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University Students' Motivational Responses to Conducting Strategies Across Musical Backgrounds

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This study examined university choir students' motivational responses to conducting strategies across different musical backgrounds through a quantitative research design involving 200 undergraduates at a comprehensive university. Participants included both music-major and non-music-major students, all of whom had at least one semester of choir experience. The study employed the Chorus Motivation Scale (CMS) to investigate motivation-related orientations associated with conducting strategies. To further explore the socio-emotional dimensions of choral participation, a researcher-developed Choral Engagement and Wellness Scale (CEWS) was used to assess orientations related to teamwork, belongingness, and psychological well-being. The findings indicated that music majors reported significantly higher scores on the achievement dimension, reflecting their stronger orientation toward skill development and musical accomplishment. However, both groups demonstrated relatively high scores in belongingness and psychological well-being, indicating that conducting strategies targeting socio-emotional dimensions effectively elicit positive motivational responses from students, regardless of their musical background. These findings underscore the role of socio-emotional factors in motivating university students' engagement in choir activities. This study provides practical implications for university choral conducting instruction and contributes to a broader understanding of motivational and socio-emotional experiences in higher education choir contexts.

Keywords: conducting strategies, choral motivation, motivational responses, university choir, higher education

INTRODUCTION

Among various forms of musical art, choral singing stands out for its high accessibility, inclusiveness, and widespread presence in social life. In communities, workplaces, or educational institutions, choral singing has become an essential tool of popularizing music education and enriching musical life. Choral singing is also an essential part of higher education that develops the vocal abilities and aesthetic sense of the participants

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and additionally offers them emotional encouragement, encourages social interaction, and fosters cognitive growth (Parker, 2010; Clift & Morrison, 2011).

The linkage between group singing and well-being has now emerged as a significant field of study in music education, as the issue of music in health and rehabilitation has become the subject of greater attention. The literature has indicated that choral activities can help people control their emotions, enhance social bonding, and form the sense of belonging among the participants (Clift & Hancox, 2001; Stewart & Lonsdale, 2016; Pentikainen et al., 2023; Zhang, 2022). These outcomes also testify to the fact that the importance of choral singing is not limited to the development of musical skills. In this regard, encouragement and support of students' participation in choruses in higher learning institutions has significant connotations in the achievement of both educational and psychological goals.

Traditionally, a large part of the work on the topic of choral teaching and conducting focuses on the technical accuracy and musical skills. As an illustration, past studies have also been devoted to the proper application of conducting gestures (Jansson et al., 2021) and the rehearsal methods designed to increase the efficiency and performance of the ensemble (Winnie, 2014; Silvey, 2014). Although these studies have contributed to a deeper understanding of choral instruction, limited research has specifically explored the kinds of motivational responses that university students from different musical backgrounds may develop toward conducting strategies during choir rehearsals.

In a loose sense, the term motivation is well known as a basic motivational force in human behaviour and learning. Ryan and Deci (2000) defined motivation as the energy, direction, persistence and intention of action which are the main dimensions of biological, cognitive and social regulation. Educationally, motivation defines the active and proactive engagement or the passive and hesitant engagement of the learners. The key difficulty of the educational process is the question of the way to maintain motivation and encourage constant interest. The same approach in the scenario of choral singing, within choir environments, students' motivational responses may influence not only their participation during rehearsals, but also their sense of belonging and long-term commitment to choir activities.

To further explore issues related to students' motivational engagement in choral settings, preliminary classroom observations and focus group interviews were conducted in several university choirs prior to the present study. These exploratory observations suggested that choral instruction often emphasized technical improvement and repertoire preparation, whereas students' emotional experiences and sense of belonging received comparatively less attention. The observations also indicated that students from different musical backgrounds appeared to hold different expectations toward rehearsal processes and conductor behaviors. Music major students tended to emphasize rehearsal efficiency, musical precision, and skills development, whereas non music major students more frequently valued emotional support, social interaction, and inclusive rehearsal environments.

