

The Effect of Intentional, Preplanned Movement on Novice Conductors' Gesture

Erin N. Bodnar

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Reading Committee:

Timothy Salzman, chair

Patricia Shehan Campbell

Steven J. Morrison

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Erin N. Bodnar

University of Washington

Abstract

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Erin N. Bodnar
Chair of the Supervisory Committee:
Professor Timothy Salzman
School of Music

Variety and effectiveness of gesture differentiate expert conductors from novice conductors. Preplanning movement in conducting may be one way to widen the student's vocabulary of gesture and promote motor awareness. To test the difference between guided score study and guided score study with preplanned intentional movement on the conducting gestures of novice conductors, undergraduate music students ($N = 20$) were assigned to one of two conditions and then evaluated on their conducting performance. In the first condition, score study with preplanned intentional gestures, students assigned and practiced specific gestures to the articulations, dynamics, cues, texture, and phrase shapes. In the second condition, score study only, students were guided through the piece in terms of form, articulation, dynamics, orchestration, and texture, discussing the sound of the ensemble only. All participants were video recorded conducting the piece with an university instrumental ensemble. Performances were evaluated by four conducting experts on gestures of dynamics, articulation, cues, releases and phrasing. Analysis of the mean scores for each rating revealed no significant differences between the two conditions. Analysis of post-conducting interview transcriptions revealed several factors that may have contributed to the results of the conducting performances. For example, many of the score study only participants were silently matching their movements to the musical decisions being made.

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Chapter 1: Introduction

Undergraduate music education students enter their training with backgrounds in music performance, typically stemming from involvement in secondary school ensembles, and occasionally solo experience. During undergraduate studies on an instrument or voice, students continue to develop both musical and technical skills. An array of theory, history and curriculum classes deepens and broadens the students' musical knowledge. Conducting, a new skill set for most students, is often introduced just prior to entering the teaching practicum. Many beginning conductors may have years of music experience and some may even have dance or movement backgrounds, yet many have not moved with the intention of inspiring sound in others. Both the technical and musical aspects of conducting rely on intentional movement which first comes from knowing the musical goals of the score and having a vocabulary of gestures to best express those intentions.

Conducting is a multifaceted skill; there are basic competencies to master such as beat patterns, tempos, dynamics, styles, preparations, releases, cues, and eye contact, (Yarbrough, 1987), musical decisions to be made before and while conducting, and evaluative skills for comparing and analyzing the ensemble's performance (Chaffin, 2011). Defining what makes a good conductor and finding a measurement to rate conducting ability are difficult because the act encompasses such a variety of behaviors and movements. It stands to reason that teaching such a complex skill can be problematic. Researchers have sought to enlighten conducting pedagogy by exploring the difference between novice and expert conductors (Byo & Austin, 1994) and the process of studying scores (Lane, 2006; Treviño, 2008; Silvey, 2011), as well as testing the sequencing of competency-based learning (Madsen and Yarbrough, 1985; Price, 1985), and the

effects of self-assessment and visual diagnostic instruction on the development of conducting skills (Yarbrough, 1987; Scott, 1996).

Gesture involves voluntary movement and the development of motor skills.

Neuroscience and behavioral motor research has shown that we are not necessarily aware of body movement but rather of the intentions of movement (Desmurget, & Sirigu, 2009; Fournieret, & Jeannerod, 1998; Jenkinson, & Fotopoulou, 2010; Sarrazin, Cleeremans, & Haggard, 2008). Using a celebrity “dancer” on a television show as an example, Jenkinson and Fotopoulou (2010) reviewed experimental research on movement and awareness to explain why the dancer seemed oblivious of his poor movements. Research in motor cognition has established that when motor commands are created, an efference copy is also produced and is used to predict the sensory feedback of the movement (Desmurget, & Sirigu, 2009; Imazimu, 2010; Jeannerod, 2006). As Jeannerod (2006) explains, conscious monitoring of movement results from the output of matching central (or efferent) and peripheral reafferent (visual and kinesthetic) signals and occurs after the movement. Because consciousness is a slow process, our goal-directed actions are mostly automatic, relying on the prediction (efference copy) of our intended movements without the inherent delay of the sensory feedback system. As long as the initial goals are met and discrepancies are small, consciousness is not brought into play. In regards to the celebrity dancer, providing that he is getting through the movements without tripping or falling, his intentions are being met. Suppose that he catches his foot slightly on the ground. At this point, a larger discrepancy between his intentions and the sensory feedback has occurred and triggers the conscious awareness of his actions.

