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Abstract

This study aims to investigate the influence of the Chinese Bridge Delegation Online Program (CBDOP) on Indonesian secondary school students' Mandarin oral willingness to communicate (OWTC) and examine the mediating role of learning motivation. The participants comprised 295 students from Indonesia, where they had participated in the CBDOP. The study employed a mixed-methods design, integrating quantitative and qualitative approaches. The data were collected through a survey and analyzed using SEM. The results indicated that CBDOP significantly influences students' OWTC, with online live courses being the most positively influential component for enhancing both OWTCI and OWTCO. Meanwhile, learning motivation played an important mediating role in the program's influence on OWTC, with intrinsic motivation having a greater influence than extrinsic motivation. Based on these findings, this study introduced the "EMOC Guideline," a structured framework for the design and learning of future online Mandarin programs. This guideline aims to enhance Mandarin OWTC and foster cross-cultural understanding, aligned with the broader objectives of international language education. This study provides valuable insights for educators and course designers and offers practical recommendations for developing more effective and engaging language learning programs.

Introduction

With the acceleration of globalization, effective language communication is becoming increasingly important globally. Willingness to communicate (WTC) plays an important role in foreign language acquisition, reflecting learners' readiness and enthusiasm to participate in oral communication activities in the target language (Du, 2023). MacIntyre et al. (1998) emphasized that stimulating students' willingness to communicate in a foreign language should be the main goal of language teaching. Any teaching method that neglects to increase students' WTC in a foreign language is insufficient.

As one of the most widely spoken languages in the world, Mandarin plays a significant role in promoting international exchanges (Alindra & Siregar, 2024). In recent two decades, Chinese has become an increasingly important language taught and learned as a foreign language globally (Gong et al., 2020; Liu & Zhang, 2023). This rise in language prominence can be attributed to China's rapid economic growth and expanding international

influence, particularly in the Asia-Pacific region. As a result, a growing number of people, both within China and abroad, are motivated to study Chinese and explore its rich cultural heritage (Liu, 2023). Consequently, enthusiasm for learning Chinese as a foreign language is growing as online platforms have become a significant trend in language education. In this context, the Chinese Bridge Delegation Online Program (CBDOP) has attracted widespread attention as a new initiative in Chinese language and culture education. Sponsored by the Center for Language Education and Cooperation (CLEC), the program aims to promote Chinese language learning, enhance understanding of Chinese culture, and improve the global literacy of young students (CLEC, 2020).

Motivation has been widely considered to be one of the determining factors that influence the rate and success of second language (L2) learning (Dörnyei, 1998; Gardner & Lambert, 1959; Ushioda & Dörnyei, 2017; Yu et al., 2023;). Researchers also found that L2 motivation is shaped by learners' learning experiences and contexts (Chan et al., 2014; Gong et al., 2020, 2021; Hiver & Al-Hoorie, 2019; Liu & Dong, 2021). Coupled with the complex nature of language learning and the ongoing interaction of various variables during the learning process, there is a call for more research on the interaction between L2 motivation and the learning environment to better understand its nature.

As one of the largest countries in Southeast Asia, Indonesia has a rich cultural landscape and a large population. As the economic and cultural ties between China and Indonesia deepen, Indonesian students are increasingly interested in learning Mandarin (Lü & Zhang, 2023; Zhang, 2023). The Indonesian government has actively collaborated with Chinese educational departments and institutions to leverage China's Mandarin education resources to promote the development of Chinese language education in Indonesia. In 2001, the Indonesian Ministry of Education (MOE) and the Chinese MOE signed an agreement to host the Hanyu Shuiping Kaoshi (HSK) in Indonesia. That same year, the Indonesian MOE officially incorporated Chinese language education into its jurisdiction, introducing Mandarin courses in primary and secondary schools and allowing universities across the country to establish Mandarin departments (Ma, 2019). In 2005, the joint declaration between China and Indonesia on establishing a strategic partnership emphasized the importance of "strengthening educational cooperation, actively engaging in training exchanges, and encouraging mutual language instruction." This marked the beginning of a new phase in the development of Chinese language education in Indonesia (People's Republic of China Central Government, 2005).

However, economic constraints, geographical distance, and language barriers hinder traditional face-to-face Mandarin teaching. Therefore, online Mandarin learning has become an effective way for Indonesian students to improve their Mandarin learning level (Hoon et al., 2019; Kuan & Mohamad, 2024). In this context, Indonesian students can participate in the Chinese Bridge Delegation Online Program to enhance their Mandarin learning outcomes, especially in their communicative skills, where they are exposed to the rich and motivated Chinese learning culture and language environment. Building on this, this study examined the interrelationship between the Chinese Bridge Delegation Online Program, learning motivation, and Indonesian secondary school students' oral willingness to communicate in Mandarin.

Problem Statement

The OWTC in Mandarin among Indonesian secondary school students inside and outside the classroom remains generally low (Dong, 2018; Lü et al., 2023). In classrooms, students are often reluctant to actively engage in oral activities such as discussions, presentations, or role-plays, with many choosing to remain silent when interaction is required (Lü et al., 2023). Outside the classroom, opportunities for practicing oral Mandarin are scarce due to limited access to Mandarin-speaking communities, extracurricular activities, or informal conversational settings. For instance, students often lack peer groups with whom they can practice speaking Mandarin, diminishing their willingness to communicate in Indonesia (Dong, 2018; Lü et al., 2023). Despite years of formal Mandarin instruction, many students demonstrate low oral proficiency and a persistent unwillingness to communicate, hindering their ability to achieve communicative competence in Mandarin (Dong, 2018; Lü et al., 2023). This issue represents a significant challenge in Mandarin language education, calling for innovative strategies to enhance OWTC both inside and outside the classroom.

The CBDOP is an initiative designed to promote Chinese language learning and cultural exchange among learners worldwide. It seeks to enhance mutual understanding between Chinese and foreign youths by providing an immersive experience through real-time lectures, video courses, and online activities. From 2020 to 2021, CBDOP engaged over 95,600 students from nearly 190 countries, organizing more than 600 online delegations with the participation of over 200 educational institutions (CLEC, 2024). Existing studies highlighted CBDOP's ability to create an enriched language environment that promotes engagement and interaction. For example, Li Jiayu (2022) found that Indonesian university students who engaged in CBDOP's cultural immersion activities, such as traditional Chinese art workshops, exhibited greater enthusiasm for Mandarin learning. Similarly, Ma Kao (2023) observed that the program's thematic approach, integrating culturally relevant content, enhanced learners' curiosity and provided opportunities for real-time interaction. This suggests that the CBDOP could create an enriched learning environment or platform, promoting both intrinsic and extrinsic motivation, which are critical in promoting OWTCI and OWTCO.

Learning motivation, comprising intrinsic and extrinsic motivation, plays an important role in second language learning. According to Deci and Ryan's Self-Determination Theory (1980, 1985), intrinsic and extrinsic motivation are critical factors that shape learners' behaviors and attitudes toward communication. Students with heightened motivation are more willing to initiate and participate in language interactions, positively impacting their language proficiency and communicative competence (Peng & Woodrow, 2010). Furthermore, programs like CBDOP, which integrate interactive and culturally immersive elements, have the potential to stimulate both intrinsic and extrinsic motivation. For example, culturally relevant activities such as virtual tea ceremonies or KungFu shows engage students and increase their sense of achievement and curiosity (Li Jiayu, 2022). Therefore, creating an environment that promotes strong learning motivation could be a key strategy for promoting students' active participation in communication.

After a comprehensive literature review (Elahi Shirvan et al., 2019; Lamb et al., 2019; Lan et al., 2021, 2023; Lee & Chen Hsieh, 2019; Ma et al., 2019; Wei & Xu, 2022; Lee & Lu, 2023; Sadoughi & Hejazi, 2024; Nugroho et

al., 2024), while research on WTC in language learning has expanded, it often focused on general willingness rather than addressing oral communication skills. Meanwhile, despite growing interest in language willingness to communicate, the CBDOP, and learning motivation, there is a significant gap in understanding how these elements interact, particularly regarding the role of learning motivation in mediating the relationship between CBDOP and OWTC among Indonesian secondary school students. Moreover, existing studies (Khajavy & Ghonsooly, 2017; Oz & Bursal, 2018; Lee & Lee, 2020) frequently examined the effect of the L2 Motivational Self System (L2MSS) on WTC. However, this model(L2MSS) overlooks motivation's dynamic and interactive nature, adhering to a linear causality perspective that fails to capture the complexity of foreign language acquisition in a globalized context. In comparison, Self-Determination Theory (SDT) provided a partial solution by framing foreign language motivation as a reflection of intrinsic drives and a dynamic psychological process. Moreover, limited research investigates how learning motivation in terms of intrinsic and extrinsic motivation factors, as defined by SDT, mediate the relationship between CBDOP and OWTC.

Additionally, the focus of existing studies has been predominantly on WTC in English as a second language, with insufficient attention given to Mandarin, particularly among Indonesian secondary school students. Also, there is little research on guidelines for both student learning and teacher instruction, particularly in the context of online foreign language learning programs such as the CBDOP.

Research Objective

To address these gaps, this study centered on Indonesian secondary school students and employed a mixed-method approach, using SPSS and Amos for data analysis, this aims to examine the influence of CBDOP in terms of OLC, RVC, and OA on both OWTC inside (OWTCI) and outside (OWTCO) the classroom, focusing on the mediating roles of intrinsic and extrinsic motivational factors conceptualized by SDT. Finally, a structural equation model and the recommended guidelines were proposed, accompanied by corresponding pedagogical recommendations. In the research process, answers were sought to the following questions:

- 1) Is there any significant influence of the CBDOP on OWTC in terms of OWTCI and OWTCO?
- 2) Which component (OLC, RVC, OA) of the CBDOP has the most significant influence on OWTC terms of OWTCI and OWTCO?
- 3) Does learning motivation mediate the influence of the CBDOP on OWTC in terms of OWTCI and OWTCO?
- 4) Which dimension of learning motivation (intrinsic and extrinsic) is more influential as a mediating role in the influence of CBDOP on OWTC terms of OWTCI and OWTCO?

