Article

AMERICAN CHORAL DIRECTORS ASSOCIATION

IJRCS

International Journal of Research in Choral Singing

The Scientific Research Journal of the American Choral Directors Association

International Journal of Research in Choral Singing
(2025) Vol. 13 125-137

Singers' Responses to Congruent and Incongruent Verbal and Nonverbal Instructions

Melissa Grady,[1] Jeremy Manternach,[2] Melissa Brunkan,[3] and Jessica Napoles[4]

Abstract

The purpose of this study was to examine collegiate singers' sung responses to and perceptions of congruent and incongruent verbal and nonverbal instructions. Research questions included: (1) To what extent do singers perform dynamics differently when provided with verbal instructions or conducting gestures?, (2) When presented with incongruent messages, will singers respond better to verbal instructions or conducting gestures?, and (3) What do participant comments reveal about their perceptions of the task? Four choirs sang while watching a stimulus video of a conductor showing two different conducting gestures (crescendo for the first four measures followed by a decrescendo for the last four measures, or the reverse) while singing a familiar tune ("Long, Long Ago"). In one condition, videos included written/spoken instructions for singers to crescendo then decrescendo at the same time as the conductor (a congruent message). In the other condition, written/spoken instructions were the opposite (an incongruent message). We subsequently analyzed the sound pressure level (dB SPL) at the beginning, in the middle, and at the end of the sung excerpt. Results indicated that the choirs tended to follow the verbal instructions, getting louder when instructed to crescendo and getting quieter when instructed to decrescendo. Additionally, the average dynamic contrast was significantly greater during the congruent conditions compared to the incongruent conditions (7.32 dB SPL and 4.71 dB SPL, respectively). This finding provides evidence that when nonverbal cues (conducting gestures) are aligned with verbal instructions, choirs show more of the requested dynamic level.

Keywords: *choir, conducting, verbal and nonverbal instructions, congruent, gestures*

[1] University of Kansas, School of Music, 1450 Jayhawk Blvd, Lawrence, KS 66045, USA
[2] University of Iowa, 101 Jessup Hall, Iowa City, IA 52242, USA
[3] University of Oregon, 1585 E 13th Ave, Eugene, OR 97403, USA
[4] University of North Texas, 1155 Union Circle, Denton, TX 76203, USA

Corresponding author: Melissa Grady; email: mgrady@ku.edu

Music teachers utilize both verbal and nonverbal communication in the classroom. Nonverbal behaviors include elements such as facial expression, body movements, and use of proximity (Mehrabian, 2017). Specific to music, conducting gestures provide musicians with a shared vocabulary to convey intention and meaning. At most music institutions of higher learning, conducting instruction is compulsory (National Association of Schools of Music, 2025). Music education majors begin to use this nonverbal language as they progress through the curriculum. Verbal communication is perhaps more pervasive and well understood, especially because teachers in all content areas use words to express themselves. When students know the language (conducting or words), there is a greater likelihood for understanding to occur.

Researchers have explored the role of verbal communication, sometimes referred to as teacher talk, in the music classroom. Systematic observations have revealed that teachers spend approximately 35%–45% of their time in verbal instruction and directions (Blocher et al., 1997; Caldwell, 1980; Pontious, 1982; Sherrill, 1986) and that experienced teachers spend considerably less time in teacher talk compared to student teachers and novice teachers (Goolsby, 1996, 1999; Warnet, 2020). Teacher talk has often been linked to off-task behavior (Brendell, 1996; Dunn, 1997; Forsythe, 1977; Yarbrough & Price, 1981) and reduced student attentiveness (Madsen & Geringer, 1983; Nápoles, 2007; Spradling, 1985; Whitaker, 2011). Grechesky (1985) documented a strong relationship between a high quantity of talking and less effective teachers. Pearsall (2023) juxtaposed functions of teacher talk between formal and informal choral teaching settings. Willard (1986), a pedagogue, posited that effective conducting was a good alternative to teacher talk, solving problems in rehearsal more quickly and efficiently. Few researchers examined the validity of this pedagogical advice.

