

Research on the Influencing Factors of University English Teachers' Transformation under the Background of New Liberal Arts

—Taking the Transformation of English Teachers into Business English Teachers as an Example

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Abstract

From a disciplinary perspective, business English belongs to the interdisciplinary major of new liberal arts. The teaching staff of business English major mainly come from the transformation of college English or English major teachers. Based on a survey of 350 questionnaires, this article applies the Logit-ISM model to analyze the influencing factors of English teachers' transformation to business English teachers and the hierarchical correlation between these influencing factors. It is found that 9 factors, such as the discipline integration trend and children's education, have a significant impact on the transformation of English teachers into business English teachers; the factors related to family environment and job pursuit have a surface impact on the transformation of English teachers, while the factors related to work status and environment have an intermediate impact. In the long run, the teachers' individual characteristics and the discipline integration trend are the profound factors driving the transformation of English teachers into business English teachers. Based on the research result, this article puts forward suggestions for promoting the development of business English teachers in terms of personnel selection and policy support for transformation.

Keywords

English Teacher, Transformation, Business English Teacher, Influencing Factors, Logit-ISM Model

1. Introduction

New liberal arts refers to the disciplinary reorganization of traditional liberal arts, resulting in the cross integration of liberal arts within liberal arts and between liberal arts and natural science. It has the characteristics of problem orientation, cross integration, application of new technologies, and innovative development (Hu, 2020). Higher foreign language education is an organic component of the construction of new liberal arts (Wu, 2019). In the context of new liberal arts construction, the “new” of higher foreign languages lies in the fact that it makes good use of interdisciplinary integration as a “catalyst”, achieving interdisciplinary knowledge recombination and innovation, and providing a broader development space for high-quality foreign language talents (Chen, 2023). Business English major is a kind of new liberal arts because it follows the concept of “interdisciplinary between liberal arts” and combines language and business to study the application rules of English in business activities (Zhan, 2020). Business English teachers are critical factors and important guarantees for the high-quality development of the business English major, and the fundamental basis for cultivating applied talents. However, the vast majority of business English teachers in China are those who transformed from college English teachers or English major teachers, who obviously cannot effectively meet the needs of the rapid development of business English major. Therefore, examining the specific factors that influence these teachers’ transformation and exploring how to promote their transformation can help improve the professional development of business English teachers and enhance the construction of business English major as a new liberal art.

Based on the above-mentioned analysis, this article conducts a research on the influencing factors of university English teachers’ transformation into business English teachers according to previous research results and 350 questionnaires in Shandong Province, China. Firstly, the Binary Logit model is used to determine the influencing factors of English teachers’ transformation into business English teachers. Then, the Interpretative Structural model (ISM) is used to further analyze the internal logic and hierarchical structure between each influencing factor. Finally, based on the model results and the logical relationship between the factors, reasonable policy recommendations are proposed to enhance the transformation of English teachers into business English and the construction of professional teaching staff of business English major.

2. Conceptual Definition and Analytical Framework

2.1. English Teachers’ Transformation into Business English Teachers

Business English teachers refer to teachers who are engaged in teaching business English. Business English teachers should have both language and business knowledge, be proficient in using business English theory to study business practice issues, and have experience or expertise in enterprise business practice (Guo & Niu, 2016). At present, the majority of business English teachers in Chinese

universities specialize in teaching English language and literature (Jiang & Wang, 2020), and they transformed from language teachers to become “double-qualified” teachers with knowledge of both language and business. Therefore, English teachers’ transformation into business English teachers refers to the behavioral choice of teachers who are proficient in English language and literature at first engage in business English teaching by constructing their professional business knowledge and abilities through educational learning, school-based training, cooperative teaching, scientific research, and enterprise practice (Zhang & Guo, 2018; Peng & Hu, 2019), in order to meet the development needs of university business English major or the needs of the teachers.

2.2. Research Hypothesis

Drawing on the existing research results and combining with the definition of English teachers’ transformation into business English teachers, the factors influencing English teachers’ transformation into business English teachers are summarized into four aspects: individual characteristic variables, family characteristic variables, work characteristic variables, and environmental characteristic variables.