Method

Research Design

This study employed a mixed-method approach, integrating quantitative and qualitative methods to examine the influence of CBDOP on OWTC and the mediating role of learning motivation. The quantitative phase promotes hypothesis testing and examining relationships between variables, while the qualitative phase provides deeper

insights and contextual understanding, which confirm and enrich the quantitative findings (Creswell & Plano Clark, 2011). This design is advantageous as it enables a more comprehensive understanding of the research questions by capitalizing on the strengths of both methods. The mixed-method approach ensured that both the breadth of quantitative data and the depth of qualitative insights contributed to the overall conclusions of the study. By integrating these results, the researcher provided a comprehensive and nuanced interpretation of the influence of CBDOP, ultimately offering recommended CBDOP guidelines for enhancing Mandarin OWTC based on both statistical evidence and participant experiences.

Population and Sample

The target population for this study consisted of 295 second-grade students from School A in Indonesia, who participated in the Chinese Bridge Delegation Online Program (CBDOP) and were learning Mandarin as a foreign language. These students were selected because they met the criteria established by the program and aligned with the research objectives.

Due to the CBDOP being implemented in this one school and the need for a larger sample for SEM, the quantitative phase of this research adopted the whole sampling method, which used the whole number of participants. The total number of participants is 295, of which 290 were aged 16, and the remaining five were aged 17. There were 152 males, accounting for 51.5%; 143 women (48.5%). Regarding age distribution, 98.3% of participants were 16, and 1.7% were 17.

Research Instrument

The instruments in this study are the questionnaires primarily adapted from previous research (CLEC, 2020; MacIntyre et al., 2001; Aydoğan, 2016), with minor adjustments to the Mandarin learning context. It consists of four main sections: personal background information, the Oral Willingness to Communicate Scale, the Learning Motivation Scale, and the Chinese Bridge Delegation online Program Scale. The questionnaire employs a Likert five-point scale with 42 items, where 1 indicates strong disagreement, never willing, or poor, and 5 denotes strong agreement, very willing, or excellent. Additionally, the questionnaire was translated into Indonesian to ensure clarity and understanding among Indonesian secondary school students .

Data Analysis

This study employed SPSS 29.0 to analyze the reliability of the quantitative instruments, perform principal components analysis, and calculate descriptive statistics for the quantitative data. Additionally, Amos 26.0 was employed to test the hypothesized model based on the collected data. In the first phase, SPSS 29.0 was applied to process data from the pilot test and assess the reliability of the questionnaire. Factor analysis was conducted to improve the scale items during the pilot study. Descriptive statistics for the observed variables in the model were also generated using SPSS 29.0 to provide an overview of the data. These steps laid the groundwork for further analysis, which involved using SEM to evaluate the hypothesized relationships in the study.

During the second phase, the quantitative data were analyzed using SEM with Amos 26.0. Several ordered steps were followed to analyze the model. These included conducting the CFA, constructing a path diagram, assessing model identification, evaluating estimates and model fit, interpreting and analyzing the model, model modification, and developing the final model (Norris, 2005; Garson, 2009; Byrne, 2010; Kline, 2023; Brown, 2011).

Results

Descriptive Statistics

The normality of data was tested mainly by observing each variable's skewness and kurtosis values. Skewness and kurtosis are two key indicators to evaluate the shape of data distribution. Skewness reflects the symmetry of data distribution, while kurtosis measures the steepness of the distribution (George & Mallery, 2019). Table 1 shows that the skewness values of all observed variables in this study were negative, indicating that the data presented a slight left bias. That means most respondents chose a higher score on the scale. This distribution pattern indicates that participants generally recognize the measured content well. In addition, the kurtosis values of each variable were within the range of ± 2 , which means that the data distribution pattern is close to a normal distribution. Results with a kurtosis value near or slightly above 0 indicate a flat data distribution, which does not exhibit significant peaks or spikes compared to the kurtosis of a standard normal distribution (George & Mallery, 2019). These results showed that the data in this study do not differ significantly from the normal distribution and meet the assumptions of structural equation modeling analysis. Table 1 shows detailed statistics for skewness and kurtosis of all observed variables.

Table 1 Skewness and Kurtosis Values

Variable	N	Skewness	Standard Error of Skewness	Kurtosis	Standard Error of Kurtosis
OWTCI1	295	-0.574	0.142	0.638	0.284
OWTCI2	295	-0.975	0.142	1.205	0.284
OWTCI3	295	-0.354	0.142	0.295	0.284
CBDOP1	295	-0.380	0.142	0.488	0.284
CBDOP2	295	-0.318	0.142	0.432	0.284
CBDOP3	295	-0.414	0.142	0.831	0.284
IM	295	-0.453	0.142	0.887	0.284
EM	295	-0.266	0.142	0.295	0.284
OWTCO1	295	-0.363	0.142	1.023	0.284
OWTCO2	295	-0.367	0.142	0.715	0.284
OWTCO3	295	-0.164	0.142	0.430	0.284

Model Assessment and Modification

Before proceeding with the reports, it is necessary to ensure that the measurement model is evaluated rigorously

(Mofreh et al., 2020). This study input the initial structural model (see Figure 1) into AMOS 26.0 and conducted a Confirmatory Factor Analysis (see Figure 2) to evaluate the validity of the proposed measurement model. The model includes the constructs of the Chinese Bridge Delegation Online Program (CBDOP) in terms of CBDOP 1, CBDOP 2, and CBDOP 3; Learning motivation in terms of Intrinsic Motivation (IM) and Extrinsic Motivation (EM); Oral Willingness to Communicate Inside the classroom (OWTCI) in terms of OWTCI1, OWTCI2, OWTCI3 and Oral Willingness to Communicate Outside the classroom (OWTCO) In terms of OWTCO1, OWTCO2, OWTCO3. The CFA results are presented in Table 2, along with the model fit indices (see Table 2), which include the Comparative Fit Index (CFI), the Goodness-of-Fit Index (GFI), and the Root Mean Square Error of Approximation (RMSEA). Additionally, the regression weights are shown in Table 3.

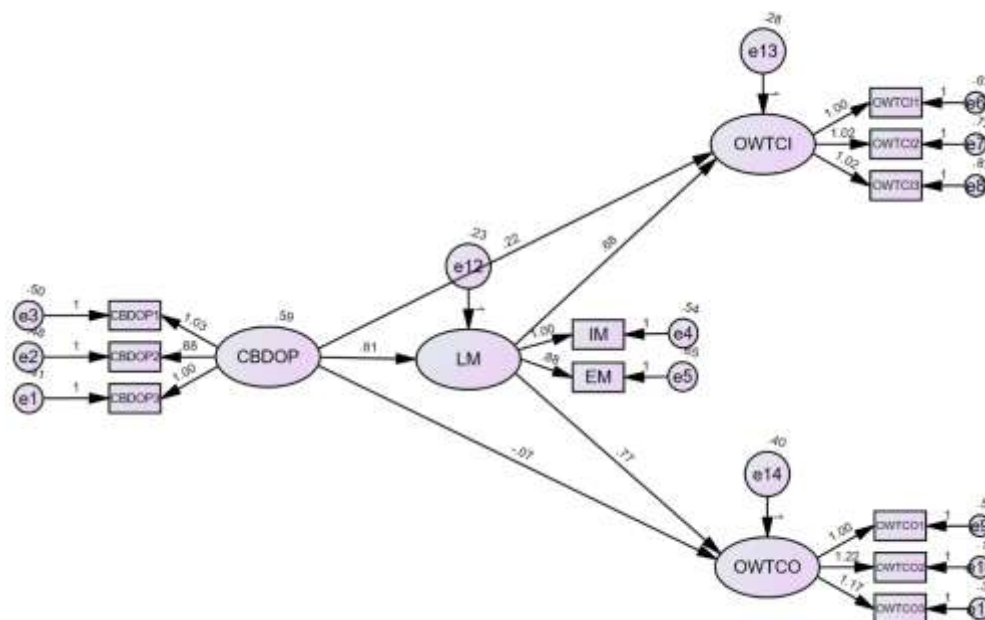


Figure 1. Initial Structural Model

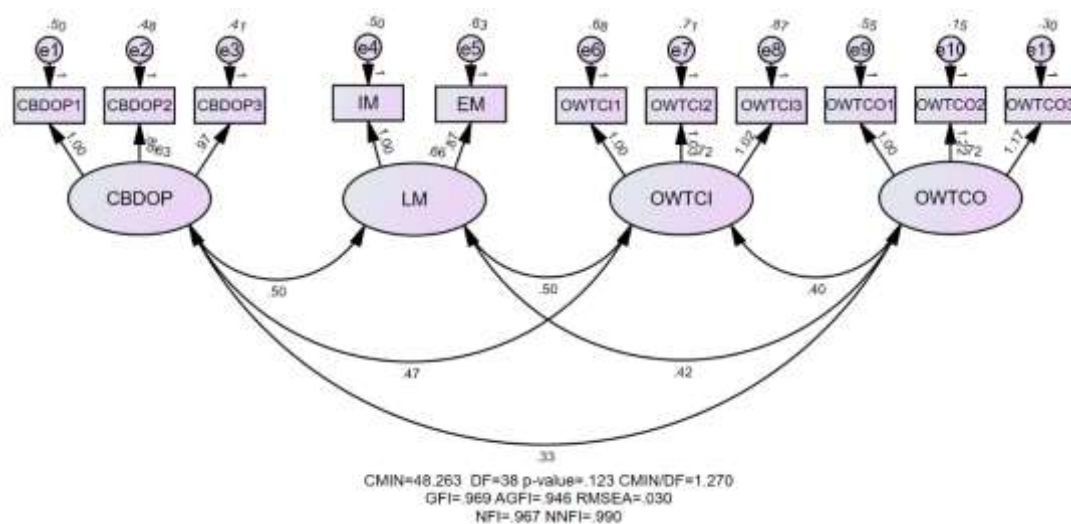


Figure 2. Confirmatory Factor Analysis in AMOS 26.0

Table 2 shows the model fitting indicators, indicating that the model in this study fits well with the observed data. The CMIN/DF of 1.270 is well below the accepted threshold of 3, indicating that the model fits the data well. This is further confirmed by several key fitting metrics, such as the root-mean-square residual (RMR) value of 0.044, close to 0, indicating the smallest residual variance; the goodness-of-fit index (GFI) of 0.969 and the adjusted goodness-of-fit index (AGFI) of 0.946, both exceeding the recommended threshold of 0.90, indicating the overall adequacy of the model. The Comparative Fit Index (CFI) is 0.993, which is also greater than 0.90, further supporting a good fit of the model. In addition, the root-mean-square approximation error (RMSEA) value is 0.030, which is significantly below the threshold of 0.05, indicating that the model fits the data very well. These fitting indices confirm that the proposed model well represents the underlying structure of the data, verifies its specification, and provides strong evidence of its adequacy. This strong model fit provides a good foundation for further analysis and supports the possible relationships between variables.

