

Bridging Cultural Cognition and Engagement: Arabic Calligraphy among Chinese University Students

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Abstract

This study examines Chinese university students' cognitive knowledge and engagement with Arabic calligraphy through the lenses of Cultural Schema Theory and Diffusion of Innovations Theory. A standardized questionnaire was distributed to 100 students, yielding 55 valid responses. Descriptive statistics and exploratory factor analysis were employed to investigate students' cultural cognition, symbolic interpretation, and willingness to participate in calligraphy-related activities. The findings indicate that, while most students are aware of Arabic calligraphy through cultural lectures and online media, their understanding remains cursory and fragmented, with limited comprehension of its symbolic and historical significance. More than half of the participants expressed an interest in engaging in calligraphy activities; however, perceived complexity, language barriers, and a lack of contextual understanding were identified as major challenges. This research highlights the gap between passive exposure and genuine cultural assimilation. It argues that integrating structured calligraphy instruction, interactive learning experiences, and targeted institutional support may enhance cultural schema activation while reducing perceived barriers to participation. Despite its small sample size, this study provides empirical insights for universities seeking to strengthen intercultural competence and promote the preservation of Arabic calligraphy as an important cultural resource.

Keywords: Arabic Calligraphy; Cultural Cognition; Student Engagement; Cultural Schema Theory; Innovations Diffusion Theory

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1. Introduction

As China expands its collaboration with Arab nations through the Belt and Road Initiative (Gao, 2020), Arabic language and cultural instruction has become strategically significant. Despite the rising demand for culturally educated Arabic language specialists (Ma, 2022), present curricula frequently ignore the broader meaning of Arab cultural heritage, particularly Arabic calligraphy, a distinct form of visual and spiritual expression steeped in Islamic tradition (Allawn, 2024).

Arabic calligraphy is more than just a decorative art form; it symbolizes religious piety, cultural identity, and artistic heritage (Irfanqureshi, 2024). Yet, in Chinese universities, students -especially those who are not majoring in Arabic, are rarely exposed to Arabic calligraphy, and the exposure they have is superficial. At institutions such as Anhui International Studies University (AISU), Arabic majors may participate in some themed cultural activities (AISU, 2023), but opportunities for systematic instruction or hands-on practice remain rare. For non-Arabic majors, such exposure is even more limited, which prevents them from gaining meaningful understanding or sustained interest.

Cultural Schema Theory (Shahghasemi, 2017; Andrei & Laura, 2021) offers a framework for understanding how restricted exposure influences students' cognitive processes. According to Shahghasemi (2017), cultural schemas are established by categorizing incoming cultural inputs based on experience, linguistic expertise, and education. These schemas serve as mental templates for individuals to comprehend and cope with novel cultural forms (Andrei & Laura, 2021). Without regular and meaningful exposure, students' perceptions of Arabic calligraphy are frequently shallow or erroneous, affected by preconceptions or inadequate representations. As Li (2017) noted, cross-cultural comprehension necessitates deliberate cognitive processes to accept and assimilate various cultural symbols.

In addition, Diffusion of Innovations Theory (Rogers, 2003) explains how Arabic calligraphy, as a cultural innovation, spreads—or does not spread—in university settings. Its acceptance often occurs in phases (innovators, early adopters, early majority, etc.) and is determined by perceived characteristics such as relative advantage, compatibility, complexity, and observability. In higher education, these variables interact with institutional practices and diffusion networks. As Sahin (2006) notes, Rogers' paradigm is especially effective for evaluating adoption patterns in educational contexts. In this setting, instructors, event organizers, and curriculum designers serve as opinion leaders, and their support (or lack thereof) has a significant impact on students' exposure (Reichert, 2019) to and acceptance of Arabic calligraphy.

Considering these dynamics, the purpose of this study is to measure students' cognitive knowledge of Arabic calligraphy, including awareness, interpretation, and symbolic identification, as well as to investigate pedagogical and communicative elements that impact their participation. Using these two theoretical perspectives, this study aims to identify the limitations of current multicultural education strategies and

propose practical improvement measures to foster intercultural competence and preserve the artistic heritage of Arabic calligraphy in Chinese higher education.

Therefore, the objectives of the present study would be:

1. To assess students' cognitive comprehension, including their awareness, interpretation, and symbolic identification of Arabic calligraphy.
2. To explore the educational and communicative factors that influence their engagement with this art form.

2. Literature Review

2.1 Theoretical Framework

This research is grounded in an interdisciplinary framework primarily based on Cultural Schema Theory (Shahghasemi, 2017; Andrei & Laura, 2021) and Diffusion of Innovations Theory (Rogers, 2003). Together, these theories provide complementary lenses for examining how Chinese university students perceive and engage with Arabic calligraphy in an educational context.