1) Individual characteristic variables (gender, teaching experience, highest academic degree, professional title, interest level). Teachers’ individual characteristics have an impact on their transformation into business English teachers. Generally speaking, under the influence of traditional gender culture, female teachers have higher demand for stability in their professional values, while male teachers have a more adventurous spirit (Cao, Liu, & Yang, 2020). Thus, male English teachers have a stronger and greater willingness and possibility to transform into business English teachers than female English teachers. With the teaching time increasing, teachers’ individual energy, physical strength and learning ability are not as good as before; they incline to maintain the status quo, and are not likely to transform to business English teachers. Higher education level often representing stronger learning and cognitive abilities, may lead to a more proactive attitude towards new knowledge and a greater possibility of transformation. Professional title not only represents a teacher’s academic level but also relates to their salary and benefits. If teachers have already obtained their ideal professional titles, they may be content with their present posts and not choose to transform. So, it can be inferred that the higher the professional title is, the less likely an English teacher is to transform into a business English teacher. Interest is an important factor that affects individual learning behavior and performance. If teachers enjoy business knowledge and activities very much, they will be eager to learn and teach relevant professional knowledge, and the possibility of transforming into business English teachers will be greater.

2) Family characteristic variables (children’s education, household chores). The family situation affects whether English teachers transform into business English teachers or not. Children’s education and household chores are important tasks

faced by every teacher, especially female teachers. On the one hand, teachers are responsible for teaching and research tasks, and on the other hand, they also bear family responsibilities such as children's education and household chores. This may lead to higher pressure on teachers and prevent them from transforming into business English teachers since they are lack of time and energy.

3) Work characteristic variables (workload, professional identity, professional title evaluation). The work situation will have an impact on English teachers' transformation into business English teachers. Teaching business English involves a vast amount of business knowledge, and for English teachers without such knowledge background, it requires a lot of time and effort to learn and prepare. The resulting heavy workload may lead to teachers not choosing to transform. "Teacher identity" not only means "I am a teacher, but also what type of teacher I am; it emphasizes not only how I adapt to and play the social role as a teacher, but also how I understand this role" (Benson, 2017). Compared with teaching college English, teaching business English may receive higher recognition from students, parents, society, and even teachers themselves. This sense of professional identity and achievement may drive teachers to make proactive choice—transforming into business English teachers. Business English is an emerging interdisciplinary major, and teachers teaching this major may be more likely to make achievements in teaching, research, and student academic guidance, which is conducive to the evaluation of higher-level professional titles. Therefore, some English teachers choose to transform into business English.

4) Environmental characteristic variables (colleague encouragement, college encouragement, discipline integration trend). At the beginning of the establishment of the business English major, in order to meet the demand for teaching staff, the college may encourage teachers with certain conditions to transform into business English teachers. If some colleagues have already transformed to business English teaching, some others may also choose to follow due to their influence and encouragement. The integration of disciplines is a growing trend, and business English is an inevitable result. This reality may prompt English teachers to choose to transform into business English teachers.

3. Model Construction, Data and Variable Description

3.1. Model Selection

3.1.1. Binary Logit Model

Since the dependent variable "whether an English teacher transforms into a business English teacher" is a binary variable, with "Yes" assigned "1" and "No" assigned "0", this article uses a Binary Logit model to analyze the significant influencing factors (hereinafter referred to as "influencing factors") of English teachers' transformation into business English teachers. The model takes the following form:

$$\ln \frac{p}{1-p} = b_0 + b_1 x_1 + b_2 x_2 + \dots + b_n x_n + \varepsilon \quad (1)$$

In the formula: $x_i (i = 1, 2, 3, \dots, n)$ are the explanatory variables composed of individual characteristics, family characteristics, work characteristics, and environmental characteristics of teachers; b_0 is a constant term; ε is a random error term.

Through statistical software Stata15.0, the above logit model is estimated, the impact of different factors on the behavior of English teachers' transformation into business English teachers can be obtained, and the significant influencing factors can be identified.