Table 2. Model Fit Indices for Assessing SEM (Mofreh et al., 2020)

Fit Index	Threshold for Good Fit (Mofreh et al., 2020)	Value
CMIN/DF	< 3	1.270
RMR	Close to 0	0.044
GFI	> 0.9	0.969
AGFI	> 0.9	0.946
CFI	> 0.9	0.993
RMSEA	< 0.05	0.030

The results in Table 3 show the regression weights between the observed variables (CBDOP1, CBDOP2, CBDOP3, IM, EM, OWTCI1, OWTCI2, OWTCI3, OWTCO1, OWTCO2, OWTCO3) and their corresponding latent constructs (CBDOP, LM, OWTCI, OWTCO). The p-values for all regression paths are below 0.001, indicating a strong and statistically significant relationship between the observed variable and its potential construct (Mofreh et al., 2020). These low p-values confirm the validity of the observed variables in accurately representing their underlying factors, thereby verifying the validity of the model's constructs. The strong relationship between the observed variables and their corresponding latent variables, along with the alignment between the data and the theoretical constructs, demonstrates that the model effectively reflects its theoretical framework. Besides, the consistency of the critical ratios (C.R.) and the statistical significance of all paths further strengthen the model's reliability and validity.

Table 3. The Regression Weights between the Observed Variables

Path	Estimate	S.E.	C.R.	P Label
CBDOP1 <--- CBDOP	1.000			
CBDOP2 <--- CBDOP	0.845	0.079	10.705	***
CBDOP3 <--- CBDOP	0.967	0.083	11.638	***
IM <--- LM	1.000			

Path	Estimate	S.E.	C.R.	P Label
EM <--- LM	1.067	0.098	10.926	***
OWTCI1 <--- OWTCI	1.000			
OWTCI2 <--- OWTCI	1.021	0.101	10.142	***
OWTCI3 <--- OWTCI	1.020	0.104	9.792	***
OWTCO1 <--- OWTCO	1.000			
OWTCO2 <--- OWTCO	1.215	0.075	16.250	***
OWTCO3 <--- OWTCO	1.173	0.075	15.670	***

Following the completion of the Confirmatory Factor Analysis (CFA), the study proceeded with a Path Analysis using AMOS 26.0 to evaluate further the proposed theoretical model involving the latent variables CBDOP, Learning Motivation, OWTCI, and OWTCO. The Path Analysis, presented in Figure 3, comprehensively assessed the structural relationships among these constructs.

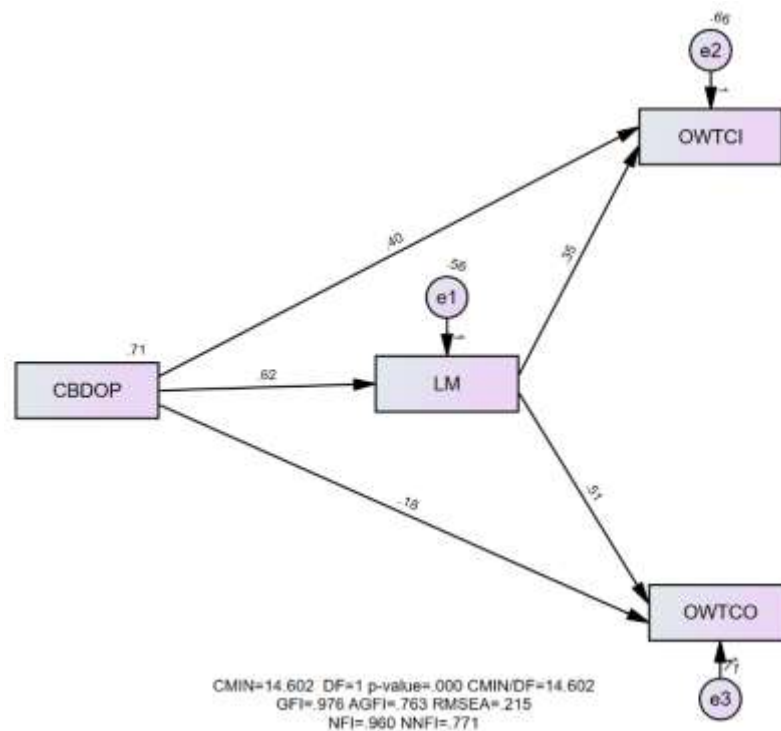


Figure 3. Path Analysis in AMOS 26.0

The results of the Path Analysis are summarized in several key outputs, including model fit indices (see Table 4) and path coefficients (see Table 5). The model fit indices, such as the CFI, TLI, and RMSEA, are crucial in determining the adequacy of the model. Although some fit indices in this study indicate acceptable or near-acceptable thresholds (e.g., CFI = 0.962, TLI = 0.962), others suggest areas where the model's fit may be less optimal (e.g., CMIN/DF = 14.602, RMSEA = 0.215), highlighting potential directions for model improvement. Table 5 details the regression weights for the paths among the latent constructs. These coefficients indicate the direct effects of CBDOP on Learning Motivation, OWTCI, and OWTCO, as well as the effects of Learning

Motivation on both OWTCI and OWTCO. Most paths demonstrate strong statistical significance, with critical ratios (C.R.) exceeding 1.96 and p -values below 0.05, emphasizing the robustness of the relationships proposed in the model.

However, it is important to note that the path from CBDOP to OWTCO, although statistically significant (Estimate = 0.179, S.E. = 0.071, C.R. = 2.523, $p = 0.012$), is weaker than other paths in the model. This relatively low path coefficient suggests that the direct influence of CBDOP on students' OWTCO is less significant, indicating potential areas for model improvement.

Table 4. Model Fit Indices of Path Analysis

Model Fit Index	Value	Criteria (Mofreh et al., 2020)	Interpretation
CMIN/DF	14.602	< 3	Indicates significant misfit
RMR	0.048	Close to 0	Acceptable fit
GFI	0.976	> 0.9	Acceptable fit
AGFI	0.763	> 0.9	Below recommended
CFI	0.962	> 0.9	Close to an acceptable threshold
TLI	0.962	> 0.9	Close to an acceptable threshold
RMSEA	0.215	< 0.05	Indicates poor fit

Table 5. Path Coefficient

Path	Estimate	S.E.	C.R.	P Label
LM <--- CBDOP	0.620	0.052	12.026	***
OWTCI <--- CBDOP	0.404	0.069	5.873	***
OWTCI <--- LM	0.345	0.064	5.422	***
OWTCO <--- LM	0.508	0.066	7.710	***
OWTCO <--- CBDOP	0.179	0.071	2.523	0.012

Modifications were made to the initial model in response to the outcomes of the Confirmatory Factor Analysis and Path Analysis. The adjustments were informed by the modification indices provided by AMOS 26.0 output, which identified areas where the model's fit could be enhanced to achieve better alignment with the theoretical framework.

The modification indices (see Table 6) reveal areas where the model could improve. For instance, the covariance between the error terms of certain observed variables, such as e_2 and e_3 , indicates a significant modification index (M.I. = 14.245), suggesting that correlating these error terms could enhance the model's fit. Additionally, the modification indices highlight potential adjustments in the regression weights between certain latent variables. For example, the bidirectional paths between OWTCI and OWTCO are identified as areas where the model could be improved. The modification index for the path from OWTCI to OWTCO is 9.842, with a parameter change of

0.147, while the reverse path from OWTCO to OWTCI has a modification index of 9.435 and a parameter change of 0.151. These findings suggest that introducing these mutual paths would contribute to a better model fit, reflecting the complex relationship between students' Oral Willingness to Communicate inside and outside the classroom.

Table 6. Modification Indices

Modification Type	Path	M.I.	Parameter Change
Covariances	e2 <--> e3	14.245	.151
Regression Weights	OWTCO<--- OWTCI	9.435	.151
	OWTCI <--- OWTCO	9.842	.147

The model was then adjusted through these targeted modifications to reflect the theoretical relationships among the latent constructs, enhancing its overall validity and reliability. The modified model (see Figure 4), which incorporated these improvements, offered a more accurate representation of the data and a closer alignment with the underlying theoretical assumptions.