These preliminary findings are consistent with previous studies emphasizing the socio emotional functions of choir participation, including belongingness, emotional

connection, and interpersonal support. At the same time, these observations also suggested that students' motivational responses to conducting strategies may vary according to their musical backgrounds. However, limited research has systematically examined such differences within the specific context of university choirs. Therefore, the present study adopted a more systematic quantitative approach to examine university choir students' motivational responses to conducting strategies across different musical backgrounds.

To provide a more comprehensive understanding of students' motivational responses to conducting strategies, the present study adopted a multidimensional perspective. The study not only included motivational dimensions associated with achieving musical goals in choral conducting instruction but also incorporated dimensions related to the socio-emotional functions of choir participation, including teamwork, belongingness, and psychological well-being. The study mainly focused on exploring the similarities and differences in motivational responses to different dimensions of conducting strategies among university choir students from different musical backgrounds. It also further examined the characteristics of motivational orientations among university choirs with different musical backgrounds, with the aim of providing practical implications for choral teaching in higher education.

Review of Literature

Choir singing, as an inclusive and highly participatory collective musical activity, has been widely adopted in higher education institutions. It has been found that choral singing not only promotes the musical literacy and vocal abilities of the participants, but also affects their social adaptation and emotional well-being (Adderley et al., 2003; Clift and Hancox, 2001). Choir rehearsals are basically a goal-coding group work that improves team cohesion and assists in developing personal identification and emotional attachment to the team. There is emerging literature that involvement in choirs in universities has socio-psychological benefits, including a greater feeling of belonging, less academic stress, and better personal relationships (Adderley et al., 2003; Clift and Hancox, 2001). These studies further indicate that choral activities not only serve a music education function but may also play a significant role in fostering students' social-emotional experiences.

Motivation is widely considered a core factor influencing student learning behaviour and sustained engagement. From the perspective of self-determination theory, supportive learning environments can foster intrinsic motivation and active participation, while controlling or unsupportive environments may lead to student withdrawal from learning (Deci & Ryan, 1987; Ryan & Deci, 2000). Educational research consistently demonstrates that teachers' instructional practices play a crucial role in shaping students' motivational orientation and learning experience (Reeve, 2012). Studies have found that instructional design and strategies play a significant role in enhancing student motivation and engagement in different educational contexts (Setiani et al., 2019; Setyani & Susilowati,2022). In choral education, conducting strategies serve not only as essential means for organizing rehearsals and providing musical guidance, but also as a vital pedagogical avenue through which the conductor influences the students' participatory experience.

Previous studies have indicated that choral motivation is multidimensional and is influenced by the interplay between individual characteristics and environmental factors. In a choral setting, motivation not only affects students' decisions to participate in choral activities but also influences their level of engagement throughout the entire rehearsal process. Yarbrough (1975) revealed that the nonverbal behaviours of the conductor, such as the gestures used, facial expressions, and body energy, are closely linked to the concentration and practice attitude of singers. Later studies also suggest that style, group dynamics and rehearsal environment are all significant factors that influence the willingness of the students to participate (Clift and Hancox, 2010). These results indicate that conducting strategies may influence students' motivational responses in ways that extend beyond technical musical instruction.

Empirical research has shown that motivational experiences in choral participation are complex and multidimensional. Ozgul and Yigit (2017) identified motivational dimensions among university choir members, including psychological, musical, social, cognitive, and self-realization. Subsequent factor analysis revealed that these dimensions were distilled into four core components: leadership, director/student attention, achievement, and anxiety. These dimensions form the basis of the Chorus Motivation Scale (CMS). Since then, the CMS has been widely used to study motivational trends in choral settings, demonstrating satisfactory reliability and validity across different student groups. However, although the CMS provides a relatively systematic framework for understanding choral motivation, dimensions related to socio-emotional experiences during choir participation have received comparatively limited attention in previous studies.