As early as the 1980s, researchers have endeavored to identify conducting gestures that are commonly understood by musicians. Sousa (1988) and Mayne (1992), for example, defined "conducting emblems" as specific gestures for articulation and dynamics that could be recognized by musicians with 70% accuracy. Examples included crescendo, decrescendo, ritardando, and accelerando. Cofer (1998) taught these conducting emblems to 7th-grade students and found that this instruction helped participants both comprehend the gestures and perform the music better. Subsequent researchers also taught conducting to elementary band students (Kelly, 1997) and high school string students (Thompson, 2012) with similar success. Conducting gestures continue to be the primary means of nonverbal communication between ensemble directors and musicians.

Researchers have documented that musicians respond to music differentially depending on presentation mode. When music was presented aurally, visually, or in combination, ratings for aesthetic responses (Geringer et al., 1996, 1997) of vocal performance (Wapnick et al., 1997), and marching bands (Johnson, 1991) varied. In the same way, perceptions of expressive performance have differed based on presentation mode (Hamann, 2003; Lucas et al., 1996; Lucas & Teachout, 1998; Madsen, 2009; Nápoles, 2013). When examining modes of instruction, Skadsem (1997) found that high school singers performed dynamic mark-

ings better when they followed verbal instructions, compared to following written dynamic levels, a conductor's gestures, or singing with a pre-recorded choral ensemble. In every instance, the messages singers received were coinciding/congruent. They recommended further research with conflicting messages, to further elucidate which communication method was most effective. Taken together, these studies reveal that modes of presentation greatly impact how musicians perceive, evaluate, and perform music.

More recently, Nápoles conducted two studies to explore how singers responded to incongruent messages, when verbal instructions and conducting gestures were in opposition. In the first study (Nápoles, 2014a), high school choral students sang a short except in response to varied instructions on a video. These videos included either a conductor providing gestural information, printed instructions only, or a combination of gestures and printed instructions. For half of the videos, the gestures and printed instructions were congruent. For the other half of the videos, the gestures and printed instructions were incongruent. Experienced choral teachers' ratings revealed more expressive elements (staccato articulation and word stress) were present when singers responded to verbal instructions alone. Further, when verbal instructions and conducting gestures were congruent, there was more presence of the requested musical element. In the second study, Nápoles (2014b) utilized *Praat* (a software for analysis of speech sound including pitch, formants, intensity, and quality) to measure intensity/volume and showed that collegiate singers as a group responded best to verbal instructions and executed dynamics best when congruent messages were delivered between pianist, conductor, and printed instructions.

In both studies (Nápoles, 2014a, 2014b), singers responded best when verbal and nonverbal messages were congruent. However, measurements were taken of a single ensemble. Further, Nápoles noted the possibility that leaders within the ensemble impacted the overall sound, thereby confounding the research results. Varied choirs could help provide more meaningful data with respect to overall response patterns.

The purpose of this study was to examine singers' responses to verbal and nonverbal instructions. Research questions included:

1. To what extent do singers perform dynamics differently when provided with verbal instructions or when viewing conducting gestures?

2. When presented with incongruent messages, will singers respond better to verbal instructions or conducting gestures?

3. What do participant responses reveal about their perceptions of following the stimulus videos?

Method

Participants

Singer participants (N = 102) were members of four established choirs at a large midwestern university. Participant choirs included one large chorus and three small ensembles. Three of the four choirs had a majority of non-music majors, and one choir comprised all music majors. Two choirs had a mean of 0.3 years of conducting lessons or classes and two choirs had a mean of more than one year of conducting. See Table 1 for choir voicing, basic demographics, participant major, choir experience, conducted ensemble experience, and conducting lesson information of the participants included in this investigation.

Table 1.
Choir Voicing, Demographics of Singer Participants, Major, Years of Choir Experience, Years of Conducted Ensemble Experience, and Years of Conducting Lessons/ Class Experience

	Choir A	Choir B	Choir C	Choir D
Choir Voicing	SSAA	SATB	SATB	TTBB
Singers	*N* = 50 Female = 48 Non-Binary = 2	*N* = 20 Female = 12 Male = 7 Non-Binary = 1	*N* = 20 Female = 12 Male = 8	N = 12 Male = 12
Age	*M* = 19.70	*M* = 20.12	*M* = 19.60	*M* = 18.67
Major	Music, *n* = 17 Non, *n* = 33	Music, *n* = 20 Non, *n* = 0	Music, *n* = 8 Non, *n* = 12	Music, *n* = 3 Non, *n* = 9
Years Singing in Choir	*M* = 6.2	*M* = 4.8	*M* = 7.3	*M* = 6.3
Years in Conducted Ensemble	*M* = 7.8	*M* = 9.2	*M* = 7.7	*M* = 8.0
Years Conducting Lessons/Class	*M* = 0.3	*M* = 1.2	*M* = 1.2	*M* = 0.3