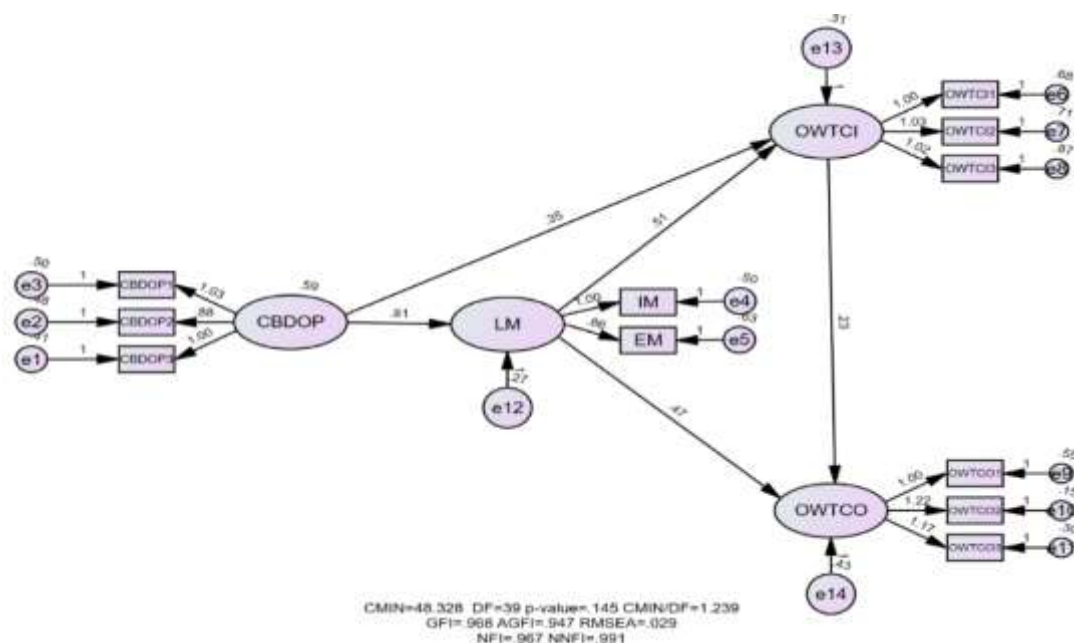


Figure Error! No text of specified style in document.. Modified Model

After integrating the modifications into the SEM model, the updated version was resubmitted to AMOS 26.0 for analysis, and the corresponding outcomes were documented in Table 7 and 4.9. The fit indices of the revised model demonstrate a marked improvement in the model's overall fit, as reflected by several key indicators.

The chi-square statistic (CMIN = 48.328) with 39 degrees of freedom (DF) resulted in a *p*-value of .145, suggesting that the model is not significantly different from the observed data, which is a desirable outcome. Additionally, the CMIN/DF ratio of 1.239 falls within the acceptable range, indicating a good model fit. The GFI increased to .968, and the AGFI reached .947, exceeding the recommended thresholds, emphasizing the enhanced

alignment between the model and the data. The RMSEA decreases to .029, indicating a close fit between the hypothesized model and the actual data, with values below .05 generally indicating a good fit. The Normed Fit Index (NFI) improved to .967, and the Non-Normed Fit Index (NNFI), also known as the TLI, increased to .991, both of which suggest that the revised model exhibits strong comparative fit. These indices collectively confirm that the modifications have successfully improved the model, making it more robust and reflective of the underlying theoretical constructs.

Table 7. The Regression Weights of the Modified Model

Path	Estimate	S.E.	C.R.	P Label
CBDOP1 <--- CBDOP	1.029	0.089	11.515	***
CBDOP2 <--- CBDOP	0.879	0.081	10.888	***
CBDOP3 <--- CBDOP	1.000			
IM <--- LM	1.000			
EM <--- LM	0.864	0.091	9.525	***
OWTCI1 <--- OWTCI	1.000			
OWTCI2 <--- OWTCI	1.025	0.101	10.184	***
OWTCI3 <--- OWTCI	1.023	0.104	9.820	***
OWTCO1 <--- OWTCO	1.000			
OWTCO2 <--- OWTCO	1.220	0.075	16.174	***
OWTCO3 <--- OWTCO	1.174	0.075	15.604	***

Table 8 Model Fit Indices of Modified Model

Fit Index	Value	Threshold for Good Fit (Mofreh et al., 2020)
CMIN	48.328	-
DF	39	-
p-value	.145	> .05
CMIN/DF	1.239	< 3.0
GFI	.968	> .90
AGFI	.947	> .90
RMSEA	.029	< .05
NFI	.967	> .90
NNFI (TLI)	.991	> .90

In summary, the modification significantly enhanced the model's fit, validating the adjustments as effective in showing the complex relationships among the latent variables. The final model, as presented in Figure 4, met the criteria for a well-fitting SEM model, providing a solid foundation for interpreting the relationships between the CBDOP, Learning Motivation, OWTCI, and OWTCO.

Findings for Research Question 1

To address this research question 1, the Structural Equation Modeling (see Figure 5) was employed to examine the influence of the CBDOP on the two dimensions of OWTC: OWTCI and OWTCO. The analysis focused on understanding the total, direct, and indirect effects of the CBDOP on these dimensions.

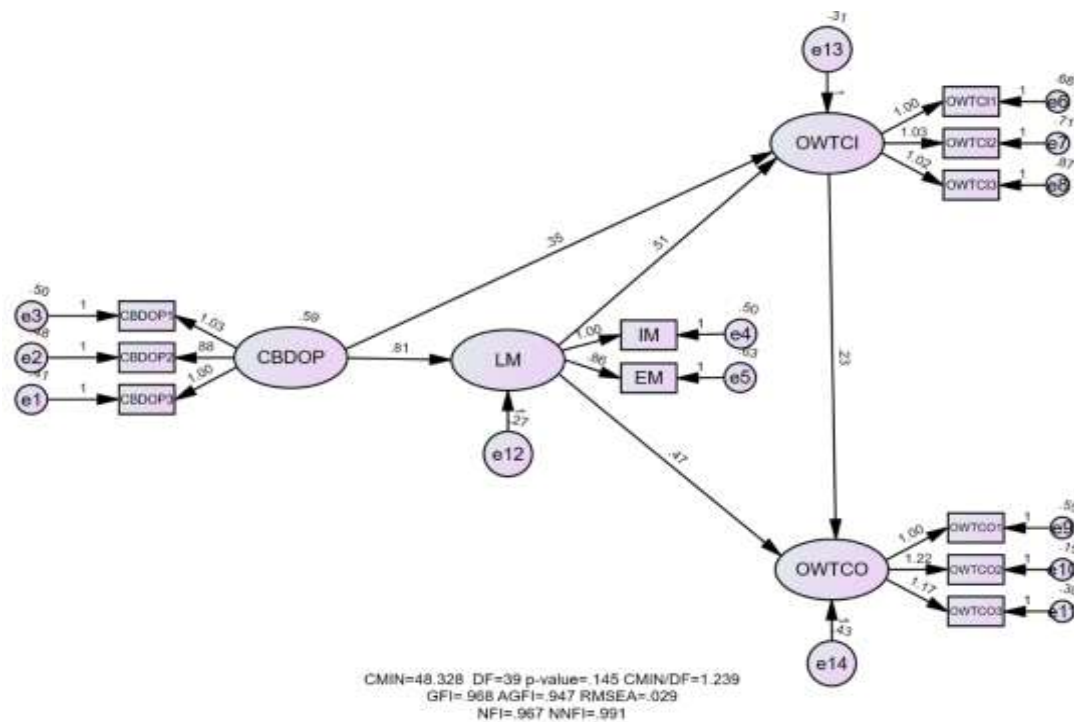


Figure 5. The Final Model for the Effect of CBDOP on OWTC

(a) Total Effects

According to the SEM results, as shown in Figure 4..6 and Table 4.9, indicate that the total effect of CBDOP on OWTCI is 0.741, with a significant standardized path coefficient ($\beta = 0.741, p < 0.001$), suggesting a strong positive influence of the program on students' oral willingness to communicate inside the classroom. For the OWTCO, the total effect of CBDOP is slightly lower but still significant ($\beta = 0.536, p < 0.001$), indicating a moderately positive effect on students' oral willingness to communicate outside the classroom. This suggests that participation in the CBDOP has a pronounced overall influence on enhancing students' oral willingness to communicate inside and outside the classroom.

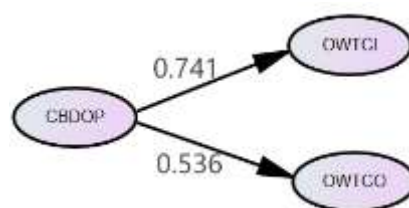


Figure 6. Total Effects of CBDOP on OWTCI and OWTCO

Table 9. Total Effects of CBDOP on OWTCI and OWTCO

Path	p-value	Total Effect	Standard Error
CBDOP → OWTCI	< 0.001	0.741	0.054
CBDOP → OWTCO	< 0.001	0.536	0.059

(b) Direct Effects

Further analysis of the direct effects in Figure 7 and Table 10 reveals that CBDOP directly influences OWTCI with a standardized coefficient of 0.341 ($p < 0.01$), confirming its significant influence on students' oral willingness to communicate inside the classroom. However, the direct effect of CBDOP on OWTCO is non-significant ($\beta = 0.000$, $p > 0.05$), implying that any observed effect on OWTCO is not direct but rather mediated by other variables such as learning motivation. These results emphasize that while CBDOP directly enhances the OWTCI, its effect on the OWTCO is likely more complex and mediated through additional factors.

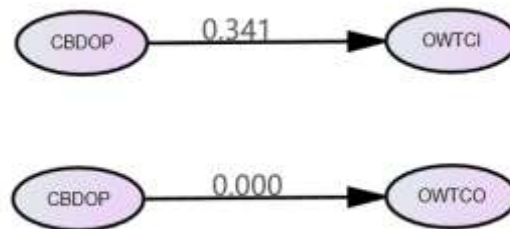


Figure 7. Direct Effects of CBDOP on OWTCI and OWTCO

Table 10. Direct Effects of CBDOP on OWTCI and OWTCO

Path	p-value	Direct Effect	Standard Error
CBDOP → OWTCI	< 0.01	0.341	0.068
CBDOP → OWTCO	> 0.05	0.000	0.071

(c) Indirect Effect

The SEM analysis results in Figure 8 and Table 11 indicate that the indirect effect of CBDOP on OWTCI through LM is 0.400 ($p < 0.001$), indicating that part of the influence of CBDOP on OWTCI is channeled through increased learning motivation.