More importantly, there is no single motivational trait that universally applies to all individuals. Rather, motivation tends to vary across different domains and contexts. Individuals may demonstrate different levels of enthusiasm across activities, and such differences may become increasingly pronounced with age and accumulated learning experience (Lai, 2011). Similarly, research related to choral motivation has suggested that motivational orientations may not be entirely consistent across different types of choirs. Phillips (2020) noted that university choirs often place greater emphasis on musical skill development and artistic growth, whereas community choirs tend to value social interaction and emotional expression to a greater extent.

Accordingly, developing appropriate instructional strategies based on the characteristics of different student groups is considered important for maximizing student motivation. Krishan (2023) further suggested that differentiated instruction may better align with students' interests and abilities, thereby enhancing learning motivation and promoting more effective learning experiences. Within higher education contexts, music-major students are often assumed to prioritize technical mastery and musical achievement, whereas non-music-major students may place greater value on relaxation, social interaction, and emotional support during choir participation.

However, whether these distinctions reflect genuine differences in students' motivational orientations or merely represent assumptions shaped by long-term pedagogical practices remains insufficiently examined. From a practical perspective,

sustained participation is more likely to occur when rehearsal design and instructional strategies are able to respond to students' actual needs. Phillips (2020) also emphasized the value of comparative research in supporting differentiated instructional planning through examining differences among various choir contexts. When conductors are able to more accurately understand students' motivations for choir participation and adjust rehearsal organization and interaction accordingly, conducting strategies may be more likely to foster meaningful and sustained participation experiences among choir members.

Overall, existing literature suggests that motivational experiences within university choir settings are shaped by the interaction of instructional practices, learner characteristics, and participation environments. Nevertheless, systematic research examining university students' motivational responses toward conducting strategies across different musical backgrounds remains limited, particularly in relation to socio-emotional dimensions. Therefore, the present study combines the CMS and the researcher-developed Choral Engagement and Wellness Scale (CEWS) to examine university students' motivational responses toward conducting strategies from a multidimensional perspective across different musical backgrounds.

METHOD

This study employed a quantitative research design, focused on students' self-reported motivational responses toward conducting strategies, to examine university choir students' motivational responses to conducting strategies across different musical backgrounds.

Participants

The participants in this study included 200 undergraduate students (98 music-major students and 102 non-music-major students) from a tier-one university in Jiangxi Province, China. The sample was also balanced with respect to musical background so that a comparative analysis could be conducted among the groups. Participants were required to have at least 1 semester of choral experience to guarantee the applicability of their replies with respect to the methods of conducting and motivation engagement.

Questionnaires were distributed physically at scheduled rehearsals, using paper-based questionnaires to ensure maximum response and the quality and completeness of the data. The Ethics Committee of the university gave the study ethical approval. The intent and the methods of the study were fully explained to all participants, and a written informed consent was signed by them. It was voluntary participation and the responses were assured confidentiality and anonymity.

Measures

Chorus Motivation Scale (CMS)

The main tool that was used in this research was the Chorus Motivation Scale (CMS) constructed by Ozgul and Yigit (2017). The scale consists of 30 items and is designed to assess four dimensions of students' motivational responses commonly discussed within choral rehearsal contexts: leadership (16 items), director/student attention (6 items), achievement (4 items), and anxiety (4 items).

All items were rated on a five-point Likert scale. A response of 1 indicated "reduces my motivation a lot", 2 indicated "reduces my motivation", 3 represented "no effect on my motivation", 4 indicated "increases my motivation", and 5 represented "increases my motivation a lot". Scores around 3 were therefore interpreted as reflecting relatively neutral motivational responses, whereas values closer to 5 or 1 reflected relatively more positive or more negative self-reported motivational responses toward conducting strategies.

The CMS demonstrated acceptable internal consistency in the present study. Cronbach's alpha coefficients for the four subscales were as follows: Leadership = .91, Director/Student Attention = .78, Achievement = .64, and Anxiety = .71, indicating acceptable reliability across the subscales.