Behavioral research has provided additional evidence of this reliance on the efference copy of our intended movements by deliberately creating conflicting situations for the brain to

respond to (Fournieret, & Jeannerod, 1998; Sarrazin, Cleeremans, & Haggard, 2008; Slachewsky et al., 2001). In these experimental situations, a conflict occurred between the different sensory feedback signals, for example, altered visual signals that were incongruent with the central motor commands or the proprioceptive signals. Participants compensated for deviations they were not aware of but only until the point when the visuomotor discordance became perceptible to them (Slachewsky et al., 2001). Sarrazin, Cleeremans, and Haggard (2008) suggest that the mind mixes two renderings of the executed movement to create an experience of action—the sensory rendering of what actually happened and the intentional rendering of what should have happened. They found that conscious cognitive evaluation tended to downplay sensory evidence, while the intentional rendering took over.

To summarize, research in motor cognition reveals that prior intentions provide the prediction (efferent copy) of the movement and that movements are automatic, with consciousness entering only when sensory feedback is at a significant discordance with the predicted actions. Similar to the celebrity dancer, if conductors are not specific in their intentions of movement, they will not be aware of small differences between the sensory feedback and the efferent copy. As they cannot view themselves while conducting, they must rely on proprioceptive sensory feedback and possibly auditory feedback. For example, novice conductors tend to have repetitive hitches that detract from their expressivity, and often they are unaware of these movements (Byo & Austin, 1994). An explanation from motor cognition research would be that the novice conductors' proprioceptive sensory feedback of the hitch does not vary enough from their intended movement. It would seem that if novice conductors are clear about their intentions, it would be more likely that they will notice (proprioceptive sensory feedback) any differences between their actual movement and their intentions. Drawing on such

a model of motor cognition, one may propose that there are two purposes to preplanning movement in conducting: one, to widen the student's vocabulary of gesture; and two, to promote motor awareness.

Preplanned movement may also be considered deliberate practice for novice conductors. In a review of research on expert performance in the arts, sciences, and sports, Lehman and Ericsson (1997) propose implications for music training which incorporate features commonly found in the training of experts, such as deliberate practice. Deliberate practice, as defined by Ericsson et al. (1993), includes practice activities that target specific goals through a variety of strategies. The relationship between deliberate practice and expertise has been demonstrated for music, individual and team sports, and chess (Ericsson, 1996; Ericsson et al., 1993; Helsen, Starkes, & Hodges, 1998). By making intentional decisions of gesture based on the study of a musical score and then practicing the gestures while singing, novice conductors are engaging in deliberate practice which is based on the goal of communicating the intention, not simple repetition of a gesture.

One pedagogical argument against pre-planned movement is that conductors could become focused on their own movement rather than the sound of the ensemble (focus of attention). This is contradictory to the skills of conducting taught at the collegiate level. Secondly, studies have shown that motor learning is more successful when focus of attention is further from the motor skill, particularly for experts (Duke, Cash, & Allen, 2011; Schorer, Jaitner, Wollny, Fath, & Baker, 2012). Duke, Cash, and Allen (2011) tested the extent to which participants learning a simple piano melody would be affected by directing their focus of attention either to their fingers, the keys, the hammers of the piano, or the sound produced. Results showed that a more distal focus of attention allowed for a more accurate performance.

Schorer et al. (2012) found that a more internal focus of attention negatively affected expert dart throwers in terms of temporal parameters of movement execution but not novice dart throwers. Also, both novices and experts perceived instruction conditions other than those with an external focus to be hindrances to performance. Research on focus of attention would seem to suggest that focusing on the sound produced from an ensemble would benefit conductors' motor learning more than focusing on their own specific movements. However, as novice conductors lack a vocabulary of gestures, they may benefit from making decisions for intentional movement to express the musical phrase or style rather than relying on only knowing the score, as was revealed in Silvey (2011).

It has been my personal experience in teaching and observing undergraduate conductors that many are largely unaware of their posture, positioning, movements and the resultant effect on the ensemble. Patterns are metronomical or automatic, often flawed by hitches that conflict with the music being performed. Gestures aligning with the music are reactive rather than proactive. As conducting pedagogues, we rely on verbal feedback and visual feedback (video) to create awareness of these discrepancies between music and gesture. Can we provide the scaffolding for students to score study, determine appropriate gestures, practice the gestures and communicate effectively with ensembles with the result that they are physically aware of their movements?