According to Cultural Schema Theory, individuals interpret unfamiliar cultural phenomena by activating cognitive structures known as schemas that have developed via language, social experience, and education. These schemas act as mental templates for making sense of new cultural experiences. However, without adequate exposure, learners may build fragmented, stereotyped, or shallow schemas, leading to misunderstanding or disengagement (Shahghasemi, 2017). In the case of Arabic calligraphy, which incorporates both aesthetic and symbolic complexity, limited exposure via internet media or isolated events may prevent students from acquiring deeper religious, historical, or artistic connotations (Andrei & Laura, 2021; Altwaymm, 2025). Meaningful, organized, and context-rich encounters are required to facilitate schema building and cultural comprehension.

On the other hand, Diffusion of Innovations Theory (Rogers, 2003) offers a macro-level perspective for understanding how Arabic calligraphy, as a cultural activity, expands inside educational institutions. The theory outlines five main factors influencing adoption: relative benefit, compatibility, complexity, trialability, and observability. Arabic calligraphy has struggled to gain widespread acceptance in Chinese institutions due to its perceived difficulty, lack of integration into mainstream curricula, and insufficient support from opinion leaders such as teachers or program designers. Students may perceive it as visually appealing but linguistically or culturally inaccessible, especially in settings where Arabic is not a significant subject of study. This lack of institutional dissemination results in a cycle of low visibility and involvement.

By merging these two ideas, this study investigates both the individual cognitive processes that drive cultural interpretation and the institutional dynamics that influence the spread and adoption of Arabic calligraphy in the educational setting.

2.2 Arabic Calligraphy: Cultural and Educational Significance

Arabic calligraphy is not merely a decorative art form but a profound cultural and spiritual practice rooted in Islamic tradition (Allawn, 2024). Historically, it evolved alongside the development of the Arabic language, serving as both a visual and symbolic medium for transmitting religious texts and cultural values. Key script styles include Kufic, known for its geometric precision; Naskh, valued for its clarity and legibility; Thuluth, characterized by its flowing elegance; and Diwani, often associated with ornamental and ceremonial uses (Haysar, 2024).

In educational terms, Arabic calligraphy provides several options for symbolic interpretation, intercultural learning, and aesthetic appreciation (Abouelega et al., 2025). Unlike alphabetic writing systems, which are largely utilitarian, Arabic scripts value harmony, balance, and inherent meaning. This makes it a powerful instrument for cultural education but also a difficult one, especially for pupils who are inexperienced with Arabic language and culture (Hamouche, 2025).

However, within Chinese universities, Arabic calligraphy is often presented in fragmented or decorative ways—through posters, occasional cultural activities, or exhibitions (Qi & Ma, 2021). Such exposure lacks continuity and conceptual depth, thereby limiting its ability to activate or reshape students' cultural schemas (Shaules, 2019).

2.3 Dissemination of Arabic Calligraphy in Chinese University

The dissemination of Arabic culture in China has evolved from the exchanges of the Silk Road to modern academic and cultural cooperation (Xing et al., 2023). Today, universities such as Beijing International Studies University, Peking University, and Shanghai International Studies University offer structured Arabic language programs from undergraduate to doctoral levels, aligning with China's Belt and Road Initiative (Ma, 2022; Qi & Ma, 2021). Despite this, Arabic calligraphy remains marginalized in academic programs, receiving far less attention than language or economic cooperation studies.

Previous surveys indicate that exposure to Arabic calligraphy among Chinese university students is sporadic and largely limited to cultural exhibitions, public lectures, and online media. While Arabic majors tend to have slightly higher exposure levels, they still lack systematic training in script varieties, stylistic evolution, and cultural symbolism (Qi & Ma, 2021).

Diffusion of Innovations Theory positions Arabic calligraphy as a cultural innovation whose integration depends on institutional structures, communication channels, and opinion leaders (Rogers, 2003). While some universities organize workshops or exhibitions, these initiatives are often sporadic and lack long-term planning. According to Reichert (2019), without institutional sponsorship and visible advocacy, cultural innovations remain peripheral. Similarly, Raman et al. (2024) argue that the absence of consistent peer exposure and role models prevents Arabic

calligraphy from reaching the “early majority” stage of adoption, thereby limiting its potential to become a normalized cultural practice within university settings.

Therefore, this review highlights a clear research gap: While there is some understanding of general student awareness, no prior study has systematically compared the cognitive depth and engagement willingness between Arabic majors and non-Arabic majors in Chinese higher education.

