong autonomous motivation, goal self concordance will be high; if the goal by individual setting more root in the pressure from the external world or himself negative emotion; while not selfhood, the goal self concordance will be low.

The high or low of goal self-concordance is contacted with the autonomous motivation and control motivation. The operation definition of goal self concordance was the difference from autonomous motivation to control motivation. The theory of goal self concordance considered the function of self autonomous and control motivation at the same time. So it reflected the conformity of individual motivation on the intension continuum, and reflected the level of individual goal accord with the selfhood.

## **1.2 Relationships Among The Constructs**

### **1.2.1 Transformational Leadership and Organizational Commitment**

Transformational leadership can make the employee trust and respect their superior, pay the extra effort exceeding expectation. Influenced by the transformational leadership, the employees internalize the sense of worth and goal of leaders. They surpass the present advantages to pursue for the goal and mission advanced by the leader. Transformational leadership can inspire the follower motivation of achievement and high hierarchy of need in order to strengthen the organizational commitment.

Many empirical researches showed that transformational leadership is positively related to follower organizational commitment in the different organization and culture. For example, Avolio, Waldman and Einstein (1998) suggested that transformational leadership could ensure the follower remain high commitment to the organization and others, volunteer to sacrifice themselves. Kirby and Paradise (1992) drew a conclusion that the headmaster as transformational leadership took effect on the teacher's activity and commitment by individualized consideration and intellectual stimulation. Koh, Richard and Terborg (1995) found in Singapore that transformational leadership had displayed correlation with teacher's organizational commitment, organizational citizenship behavior, satisfaction of teacher to the leader and the student's performance. In an investigation about

nurse, Bycio, Hackett and Allen (1995) found that transformational leadership was close positively related to the organizational commitment. Leithwood's research (1999, 2000) also showed that principal's transformational leadership exerted positive influence on the teacher's organizational commitment.

Meng (2004) explored the relationship among the transformational leadership, employee satisfaction and organizational commitment on the context of China. Jia, et al. (2006) tested that there was a distinct positive relation between transformational leadership and follower commitment based on 972 administrative staff in every type corporation in China. Chen, et al. (2006) systematically verified the relationship among the transformational leadership, psychology empowerment and organizational commitment by surveying managers in China with the questionnaire. The result showed that transformational leadership was positive related to the follower organizational commitment.

Up to now, although the research about the relation between transformational leadership and indicator of leadership effectiveness such as organizational commitment has made big progress, and draw the roughly accordant conclusion, the research about the mechanism and process by which transformational leadership influences is still in its beginning stage. The present document could not ascertain the influence of transformational leadership to organizational commitment is direct or indirect. If there is mediating variable, still no way to ascertain the real mediating variable (Ehrhart, 2001).

The research about the influence mechanism for transformational leadership is still unclear (Bass, 1999; Dvir et al., 2002; Bono & Judge, 2003; Kark & Shamir, 2003; Piccolo & Colquitt, 2006). It need further research to explain the relation among transformational leadership, employee work attitude and performance, disclosing the mediating and moderating effect between transformational leadership and result variable. Bass, as a presenter of transformational leadership, once summarized the twenty years research of transformational leadership in 1999. When he looked into the distance for the future research, he pointed out that future research should strengthen the research of mechanism of transformational leadership taking effect in order to open out the "black box", and list it as one way of five directions of the next research.

### **1.2.2 The Link Between Transformational Leadership and Organizational Commitment**

Although the research about the mechanism of leadership behavior interior influence is still in its beginning stage, many research results showed that the relation between the leadership and such as goal setting variable was the main cause for influencing the leadership behavior and its effectiveness (Locke, 1990). Locke and other scholars found that external stimulation and pressure always influenced motivation by goal. Tested by a mass

of laboratory research and field surveys, Locke pointed out that no matter what encouraged measures were taken, it can't do without goal setting. For every inspire factor, most of them are goals. So the most essential thing for researching inspire question is to put attention to goal setting and set appropriate goals as far as possible.

Kirkpatrick and Locke (1996) once verified by experimentation that transformational leadership components such as vision quality and vision execution could influence self goal setting and self-efficacy, and then influenced organization performance, played the mediating role in this course. Whittington, Goodwin and Murray (2004) indicated that the challenged goal setting was an important variable for the organizational performance. In addition, Llies, Judge and Wagner (2006) had Constructed a concept model and tried to explain the operation mechanism of transformational leadership by a series of mediating course which transformational leadership ingredient such as vision stimulation affect goal setting, and then impact self-efficacy and self-goal setting. The research of predecessors have taken notice of the important mediating effect which variable such as goal setting and self- efficacy have taken in the process of transformational leadership exerting influence.