Conducting Videos

We created two conducting videos for this investigation with opposing dynamics. The stimulus conductor (a white male, dressed in all black) was the same for all recordings and was unknown to the singer participants. In one stimulus video, the conductor displayed a conducting gesture with four measures of crescendo followed by four measures of decrescendo. In the other video, the conductor showed a four-measure decrescendo followed by

a four-measure crescendo. Dynamic changes were shown through pattern size changes, becoming larger or smaller, as well as a raising or lowering of the left hand. Experienced choral conductors (n = 4) validated that all videos contained similar facial affect, pattern size, pattern shape, and hand gestures and that the requested experimental condition was executed. Videos were played for choir recording sessions without sound.

Written directions included in the video prior to the conductor video comprised either "Please crescendo for the first four measures and decrescendo for the second four measures" or the opposite, "Please decrescendo for the first four measures and crescendo for the second four measures." The researcher in the rehearsal room read the written directions aloud before the choir sang while watching the stimulus conductor. Video conducting and written/spoken directions were either congruent or incongruent in terms of dynamic changes, asking participants to engage in the same or opposite activities. To ensure a fair comparison of variables, we used a Latin Square design to determine video presentation order for each choir. See Table 2.

Table 2.
Order of Congruent or Incongruent Written/Verbal Instructions and Conductor Gestures for Each Choir's Video

	Stimulus 1	Stimulus 2	Stimulus 3	Stimulus 4
Choir A	CCD	ICD	CDC	IDC
Choir B	IDC	CDC	ICD	CCD
Choir C	ICD	CCD	IDC	CDC
Choir D	CDC	IDC	CCD	ICD

Note. CCD = Congruent, Crescendo then Decrescendo; ICD = Incongruent, Crescendo then Decrescendo; CDC = Congruent, Decrescendo then Crescendo; IDC = Incongruent, Decrescendo then Crescendo.

Choir Recording Session Procedures

Choirs entered the rehearsal space and stood in their regular rehearsal arrangement, in two rows on a flat floor. For each recording session, the front row of all choirs remained at the same distance from digital audio recording equipment (15 ft) and a screen with a projected conductor video (20 ft). Singer participants scanned a QR code that was connected to an online survey via Qualtrics. Participants first signed an electronic consent form and were instructed to place their electronic devices on their chair. Choir singers sang a previously learned folk song "Long, Long Ago" four times while following a videorecorded

conductor. We recorded the choirs with a Roland R-05 digital recorder. After each iteration of the folk song, singers were instructed to pick up their electronic devices and respond to a single Likert-type question, "how easy was this to follow?" The Likert scale was from 1-10, with 1 being "not easy to follow" and 10 being "easy to follow." After singing all four times, singer participants returned to the survey and answered an open-ended question about what they noticed about the videos. After the protocol was complete, they completed demographic information. In total, the procedure lasted 12-15 minutes.