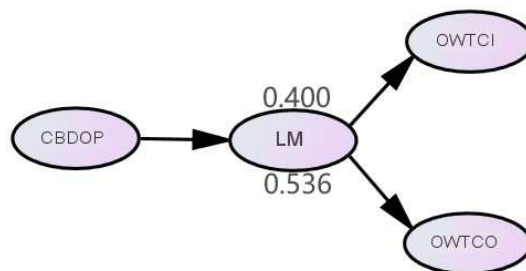


Figure 8. Indirect Effects of CBDOP on OWTCI and OWTCO

The indirect effect on OWTCO is 0.536 ($p < 0.001$), further emphasizing the mediating role of learning motivation in enhancing students' oral willingness to communicate outside the classroom. This highlights that CBDOP's influence on OWTC, particularly OWTCO, is significantly mediated by students' learning motivation.

Table 11. Indirect Effects of CBDOP on LM, OWTCI, and OWTCO

Path	Indirect Effect	Standard Error	p-value
CBDOP → LM → OWTCI	0.400	0.051	< 0.001
CBDOP → LM → OWTCO	0.536	0.053	< 0.001

In summary, the SEM analysis indicated that the Chinese Bridge Delegation Online Program (CBDOP) significantly enhanced Oral Willingness to Communicate Inside the classroom (OWTCI) both directly and indirectly. For Oral Willingness to Communicate Outside the classroom (OWTCO), the program's influence was primarily mediated by Learning Motivation.

Findings for Research Question 2

Based on the results of the SEM analysis, the path of CBDOP's influence on OWTC is statistically significant. Specifically, the path coefficient from CBDOP to OWTCI is 0.741, with a p-value less than 0.001 (see Table 9), indicating a strong positive effect of CBDOP on OWTCI. OWTCO's path coefficient is 0.536, with a p-value less than 0.001 (see Table 9), demonstrating a significant positive influence of CBDOP on OWTCO, with a slightly weaker effect than OWTCI.

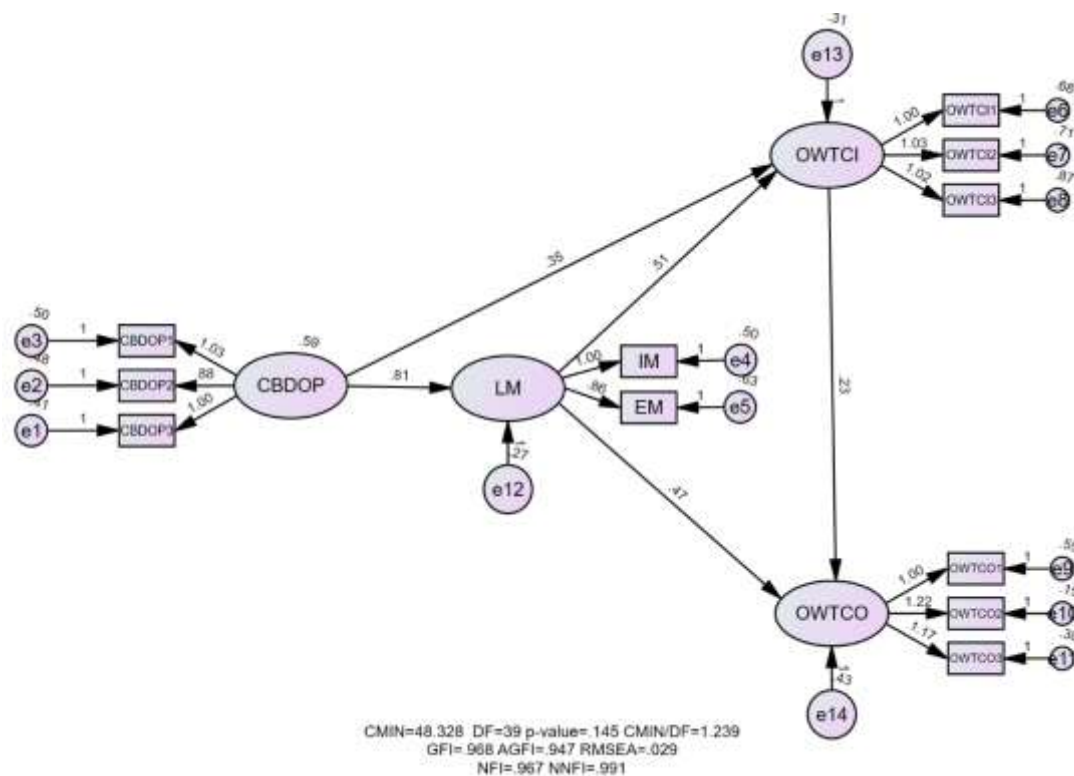


Figure 9. The Final Model of the Factor Loading from CBDOP to CBDOP1,2,3.

According to Kline (2023), SEM systematically explains the relationships between latent and observed variables. He clearly stated that the larger the factor loading, the stronger the explanatory power of the observed variable for the latent variable, a concept that played a crucial role in model evaluation and result interpretation. Specifically, factor loadings are an important indicator reflecting the strength of the relationship between latent and observed variables, and higher factor loadings typically indicate that the observed variable plays a more significant role in the construction of the latent variable (Kline, 2023). In this study, by analyzing the factor loadings of different observed variables, such as Online Live Courses (CBDOP1), Recorded Video Courses (CBDOP2), and Online Activities (CBDOP3), could effectively identify the observed variable with the greatest influence within a specific latent variable, such as CBDOP.

For example, Figure 9 reveals that among the three components of CBDOP, the factor loading for Online Live Courses (CBDOP1) is the highest at 1.03, indicating that it has the strongest explanatory power for the latent variable CBDOP. Consequently, it can be inferred that online live courses play the most significant role in enhancing OWTC, particularly in terms of OWTCI. Besides, the factor loadings for Recorded Video Courses (CBDOP2) and Online Activities (CBDOP3) are 0.88 and 1.00, respectively. While these components also influence OWTC, their effects are relatively weaker.

Findings for Research Question 3

These research questions were addressed by examining the mediating role of Learning Motivation (LM) in the relationship between CBDOP and OWTC, utilizing the SEM model (Figure 10) to estimate the total, direct, and indirect paths.

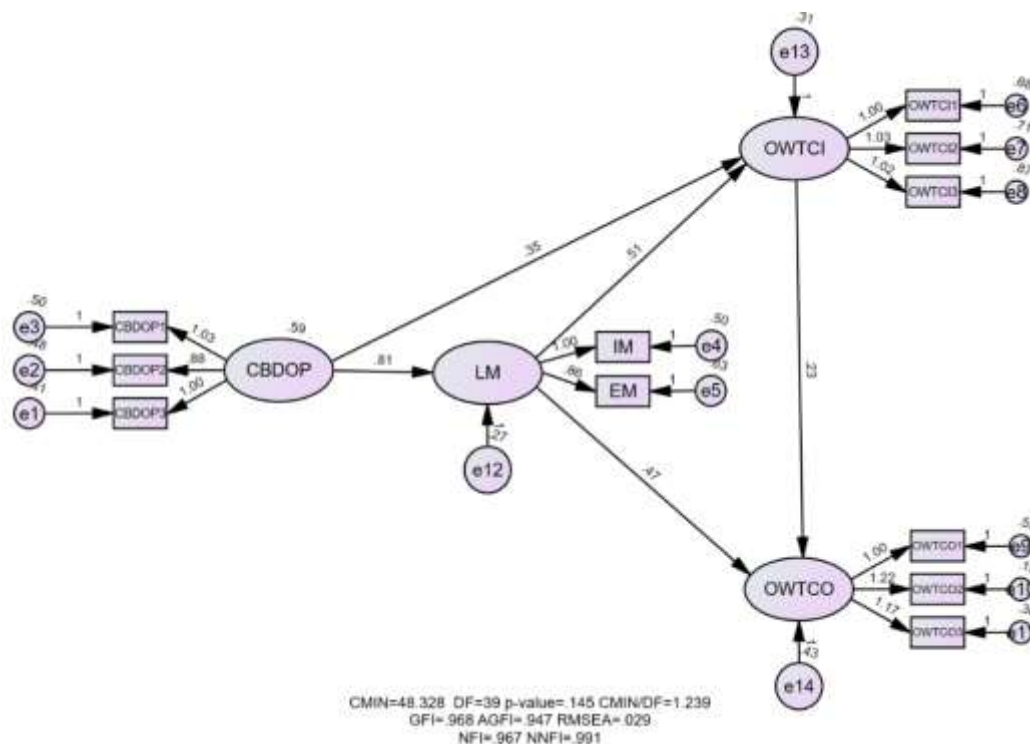


Figure 10. The Final Model for the Effect of Learning Motivation as a Mediating Variable

(a) Total Effects

The total effects analysis in Figure 11 and Table 12 demonstrates that Learning Motivation (LM) significantly contributes to OWTCI and OWTCO. The total effect of LM on OWTCI is 0.507 ($p < 0.001$), and on OWTCO, it is 0.582 ($p < 0.001$). These findings suggest that learning motivation has a significant influence on students' oral willingness to communicate both inside and outside the classroom.

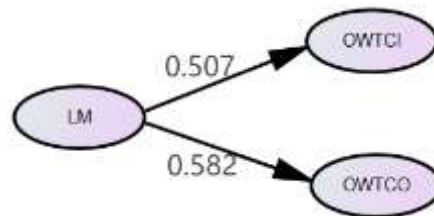


Figure 11. Total Effects of Learning Motivation on OWTCI and OWTCO.

Table 12. Total Effects of Learning Motivation on OWTCI and OWTCO.

Path	p-value	Total Effect	Standard Error
LM → OWTCI	< 0.001	0.507	0.047
LM → OWTCO	< 0.001	0.582	0.045

(b) Direct Effects

The direct effects analysis in Figure 12 and Table 13 confirms the significant mediating role of LM.