Choral Engagement and Wellness Scale (CEWS, Supplementary Scale)

The Choral Engagement and Wellness Scale (CEWS) was developed to further capture university students' motivational responses related to socio-emotional experiences toward conducting strategies during choir participation. As a musical practice that emphasizes collaboration and social interaction, conducting strategies within choir rehearsals involve not only the training and development of musical skills, but may also influence students' socio-emotional experiences related to interpersonal connection, emotional engagement, and psychological well-being.

Therefore, in addition to the motivational dimensions measured by the CMS, the researcher-developed CEWS was included as a supplementary instrument incorporating dimensions related to teamwork, belongingness, and psychological well-being, aimed to further examine socio-emotional dimensions that may be related to students' motivational responses toward conducting strategies.

The CEWS consisted of 10 items across three dimensions: Teamwork (3 items), Belongingness (3 items), and Psychological Well-being (4 items). All items were measured using the same five-point Likert scale adopted in the CMS. Although the detailed theoretical foundations of the CEWS are discussed in the following section, the three dimensions were primarily developed based on established psychological and sociological theories related to cooperative interaction, social connectedness, and emotional well-being within collective musical participation contexts. By incorporating these dimensions, the CEWS provided a broader analytical framework for examining university students' socio-emotional experiences and motivational responses during choir participation.

Theoretical Foundation of the Choral Engagement and Wellness Scale (CEWS)

The Choral Engagement and Wellness Scale (CEWS) was developed in response to the social and emotional characteristics of choral rehearsals and is informed by established psychological theories. It is designed to capture socio-emotional dimensions related to students' motivational responses within choir settings, including teamwork, belongingness, and psychological well-being. These three dimensions are each grounded in a theoretical perspective that helps explain how participation in a choir shape both interpersonal relations and individual experience.

Teamwork

By definition, choral singing is a group activity. The results of musical performance during rehearsal and performance are not only dependent on the skills of individual singers, but also the ability of the members of the choir to organize their actions and cooperation and to achieve a common goal. At this level, the collaboration within a choir reflects patterns of interdependency, coordination, and collective responsibility within the rehearsal.

This dimension is informed by the Social Interdependence Theory which dictates the close connection between the outcomes and the actions and success of the other members of the same group (Johnson & Johnson, 1989). The theory has been extensively used in studies concerning cooperative learning and has been heavily supported over the years (Johnson & Johnson, 2009). It also provides a wider outlook on the behaviour of groups since it does not focus on the performance of an individual anymore but on the tendencies of coordination, mutual support, and responsibility (Rusbult and Van Lange, 2008). By this light, being a successful choral singer is not merely a question of personal talent, but also of trust, communication, and ability to collaborate with other workers towards shared artistic objectives.

Belongingness

Belongingness is the term used to describe the emotional and social attachment that singers have to their choir and the degree to which the group feels part of the group. This dimension is concentrated on the ways of how the sense of acceptance, recognition, and commitment develops in the ensemble and influences the engagement of the participants. This dimension is informed by Social Identity Theory (SIT), which explains how individuals identify themselves in relation to social groups and how group membership influences attitudes and behaviour (Turner, 2010; Hogg & Abrams, 1988).

SIT helps differentiate the purely interpersonal relations and processes of group level, which is why it is quite convenient to use the theory when it is necessary to comprehend the motivation of collective activities. In this sense, greater affiliation to a group is usually linked with greater commitment, collaboration and acting pro-socially. Haslam, Powell, and Turner (2000) also maintained that, the motivation of individuals tends to converge to the group goals when a common social identity gains prominence, which justifies a continued participation in a group and also grants a sense of personal significance in participation. A choir may be viewed as a mini social group in the context of choral singing. Emotional attachment amongst the members is developed through the daily rehearsals, interaction with each other and through music experiences. These emotional attachments are not merely necessary in personal fulfillment, but will also be key in long-term commitment to group music making activities.