Data Analysis

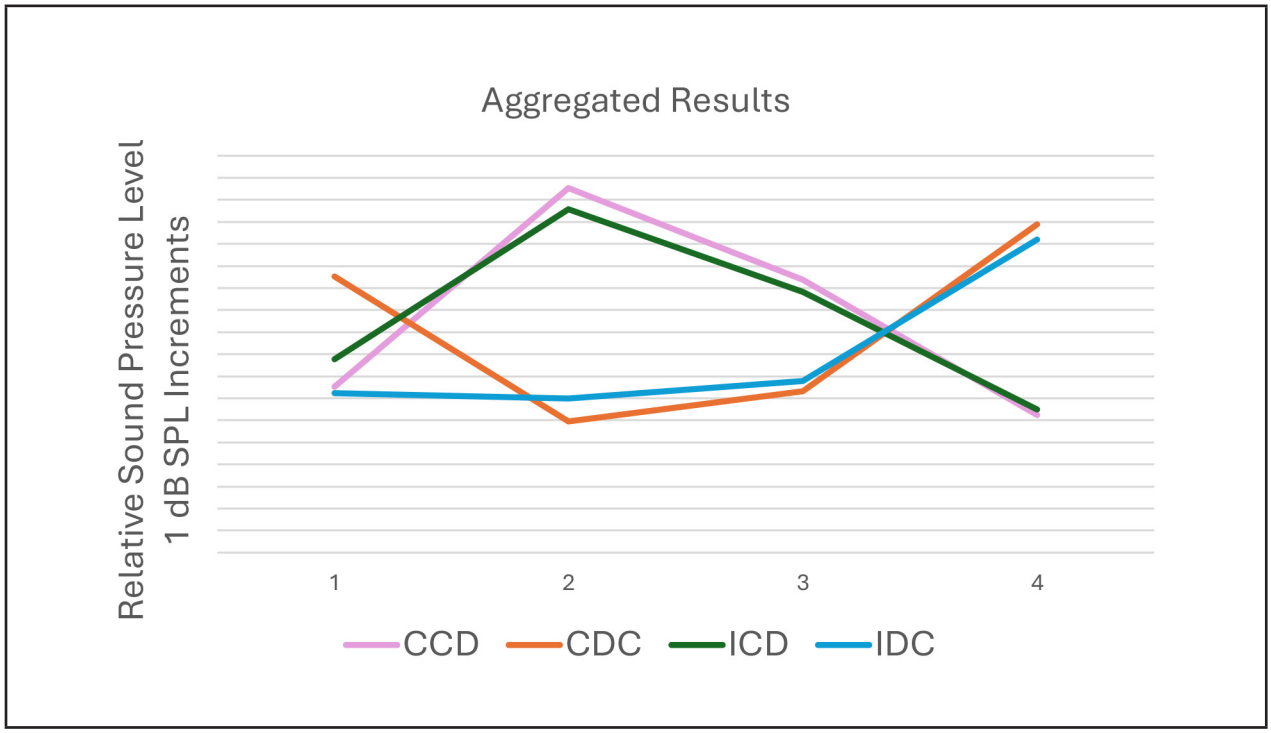
We used *Praat* (v. 6.1.55) to measure the sound pressure level of a steady-state .33 seconds on the first note ("tell"), the last note of the 4th measure (/o/ of "ago"), the first note of the 5th measure ("sing"), and the last note of the melody (/o/ of "ago"). We then averaged the dB from the first and last notes and the dB of the middle notes and calculated the difference between them for each choir in order to obtain an overall dynamic range for the melody.

Results

Dynamic Changes

Figure 1 displays the average sound pressure level (dB SPL) for the four data points during each condition. Based on the trendlines, singers followed the verbal instructions, increasing or decreasing dynamics in accordance with what they were asked to do.

Figure 1.
Mean Relative Sound Pressure Level for Each Condition Across Four Points in the Melody.



However, there was some indication of differences between the congruent and incongruent conditions. The IDC condition, in particular, diverged somewhat. The choirs sang initially much more quietly when the gesture was incongruent and did not decrescendo according to the written/verbal directions as the gesture got progressively larger.