Bandura's self-efficacy theory disclosed the inherent mechanism which external goal convert behavior agent. Self-efficacy has been a mediating cognize factor which was accepted universally and influence people motivation. Scholars deepen the cognition about the relation among goal setting, self-efficacy and working performance. Appelbaum and Hare (1996) indicated that goal setting could take an effect on the employee attitude through the mediator of self-efficacy.

According to the self-determination theory and self goal concordance theory, Harter (1992) considered that the internalization motivation embodied the socialized course of individual. Under the specific cultural background, individual behavior controlled by external guerdon originally was held in esteem by leader and other important people. Then the attitude or faith related to this behavior would gradually be the constituent part of individual selfhood. This is a process which person's behavior can be converted from self discipline to the restraint by others. We can say that internalization motivation represents a motivational orientation of self-regulation. Employees internalize the work goal and task perfectly, and form the independence motivation. Devote them into the work, form positive psychological experience at work, producing the high work performance. Goal self-concordance can play the mediating role between the external factor and internal motivation stimulation. Bono and Judge (2003) also tested empirically that goal self- concordance could exert the mediating influence between the transformational leadership and employee job satisfaction and organizational commitment.

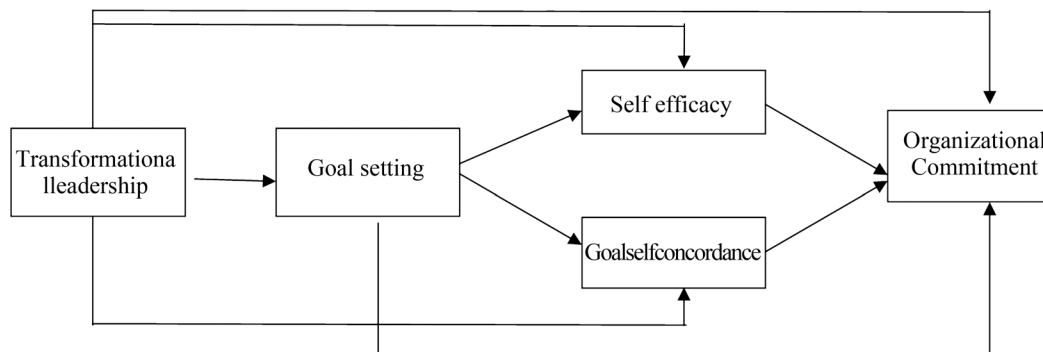
Conclusion from above, there are close relation among transformational leadership, goal setting and self-efficacy. The interaction between them can bring about the promotion of organizational commitment. Under the premise of goal setting, the internalization of self-determination and self goal concordance to the external motivation also exert the bridge effect for the realization of mechanism of transformational leadership. This paper considers that goal setting is an important variable in the many mediating variable regulated leadership and leadership effectiveness. One reason is that some research have confirmed that goal exerts the mediating effect between the leadership behavior and leadership effectiveness; on the other hand, such mediating variable which exert effect between leadership behavior and leadership effectiveness as psychological empowerment, trust, employee perceived fairness and leader member exchange are all related to goal setting and self-efficacy. Additionally, from the former analysis about the interrelation of the correlative variable, we find that it still lacks a tie which connects transformational leadership and organizational commitment. Goal setting and correlative variables such as goal self-concordance and self-efficacy and the interaction between them are required and taken effect on the tie.

In a word, on the basis of former research, this paper

considers that goal setting plays the important role among transformational leadership, self-efficacy and goal self-concordance. These interactions of factors construct a self-regulation course between transformational leadership and employee organizational commitment, and exert bridge effect between transformational leadership and employee organizational commitment as a result of the existence of this self-regulation course.

Based on a fact, this paper considers fully the function of internal motivation, self-efficacy and goal self-concordance, construct a self-regulation course comprising goal setting, self-efficacy and goal self-concordance. We will put the relation among transformational leadership, goal setting, goal self-concordance, self-efficacy and organizational commitment into the large theme framework of mechanism by which transformational leadership exerts its influence to explore and research the relation among transformational leadership, self-regulation course and organizational commitment, proclaim how the external inducement exerts the internal stimulation by the mediating self-regulation, disclosing the process which transformational leadership in university take effect on the teacher's organizational commitment by self-regulation, and then open out the "black box" of mechanism of transformational leadership.