2.4 Conclusion

The studied literature demonstrates that, while Arabic language instruction is becoming more institutionalized in Chinese higher education, Arabic calligraphy remains disadvantaged. The use of Cultural Schema Theory with Diffusion of Innovations Theory reveals three major challenges:

- Many students lack the cognitive frameworks required to completely appreciate Arabic calligraphy;
- Current learning settings do not give consistent, context-rich exposure to the art form;
- Institutional initiatives to promote Arabic calligraphy are still scattered and insufficient for long-term acceptance.

Addressing these gaps necessitates specific educational initiatives that combine cognitive scaffolding with institutional support, ensuring that Arabic calligraphy is not only introduced but effectively incorporated into students' cultural learning opportunities.

3 RESEARCH METHODOLOGY

3.1 Research Instrument

This study used a quantitative research methodology to investigate students' cognitive grasp of Arabic calligraphy and the educational and communicative aspects that influence their exposure and engagement. The structured questionnaire was based on two main theoretical frameworks:

- Cultural Schema Theory (Shahghasemi, 2017; Andrei & Laura, 2021), supported the evaluation of pupils' symbolic recognition and knowledge development processes;
- Diffusion of Innovations Theory (Rogers, 2003) guided the assessment of how Arabic calligraphy is promoted and viewed in institutional and social settings.

The instrument comprised 10 closed-ended items organized into two sections aligned with the research objectives:

- Cognitive and Symbolic Understandings, incorporating prior knowledge of Arabic calligraphy, recognition of writing equipment and typefaces, and links with Arabic culture.
- Attitudes and Communicative Engagement, assessing students' desire to participate in calligraphy-related activities and their perspectives on effective

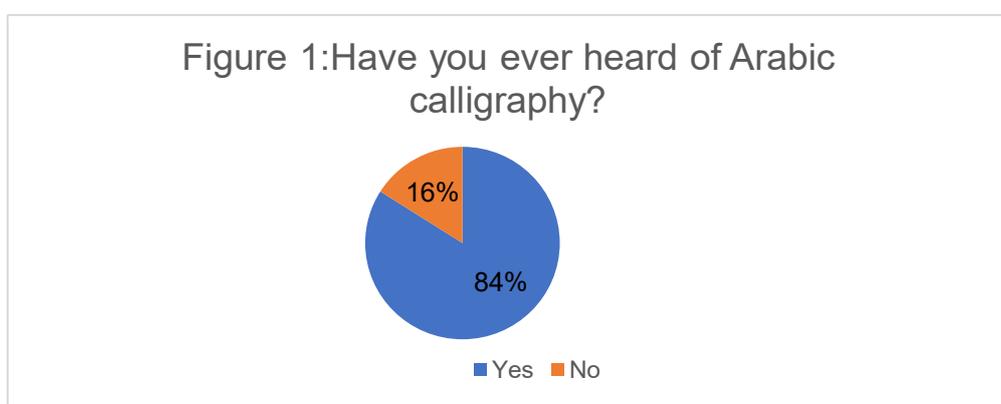
promotional techniques.

The questionnaire was sent using Wenjuanxin, a popular Chinese online survey platform (Wenjuanxing, n.d.).

3.2 Participants

A stratified sample technique (Lauren, 2022) was used to guarantee diversity across academic fields and year levels. To account for any disparities in cultural exposure, participants were divided into two categories: Arabic-related and non-Arabic-related fields, as well as academic status (freshman through senior).

Data cleaning and validation were performed on 100 gathered replies using the filtering question, "Have you ever heard of Arabic calligraphy?" (Figure 1).



Only students who replied affirmatively (84%) were kept, and after deleting incomplete or inconsistent entries, a final sample size of 55 valid cases was determined, as shown in Table 1.

Table 1 The structure of people willing to participate (n=55)

Feature Category	Feature Item	Frequency	Percentage
Gender	Male	23	41.82%
	Female	32	58.18%
Grade	One	13	25.45%
	Two	19	34.55%
	Three	16	27.27%
	Four	7	12.73%
Major	Arabic	8	14.55%
	Other foreign language majors	14	25.45%
	Non-foreign language major	33	60.00%

The final sample was about gender balanced, with a little bias toward female participants, the majority of whom were sophomores or juniors. Approximately 60% of participants majored in non-foreign language subjects, with a smaller percentage

specializing in Arabic or other foreign languages. This distribution enabled relevant comparisons between different levels of cross-cultural experience.

Participants were recruited from a single university chosen for its disciplinary variety, resulting in a diverse spectrum of academic backgrounds. Data gathering took place over a two-week period.