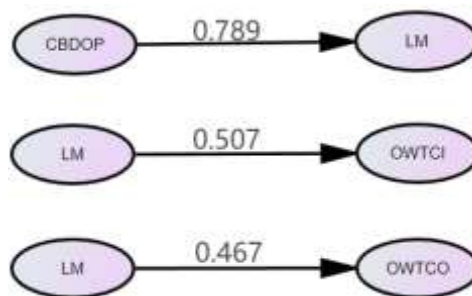


Figure 12. Direct Effects of CBDOP on Learning Motivation and Learning Motivation to OWTCI and OWTCO.

Table 13. Direct Effects of CBDOP on Learning Motivation and Learning Motivation to OWTCI and OWTCO.

Path	p-value	Direct Effect	Standard Error
CBDOP → LM	< 0.001	0.789	0.043
LM → OWTCI	< 0.001	0.507	0.047
LM → OWTCO	< 0.001	0.467	0.046

CBDOP directly affects LM with a standardized coefficient of 0.789 ($p < 0.001$). This substantial direct

effect indicates that the CBDOP significantly enhances students' learning motivation. In turn, LM directly influences OWTCI with a coefficient of 0.507 ($p < 0.001$) and OWTCO with a coefficient of 0.467 ($p < 0.001$), demonstrating that LM is a significant mediator that channels the effects of CBDOP on OWTCI and OWTCO.

(b) Indirect Effects

The analysis of indirect effects in Figure 13 and Table 14 further substantiates the mediating role of LM. The indirect effect of CBDOP on OWTCI through LM is 0.400 ($p < 0.001$), while the indirect effect on OWTCO through LM is 0.536 ($p < 0.001$). These significant indirect effects confirm that LM mediates the influence of CBDOP on OWTCI and OWTCO, making it a critical variable in understanding the program's influence on students.

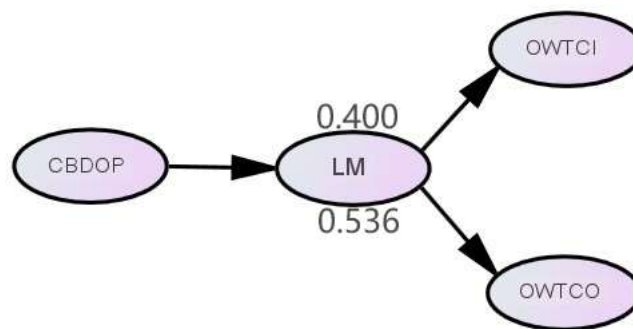


Figure 13. Indirect Effect of CBDOP on OWTCI and OWTCO through LM

Table 14. Indirect Effect of CBDOP on OWTCI and OWTCO through LM

Path	p-value	Indirect Effect	Standard Error
CBDOP → LM → OWTCI	< 0.001	0.400	0.046
CBDOP → LM → OWTCO	< 0.001	0.536	0.048

In summary, the findings for Research Question 3 highlighted the essential mediating role of learning motivation in the relationship between the CBDOP and OWTC, indicating that the program's influence on students' oral willingness to communicate is mainly related to enhancing their learning motivation.

Findings for Research Question 4

In response to Research Question 4, the results in the final model (Figure 14) reveal valuable insights into the roles of these motivational dimensions. The total effects of learning motivation on OWTCI and OWTCO indicate substantial relationships, with total effects recorded at 0.507 ($p < 0.001$) for OWTCI and 0.582 ($p < 0.001$) for OWTCO, underscoring the importance of learning motivation in enhancing students' oral willingness to communicate across different contexts.

The mediation role of learning motivation is further substantiated by the significant path coefficients associated

with CBDOP components, which promote both intrinsic (IM) and extrinsic motivation (EM). In comparing their specific contributions to learning motivation, Figure 14 shows that the factor loading for IM is 1.000 ($p < 0.001$), while that of EM is slightly lower at 0.864 ($p < 0.001$). This suggests that, although both types of motivation are critical, intrinsic factors exert a slightly stronger influence on learning motivation.

It also can be seen from Figure 14 that the path coefficient from OWTCI to OWTCO is 0.23, indicating that OWTCI has a slight positive impact on OWTCO. This influence may indicate that students' oral willingness to communicate in the classroom can be transferred to situations outside the classroom to a certain extent. This is consistent with the previously mentioned result, which is that the path coefficient from learning motivation to OWTCI is 0.51, which is greater than 0.47 from learning motivation to OWTCO. However, the total effect data showed that the total effect of learning motivation on OWTCI was 0.507 ($p < 0.001$), which was less than its total effect on OWTCO of 0.582 ($p < 0.001$). This difference could be explained by the fact that OWTCI also plays a certain mediating role between learning motivation and OWTCO, further strengthening OWTCO through positive influence.

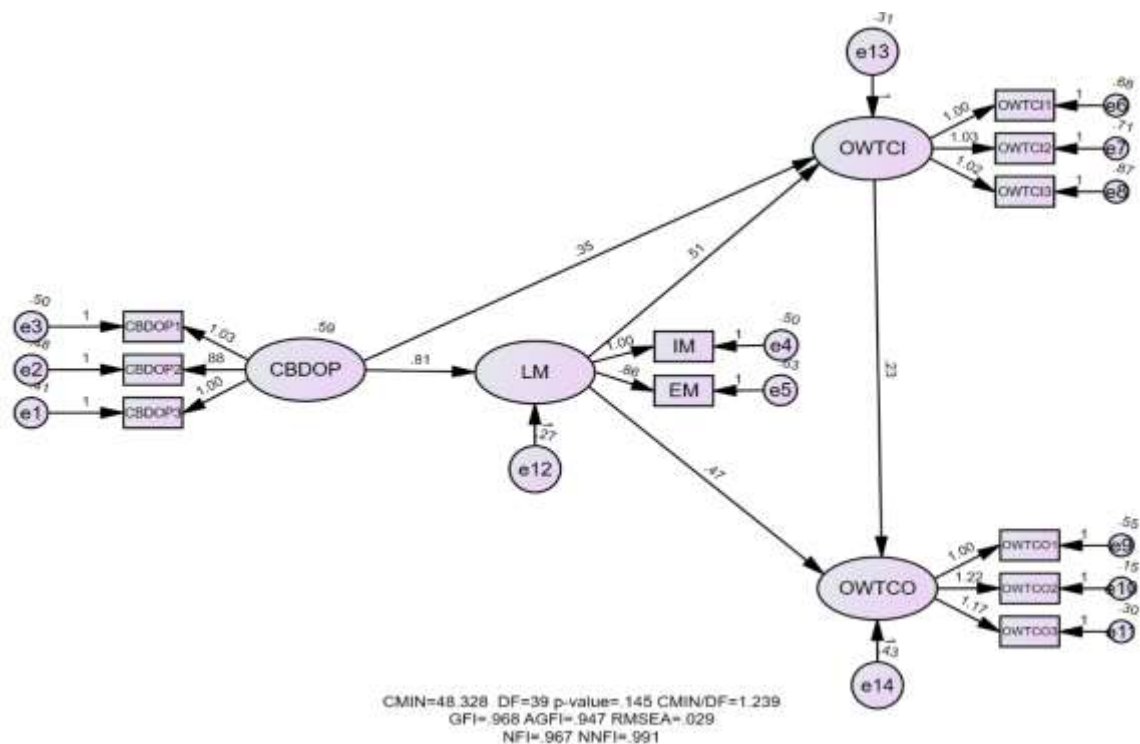


Figure 14. The Final Model for the Factor Loadings from Learning Motivation to IM and EM

Discussion

The Influence of the Chinese Bridge Delegation Online Program on Oral Willingness to Communicate Inside and Outside the Classroom

The findings demonstrated the significant influence of the CBDOP on students' OWTCI and OWTCO. These findings align with Vygotsky's (1978) theory of social constructivism, which emphasizes learning as a social

process shaped by interaction and collaboration. The CBDOP in this study embodied this principle through its integration of Online Live Courses (OLC), Recorded Video Courses (RVC), and Online Activities (OA), which created opportunities to communicate both inside and outside the classroom. Additionally, the program's immersive elements, such as virtual interactions with peers, teachers, native speakers, and cultural exploration, supported Vygotsky's emphasis on connecting learning to real-world social and cultural contexts (Brown et al., 1989). Collaborative activities in CBDOP further reinforced OWTC by providing opportunities for teamwork and shared knowledge-building. This aligns with Williams and Burden's (1997) perspective that active interaction enriches learning. Moreover, the CBDOP fostered a dynamic and supportive environment, encouraging learners to communicate confidently in Mandarin across diverse settings. This aligns with Peng and Woodrow's (2010) observation that the absence of real-life interaction opportunities often constrained the effectiveness of online learning programs. The CBDOP effectively addressed this limitation by offering authentic interaction opportunities, fostering a more immersive and engaging learning experience.

Research on online learning environments further supports this finding. Soyoof (2023) found that educational practices, familiarity with interlocutors, supportive communities, emotional variables, and intergroup climate significantly impacted learners' WTC through online environments. Similarly, Lee and Dressman (2018) observed that well-designed online interactions significantly improve college learners' WTC both inside and outside the class.

Besides, the findings showed that CBDOP significantly positively affects OWTCI, whereas its influence on OWTCO was less pronounced. This finding aligns with prior research (Li, 2022; Wu, 2023; Ma, 2023; Liu, 2023) that suggested structured, interactive online learning environments effectively promote students' willingness to speak inside the classroom. Similarly, Weaver (2005) demonstrated that pre-task planning and instructional strategies in the classroom positively influence WTC, highlighting the importance of context in shaping learners' willingness to communicate. Also, studies by Azizi and Farid Khafaga (2023), Cao and Philp (2006), Clément et al. (2000), and others (Khajavy et al., 2016; Öz et al., 2015; Peng, 2022; Zangoei & Derakhshan, 2021) emphasized the role of contextual factors in enhancing WTC in classroom settings. In the context of CBDOP, the program's real-time, interactive design likely provided students with repeated opportunities to practice their language skills in a controlled environment, contributing to their increased OWTCI.