The theoretical model is showed as figure 1.



**Figure 1**  
**Theoretical Model Framework**

## 2. METHODS

### 2.1 Participants

In order to get enough effective samples, this research adopts the pattern which combines the nonrandom typical survey and random sampling on the choice of sample. Firstly, according to the ranking and classification of Chinese university by Wu in 2008, the university can be divided into the Research University, Research and Teaching University, Teaching and Research University, or Teaching University. Some universities are selected as the representative unit of this survey from universities in every city. This survey involved 68 all kinds of universities in 10 provinces and municipalities such as

Shandong, Shanghai, Shanxi, Hebei, Beijing, Guangdong, Henan, Anhui, Neimenggu and Guangxi.

There include Shandong university, Xi'an jiaotong university, Zhongshan university, Tongji university as 6 research universities, occupy 16.7% proportion for the total 36 research universities; and include Xibei university, China ocean university, Shandong agriculture university as 12 research and teaching universities, occupy 13.2% proportion for the total 91 research and teaching universities; and include Qingdao university, Xi'an science and technology universities, Hebei economic and trade university as 21 teaching and research universities, occupy 14.5% proportion for the total 145 teaching and research universities, and include Weifang college, Baoji

arts and science college as 30 teaching universities, occupy 9.1 proportion for the total 332 teaching universities. It covers basically all levels of university in China. The representative region and category of sample are all better. The constitution of sample is in keeping with the university's constitution in china. Because of worrying about that different subject maybe produce different effect to the leadership behavior and teacher work attitude, we choose the different subject college and department as survey object as far as possible. At the same time, we require a random sample according to teacher roster of objective units when the survey begins.

## 2.2 Data Collection

This questionnaire survey take three more months, issue the questionnaire to the teachers belonging to 386 colleges or departments in dozens of universities. The survey issued totally 556 questionnaires on paper, 266 electronic questionnaires, and received 495 questionnaires on paper, 217 electronic questionnaires. Eliminating the questionnaires whose answers are not complete or serious (such as all of question are only one answer), get the effective questionnaires 675. The effective rate of recovery is 82.1%. In the light of line of authority, college leader and college teacher matched 309 pairs altogether. Every leader corresponds to 2-3 teachers. Among them, there are 252 leaders correspond to 2 subordinates, 57 leaders correspond to 3 subordinates. In order to reduce the common method variance possibly existing (Podsakoff, Mackenzie and lee 2003), such as leadership behavior, goal setting, organizational commitment, self-efficacy and goal self-concordance indicator are all used the average of every leadership's subordinate.

## 2.3 Measures

### 2.3.1 Transformational Leadership

We used the transformational leadership questionnaire (TLQ) revised and developed by Li and Shi in 2005 under the Chinese cultural background. TLQ has been a mature questionnaire admitted by scholars, and it can be divided into four dimensions: morale modeling, visionary, charisma and individualized consideration. Under the background of high educational organization, some content and words were revised. Every factor's Cronbach's  $\alpha$  coefficient is 0.9520, 0.9239, 0.9347 and 0.9251 respectively. The factor analysis finds that the transformational leadership questionnaire can totally extract 4 factors. According to the Cattell scree test method, cumulative total variance explained is 75.32%. The structure of every factor is distinct. Factor loadings all exceed 0.50. Rating is completed on a five-point Likert scale.

### 2.3.2 Goal Setting

We used goal setting questionnaire developed by Locke and Latham in 1984, translated and revised in the background of China. We used this questionnaire to survey beforehand, and used SPSS11.5 tool to have an

item analysis, factor analysis and reliability test. The item which discrimination is not high will be deleted. At last, the questionnaire remained 11 items altogether. We choose the eigenvalue which is more than 1 as the standard of extraction, taking the method of principal components analysis and varimax rotation, conduct the exploratory factor analysis to the remain items. The result shows that two factors eigenvalues are more than 1, exactly according with goal content and goal intense of goal setting two dimensions. They explain the variance variation 56.99%. Factor loading of the scale items all exceed 0.5, illustrating that the revised goal setting questionnaire has good discriminatory validity. By calculation, the Cronbach's  $\alpha$  coefficient of general goal setting scale is 0.8832; also show that this scale has the perfect reliability coefficient.