3.3 Data Analysis

Given the exploratory character of the study and its restricted sample size ($n = 55$), Exploratory Data Analysis (EDA) (Santos, 2023) was chosen as the primary analytic technique. The final data analysis was conducted in a systematic, multi-step procedure:

- Descriptive statistics (Hayes, 2024) were employed to investigate all items' frequencies and percentages, being computed to better understand overall patterns in awareness, experience, and interest.

- EDA approaches (Santos, 2023) were utilized to identify latent patterns, trends, and connections in the data. Moreover, charts, including bar charts and pie charts, depict the distributions of replies to queries on initial exposure pathways, font recognition, willingness to engage, and so on.

- Reliability testing: Cronbach's alpha coefficients were determined for grouped questions to assess the internal coherence of theme clusters (for example, perception-related items). All results are above the conventional threshold of 0.70, suggesting satisfactory dependability (Collins, 2007).

- Construct validity testing: Exploratory factor analysis was undertaken to demonstrate that questionnaire questions loaded correctly onto their respective theoretical constructs, with little cross-loading (Nikolopoulou, 2022).

Due to the categorical nature of the replies and the short sample size, advanced statistical methods such as regression and PCA were not used. Instead, the study focused on detecting developing trends, group-specific distinctions, and implications for intercultural learning designs.

4. RESULTS

4.1 Cognitive and Symbolic Understandings

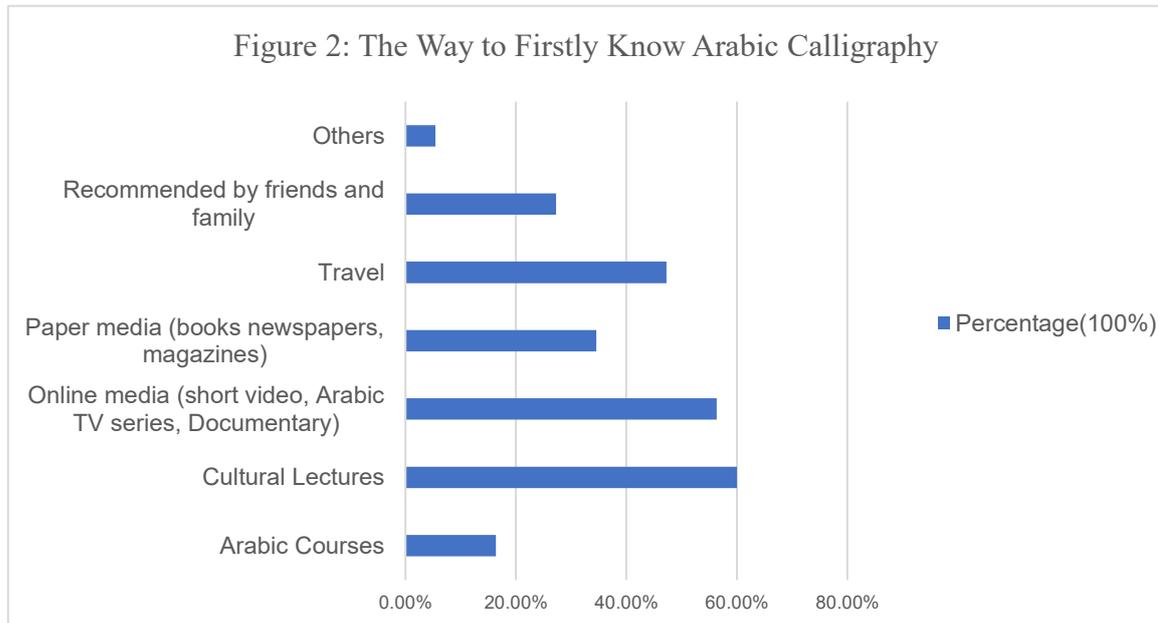
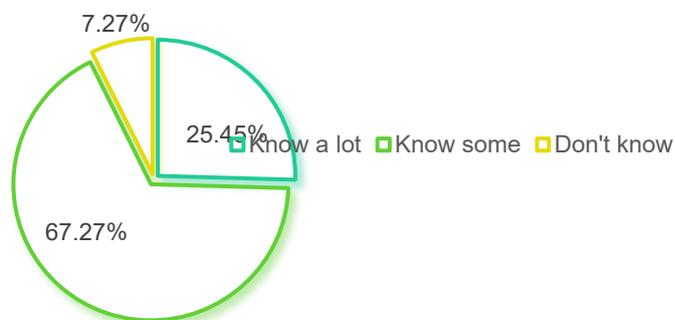


Figure 2 shows a multiple choice that cultural lectures were the most widely cited source, with 60.00% of respondents choosing this option. This was closely followed by online media, which included short videos, Arabic TV shows, and documentaries (56.36%), as well as traveling (47.27%). Paper media, such as books, newspapers, and magazines, accounted for 34.55% of initial exposures, whereas suggestions from friends and family made up 27.27%. Notably, 16.36% of respondents stated that Arabic classes were their first point of contact, indicating that formal education plays a relatively minor role. Only 5.45% chose "others" as their source of knowledge.