The Most Influential Dimensions of the CBDOP on OWTC in terms of OWTCI and OWTCO

The findings from the SEM analysis revealed that Online Live Courses (OLC) emerge as the most significant component, followed by Recorded Video Courses (RVC) and Online Activities (OA). These components exert varying degrees of influence on OWTCI and OWTCO, demonstrating their differentiated roles in promoting Mandarin OWTC. The qualitative data also provided further insights into these quantitative findings.

Firstly, Online Live Courses (OLC) are the most significant driver of OWTC in the CBDOP. This is confirmed by CLEC (2020), which defined the real-time interaction promoted by OLC as providing immediate feedback, structured guidance, and authentic conversational opportunities, which are crucial for enhancing students'

confidence and engagement in Mandarin communication. This also aligned with previous research emphasizing the important role of live, interactive environments in language acquisition (Li et al., 2020; Zhang & Li, 2019; Liu, 2023). The qualitative findings further contextualized this finding as students highlighted the supportive nature of OLC in promoting an immersive learning environment. The interactive format allowed them to practice Mandarin with peers and teachers, improving their willingness to speak. This is also supported by the argument of De Ruiter et al. (2019) that structured live interactions create safe spaces for learners to develop communicative competence. Therefore, OLC's pronounced effect on OWTCI can be attributed to its structured design, which closely mimics traditional classroom settings while leveraging the flexibility of online platforms. The combination of direct interaction and guided practice enhanced students' ability to express thoughts confidently in Mandarin, especially in the classroom.

Secondly, Recorded Video Courses (RVC) is identified as the second most influential component, contributing significantly to OWTC. RVC is a complementary resource to the interactive components of CBDOP, reinforcing its overall effects on OWTC. The flexibility inherent in recorded materials allowed students to review content repeatedly, ensuring better comprehension and retention. Therefore, the effectiveness of RVC extended to its role in bridging the gap between formal instruction and informal practice, allowing learners to internalize content independently. Previous studies also demonstrated that self-paced learning promotes deeper understanding and prepares students for practical language use in both structured and unstructured settings (Sun et al., 2020; Liu, 2021). This is also supported by Ye et al. (2023), who found that 78.48% of participants in CBDOP appreciated the "live + recorded" course format, which effectively aligned with their needs and significantly enhanced their Mandarin learning experience. Participants in the qualitative interviews frequently mentioned that RVC enabled them to strengthen and apply their classroom learning in real-world scenarios. By revisiting complex topics at their own pace, students felt better equipped to communicate in the classroom later after the compensatory learning with the video. This finding also resonates with Chen et al. (2022), who highlighted the importance of accessible and revisable learning resources in supporting learners' confidence in language use across diverse contexts.

Thirdly, the SEM results showed that while contributing positively to OWTC, Online Activities (OA) exhibit a relatively weaker influence than OLC and RVC. OA's informal and flexible nature provided students with opportunities for cultural immersion and practical language practice, which were beneficial for developing communication skills outside the classroom. Despite this, OA was essential in promoting broader language competencies by creating informal settings where students could experiment with their language skills. This aligns with Thorne (2019) and Godwin-Jones (2018), who argued that informal learning experiences can complement formal instruction by providing authentic contexts for language use. Meanwhile, the OA of CBDOP, which used many immersive online digital technologies, ensures spatial and temporal continuity, preventing a split-attention effect (Klingenberg et al., 2020; Thees et al., 2020). Lee and Hsu further confirmed that technologies can reduce students' cognitive load during learning, allowing them to focus on important information and avoid distractions. Similarly, technologies actively involve students in learning, helping them acquire better skills (Santos Silva et al., 2019).

However, its influence on OWTC was less pronounced, likely due to these activities' unstructured and voluntary

nature. Frederiksen et al.(2020) pointed out that the high complexity of the online digital environment leads to cognitive overload, resulting in impaired learning. Moreover, the observations of Frederiksen et al. (2020) noted that the higher cognitive load is attributed to the increased number of elements to interact with and online digital environmental distractions. Makransky et al. (2019) suggested that the immersive online digital environment may act as an educative detail, causing distraction and hindering cognitive assimilation. This idea resonates with Parong and Mayer's (2021) findings, which argued that the perceptual richness and high-arousal emotions associated with an immersive online digital environment lead to increased cognitive distraction and, consequently, learning outcomes. Parong and Mayer (2021) further supported this notion by arguing that high immersion in an online digital environment causes higher levels of affective processing but lower levels of cognitive processing. Another explanation mentioned in most studies is the novelty of the technology for students. On the one hand, the fact that students must learn to use the system imposes a defact extraneous cognitive load. On the other hand, because of the novelty effect, students may see the online digital environment as an entertainment platform rather than a learning tool compared to the traditional media they were used to (Feldon et al., 2018; Makransky & Petersen, 2019; Pande et al., 2021; Parong & Mayer, 2021).

The Mediating Role of Learning Motivation in the Influence of the Chinese Bridge Delegation Online Program on Students ' Oral Willingness to Communicate

The results indicated that CBDOP indirectly enhanced students' OWTC by elevating their learning motivation, which served as a crucial mediator in this process. This finding is supported by several studies emphasizing motivation's critical role in language learning. For instance, Fan Yujia (2022), Han Yangxi et al. (2022), Jin Yindi (2022), and Zhuo Hao (2022) highlighted that emerging technologies, such as those employed in CBDOP, significantly impacted students' motivation by providing interactive and engaging learning experiences. These technologies captured students' attention and fostered intrinsic motivation, thereby indirectly influencing their willingness to engage in communication.

Moreover, Tian Xiaoxiao (2023) noted that CBDOP's reward-based mechanisms, such as issuing completion certificates for active participation, further reinforced students' motivation and enthusiasm for learning, boosting their WTC. In addition, research by Li Jiayu (2022) and Ma Kao (2023) demonstrated that the online learning environment of CBDOP significantly enhanced students' motivation to learn Mandarin, making it more effective than traditional teaching methods.

This is also consistent with the findings of Yusoff et al. (2017) and Firat et al. (2018), who emphasized the importance of motivation in online foreign language learning environments. Furthermore, Zainon and Yamat (2021) showed that online learning environments significantly improved students' motivation levels and academic performance, thereby contributing to better language learning outcomes. Similarly, Duan Yilei (2020) and Ehsanifard et al. (2020) also highlighted how online learning environments positively influenced students' motivation and oral proficiency.

In line with these findings, Al-Hoorie (2018) emphasized the importance of motivational strategies in online

learning, suggesting that increased motivation leads to greater engagement and success in language learning. Supporting this, Wu (2023) found that CBDOP's online platform, characterized by its interactive features and immediate feedback, effectively supported student motivation. This was further corroborated by Wang et al. (2021), who demonstrated that interactive learning environments significantly enhance motivation and then affect language performance.

Additionally, Jin et al. (2020) found that immersive online environments stimulated curiosity and motivation, leading to an engaging and productive learning experience. Similarly, Makransky et al. (2020) highlighted how such environments fostered positive emotions and a sense of control, motivating students to actively engage with the material. Hattie and Timperley (2007) also emphasized the critical role of feedback and interaction in promoting students' motivation and learning outcomes, a perspective further reinforced by Jeong (2019), who found that timely feedback and interactive features on online learning platforms significantly contributed to student engagement and motivation.

Furthermore, the mediating role of learning motivation in fostering OWTC was also supported by Mulyono and Saskia (2021), who found that motivation, along with self-confidence and reduced anxiety, significantly predicted students' WTC in online environments. This aligns with the findings of Yi et al. (2012), Li Zhenzhen (2014), Gao Shanshan (2017), Li Lili (2018), Wang He (2021), and Zhang Huixian (2021), all of whom established a positive correlation between Mandarin learning motivation and WTC.

The Most Influential Dimensions of Learning Motivation as Mediators in the Relationship between CBDOP and OWTC in terms of OWTCI and OWTCO

The fourth research objective aimed to identify which dimensions of learning motivation, specifically intrinsic and extrinsic motivation, served as more influential mediators in the relationship between the CBDOP and OWTC, particularly in terms of students' OWTCI and OWTCO.

The SEM results revealed that both intrinsic and extrinsic motivations significantly enhance students' OWTC, yet intrinsic motivation exerts a slightly stronger influence. Specifically, intrinsic motivation, driven by students' genuine interest and enjoyment in learning Mandarin, fosters a deeper willingness to participate in oral communication activities. This aligns with prior research by Noels et al. (2000), which highlighted that intrinsic motivation, driven by genuine interest and intrinsic satisfaction, promoted a deeper and more sustainable willingness to communicate in a second language. According to Noels et al. (2000), intrinsically motivated students are more likely to engage in spontaneous language use due to their inherent enjoyment of learning, which is crucial for developing communicative competence in a foreign language. Similarly, Wang et al. (2023) found that intrinsic motivation, particularly enjoyment in foreign language learning, mediates the relationship between language proficiency and second language use in communication. Their study also demonstrated that learners with higher intrinsic motivation performed better in both formal and informal language contexts, underscoring intrinsic motivation's critical role in fostering second language communication skills.

In the context of CBDOP, diverse online activities were designed to spark students' curiosity, provide a sense of achievement, and play an important role in enhancing their intrinsic motivation, subsequently increasing their oral willingness to communicate. This is supported by Arayaphan et al. (2022), Burgues et al. (2020), Liu et al. (2022), Makransky et al. (2019a, 2019b), Makransky and Klingenberg (2022), Mayer (2020), Page et al. (2021), Pande et al. (2021), Parong and Mayer (2021), and Wu et al. (2020), who found that learning motivation, especially intrinsic motivation, is positively influenced by online learning environments. These studies highlighted the significant role of online platforms in stimulating students' intrinsic motivation enhancing their engagement and willingness to communicate.