### 2.3.3 Goal Self-concordance

We adopted the measure procedure developed by Sheldon and Elliot (1999). Followers were asked to identify six of their short term, job related goals. Every goal corresponds with four types of motivation. Participants answered the question about four motivations for each of the goal using a nine point Likert scale (from 1=not at all this reason to 9=completely this reason). The score of goal self-concordance is the autonomous motivation of six goals score subtract from the controlled motivation of six goals score. By calculation, the Cronbach's  $\alpha$  coefficient of autonomous and controlled respectively is 0.7157 and 0.8650.

### 2.3.4 Organizational Commitment

Organizational commitment was assessed by using a 12-item scale developed by Allen and Meyer (1996) on the basis of adjusting a few sentences from the context, including three components: affective commitment, normative commitment and continuance commitment. The Cronbach's  $\alpha$  coefficient of affective commitment, normative commitment and continuance commitment respectively is 0.8963, 0.8891 and 0.7356. Factor analysis finds that the organizational commitment scale can extract 3 factors according to the Cattell scree test method. Cumulative total variance explained is 72.62%. Factor loading all exceed 0.50. The structure of scale is good.

### 2.3.5 General Self-efficacy

The scale of general self-efficacy was developed by Schwarzer, et al (1981), while the Chinese version was translated and revised by Wang (2001), and the reliability and validity was analysed in China. The result shows that the Cronbach's  $\alpha$  coefficient is 0.87, test-retest reliability is 0.83 ( $p < 0.001$ ), and split-half reliability is 0.82 ( $p < 0.001$ ). Ratings are completed on a four-point Likert scale. The factor analysis shows that the eigenvalue which is more than 1 is only one, cumulative total variance explained is 53.69%, and factor loading all exceed 0.50. It has distinct single dimension character. This result is accord with the past researches.

### 3. RESULTS

#### 3.1 Descriptive Analyses

**Table 1**  
**Descriptive Statistics and Correlations for All Variables**

	Mean	S.D.	1	2	3	4	5
Transformational leadership	4.0695	.6472	1				
Goal setting	3.7286	.5359	.501**	1			
Organizational commitment	3.5985	.6160	.522**	.557**	1		
Self-efficacy	2.6582	.5678	.396**	.549**	.448**	1	
Goal self-concordance	3.3553	4.5662	.289**	.326**	.314**	.317**	1

\*\* p<0.01 \* p<0.05(two tails)

The correlation coefficients of all variables are provided by Table 1. It shows that the relation between every variable is strong.

#### 3.2 Test of Structure Equation Model

The computing result of LISREL8.70 is showed on Table 2. In the measurement model, the factor loading of all of

the variables are positive values and significant. All of the measurement errors are positive values. The absolute values of standardization for all of path coefficients are less than 1. There are no irrelevancy solutions.

**Table 2**  
**The Correlation Test of Latent Variable in Model and Standardization Path Coefficient**

		Standardization path coefficient	S.E	T value
TFL→	OC	0.36	0.06	6.14***
TFL→	SE	0.04	0.05	0.84
TFL→	GSC	0.12	0.09	1.39
TFL→	GS	0.48	0.05	8.90***
SE→	OC	0.15	0.09	1.68*
GSC→	OC	0.13	0.05	2.87***
GS→	OC	0.52	0.11	4.73***
GS→	SE	0.57	0.08	6.72***
GS→	GSC	0.48	0.12	4.05***

\*p<0.1(T>1.65), \*\*p<0.05(T>1.97), \*\*\*p<0.01(T>2.6)  
 TFL=transformational leadership, OC=organizational commitment  
 SE=self-efficacy, GS=goal setting, GSC=goal self-concordance

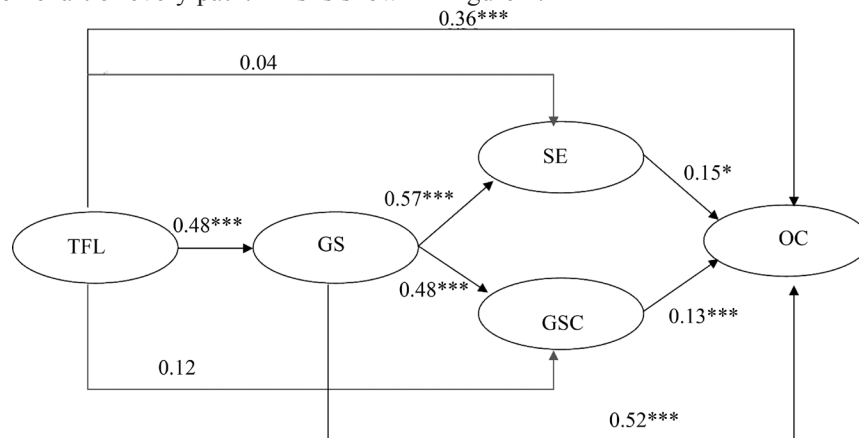
Table 3 gives the result of LISREL fit goodness for the whole model in which transformational leadership influences organizational commitment. We find from

Table 3 that the whole model fits well, in accord with the relative requirement and attained the aim of the research.