Psychological Well-being

The psychological well-being dimension is centred on the general psychological and emotional experiences associated with choir participation. It is majorly based on the Self-Determination Theory (SDT) that states that the three fundamental psychological needs of autonomy, competence, and relatedness are necessary in order to be optimally

motivated and psychologically developed (Ryan & Deci, 2000). Choral singing being a group and expressive action provides its members with a chance to satisfy these needs during the process of rehearsal. As an example, choral training improves the skills of individuals and groups of individuals (competence); creating a choir and social interactions of the members improves the sense of meaningful social relationships (relatedness); when the students are involved in the learning process voluntarily and actively, with proper motivational support, they will feel that they own the learning process (autonomy). Together, these experiences may contribute to students' psychological well-being within choir participation. Moreover, the increasing amount of evidence has proved that the involvement in choral singing can be used as an efficient channel of emotional release, stress relief, and the enhancement of overall mental well-being (Clift et al., 2010; Stewart & Lonsdale, 2016).

Based on these theoretical frameworks, the present study examines students' motivational responses associated with teamwork, belongingness, and psychological well-being within university choir participation, in order to provide a broader understanding of motivational experiences beyond music-oriented dimensions alone.

Reliability and Validity of the Choral Engagement and Wellness Scale (CEWS)

The reliability and validity of the Choral Engagement and Wellness Scale (CEWS) were assessed prior to the main analyses. Internal consistency was evaluated using Cronbach's alpha coefficients, and convergent validity was examined through composite reliability (CR) and average variance extracted (AVE) values. As shown in Table 1, all three dimensions demonstrated acceptable to good internal consistency, with Cronbach's alpha coefficients exceeding the recommended threshold of .70 (Nunnally & Bernstein, 1994). CR values were also above .70, and AVE values surpassed the .50 criterion (Fornell & Larcker, 1981), indicating satisfactory convergent validity.

Confirmatory factor analysis (CFA) was conducted to evaluate the construct validity of the CEWS. The results indicated that the three-factor model (Teamwork, Belongingness, Psychological Well-being) achieved a good fit to the data, with χ^2/df = 2.18, CFI = .957, TLI = .940, RMSEA = .072, and SRMR = .046 (See Table 2). According to conventional thresholds (Hu & Bentler, 1999), these fit indices suggest that the model demonstrates acceptable to excellent fit. The standardized factor loadings for all items ranged from .632 to .790, indicating acceptable to strong loadings across the three latent constructs. These results support the convergent validity of the scale.

Table 1
Internal consistency and convergent validity for the choral engagement and wellness scale

Dimension	Cronbach's Alpha	CR	AVE
Teamwork	.78	.81	.55
Belongingness	.81	.84	.60
Psychological Well-being	.84	.86	.65

Note. CR = Composite Reliability; AVE = Average Variance Extracted.

Table 2
Confirmatory factor analysis fit indices for the choral engagement and wellness Scale (Three-Factor Model: Teamwork, Belongingness, Psychological Well-being)

Model	χ^2/df	CFI	TLI	RMSEA	SRMR
Three-Factor Model	2.18	.957	.940	.072	.046

Note. χ^2/df = chi-square/degrees of freedom ratio; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual.

Data Analysis

All statistical analyses were performed using SPSS 26.0 and AMOS 24.0. Descriptive statistics were computed to summarize the demographic characteristics of participants and the overall response patterns.

Confirmatory factor analysis (CFA) was performed using AMOS to assess the construct validity of the CEWS. Model fit was evaluated using multiple indices: χ^2/df, CFI, TLI, RMSEA, and SRMR.

Descriptive statistics were computed to summarize participants' responses on the Chorus Motivation Scale (CMS) and the Choral Engagement and Wellness Scale (CEWS). Mean scores on the subdimensions of both scales were calculated for music-major and non-music-major students.

To examine group differences in motivational and socio-emotional dimensions, independent samples t-tests were conducted across all CMS and CEWS subscales. In addition, item-level analyses were performed to explore more detailed patterns of group differences within each scale. All statistical tests were evaluated using a significance level of $p < .05$.