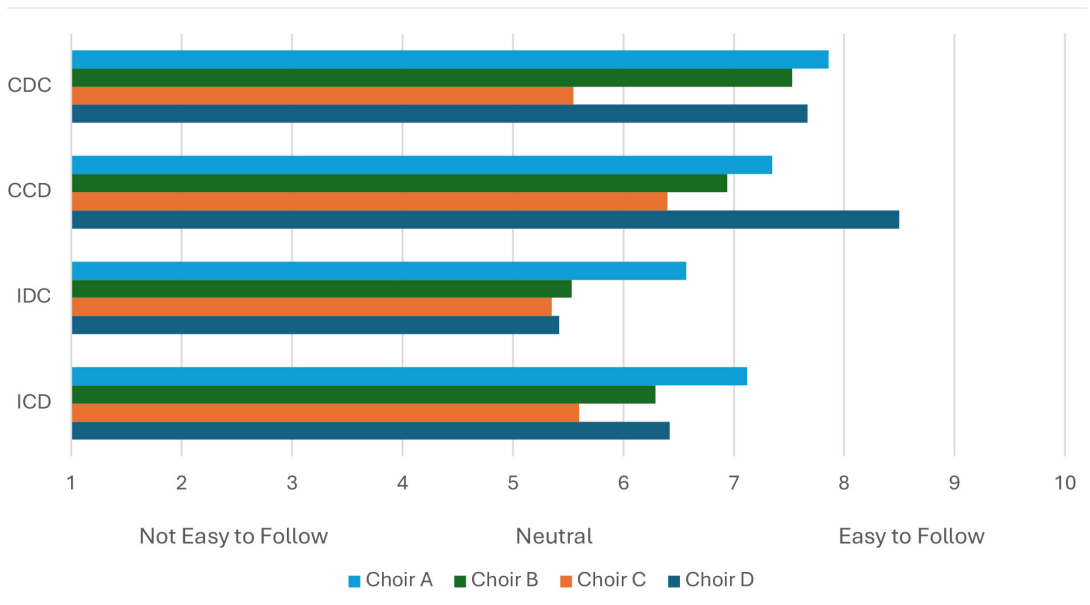
We tested the overall effects by averaging the sound pressure level of the first and final notes and of the middle two notes to measure the magnitude of the dynamic contrast during each condition. In all but one instance (Choir C, IDC), the choirs followed the verbal instructions, getting louder when instructed to crescendo and getting softer when instructed to decrescendo. However, the dynamic contrast was significantly larger during the congruent conditions, 7.32 dB (SD = 1.82) (i.e., when the conductor gesture aligned with the instructions) compared to the incongruent conditions, 4.71 dB (SD = 2.92), t (7) =3.34, p = .01, d = 1.07.

Singer Participant Perceptions

We asked singer participants about their perceptions of ease in following the written/verbal and conducting gesture directions for each of the four stimuli. The question "How easy was this to follow?" was attached to a 10-point Likert-type scale that was anchored by *Not easy to follow* and *Easy to follow*. See Figure 2 for singer participant responses sorted by stimuli and choir.

Figure 2.

Participant Responses to Ease of Following According to Stimuli and Choir.



Note. CDC = Congruent, Decrescendo then Crescendo; CCD = Congruent, Crescendo then Decrescendo; IDC = Incongruent, Decrescendo then Crescendo; ICD = Incongruent, Crescendo then Decrescendo.

Grand means of participant perceptions by stimuli were rated in this order: Congruent, Crescendo then Decrescendo (M = 7.30, SD = 0.89); Congruent, Decrescendo then Crescendo (M = 7.15, SD = 1.08); Incongruent, Crescendo then Decrescendo (M = 6.36, SD = 0.62), and Incongruent, Decrescendo then Crescendo (M = 5.72, SD = 0.57). Participants perceived both congruent conditions as easier to follow than the incongruent conditions. Results of a one-way repeated-measures analysis of variance (ANOVA) were not significant, $F(1, 15) = 2.59$, $p < .135$.

After singing under the four different stimuli, participants answered an open-ended question concerning what they noticed about the video. We counted discrete comments (N = 116) and disaggregated the comments into categories. A few singer participants commented that the conductor was "easy to follow" (n = 3) and the opposite "hard to follow" (n = 2), while some mentioned that "he had no expression" (n = 5). Many participants (n = 19) commented that all four videos were different and three commented that all four videos were the same. Nine participants correctly noted the pairings of the four videos that were the same. Although consistent throughout the videos, there were comments about cues (n = 4), cutoffs (n = 8), and tempo changes (n = 2). There were 10 comments about dynamics and 17 comments about gestural pattern size differences. A few comments (n = 5) referred to the ease of singing the crescendo first then the decrescendo. Finally, 29 comments referenced that the conducting gestures were sometimes the opposite of the written/spoken directions.

Discussion

The purpose of this study was to examine singers' sung responses and perceptions of congruent and incongruent verbal and nonverbal instructions. Three research questions guided this investigation: (1) To what extent do singers perform dynamics differently when provided with verbal instructions or conducting gestures?, (2) When presented with incongruent messages, will singers respond more often to verbal instructions or conducting gestures?, and (3) What do participant comments reveal about their perceptions of the tasks?