**Table 3**  
**Fit Result Which Transformational Leadership Influence Organizational Commitment**

Index	$\chi^2$	df	$\chi^2/df$	RMSEA	GFI	AGFI	NFI	NNFI	CFI	IFI
	381.69	162	2.36	0.066	0.89	0.86	0.96	0.97	0.98	0.98

In order to formulate the relation of every latent variable more clearly and get a comprehensive understanding, we paint the relation chart of every path. This is shown in figure 2.



**Figure 2**  
**Path Coefficient Chart of Model Which Transformational Leadership Influence Organizational Commitment**

\*p<0.1 (T>1.65), \*\*p<0.05 (T>1.97), \*\*\*p<0.01 (T>2.6)



## 4. DISCUSS AND APPLICATION

### 4.1 Discuss

The result of this study shows that there is significant positive relation between transformational leadership and employee organizational commitment. This conclusion verifies the researches of Bono and Judge (2003); Lowe, Kroeck and Sivasubramaniam (1996); Koh, Steers and Terborg (1995) about the relation between transformational and organizational commitment.

This study finds that transformational leadership can directly influence organizational commitment, also take effect on the employee through the indirect path, while more behaviors are passed through the self regulation course. No matter what the direct or indirect path, the effect on which transformational leadership takes teacher's organizational commitment in the peculiar cultural background of high education in China has been proved. This result shows a high coherence with similar researches, demonstrates that the effect of transformational leadership exerting employee organizational commitment possesses the adaptability of striding culture and industry.

It is emphases to test the mediating affect of goal setting, self-efficacy and goal self-concordance in this study. We have a statistical analysis mainly by structure equation model and find that goal setting, self-efficacy and goal self-concordance all exert mediating effects between leadership behavior and organizational commitment or other variables.

Firstly, this study chooses the college dean and teacher as the research object and verifies the positive effect on which transformational leadership take the teacher's organizational commitment by the mediating variable—goal setting. We often ignore the goal as an important role; although the past research tested that transformational leadership could effectively promote the trust of employee to leader and organizational commitment. The guided and encouraged action of goal has started the mechanism of effects for promoting job satisfaction and organizational commitment. The effect of the goal, as an important variable, has been embodied well in this study.

Secondly, there is a close relation between goal setting and self-efficacy. Self-efficacy is an important mediating factor of impacting people motivation. The relation among goal setting, self- efficacy and task performance has been supported by some research, such as the research of Appelbaum and Hare in 1996. They pointed out that goal setting could take effect on the employee by the mediating variable of self-efficacy. This study further verifies the mediating effect which self-efficacy exerts between goal setting and organizational commitment by the relation between leaders and teachers in universities on the basis of former research.

Thirdly, Bono and Judge found in their research in 2003 that transformational leadership impacted remarkable

effect on the goal self-concordance, and at the same time, exerted mediating effect among transformational leadership, employee job satisfaction and organizational commitment. Our study is a supplement to the research of Bono and Judge about the effect of goal self concordance. It verified the mediating role of goal self concordance between goal setting and organizational commitment, and then produced the influence to organizational commitment result variable.

In other words, there are three variables which exert the effect in the course which transformational leadership impact teacher's organizational commitment. These variables are not exertion independent. There is a course of interaction and self-regulation in them. Transformational leadership in universities influences goal setting firstly, influences goal self -concordance and self-efficacy through goal setting, and then influences teacher's organizational commitment.

In addition, we emphasized that the goal variable plays the crucial role in the interrelation of these variables, especially on the relation between transformational leadership and the teacher's organizational commitment. As for the influencing course of transformational leadership, firstly, it influences the goal setting of the teacher, and then influences self-efficacy and goal self -concordance through goal setting, so the mediating role for goal getting in the course displayed very prominently. Goal setting is the influence antecedent of teacher self-efficacy and goal self -concordance, and has the high relativity with teacher organizational commitment; so if a problem exists in the goal setting, it will severely influence the level of the teacher's organizational commitment. Integrating the result of this study, we can find that the research design which leadership exerts on the goal and the goal influences the self incentive and action, an existing course of self-regulation is feasible no matter in theory or practice.