FINDINGS

Overall Patterns of CMS and CEWS Scores

Descriptive statistics for each measured dimension across music-major and non-major groups are presented in Table 3. Overall, both groups demonstrated positive motivational perceptions across dimensions, with several mean scores exceeding 4.0 on a 5-point scale.

Notably, non-music-major students achieved the highest mean score in Psychological Well-being (M = 4.23), followed by Belongingness (M = 4.10) and Leadership (M = 4.05). Music majors, while also reporting high scores in Belongingness (M = 4.03) and Psychological Well-being (M = 4.02), exhibited their highest relative motivation in Achievement (M = 3.60), compared to non-majors (M = 3.38).

Because the original scales contained differing numbers of items across dimensions, mean scores were used instead of total scores to standardize comparisons across different subscales.

These findings suggest that although students from different musical backgrounds demonstrated generally positive motivational responses toward choir participation, their

motivational priorities may differ across specific dimensions. In particular, music-major students appeared to place relatively greater emphasis on achievement-related orientations, whereas both groups demonstrated similarly high levels of belongingness and psychological well-being.

Table 3
Mean scores and standard deviations by dimension and group

Dimension	Group	Mean	Std. Deviation
Leadership (CMS)	Music-Major	3.98	0.72
	Non-Music-Major	**4.05**	0.75
Director/Student Attention (CMS)	Music-Major	3.84	0.80
	Non-Music-Major	3.89	0.78
Achievement (CMS)	Music-Major	3.60	0.79
	Non-Music-Major	3.38	0.68
Anxiety (CMS)	Music-Major	2.38	0.87
	Non-Music-Major	2.16	0.63
Teamwork (CEWS)	Music-Major	3.71	0.68
	Non-Music-Major	3.64	0.55
Belongingness (CEWS)	Music-Major	**4.03**	0.58
	Non-Music-Major	**4.10**	0.56
Psychological Well-being (CEWS)	Music-Major	**4.02**	0.57
	Non-Music-Major	**4.23**	0.46

Note. Bolded means indicate scores exceeding 4.0.

Differences between Music-Major and Non-Music-Major Students

To further examine group differences, independent samples t-tests were conducted to explore differences between music-major and non-major groups across the dimensions of the CMS and CEWS scales. To control for multiple comparisons, Bonferroni corrections were applied, setting the adjusted alpha level at 0.007 (0.05/7 comparisons). Results are presented in Table 4.

The results indicated that after adjustment for multiple comparisons, only the Achievement dimension showed a statistically significant group difference, with music major students scoring higher ($M = 14.40$, $SD = 2.30$) than non-music-major students ($M = 13.51$, $SD = 1.98$), $t(198) = 2.93$, $p = .004$, Cohen's $d = 0.42$, indicating a small to medium effect size. The initially significant difference in Anxiety ($p = .038$) did not remain significant after Bonferroni adjustment and should therefore be interpreted with caution.

These findings suggest that differences between music-major and non-music-major students were primarily reflected in achievement-related motivational responses rather than in socio-emotional dimensions. The relatively higher Achievement scores among music majors indicate that musical background may influence the extent to which students prioritize skill development and performance-oriented aspects of choir rehearsals.

Table 4
Independent samples t-test results with bonferroni correction

Dimension	t-value	df	Sig. (2-tailed)	Cohen's d	Interpretation
Leadership (CMS)	-1.272	198	.205	-0.180	Negligible
Director/Student Attention (CMS)	-0.790	198	.431	-0.112	Negligible
Achievement (CMS)	2.934	198	**.004**	0.415	Small to medium
Anxiety (CMS)	2.087	198	.038	0.295	Small (not significant after correction)
Teamwork (CEWS)	0.804	198	.422	0.114	Negligible
Belongingness (CEWS)	0.939	198	.349	0.133	Negligible
Psychological Well-being (CEWS)	-0.427	198	.670	-0.060	Negligible

Note. Bolded p-values indicate significant differences after Bonferroni correction (adjusted alpha = .007).