3.1.2. ISM Model

Interpretative Structural model (ISM) can construct complex system elements into a multi-level hierarchical structure model, revealing the inherent connections between various factors and discovering the leading factors that affect the research problems (Cai, Fang, & Zhang, 2021). The various influencing factors of English teachers' transformation into business English teachers may not only act independently, but also be interrelated and interact with each other, forming a multi-level and hierarchical structure of influence. Therefore, this article adopts ISM to further analyze the inherent logical connections between various influencing factors. According to ISM modeling steps provided by Sun, Feng and Zhang (2014) (as shown in Figure 1), the mechanism analysis steps for the influencing factors of English teachers' transformation into business English teachers are as follows:

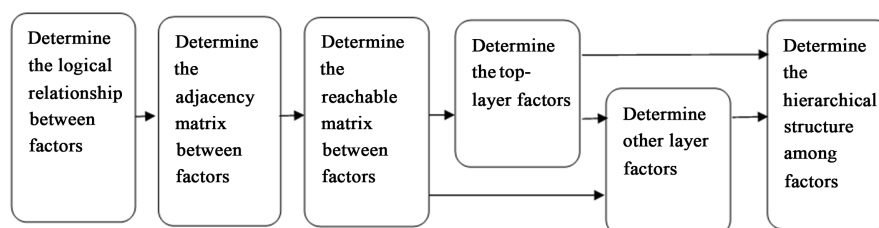


Figure 1. Modeling process of ISM.

Firstly, construct an adjacency matrix that represents the logical relationships between factors. According to the regression results of the Binary Logit model, there are n possible influencing factors for English teachers' transformation into business English teachers. S_0 is used to represent whether English teachers choose to transform, and $S_i (i = 1, 2, \dots, n)$ is used to represent the influencing factors for English teachers' transformation into business English teachers. "Mutual premising" or "mutual influencing" between any two factors are defined as the logical relationship between factors. According to this logic relationship, construct the adjacency matrix R of the factors and define its constituent elements as follows:

$$r_{ij} = \begin{cases} 1 & S_i \text{ influences } S_j \\ 0 & S_i \text{ not influences } S_j \end{cases} \quad i = 0, 1, \dots, n; j = 0, 1, \dots, n \quad (2)$$

Thereinto, i and j represent row and column elements respectively, and S_{ij}

represents the value constituted by row i and column j of the matrix.

Secondly, determine the reachable matrix among the factors. The reachable matrix reflects the direct and indirect relationships between various factors that affect the transformation of English teachers into business English teachers, specifically manifested as the degree to which the various factors in matrix can reach through certain pathways. The reachable matrix M can be calculated by equation (3) as follows:

$$M = (R + I)^{\lambda+1} = (R + I)^{\lambda} \neq (R + I)^{\lambda-1} \neq \dots \neq (R + I)^2 \neq (R + I) \quad (3)$$

Thereinto, I is the identity matrix, $2 \leq \lambda \leq n$, and the matrix is exponentiated through Boolean operations.

Thirdly, clarify the hierarchy of each influencing factor. To begin with, clarify the influencing factors at the highest level and divide the reachable matrix into two parts: the reachable set $P(S_i)$ and the antecedent set $Q(S_i)$. Among them, $P(S_i)$ represents the set of all influencing factors that can be reached from the influencing factor S_i in the reachable matrix, and $Q(S_i)$ represents the set of all influencing factors that can reach the influencing factor S_i in the reachable matrix. Specifically, it is represented as:

$$P(S_i) = \{S_j \mid m_{ij} = 1\}, Q(S_i) = \{S_j \mid m_{ji} = 1\} \quad (4)$$

Thereinto, m_{ij} and m_{ji} both represent the influencing factors of the reachable matrix M . A factor can be determined as the highest level factor when the reachable set and the antecedent set satisfy the condition of equation (5).

$$L_1 = \{S_i \mid P(S_i) \cap Q(S_i) = P(S_i); i = 0, 1, \dots, k\} \quad (5)$$

After determining the influencing factors at the highest level, identify the influencing factors at other levels gradually. Delete the rows and columns corresponding to the influencing factors in set L_1 from the original reachable matrix M , and then a new matrix M' can be obtained. Repeatedly split M' and determine the hierarchical factors of M' to obtain the influencing factors located in the second layer L_2 . By analogy, the hierarchy of various influencing factors can be distinguished.

Fourthly, clarify the hierarchical structure of the influencing factors. By connecting adjacent levels and factors within the same level with directed edges, we can obtain the correlation and hierarchical structure between the influencing factors of English teachers' transformation into business English teachers.

3.2. Data Source and Sample Condition

The data used in the article come from a special survey conducted by the research team on universities in Shandong Province in February, 2024. The research group took English teachers from 25 undergraduate universities with business English major as a sampling box and conducted a questionnaire survey through random sampling to select 371 teachers who teach college English, English majors, and business English majors. After removing invalid questionnaires, the remaining sample of 350 questionnaires reached an effective rate of 94.34%. This survey

covers both public and private undergraduate institutions with business English majors. Among the surveyed teachers, 34% have already transformed into business English teachers, and 66.57% are female, which is relatively higher than male. The survey data have high representativeness and credibility.