Previous studies by Vallerand et al. (1992) and Dörnyei (2001) also supported this finding, indicating that extrinsic motivation, such as receiving praise or grades, can boost immediate engagement but may not sustain long-term language use. This finding aligns with Makukhina (2024), who examined how external motivation mechanisms, such as grades and peer pressure, provide an initial drive in language learners but were often ineffective in sustaining long-term interest once these external factors are removed. This highlighted the necessity of fostering intrinsic motivation for better and more lasting outcomes in foreign language learning. In the CBDOP, structured feedback and recognition during Online Live Courses enhance extrinsic motivation by providing students with tangible goals and reinforcement, encouraging them to use Mandarin in real-world contexts. However, while extrinsic motivators can initiate engagement, intrinsic motivation sustains and deepens students' communicative behaviors over time. For example, Ushioda (2008) argued that learners who develop intrinsic motivation were more likely to continue using the language beyond the immediate context of their studies, as personal interest rather than external rewards drove them.

Recommended EMOC Guideline

According to the results, the researcher recommended a guideline named Enhancing the Mandarin OWTC through CBDOP (EMOC), as shown in Figure 15. The overall structure of the EMOC Guideline was organized into three sequential phases: preparation before the program, implementation during the program, and consolidation after the program.

The EMOC guideline is a structured, phased instructional framework designed to stimulate and sustain learners' learning motivation through participation in the CBDOP, and the ultimate goal of the guideline is to enhance learners' OWTCI and OWTCO significantly. This phased design ensures scientific rigor, coherence, and systematic progression of the Mandarin learning process in CBDOP. The guideline's logical clarity and rigorous structure allow the tasks within each phase to complement and build upon one another, resulting in an efficient and highly effective instructional flow.

Building upon this framework, this guideline is grounded in three core theoretical foundations: Social Constructivism, Self-Determination Theory, and Willingness to Communicate Theory. It emphasizes the importance of cross-cultural and interactive elements in online language learning programs, highlighting the important role of learning motivation, particularly intrinsic motivation, as a driving force for enhancing oral

willingness to communicate while acknowledging the supporting role of extrinsic motivation. The guideline also introduces an innovative paradigm for international Mandarin education by cohesively integrating language acquisition with cultural learning.

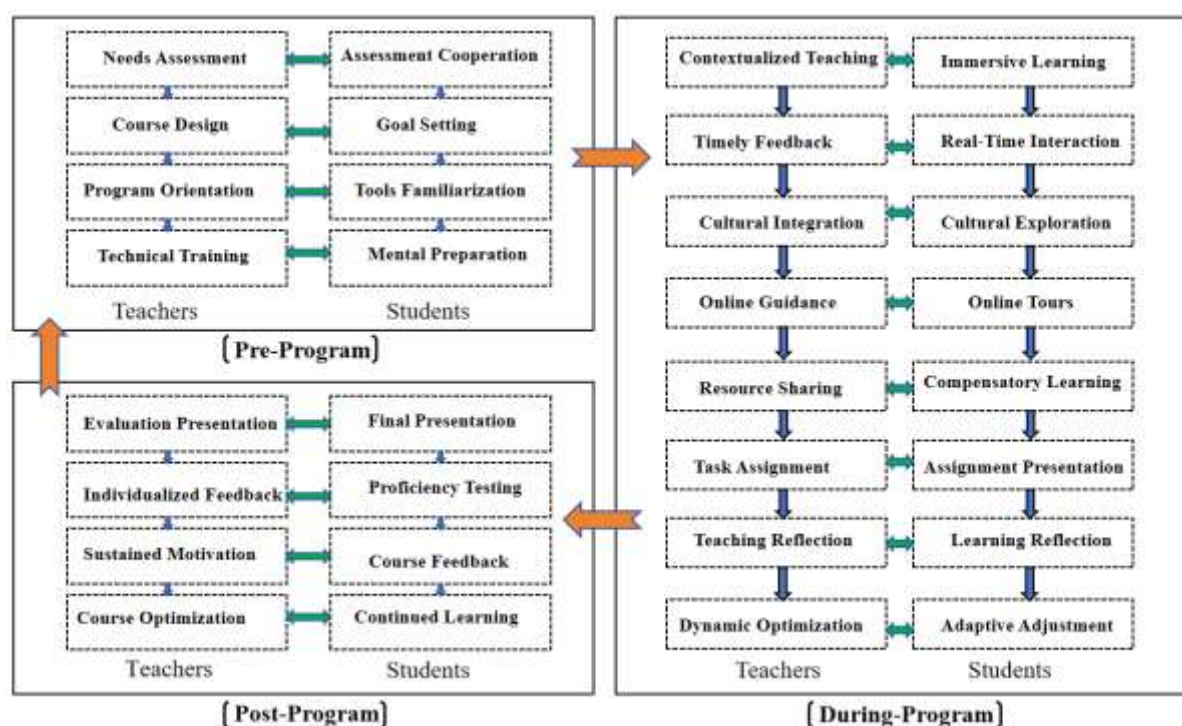


Figure 15. EMOC Guideline

Conclusion

This study comprehensively examined the research questions and filled the gaps in examining the influence of the CBDOP on Indonesian secondary school students' OWTC. Specifically, the study examined the influence of CBDOP on students' OWTCI and OWTCO, the most influential dimensions of CBDOP on OWTC, the mediating role of learning motivation, the most influential mediating dimension of learning motivation, and students' views of learning in the program.

The results showed that CBDOP significantly improved the students' OWTC both inside and outside the classroom. The program's immersive approach to learning, particularly through its core components, live online courses, recorded video courses, and online activities, was found to be highly influential. Among them, live online courses were considered the most influential components, providing students with valuable opportunities to interact with teachers and native speakers in real-time.

In addition, this research confirmed the key mediating role of learning motivation in this relationship. Intrinsic motivation, which was derived from students' real interest and enjoyment, was found to be more influential than extrinsic motivation in promoting Mandarin OWTC. Based on these comprehensive findings, this study proposed an EMOC guideline as a recommended framework for future Mandarin learning programs. Comprising three

phases, the guideline provided a systematic approach to CBDOP learning that could promote the development of OWTC in Mandarin and enhance cross-cultural understanding, which aligns with the broad objectives of international language education.

This study not only contributed to the development of language education theory but also provided practical insights for teachers and program designers. From a theoretical point of view, this study emphasized the importance of online interaction and cultural immersion in promoting intrinsic motivation and examined how learning motivation as a mediating variable influences OWTC in Mandarin. On a practical level, the findings provided valuable insights for educators and curriculum designers to develop more effective language learning programs. The research also highlighted the importance of integrating online real-time interaction, personalized learning experiences, and continuous feedback mechanisms in program design to keep students motivated and promote their interaction with language. It also highlighted the need for curriculum evaluation and adjustments to ensure that programs are relevant and effective and meet the diverse needs of students. Furthermore, future research could expand on these findings using quasi-experimental designs or comparative studies to explore the program's effect in different contexts and populations, thereby deepening our understanding of its broad effect on language learning.

In conclusion, this study proved the influence of the CBDOP in improving students' OWTC with the mediating role of learning motivation, proposed an EMOC Guideline as a valuable framework for future Mandarin learning programs, not only enriches the theoretical foundation of foreign language learning but also provide practical guidance for more effective language education program design and implementation, especially in the context of international Mandarin education.

Recommendations

Future research should further examine the influence of different cultural backgrounds and educational environments on the effectiveness of online immersion programs and motivational strategies, as these factors may largely shape students' OWTC. Specifically, studying how students from different cultural backgrounds adapt to and participate in these programs will help reveal the differences in students' learning behaviors in multicultural environments and their unique challenges and opportunities. Therefore, it is suggested that future studies should be designed to incorporate variables related to acculturation to gain a comprehensive and deep understanding of students' language learning performance in different educational settings. For example, an acculturation scale or questionnaire could reflect a student's cultural background more accurately and reveal how they adjust and adapt to the program's educational environment. This research direction would help reveal how cultural factors affect students' learning behavior, learning attitude, and participation, providing theoretical support for the design of individualized foreign language education intervention strategies.

In addition to cultural factors, future studies suggest a quasi-experimental design and comparative study to further consolidate this study's findings. A quasi-experimental design can control variables more strictly and observe the causal effect of CBDOP on OWTC by comparing before and after intervention. In addition, comparative studies

can explore the program's effects in different cultural and educational contexts, revealing how different contexts (such as other countries or regions) affect the relationship between learning motivation and OWTC. These research methods will help to enhance the generalizability and validity of future research in this field.

Moreover, future research should also consider using data mining techniques, especially when dealing with large data sets, which can help researchers discover underlying patterns and trends and reveal important factors that may have been overlooked. By combining machine learning and artificial intelligence techniques, researchers can more deeply analyze the interrelationship between immersive programs, learning motivation, and OWTC. Through this technique, researchers can fully analyze complex learning processes and provide data support for educational practices, thereby optimizing learning design and improving the program's overall effectiveness.

In terms of teaching practice, it is suggested that the future CBDOP should consider introducing artificial intelligence technology to improve students' learning motivation and OWTC further. For example, intelligent learning platforms and personalized recommendation systems could provide students with more targeted learning content and help them learn languages more efficiently. These technologies could adjust learning tasks in real-time according to the student's learning progress and provide personalized feedback to help students maintain high motivation during the learning process, thereby improving their oral communication skills. In addition, AI technology could also identify students' learning bottlenecks by analyzing their learning data and then providing targeted help and support.

In addition to technological innovation, future research should also focus on enriching and diversifying the platform resource base. It is suggested that the resource base of the CBDOP should be improved, and the country-specific and diversified learning resources should be increased to better serve students from different countries. These resources could provide students with a platform for self-study, support their independent learning, and provide teachers with rich teaching materials to help them prepare courses and design teaching activities more effectively. For example, by integrating cultural background knowledge, interactive learning tools, and language skills training modules, the platform can provide students with a diverse learning experience and enhance their interest in learning and willingness to communicate. Furthermore, given the urgent need for Mandarin learning in "Belt and Road" countries, it is recommended that in the future, the Chinese Bridge Delegation Online Program can further strengthen cooperation with "Belt and Road" countries and further promote students' language skills especially OWTC by increasing the frequency and depth of this program.

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