Exploratory Item-Level Patterns of Motivational Differences

To further explore potential motivational distinctions, item-level comparisons were conducted for all 30 items of the CMS and 10 items of the CEWS. Independent samples t-tests were performed between the two groups for each item. Given the large number of comparisons, these results are interpreted as exploratory.

Before Bonferroni adjustment, 13 CMS items and 1 CEWS item reached significance at $p < .05$. However, after applying the Bonferroni correction (adjusted $\alpha = .00125$ for CMS; .005 for CEWS), only 5 CMS items (Q3, Q5, Q6, Q25, and Q27), remained statistically significant, with small to moderate effect sizes. These items primarily fell within the Leadership and Anxiety subdimensions.

No items within the CEWS remained significant after correction, though Item Q10 approached significance ($p = .044$) before adjustment. Due to space limitations, detailed item-level statistics are not presented in tabular form.

These remaining items were primarily associated with leadership and anxiety dimensions, suggesting that differences between groups may be more closely related to perceptions of rehearsal authority and performance-related pressure than to socio-emotional aspects of choir participation.

DISCUSSION

This study examined university choir students' motivational responses to conducting strategies across different musical backgrounds. The findings revealed both differences and commonalities between music-major and non-music-major students across several motivational dimensions. While achievement-related orientations differed between groups, both groups demonstrated similarly high levels of belongingness and psychological well-being in their motivational responses to conducting strategies. These findings suggest that musical background may influence achievement-oriented motivational responses, whereas socio-emotional dimensions such as belongingness and psychological well-being appear to be valued similarly across groups.

From the perspective of Self-Determination Theory (SDT), the stronger achievement orientation demonstrated by music-major students may reflect a greater emphasis on competence-related needs within choral training contexts. Within the framework of SDT, competence refers to individuals' psychological need to experience effectiveness, mastery, and accomplishment while engaging in specific activities (Ryan & Deci, 2000). In choir settings, such competence-related needs may be reflected in students' strong concern for musical precision, goal attainment, and performance outcomes. Because music-major students are often evaluated according to their performance standards, technical proficiency, and musical accomplishment, such evaluative systems may further reinforce achievement-oriented motivational responses toward conducting strategies during choir rehearsals. This finding is consistent with previous studies on the learning motivation of music-major students (Phillips, 2020), further suggesting that students who receive systematic musical training tend to place greater emphasis on the development of professional musical skills.

At the same time, both groups demonstrated high levels of motivational responses toward conducting strategies related to belongingness and psychological well-being, further supporting perspectives that emphasize the importance of social connection and emotional support within collective musical activities. From the perspective of SDT..., these findings may reflect students' relatedness needs, which involve the desire to experience meaningful interpersonal connections and a sense of belonging within social environments. In choir settings, such relatedness needs may be effectively supported through emotional communication, peer interaction, and shared musical experiences during rehearsals.

Similarly, consistent with perspectives derived from Social Identity Theory (SIT), the findings also suggest that group affiliation and emotional attachment play important roles in shaping individuals' engagement in collective activities (Hogg & Abrams, 1988; Turner, 2010). Within the context of university choirs, shared rehearsals and collaborative musical participation may gradually foster a deeper sense of emotional identification with the ensemble among choir members. The findings further indicate that regardless of musical background, such socio-emotional experiences represent important expectations and needs among participants in choir activities.

Exploratory item-level analyses further revealed subtle differences in dimensions related to leadership and anxiety. Although these differences did not consistently remain statistically significant at the broader dimensional level, they may reflect differences in students' perceptions of rehearsal authority, performance expectations, and evaluative pressure. Compared with non-music-major students, music-major students, who are generally more accustomed to professional training assessment and technical evaluation, may respond differently to conductor leadership behaviors and rehearsal-related pressure. These findings suggest that students' motivational responses toward conducting strategies are not determined solely by musical goals themselves, but may also be jointly influenced by their prior training experiences and psychological expectations toward rehearsal environments.