3.3. Variable Description

According to the research hypothesis, the influencing factors of English teachers' transformation into business English teachers are classified into 4 categories and 13 variables, as shown in **Table 1**.

Table 1. Variable meaning and descriptive statistics.

Variable name	Symbol	Variable meaning	Mean	Standard deviation
Transform or not	<i>trans</i>	No = 0; Yes = 1	0.34	0.4744
Individual characteristics				
Gender	<i>gender</i>	Male = 0; Female = 1	0.67	0.4724
Teaching experience	<i>year</i>	Less than 5 years = 1; 5 - 10 years = 2; 11 - 15 years = 3; 16 - 20 years = 4; more than 21 years = 5	3.35	1.4660
Highest academic degree	<i>degree</i>	Bachelor = 1; Master = 2; Doctor = 3	2.16	0.3671
Professional title	<i>title</i>	Teaching assistant = 1; Lecturer = 2; Associate professor = 3; Professor = 4	3.02	0.6936
Interest level	<i>inter</i>	Business knowledge and activities are very interesting; Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly agree = 5	3.67	0.8348
Family characteristics				
Children's education	<i>chedu</i>	Your children's education is a headache: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly agree = 5	3.14	0.9607
Household chores	<i>hocho</i>	Your household chores are very heavy: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly agree = 5	3.20	0.8497
Work characteristics				
Workload	<i>work</i>	Compared with college English or English major, teaching Business English has a greater workload: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly agree = 5	3.88	0.7921
Professional identity	<i>priden</i>	Compared with t college English or English major, teaching business English provides a greater sense of achievement and identification Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly agree = 5	2.71	0.9675
Professional title evaluation	<i>titeva</i>	Compared with t college English or English major, teaching business English is more conducive to professional title evaluation: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly agree = 5	3.00	1.1330

Continued

Environment characteristics				
Collogue encouragement	<i>colenc</i>	To what extent do your colleagues who have already transformed into business English encourage you to do the same? Strongly discourage = 1; Not encourage = 2; Neutral = 3; Encourage = 4; Strongly encourage = 5	3.04	0.6321
College encouragement	<i>coeenc</i>	To what extent did your college encourage you to transform into business English when this major was established? Strongly discourage = 1; Not encourage = 2; Neutral = 3; Encourage = 4; Strongly encourage = 5	2.66	0.9498
Discipline integration trend	<i>disin</i>	Discipline integration is an inevitable trend: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly agree = 5	2.43	1.3998

4. Estimation Results and Discussion

4.1. Regression Results and Robustness Testing

1) The influencing factors of English teachers transforming into business English teachers

By conducting binary logic regression analysis on the data from 350 survey questionnaires, and taking into account all the 13 variables that affect the transformation of English teachers into business English teachers, we find that 9 variables are statistically significant at a significance level of 10% or above, namely gender, teaching experience, children's education, household chores, workload, professional identity, professional title evaluation, college encouragement, and disciplinary integration trend. The estimated results are shown in **Table 2**.

2) Robustness test

To test the robustness of the model, the method of randomly deleting 10% of the samples is used for re-estimation. The coefficient direction and significance of the regression results are the same as the baseline regression results, so it passed the robustness test.

Table 2. Empirical test results.

<i>trans</i>	Benchmark regression		Randomly delete 10% of the samples	
	Estimation coefficient	Standard error	Estimation coefficient	Standard error
<i>gender</i>	-6.4253***	2.4483	-6.3617***	2.4673
<i>year</i>	-3.4225**	1.6078	-3.4192**	1.6066
<i>degree</i>	1.6136	2.8060	1.6708	2.8170
<i>title</i>	-1.6623	1.5210	-1.6492	1.5181
<i>chedu</i>	-4.9959**	2.1478	-4.9488**	2.1584
<i>hocho</i>	-5.2704*	2.7084	-5.2282*	2.7088

Continued

<i>work</i>	-4.9464**	2.4726	-4.9542**	2.4700
<i>priden</i>	6.5297*	3.5026	6.5272*	3.5019
<i>titeva</i>	5.1263**	2.5520	5.1399**	2.5510
<i>colenc</i>	3.6172	2.6931	3.6083	2.6978
<i>coeenc</i>	2.9696*	1.6771	2.9490*	1.6739
<i>disin</i>	2.6847*	1.4447	2.6673*	1.4408
<i>inter</i>	3.0274	1.9235	3.0280	1.9189
constant term	-5.2481	19.2665	-5.6116	19.2865
N		350		315
Pseudo R ²		0.9473		0.9412

Note: *, **, *** indicate that the variable is significant at the 10%, 5%, and 1% significance levels, respectively.