### 4.2 Application in Management

Transformational leadership can take significant positive effect on the teacher's organizational commitment. This indicates that it is important for every level of leader in universities to adjust their leadership styles and behavior manners except depending on every type of rule and system, such as exerting a kind of performance appraisal system, reward system and personnel system on the teacher. This requires that the leader himself is a person who is full of charisma, is noble character, considers teacher work and development, and demonstrates striving for goal and direction for the teacher. Only this can better promote teacher's organizational commitment, increase the trust for teacher in the leader, further encourage the teacher, make them abide by the every promise to the organization, and wish to contribute more wisdom and power for the organization.

Secondly, the result of this study makes clear that

the leader in a university should assist teacher to work out reasonable and scientific goal to promote their autonomous motivation and self-efficacy, and then improve their work performance in the course of leadership. Because goal setting, self-efficacy and goal self-concordance exert mediating effect between the transformational leadership and organizational commitment. Without good goal setting, not only will this transformational leadership behavior effectiveness be unable to play successfully, but also produce negative effects to the teacher's organizational commitment and job satisfaction, and finally damage teacher organizational commitment, increase teacher's job burnout and turnover. Achievement in a career is the collective expectation for teacher in university. The teacher always gains the inward satisfaction from the success in their career, such as pride, honor and achievement. Universities should set up a series of rules and measures to help teachers to establish specific and clear striving goals, play the stimulation effect, and lead teachers to put the individual striving goal to meld with the development goal of school and country. These goals can make teachers produce more strong inspiration; derive the high hierarchy of satisfaction from honor, achievement, self-esteem, development, etc to get self-realization.

Thirdly, the university should keep the human resource appraisal and teacher interest as a basis, work out professional career plans for every teacher, and promote their vocational development ability. Considering from the angle of influencing teacher organizational commitment, we should make great efforts to create conditions for teacher education and provide space for their accomplishment of achievement requirement and foster devotion to the duty. The goal of a school is not only teaching and education, but also training high level teachers, helping them to realize their self worth, and attaining the self-identity of the university. In addition, starting from the job character, we should extend the work fields of teacher continually and create conditions to make teacher participate in university management actively. As for those teachers who have strong achievement requirement and ability, we should give them challenging work and stimulate their high level of commitment. In the planning of a teacher's career, we should pay attention to the teacher's commitment persistently, discover the initiating factor, and incline which makes the teacher turn out, especially taking effort on reducing the latent wastage.

## 5. LIMITATIONS AND FUTURE IMPLICATIONS OF THE STUDY

Although this study has finished the theoretical conception and attained some new research outcome; it still has many important theory and practice problem to investigate

further, and exists hereinafter limitation. We expect to improve and perfect it in the future.

Firstly, the main concepts in this paper, including transformational leadership, goal setting, etc, are all considered as a higher order construct. We have not studied the relation among these concepts further, so this point needs successor study to give particular attention and argumentation. This can be the direction of exploration and improvement in the future.

Secondly, the interaction of leadership behavior, goal setting and employee work attitude is a long course, and the influence to the performance need even more time to take effect. While, the best way is to use the method of longitudinal, measure the variables from the different time interval. As to the limitation of condition in research, we only use the research of cross section, measure every variable on the same time interval, so we can't explain the dynamic course of interaction among leadership behavior, goal setting, and employee work attitude.

Thirdly, this study takes the measure method of subjective evaluation for the related index of transformational leadership and individual. Although this method often was used by many same researches, the subjective evaluation also brings the increase of measure error and reduction of research reliability. This is a place of improvement in the future.

Fourthly, this study inspects the effectiveness and mechanism of transformational leadership from the individual level; it has not inspected the influential mechanism of transformational leadership from group and organization levels. Bass thinks that transformational leadership could exert its effect on the individual, group, and organization three levels at the same time. Therefore, the research in the future should explore and study overall the influential mechanism of transformational leadership from group and organization.

Fifthly, this study mainly conducts investigation in the colleges of a university, takes the teachers in a university as the research object. Whether the results and related model can be spread into other fields and crowds are still to be tested in the future.

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