Major perceptual findings indicate that these choristers perceived that congruent messages are easier to follow [CDC (M = 7.15), CCD (M = 7.30)] compared with the incongruent messages [IDC (M = 5.17), ICD (M = 6.36)]. Findings show that the instructional messages impacted singers' perceptions of clarity. These results are similar to previous research (Nápoles, 2014a, 2014b) in which congruent messages led to increased prevalence of musical elements and increased understanding in singers. This investigation utilized acoustic and perceptual measures; however, these are limited in scope. Future research into a wider variety of measures as well as application to individual singers or instruments would offer further insights into the phenomenon, as would richer qualitative data from participants via interviews and focus groups.

In this investigation, all participant choirs usually sang under the direction of both experienced choral faculty and graduate students. We wondered whether the unknown stimulus conductor provided a novel experience or whether the participant responses would differ

if their regular conductor was inconsistent in gesture and directions. Future investigations could utilize the usual conductor for the stimulus videos to eliminate this possibly confounding variable.

We sorted stimulus videos used in this investigation by a Latin Square yet unintentionally retained video pairings of incongruent and congruent directions/gestures. None of the four choirs responded to back-to-back congruent or incongruent videos. With a possible pattern of videos made aware to the singer participants, some participants may have predicted the congruence/incongruence of the fourth video before they responded to it. Future investigations could consider fully integrating the stimulus videos to avoid order effect.

Singer participant perceptions were statistically insignificant when comparing responses from members of four choirs and four stimuli. The culprit of insignificance could come from two possible realms: the 10-point Likert scale on a small task and/or the large difference in the size of the ensembles. Future investigators could prevent these concerns with a smaller point set for the Likert scale and better-balanced sizes of ensembles.

It is interesting to note that choirs B and C (those with members having more conducting experience) responded somewhat differently than singers in choirs A and D (singers with fewer years of conducting experience). It is possible that singers with more conducting experience attended to the conducting gesture whereas singers with fewer years of conducting experience focused more on the written or spoken instructions. Skadsem (1997) found that high school singers performed dynamic markings better when they followed verbal instructions. Less-experienced collegiate choral singers are likely similar in experience to high school students and therefore, these similar results are not surprising.

Like the current investigation, past researchers have documented that musicians respond to music differentially depending on presentation mode (Geringer et al., 1996, 1997). This line of research is of interest to conductors and music educators in a variety of contexts, given that music is both a visual and an aural experience. Future research is encouraged to further elucidate the impact of presentation mode on performance and responses of musicians.

The acoustical results mirror the perceptual findings. In all cases but one, singers adhered to the verbal instructions rather than the conducting gestures. This finding is similar to Nápoles' (2014a, 2014b) research documenting that when participants receive conflicting information, they will follow verbal instructions rather than nonverbal instructions via conducting gestures. It may be that participants are making decisions at some level to simply do what they are asked to do, ignoring the information they are receiving nonverbally. Alternatively, participants may simply have more experience following verbal instructions in contexts outside of music. Three of the choirs were comprised of more non-music majors than music majors. More research is needed to better understand whether music majors and non-music majors respond differently, and whether years of singing experience impacts response patterns.

Participants responded with a greater dynamic range when presented with congruent

messages, compared to incongruent messages. This large significant difference was true irrespective of the direction of the dynamic change. Figure 1 shows the general trend for singers' execution of dynamics. It can also be seen that for the IDC condition, participants experienced a bit of confusion at first. In responding to a small preparatory gesture and initial pattern, they sang much more softly and subsequently were unable to get softer. They then were able to recall the verbal instructions and crescendo for the second half, even though the conductor was showing a decrescendo during those four measures.

In addition to the incongruent preparatory gesture providing confusion, we believe the contour of the melody was also a factor. It seems unnatural to begin a song loudly only to grow softer, especially as the melody rises in pitch. And, without any context for whether the conductor's gesture was initially large or small, the decay in the rest of the phrase allowed for a reassessment. Future investigators should consider music and dynamic markings that follow the natural flow of the phrasing to prevent singer misunderstanding. Also, a practice video that demonstrates the stimuli video conductor's size-range of dynamic gestures could assist in transparency for the singer participants.