4.2. The Relationship between the Influencing Factors of English Teachers' Transformation into Business English Teachers

1) Measurement of the correlation between the influencing factors of English teachers' transformation into business English teachers

Based on the above method, the correlation and hierarchical structure of the influencing factors (S_0) are analyzed: gender (S_1), teaching experience (S_2), children's education (S_3), household chores (S_4), workload (S_5), professional identity (S_6), professional title evaluation (S_7), college encouragement (S_8), and disciplinary integration trend (S_9).

According to the model construction, conduct a correlation analysis of the 9 factors that influence the transformation of English teachers into business English teachers. Firstly, based on the logical relationship between the influencing factors, reachable matrix is established according to equations (2) and (3), which is as shown below:

	S_0	S_1	S_2	S_3	S_4	S_5	S_6	S_7	S_8	S_9
Transform or not (S_0)	1	0	0	0	0	0	0	0	0	0
Gender (S_1)	1	1	0	1	1	0	0	0	0	0
Teaching experience (S_2)	1	0	1	0	0	0	1	1	0	0
Children's education (S_3)	1	0	0	1	0	0	0	0	0	0
Household chores (S_4)	1	0	0	0	1	0	0	0	0	0
Workload (S_5)	1	0	0	0	1	0	0	1	0	0
Professional identity (S_6)	1	0	0	0	1	0	0	0	0	0
Professional title evaluation (S_7)	1	0	0	0	0	0	0	1	0	0
College encouragement (S_8)	1	0	0	0	0	0	0	1	1	0
Disciplinary integration trend (S_9)	1	0	0	0	0	0	0	1	1	1

By processing the reachable matrix M through equations (4) and (5), we can determine the influencing factors for each layer are $L_1 = \{S_1, S_2, S_3\}$, $L_2 = \{S_5, S_8\}$, $L_3 = \{S_3, S_4, S_6, S_7\}$, and the backbone matrix B is as follows:

	S_0	S_1	S_2	S_3	S_4	S_5	S_6	S_7	S_8	S_9
Transform or not (S_0)	1	0	0	0	0	0	0	0	0	0
Children's education (S_3)	1	1	0	0	0	0	0	0	0	0
Household chores (S_4)	1	0	1	0	0	0	0	0	0	0
Professional identity (S_6)	1	0	0	1	0	0	0	0	0	0
Professional title evaluation (S_7)	1	0	0	0	1	0	0	0	0	0
Workload (S_5)	1	0	0	0	1	1	0	0	0	0
College encouragement (S_8)	1	0	0	0	1	0	1	0	0	0
Gender (S_1)	1	1	1	0	0	0	0	1	0	0
Teaching experience (S_2)	1	0	0	0	1	1	0	0	1	0
Disciplinary integration trend (S_9)	1	0	0	0	1	0	1	0	0	1

2) The hierarchical structure of the influencing factors of English teachers' transformation into business English teachers

According to the backbone matrix B constructed according to ISM, the hierarchical structure diagram of the influencing factors of English teachers' transformation into business English teachers is formed in **Figure 2**.