These findings indicate that informal and semi-formal learning contexts, such as cultural events and internet information, are important avenues for raising public awareness of Arabic calligraphy. Strengthening these modes, particularly within academic contexts, may increase visibility and involvement with the art form.

Figure 3: Knowledge of the writing tools and materials of Arabic calligraphy



However, within Figure 3, the great majority of respondents had some understanding of Arabic calligraphy's writing tools and materials, with 67.27% reporting "Know some" and 25.45% reporting "Know a lot." Only 7.27% of respondents stated that they have "Don't know" indicating that most individuals have a good perspective regarding this issue. To further enhance the respondents' knowledge level, relevant lectures or workshops could be held to provide more in-depth learning opportunities, particularly for those respondents who stated that they have "some knowledge" so that they can have a more comprehensive grasp of the knowledge of Arabic calligraphy writing tools and materials.

Figure 4: The main fonts of Arabic calligraphy

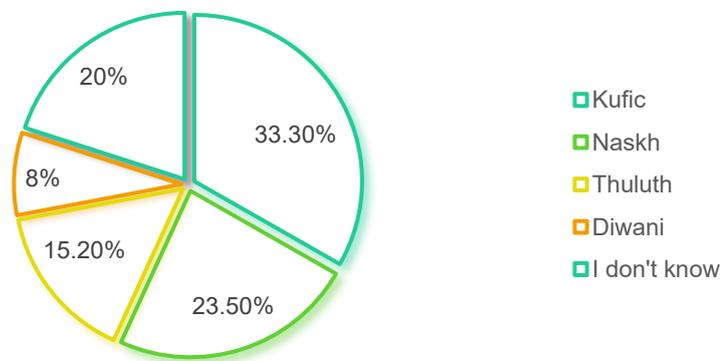
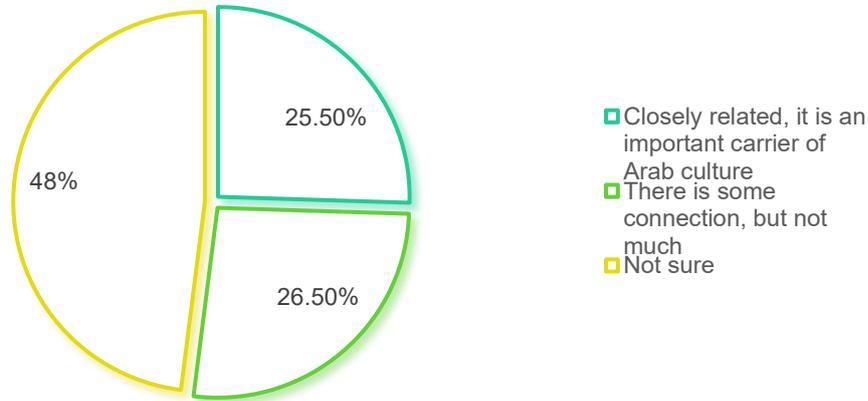


Figure 4 displays that Kufic had the greatest awareness percentage of all of the primary Arabic calligraphy typefaces, at 33.3%, demonstrating its importance and popularity. Naskh and Thuluth were followed by Kufic, which have awareness ratings of 23.5% and 15.2%, respectively, showing that these two typefaces are also rather popular. 20% of participants claimed they were unfamiliar with these typefaces, and Diwani had an awareness rating of 8%. This demonstrates that most individuals have some comprehension of Arabic calligraphy.

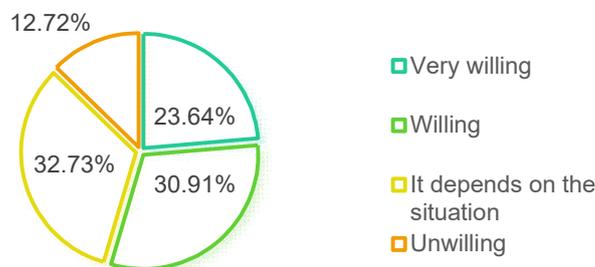
Figure 5: The relationship between Arabic calligraphy and Arab culture



In terms of Figure 5, 26.5% of respondents felt that Arabic calligraphy has a connection with Arabic culture, although the association is not statistically significant, indicating that awareness of the two is rather low. The proportion of respondents who answered "closely related; it is an important carrier of Arabic culture" is just 25.5%, which is low when compared to the proportion who believe the relationship is insignificant. Another 48% of respondents indicated they weren't sure about the relationship. Overall, respondents had very different perspectives on the link between Arabic calligraphy and culture, and most individuals do not completely appreciate its significance.