Undergraduate conductors have a limited amount of time to develop their skills before entering the school music room and research has shown that curricular content varies from institution to institution (Manfredo, 2007). By basing our pedagogical principles on a cognitive understanding of motion and movement awareness, we can potentially make greater strides with young conductors. Guiding students through a process which includes analysis of music,

matching appropriate gesture for the characteristics of the music, and practicing these gestures could help students in developing a wider vocabulary of gesture, stronger intentionality behind the gestures and a greater sense of awareness of movement.

The purpose of the study was to test the null hypothesis that there will be no difference between novice conductors who participate in guided score study and those who participate in guided score study with gesture planning and practicing.

Chapter 2: Literature Review

Extant literature on conducting covers a broad basis of topics. This review will focus on research in conducting pedagogy specifically in the areas of gesture and score study. The first section, *Gesture and Conducting*, will explore literature on the nonverbal communication of gestures and the pedagogy associated with teaching these skills. The second section, *Score Study*, will provide research results on the affects of score study and approaches to teaching score study. The third section, *Movement*, focuses on the science behind the gestures. Motor cognition research is reviewed to provide an understanding of goal-oriented action representation, awareness of action, and awareness of intentions. The fourth section, *Motor Imagery, Mental Practice and Deliberate Practice*, discusses the use of motor imagery in learning skills and the effects of mental practice and deliberate practice on performance. The fifth section, *Focus of Attention*, will explore how internal versus external focus of attention affect novices and experts differently. The final section will summarize the literature as it pertains to the current study.

Gesture and Conducting

In order to determine what makes an expert look more competent than a novice conductor, Byo and Austin (1994) devised and tested a method to document selected nonverbal gestures including right arm/hand gestures, left arm/hand gestures, eye contact, facial expression, body movement and cueing. Fifteen-minute rehearsal videos of expert ($n = 6$) and novice ($n = 6$) conductors were analyzed and compared using the selected gesture categories. High standard deviations for several categories demonstrated that experts were as different from each other as they were similar, suggesting that there are a variety of approaches to expressive conducting. Despite the variation, the expert conductors as a group were significantly different than the

novice conductors in several categories. Having a more diverse pool of nonverbal behaviors and using the behaviors in combination distinguished the experts as more expressive than the novice conductors. The novice conductors' gestures were unconvincing as compared to the experts (for example, a legato pattern that had a hitch in it). Of importance to the present study was Byo and Austin's implication that the act of scripting may be effective in inducing expert nonverbal behaviors in novice conductors. Also noted in the study was that conductor training often develops skills in isolation which could explain the lack of multidimensionality in the novice conductors' gestures.

Competency-based music education concerns a product or competency: the ability to do something at a specified level of excellence (Madsen & Yarbrough, 1985). Madsen and Yarbrough (1985) developed and evaluated a competency-based conducting program that trained students to appropriately model various beat patterns, tempos, dynamics, styles, preparations, releases, cues and to maintain eye contact using operational definitions, a conducting laboratory, self-observation by videotapes, and a minimum of teacher feedback. Price (1985) sought to replicate and verify that college music majors could improve their conducting skills through the use of the competency-based course. In addition, student attitudes towards the course were surveyed. The author reported that competency-based conducting instruction was successful based on the mean gain from pretest to posttest and overall positive student assessments of the approach.

Using that same competency-based approach to conducting instruction, Yarbrough (1987) had students observe themselves conduct via videotape and complete self-assessment forms, marking "correct" or "non-correct" for the categories of beat patterns, tempos, dynamics, styles, preparations, releases, cues, and eye contact. Students who scored a high frequency of

correct responses on the posttests were significantly likely to have given themselves more correct marks in self-observation, possibly reinforcing positive conducting behaviors. Yarbrough noted a low frequency of self-instructional statements in post-conducting critiques, suggesting that students are not being instructed in how to remedy “incorrect” competencies. The competency-based approach described in the three studies is an example of teaching conducting skills in isolation.

Assessment of others can be an effective tool of instruction and is often incorporated in undergraduate conducting classes. Scott (1996) tested the use of videotaped lessons on developing visual diagnostic skills and conducting skills through a pretest-posttest design. A control group watched videotaped lessons on instruction and demonstration of conducting techniques, while an experimental group watched the same videotapes with the addition of a section on diagnostic skills. The diagnostic portion focused on the following conducting skills: posture, baton position, beat patterns, left-hand gestures, legato style and staccato style. The pretest-posttests included a multiple choice test diagnosing videotaped conducting errors and a conducting performance. Both groups improved on the written tests, with no significant difference between groups. There was no significant improvement or difference for the conducting tests. Perhaps the lack of improvement was due to the fact that the students did not physically practice conducting between the pretest and posttest. Analysis of the results for the experimental group’s conducting did demonstrate that treatment became less beneficial as pre-existing ability increased, perhaps signaling that diagnostic skill instruction would assist less experienced conducting students.