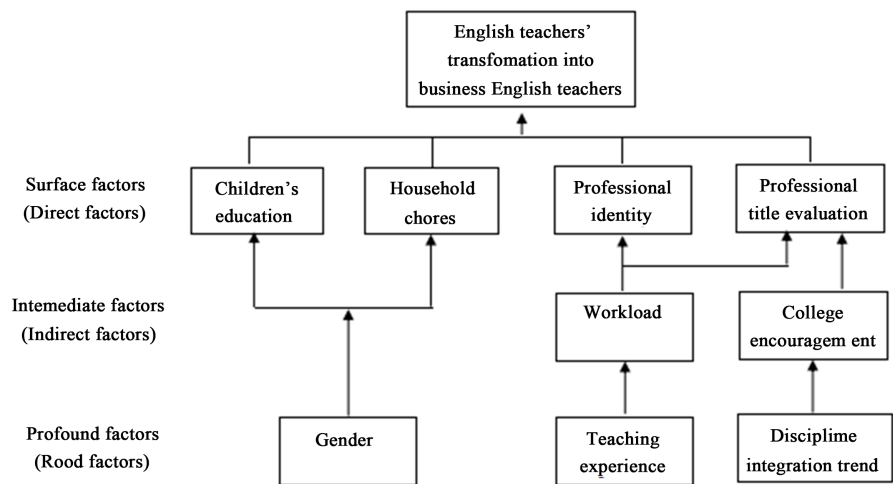


Figure 2. Hierarchical structure diagram of the influencing factors of English teachers' transformation into business English teachers.

By constructing the Interpretative Structural model of the influencing factors of English teachers' transformation into business English teachers, we divide the 9 factors that significantly affect their transformation into business English into three layers: surface (direct) factors, intermediate (indirect) factors, and profound

(root) factors. Those different layers of factors constitute the influencing factor system of English teachers' transformation into business English teachers.

4.3. Discussion on Results

1) Surface level influencing factors of English teachers' transformation into business English teachers

The regression coefficients for children's education and household chores were -4.9959 and -5.2704 respectively, passing the significance level tests of 5% and 10%, thus indicating that children's education and household chores have a significant negative impact on the transformation of English teachers into business English teachers, confirming the previous expectations. It can be explained that in the era of "tiger parenting" and "educational competition", parents participate in their children's education through learning guidance, homework supervision, and other means to help their children gain an advantage in educational competition, thus giving up their own potential work time and opportunities (Geng, 2021). Moreover, due to the differences in social concepts and family division of labor between genders, mothers often undertake more of children's education. Household chores are a fundamental activity for maintaining the survival and development of a family. For a long time, women have been regarded as providers of household care and daily household chores, resulting in a significant decrease in their labor participation rate and working hours (Xiao, 2021). They often suffer from "time poverty", and even highly educated professional women have not obviously reduced their housework burden (Yuan & Shi, 2017). As shown in **Figure 2** children's education and household chores are surface level influencing factors, while gender is a profound level influencing factor, which fundamentally affects children's education and household chores.

The regression coefficients of professional identity and professional title evaluation were 6.5297 and 5.1263 respectively, passing the significance level tests of 10% and 5%, thus indicating that professional identity and professional title evaluation have a significant positive impact on the transformation of English teachers into business English teachers, which also confirms the previous expectations. Teachers' professional identity is the core of teacher professional development (Chen, 2019), which lays a solid psychological foundation for it. Compared with teaching college English and English majors, teaching business English can cultivate inter-disciplinary business talents for society, so the recognition of teachers' "social value" and "individual value" is relatively high, which makes English teachers more willing to transform into business English teachers. With the implementation of the reform of professional title evaluation in universities, the quantification of professional title evaluation indicators is becoming more and more specific. It not only requires scientific research and teaching task, but also involves social services, guidance for students' graduation theses and various competitions, etc. Teaching business English can open up new fields for teachers' scientific research on the one hand, and strengthen the connection between teachers

and students on the other hand. This is conducive for teachers to achieve more in teaching and other guidance work, providing greater opportunities for professional title evaluation. Therefore, English teachers will choose to transform into business English. As shown in **Figure 2**, professional identity and professional title evaluation, which are surface level influencing factors, are also influenced by intermediate level influencing factors.

2) Intermediate level influencing factors of English teachers' transformation into business English teachers

The regression coefficient of workload is -4.9464 , passing the significance level test of 5%, thus indicating that workload had a significant negative impact on the transformation of English teachers into business English teachers. This is consistent with the previous expectation; that is, transforming into business English teachers requires engaging in interdisciplinary knowledge learning, and meanwhile there are heavy tasks in business English teaching, which lead to some teachers not choosing to transform. The regression coefficient of college encouragement is 2.9696 , passing the significance level test of 10%, which confirms the previous expectation. The result indicates that college encouragement has a significant positive impact on the transformation of English teachers into business English teachers. This is because the professional development of foreign language teachers generally receives guidance from the academic community, colleges, and departments (Gao, 2018), among which college has the most direct and powerful impact. Therefore, when the college encourages teachers to transform, teachers will very possibly accept it. As shown in **Figure 2**, workload and college encouragement as the intermediate influencing factors are also influenced by two profound factors: teaching experience and disciplinary integration trend.