4.2 Educational Diffusion and Engagement Factors

Figure 6: Willing to participate in Arabic calligraphy activities



Notably, Figure 6 shows the willingness to participate in Arabic calligraphy activities organized by the university; 54.55% of respondents say they are "willing" or

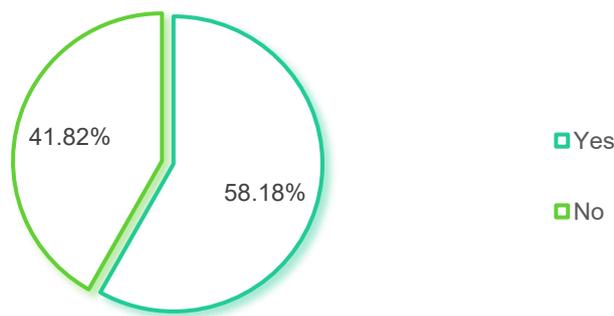
"very willing" to engage in university-organized Arabic calligraphy study events. This indicates a somewhat good outlook on institutional involvement activities.

Table 2 Reasons for unwilling to participate (including students who depend on the situation, n=25)

Reasons	Percentage (%)
Lack of interest towards Arabic calligraphy	81.82%
Difficulty in understanding calligraphy art	71.30%
Limited time	52.73%
The difficulty of learning Arabic language makes people reluctant to learn Arabic calligraphy	63.64%
Others	23.64%

However, Table 2 (Reasons for not wanting to participate, including students who, depending on the scenario, are willing, n=25) shows numerous significant impediments. The most often mentioned obstacle is a lack of personal interest in Arabic calligraphy (81.82%), followed by difficulties understanding the art form (71.30%), and a belief that the intricacy of the Arabic language makes studying calligraphy difficult (63.64%). These findings support diffusion theory's emphasis on perceived compatibility and complexity as significant adoption determinants.

Figure 7: Have you ever seen Arabic calligraphy?



According to Figure 7, 58.18% of respondents say they've seen Arabic calligraphy in person, showing a high exposure rate. Nonetheless, 41.82% had never physically experienced Arabic calligraphy, indicating access or visibility limitations that may impede wider spread.

Table 3: The occasion to see Arabic calligraphy (only having seen Arabic calligraphy, n=32)

The occasion	Percentage (%)
Exhibitions at the university	52.73
Art Galleries	52.73
Museums	50.91
Religious Places	45.45
Commercial advertisements	41.82
Others including private collection	5.45

Table 3 (n=32) reveals that the most common exposure locations for Arabic calligraphy are university exhibits and art galleries (52.73%), followed by museums (50.91%). Religious venues, such as mosques (45.45%), and commercial ads (41.82%), play important roles. These data indicate that institutional and formal cultural venues remain the primary dissemination pathways, albeit informal public-facing sources are equally important.

Figure 8: Whether the university strengthen the promotion and publicity of Arabic calligraphy or not

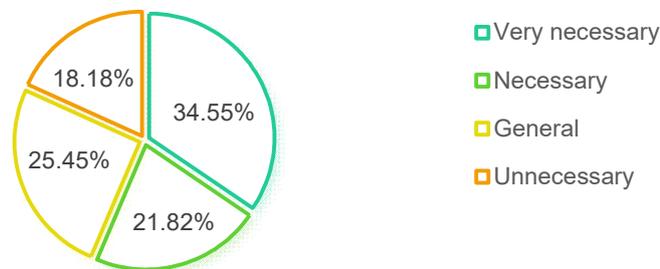


Figure 8 reveals that 34.55% of respondents say it is critical for the institution to increase its publicity and promotion of Arabic calligraphy, while another 21.82% believe it is necessary. This shows that the majority (56.37%) are enthusiastic about institutional efforts to support the art form. By contrast, 25.45% of respondents show disinterest, while 18.18% believe such marketing is useless. These findings suggest that a small proportion of individuals are ambivalent.