Findings from this study carry important implications for music teaching and learning. Music teachers utilize both verbal and nonverbal communication in the classroom. Though conducting gestures provide musicians with a shared vocabulary to convey intention and meaning, verbal communication is utilized in most teaching content areas. Based on four choirs' responses to the four conditions of this investigation, we recommend that conductors send congruent verbal and nonverbal messages as much as possible. In order for musicians to effectively perform desired dynamics, verbal instructions should align with the conducting gesture. The congruent messages might also reduce confusion and positively impact performer expressivity. In the music rehearsal context, teacher/conductors should not follow the old adage of "do what I say, not as I do" but instead have their performers "do what I say and I do" in terms of verbal directions and conducting gestures.

References

Blocher, L., Greenwood, R., & Shellahamer, B. (1997). Teaching behaviors of middle school and high school band directors in the rehearsal setting. *Journal of Research in Music Education, 45*(3), 456–469. https://doi.org/10.2307/3345539

Brendell, J. K. (1996). Time use, rehearsal activity, and student off-task behavior during the initial minutes of high school choral rehearsals. *Journal of Research in Music Education, 44*(1), 6–14. https://doi.org/10.2307/3345409

Caldwell, W.M. (1980). *A time analysis of selected musical elements and leadership behaviors of successful high school choral conductors* (Publication No. 8020349) [Doctoral dissertation, Florida State University]. ProQuest Dissertations & Theses Global.

Cofer, R. S. (1998). Effects of conducting-gesture instruction on seventh-grade band students' performance response to conducting emblems. *Journal of Research in Music Education, 46*(3), 360–373. https://doi.org/10.2307/3345548

Dunn, D. E. (1997). Effect of rehearsal hierarchy and reinforcement on attention, achievement, and attitude of selected choirs. *Journal of Research in Music Education, 45*(4), 547–567. https://doi.org/10.2307/3345422

Forsythe, J. L. (1977). Elementary student attending behavior as a function of classroom activities. *Journal of Research in Music Education, 25*(3), 228–239. https://doi.org/10.2307/3345307

Geringer, J. M., Cassidy, J. W., & Byo, J. L. (1996). The effects of music with video on responses of nonmusic majors: An exploratory study. *Journal of Research in Music Education, 44*(3), 240–251. https://doi.org/10.2307/3345597

Geringer, J. M., Cassidy, J. W., & Byo, J. L. (1997). Nonmusic majors' cognitive and affective responses to performance and programmatic music videos. *Journal of Research in Music Education, 45*(2), 221–233. https://doi.org/10.2307/3345582

Goolsby, T. W. (1996). Time use in instrumental rehearsals: A comparison of experienced, novice, and student teachers. *Journal of Research in Music Education, 44*(4), 286–303. https://doi.org/10.2307/3345442

Goolsby, T. W. (1999). A comparison of expert and novice music teachers' preparing identical band compositions: An operational replication. *Journal of Research in Music Education, 47*(2), 174–187. https://doi.org/10.2307/3345722

Grechesky, R. N. (1985). *An analysis of non-verbal and verbal conducting behaviors and their relationships to expressive musical performance.* (Publication No. 8513459) [Doctoral dissertation, University of Wisconsin–Madison]. ProQuest Dissertation and Theses Database.

Hamann, K. L. (2003). Identification of expressiveness in small ensemble performances by middle school students. *Bulletin of the Council for Research in Music Education, 155*, 24–32. https://www.jstor.org/stable/40319421

Johnson, C. M. (1991). Use of the continuous response digital interface in evaluation of auditory versus auditory and visual aspects of musical performance. *Southeastern Journal of Music Education, 3*, 97–108.

Lucas, K. V., Hamann, D. L., & Teachout, D. J. (1996). Effect of perceptual mode on the identification of expressiveness in conducting. *Southeastern Journal of Music Education, 8*, 166–175.

Lucas, K. V., & Teachout, D. J. (1998). Identifying expressiveness in small ensemble performances. *Contributions to Music Education, 25*, 60–73. https://www.jstor.org/stable/24127067

Madsen, M. K. (2009). Effect of aural and visual presentation modes on Argentine and US musicians' evaluations of conducting and choral performance. *International Journal of Music Education, 27*(1), 48–58. https://doi.org/10.1177/0255761408099548

Madsen, C. K., & Geringer, J. M. (1983). Attending behavior as a function of in-class activity in university music classes. *Journal of Music Therapy, 20*(1), 30–38. https://doi.org/10.1093/jmt/20.1.30

Mayne, R. G. (1992). *An investigation of the use of facial expression in conjunction with musical conducting gestures and their interpretation by instrumental performers.* (Publication No. 9238229) [Doctoral dissertation, The Ohio State University]. ProQuest Dissertation and Theses Database.