From a pedagogical perspective, these findings suggest that conducting strategies in university choirs should take into account students' differences in motivational orientations and musical backgrounds. Although achievement-oriented rehearsal strategies may hold particular significance for music-major students, creating a socially supportive rehearsal environment appears to play an equally important role in sustaining participation enthusiasm and emotional engagement across both groups.

These findings further suggest that within the context of higher education choral instruction, conductors should not be viewed solely as organizers of musical goals, but also as important facilitators of rehearsal climate, interaction patterns, and students' motivational experiences. Because conductors typically guide rehearsal goals, instructional arrangements, and the direction of ensemble interaction, their conducting strategies may directly influence students' participation, emotional engagement, and willingness to sustain involvement. In this sense, conducting strategies should not be regarded merely as technical practices serving musical outcomes, but rather as forms of pedagogically oriented leadership that play important roles in shaping students' learning experiences, socio-emotional experiences, and long-term motivational engagement. This further highlights the important practical value of incorporating conducting strategies into choral pedagogy research.

Despite these contributions, several limitations should be acknowledged. The findings of the present study were primarily based on self-report data collected within a single institutional context, which may limit the generalizability of the results. In addition, the study focused on examining students' self-reported motivational responses rather than establishing direct causal relationships between conducting strategies and motivational outcomes. Future research may further extend this work by including more diverse institutional settings, adopting longitudinal or mixed-methods approaches, and exploring how conducting behaviors may continue to influence students' motivational and socio-emotional experiences over time.

CONCLUSION

Using the Chorus Motivation Scale (CMS) together with the researcher-developed Choral Engagement and Wellness Scale (CEWS), the present study examined university choir students' motivational responses to conducting strategies across different musical backgrounds. The findings revealed that music-major students demonstrated stronger achievement-oriented motivational responses, which may be associated with their performance-oriented training backgrounds and emphasis on musical accomplishment. At the same time, both music-major and non-music-major students demonstrated consistently high motivational responses in belongingness and psychological well-being dimensions. These findings suggest that although musical background may influence certain motivational orientations, the inherently social and emotionally connected nature of choral singing provides meaningful benefits for all participants.

The inclusion of the CEWS in the present study further reflects the multidimensional nature of choral participation. As a collaborative and socially interactive musical activity, choral singing involves not only the development of musical skills and techniques, but also socio-emotional experiences related to teamwork, belongingness,

and psychological well-being. By incorporating these socio-emotional dimensions alongside the motivational dimensions measured by the CMS, the present study was able to examine students' motivational responses within choir settings from a broader perspective and provide a more comprehensive framework for understanding participation experiences in university choirs.

From an educational perspective, the findings of the present study further highlight the importance of balancing musical skill development and socio-emotional connection within university choral instruction. Conducting strategies function not only as tools for musical guidance and rehearsal organization, but also as important pedagogical approaches that may influence students' learning motivation, emotional engagement, and participation experiences. As leaders of the rehearsal process, conductors shape rehearsal climate, interaction patterns, and learning experiences through specific conducting strategies, thereby further influencing students' social connection, psychological well-being, and willingness to sustain participation in choir activities. In this sense, conducting strategies not only influence musical outcomes, but also serve as important means through which conductors shape students' participation experiences and socio-emotional experiences.

Overall, the findings of the present study suggest that conducting strategies in higher education choir settings should not be understood merely as technical practices or performance-oriented tools. Rather, they may also function as forms of educationally oriented leadership that shape students' learning experiences, socio-emotional engagement, and long-term participation in collective musical activities. When conductors attend not only to musical achievement, but also to interpersonal interaction and emotional dimensions within rehearsal processes, university choirs are more likely to become educational spaces that simultaneously promote musical growth, social connection, and psychological support.

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