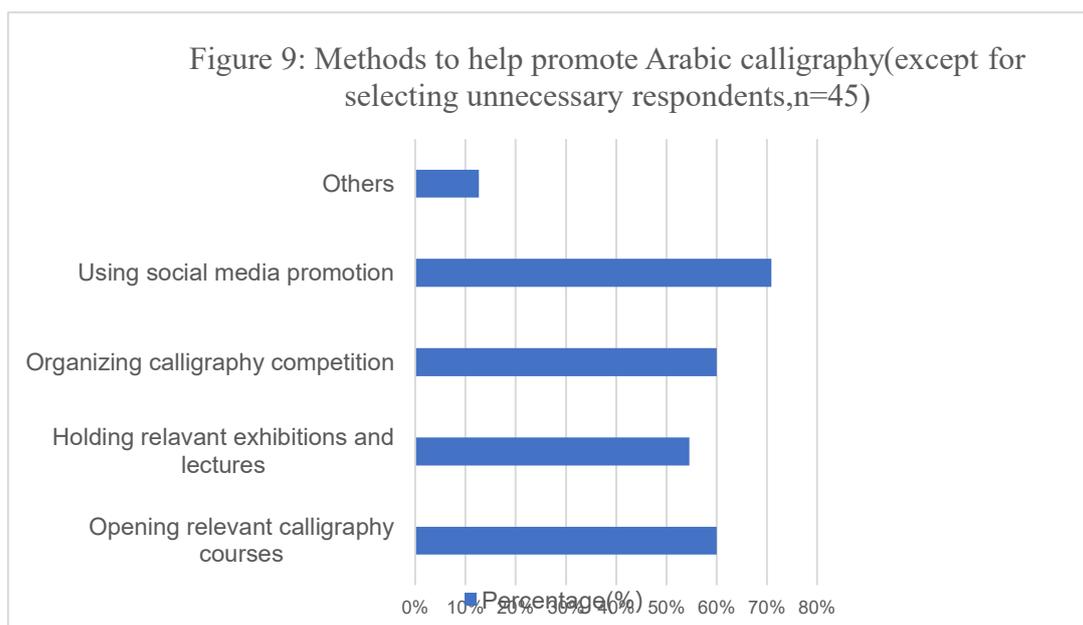


Figure 9, which explores preferred methods for promoting Arabic calligraphy (excluding those who opted not to promote it, $n = 45$), reveals that social media is the most favored strategy, endorsed by 70.91% of respondents. This is followed by course-based learning and calligraphy competitions (60%), which reflect the value placed on structured educational engagement. Additionally, lectures and exhibitions (54.55%) are also viewed favorably, underscoring interest in informational and cultural dissemination. Only 12.73% selected "other" methods, suggesting that existing promotion strategies are largely aligned with participant preferences.

5. DISCUSSION

5.1 Cognitive and Symbolic Understandings

As demonstrated in Figure 2, Figure 2 shows that the majority of students learned Arabic calligraphy through cultural lectures (60%), as well as online media (56.36%). While useful, these exposure approaches are mostly based on passive observation and may not always allow students to form significant conclusions. According to cultural schema theory (Shahghasemi, 2017; Andrei & Laura, 2021), superficial exposure may boost early cognition but not deeper conceptual integration. Seeing calligraphy in a lecture or video, for example, may stimulate aesthetic appreciation (Leeds & Wendy, 2013), but without prior cultural knowledge or guided explanations, students are unlikely to comprehend its symbolic meanings, such as the spiritual, historical, or linguistic meanings of various scripts (Ainura et al., 2023). This disparity is shown in Figure 5, where just 25.5% of respondents regard Arabic calligraphy as a "closely related and important cultural carrier," while 48% express ambiguity, showing undeveloped or fragmented cultural schema.

Figure 4 further demonstrates this limitation. While 33.3% of pupils recognized

Kufic, just 8% recognized Diwani. This mismatch showed that pupils' understanding was changed by selective exposure, which is frequently impacted by current media or surface images. Without planned education on the historical functions, stylistic varieties, and cultural roles of each script, students are left with fragmented perceptions that do not evolve into a unified symbolic knowledge. In this perspective, cultural schema theory explains why certain scripts are simple to recognize while others are difficult to understand.

Furthermore, Figure 3 demonstrates that many students indicated "some" or "very good" knowledge of calligraphy materials and equipment. However, this information proved to be more utilitarian than explanatory. Understanding the creative process of calligraphy, such as the many types of ink or paper, does not inevitably lead to an understanding of why it is culturally or symbolically significant. Without being entrenched in a larger cultural narrative (Peace, Oye, & Frank, 2022), this information cannot be linked to meaningful cognitive growth.

To conclude, the findings confirm that most students lack the well-developed cultural schemata required for a comprehensive understanding of Arabic calligraphy. Informal exposure helps with initial cognition but does not ensure the development of symbolic or conceptual depth. By incorporating cultural schema theory into the teaching framework, educators can design more coherent and immersive learning experiences that foster cognitive familiarity and symbolic literacy (Meylani, 2024).

5.2 Educational Diffusion and Engagement Factors

To achieve the second objective, we draw on Innovation Diffusion Theory (Rogers, 2003), with the findings highlighting how perceived accessibility, communication routes, and institutional support influence students' propensity to embrace and engage in this culturally significant art form.