Mehrabian, A. (2017). *Nonverbal Communication.* Routledge.

Nápoles, J. (2007). The effect of duration of teacher talk on the attitude, attentiveness, and performance achievement of high school choral students. *Research Perspectives in Music Education, 11*(1), 22–29.

Nápoles, J. (2013). The influences of presentation modes and conducting gestures on the perceptions of expressive choral performance of high school musicians attending a summer choral camp. *International Journal of Music Education, 31*(3), 321–330. https://doi.org/10.1177/0255761411434823

Nápoles, J. (2014a). Verbal instructions and conducting gestures: Examining two modes of communication. *Journal of Music Teacher Education, 23*(9), 9–20. https://doi.org/10.1177/1057083712474936

Nápoles, J. (2014b). Singers' responses to conducting gestures, piano accompaniment, and verbal instructions. *Research Perspectives in Music Education, 16*(2), 57–68.

National Association of Schools of Music (2025). *Handbook.* National Association of Schools of Music. https://nasm.arts.-accredit.org

Pearsall, A. D. (2023). *A multiple case study of informal learning practices and processes within three high school choral programs* (Order No. 30310971). Available from ProQuest Dissertations & Theses Global. (2816651898). Retrieved from https://libproxy.library.unt.edu/login?url=https://www.proquest.com/dissertations-theses/multiple-case-study-informal-learning-practices/docview/2816651898/se-2

Pontious, M. F. (1982). *A profile of rehearsal techniques and interaction of selected band conductors.* (Publication No. 8302966) [Doctoral dissertation, University of Illinois Urbana-Champaign]. ProQuest Dissertation and Theses Database.

Sherill, M. H. (1986). *An analytical study of videotaped rehearsal and conducting techniques of selected junior and senior high school band conductors.* (Publication No. 8614150) [Doctoral dissertation, University of Rochester]. ProQuest Dissertation and Theses Database.

Skadsem, J. A. (1997). Effect of conductor verbalization, dynamic markings, conductor gesture, and choir dynamic level on singers' dynamic responses. *Journal of Research in Music Education, 45*(4), 509–520. https://doi.org/10.2307/3345419

Sousa, G. (1988). *Musical conducting emblems: An investigation of the use of specific conducting gestures and their interpretation by instrumental performers.* (Publication No. 8820356) [Doctoral dissertation, Ohio State University]. ProQuest Dissertation and Theses Database.

Spradling, R. L. (1985). The effect of timeout from performance on attentiveness and attitude of university band students. *Journal of Research in Music Education, 33*(2), 123–37. https://doi.org/10.2307/3344732

Thompson, J. W. (2012). *The effects of conducting-gesture instruction on high school string orchestra students' recognition of and playing response to common musical conducting emblems.* (Publication No. 3521713) [Doctoral dissertation, University of Utah]. ProQuest Dissertation and Theses Database.

Wapnick, J., Darrow, A.A., Kovacs, J., & Dalrymple, L. (1997). Effects of attractiveness on evaluation of vocal performance. *Journal of Research in Music Education, 45*(3), 470–479. https://doi.org/10.2307/3345540

Warnet, V. (2020). Verbal behaviors of instrumental music teachers in secondary classrooms: A review of literature. *Update: Applications of Research in Music Education, 39*(1), 8–16. https://doi.org/10.1177/8755123320924827

Whitaker, J. A. (2011). High school band students' and directors' perceptions of verbal and nonverbal teaching behaviors. *Journal of Research in Music Education, 59*(3), 290–309. https://doi.org/10.1177/0022429411414910.

Willard, R. (1986). Speak less, communicate more. *The Instrumentalist, 40*(6), 38–41.

Yarbrough, C., & Price, H. E. (1981). Prediction of performer attentiveness based on rehearsal activity and teacher behavior. *Journal of Research in Music Education, 29*(3), 209–217. https://doi.org/10.2307/3344994