3) Profound influencing factors of English teachers' transformation into business English teachers

The regression coefficient of gender is -6.4253 , passing the significance level test of 1%, thus indicating that female teachers have a lower probability of transforming into business English teachers, which is consistent with the previous expectations. A possible explanation is that, influenced by traditional concepts about family and marriage, as well as the "occupational segregation board", women are often trapped in a disadvantaged position in career development due to gender factors (Hu & Sang, 2013), and the possibility of career mobility through transforming into business English is smaller. The regression coefficient of teaching experience is -3.4225 , passing the significance level test of 5%, thus indicating that teaching experience has a significant negative impact on the transformation of English teachers into business English teachers. The possible reason is that business English teaching requires teachers to have interdisciplinary knowledge such as economics, management and law, and at the same time they have to deeply integrate it with English; meanwhile, business English teachers have to improve their teaching methods and philosophy to cultivate interdisciplinary talents. The longer their teaching experience is, the higher their familiarity with the original

field they have. So, to avoid learning new knowledge, teachers with longer teaching experience may choose their original positions instead of transforming into other majors. Moreover, there is a positive correlation between teaching experience and teachers' professional identity (Zhao & Bao, 2020). The longer a teacher's teaching experience is, the stronger their professional identity and the lower the probability of transformation will be. The regression coefficient of discipline integration trend is 2.6847, passing the significance level test of 10%, indicating that the general trend of discipline integration has a significant positive impact on the transformation of English teachers into business English teachers. This is because the natural integration of multi-disciplinary knowledge in an appropriate way, which forms a systematic knowledge system around specific themes or activities, is an important trend in current education (Wei, 2021). Business English major deeply integrating linguistics with knowledge of economics, management and law, and focusing on cultivating "English + Business" talents, is greatly in line with the current trend of educational development. In this context, college English teachers or English major teachers also follow the trend to carry out interdisciplinary transformation between English and business.

In summary, the above 9 influencing factors act independently and correlatively, forming a system of influencing factors for English teachers to transform into business English teachers.

5. Epilogue

This article analyzed 350 questionnaires on English teachers' transformation into business English teachers by combining the Binary Logit model and ISM model, exploring the influencing factors and their hierarchical structure of English teachers' transformation into business English teachers, which provides theoretical analysis and guidance for college English teachers and English major teachers to transform into business English teachers. This research is beneficial for understanding the confusion and challenges in their transformation process, identifying countermeasures, exploring the development path of business English teachers, and promoting the development of the business English discipline. The main conclusions and inspirations are as follows:

Firstly, in the long run, teachers' individual characteristics and the discipline integration trend are the deep influencing factors for building a high-level team of business English teachers and promoting the transformation of English teachers into business English teachers. From the individual perspective, the gender and teaching experience of English teachers have a fundamental impact on their transformation. However, at the current stage of discipline development, adjusting the gender structure and teaching experience structure of English teachers presents great difficulties and requires a long period. Therefore, to fundamentally improve the construction of business English teaching staff, the main focus should be on formulating and implementing policies that can promote the trend of discipline integration, with improving the personnel structure as an auxiliary approach.

Secondly, working status and environment are important factors affecting the transformation of English teachers into business English teachers. From the perspective of work status, English teachers worry a lot about the workload after transformation. During the survey, it is found that teachers are generally concerned that transforming into business English will increase their workload, leading to double pressure on them, which makes English teachers more hesitant to transform. Therefore, when promoting the transformation of English teachers, universities and colleges should consider the balance between the workload and the difficulty in the transformation period. When calculating the workload, different accounting units and methods should be developed according to the transformation stage, course characteristics, and course types.

Thirdly, in terms of direct impact, family environment and job pursuits directly affect the transformation of English teachers into business English teachers. As for family environment, the less family affairs there are, the more time teachers can devote to their work. From the perspective of job pursuit, stronger professional identity and more convenient career development paths can attract English teachers to transform into business English teachers. Therefore, in order to rapidly expand business English faculty in the short term, we should start from two aspects: first, mobilizing teachers who have less difficulty in children's education or household chores to transform into business English teachers; the second is to tilt towards business English teachers in terms of workload calculation, excellence evaluation, and professional title evaluation, providing an effective path to achieve their job pursuits and ensuring their career development.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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