The statistics indicated that the possibility for involvement was moderate. As indicated in Figure 6, more than 54.55% of respondents showed a willingness to engage in school-organized Arabic calligraphy activities, suggesting their initial excitement. However, Table 2 shows major perceived barriers: 81.82% of students showed disinterest, 71.30% thought the art of Arabic calligraphy was difficult to grasp, and 63.64% said the complexity of the Arabic language was a hindrance. These data support Rogers' hypothesis (Rogers, 2003), particularly the influence of perceived complexity and its compatibility with learners' existing knowledge on learning behavior (Matovu et al., 2024).

Environmental exposures also play a crucial role (Rauh & Margolis, 2016). Figure 7 shows that 58.18% of students have personally encountered Arabic calligraphy, indicating that the diffusion of Arabic calligraphy in the university environment is moderate. However, the remaining 41.82% of students have not had personal exposure, indicating that the wider diffusion is still limited. As shown in Table 3, exposure is mainly concentrated in formal cultural venues, such as university exhibitions, museums,

and religious sites, which highlights the importance of institutional and symbolic environments in promoting exposure and early engagement.

Importantly, student opinions regarding university-led outreach (Figure 8) altered the communication dynamics. A total of 56.37% of students said expanded outreach was "necessary" or "extremely important," while approximately 44% were neutral or opposed. This gap highlights the need for focused and believable communication techniques, particularly at the point on the adoption curve where adoption transitions from early adopters to early majority. Leveraging opinion leaders, such as academics, artists, and student organizers (Reichert, 2019), may help to legitimize Arabic calligraphy and encourage more people to participate.

In addition, Figure 9 shows the respondents' preferred communication and distribution tactics. Social media (70.91%), calligraphy classes and contests (60%), and talks or exhibits (54.55%) were identified as the most popular promotional strategies. These findings support the theory's focus on the need of good communication routes and observability in speeding the spread of new ideas (Dune, 2023). Respondents' significant preference for interactive and media-driven formats implies that integrating experiential learning with digital interaction might be especially helpful in breaking down cultural and cognitive boundaries.

To turn these results into effective tactics, colleges should take a multifaceted approach to increasing student engagement with Arabic calligraphy. First, incorporate Arabic calligraphy into cross-cultural general education courses to ensure that both Arabic and non-Arabic majors have systematic exposure to its historical, symbolic, and stylistic qualities. Second, create student-led calligraphy groups with faculty supervisors to give ongoing practice opportunities beyond one-time cultural events. Third, form collaborations with cultural organizations, museums, and embassies to invite expert calligraphers to campus for seminars, exhibitions, and live demonstrations, which will boost authenticity and perceived relevance. Fourth, use digital platforms—particularly short-form video, live-streaming, and interactive social media campaigns—to blend aesthetic appeal with instructional information, therefore reaching a larger student audience and maintaining interest over time. Finally, demonstrate institutional commitment by including these activities in yearly cultural programming and giving both logistical and financial assistance. If used regularly, such techniques can help elevate Arabic calligraphy from a marginal cultural show to a recognized and appreciated component of intercultural education in Chinese higher education.

6. CONCLUSION

This study seeks to examine college students' cognitive knowledge and engagement with Arabic calligraphy, using cultural schema theory (Shahghasemi, 2017; Andrei & Laura, 2021) and innovation diffusion theory (Rogers, 2003). The findings reveal that while most students have encountered Arabic calligraphy—primarily through cultural lectures and online media—their understanding is often fragmented and superficial,

with limited appreciation of its historical, symbolic, and stylistic significance. Willingness to participate in calligraphy-related activities exists but is hindered by perceived complexity, linguistic barriers, and a lack of sustained institutional exposure.

From a theoretical standpoint, the study contributes to Cultural Schema Theory (Shahghasemi, 2017; Andrei & Laura, 2021) by illustrating how limited and infrequent cultural experience results in inadequate or stereotypical mental representations of a complex art form. It also employs Diffusion of Innovations Theory (Rogers, 2003) to investigate how perceived compatibility, complexity, and institutional support influence adoption patterns in an educational setting. The combination of these two models provides a comprehensive explanation that combines individual cognitive processes with institutional dissemination dynamics.

Practically, the findings highlight the need for institutions to move beyond one-time cultural events and include Arabic calligraphy in larger intercultural teaching efforts. This might involve adding calligraphy into general education curricula, forming student-led practice groups, conducting workshops with expert calligraphers, and using digital platforms to increase accessibility and participation. Future research might use longitudinal designs to examine changes in student cognition and involvement over time and comparison studies across other cultural contexts to evaluate the generalizability of these findings.

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