Score Study

Expert conductors agree that score study preparation is essential for success as a conductor. Lane (2006) examined how three levels of university music education majors (lower-level, upper-level and student teachers) approached learning a solo piece compared to studying a score as if to rehearse the piece with young musicians. Findings included: specificity of verbal responses during “think-aloud” score study increased as education of participants increased, a lack of transfer from how students prepare a solo piece to how they approach a full score, and a lack of audible sound (singing, piano, performance on major instrument) during full score study sessions. Although this study provides insight into how undergraduate students approach score preparation and how they might need guidance, it did not address the effect of score study on the activity of conducting.

During the score studying process, audio recordings may accelerate the internalization of the music, although students are often cautioned against relying on recordings as it may cause formulaic performances. To test the effect of an aural model on expressive gestures exhibited by novice conductors, Treviño (2008) had two groups of undergraduate music students conduct an excerpt with and without an aural model after a short score study session. The experimental group studied with a recorded model while the control group engaged in silent study. The conducting performances were rated in terms of expressive gestures using the *Expressive Conducting Achievement Measure* (ECAM), an instrument developed by the author. Evaluators rated conductors on the following statements: overall rhythmic feel enhances expression, expressive phrasing, appropriate gestural contrasts, great feeling of sustain in legato sections, performer embodies the expression of the piece, style is consistent and unified, and interpretation of style is appropriate. The results showed a significant difference in favor of the experimental group overall. Further analysis revealed that the experimental group scored significantly higher

when conducting with an aural model but there was no significant difference when conducting without the aural model. It is important to note that the score study session and conducting performances took place within the same session lasting approximately 30 minutes.

Silvey (2011) created an experiment to test the effects of assisted score study with novice conductors. Students were assigned to either an investigator-led score study group or to a control group that received no individual attention. After a conducting pretest, the students in the score study group met with the investigator twice for prompted score study sessions, during which they marked scores, listened to recordings, sang through and played the parts on their primary instruments, sang from memory the first four measures and imagined the entire ensemble sound for the excerpt. All participants led a second conducting and rehearsing session with the ensemble, ending with a recording of their comments on the process and performance of the ensemble. The participants' conducting and rehearsing skills were evaluated by the ensemble members and a panel of expert conductors (using video recordings). Although the ensemble members rated the score study conductors higher, the experts rated them equally. The author warned of generalizing his findings to a larger population because of the small number of participants ($n = 11$), the control group not receiving any instruction, and the uncommon task of conducting a quartet, rather than a large ensemble. Of importance, participants who received score study instruction made the comment that "increased familiarity with the music allowed them to develop clear musical goals" (Silvey, 2011, p.46). Although students who did participate in guided score study were evaluated higher by the ensemble members in terms of eye contact and score familiarity, there were no other significant differences between the treatment and control group in the categories of facial and gesture expression during the conducting performances. Since it is the variety and effectiveness of gesture that differentiates expert

conductors from novice conductors (Byo & Austin, 1994), a focus of undergraduate conducting instruction should be to develop gesture.

Movement

Novice conductors often seem unaware of how their movements are in conflict with the sound around them. How can body awareness be improved in young conductors? Research in motor cognition has developed an internal forward model of action representation which ascertains that we are not conscious of our actual movements but of our intentions. The forward model begins with the action intention or goal. An efference copy of the intended action is made, providing predicted feedback for the action. When the movement is executed, the sensory output is compared with the predicted feedback. Research has demonstrated that the efference copy of an action is used as feedback in actions because the sensory feedback loop is too slow for quick, efficient, and flexible actions (Imamizu, 2010). As long as the sensory feedback matches the efference copy, we are largely unaware of our actions. As an example, imagine that you will pick up a milk carton. The efference copy of the intended action assumes that the carton will be heavy as it is full of milk. If it is full, the sensory feedback will match the predicted feedback. If it is empty, a mismatch will occur and you will become aware of the action as your arm lifts higher than you had intended.

Fournieret and Jeannerod (1998) designed an experiment which created a mismatch between what the subjects actually did and what they saw themselves doing. Participants were instructed to draw a straight line between a starting point and a target, but their hand was hidden by a mirror showing a computer screen of the resultant line and the target. On some trials, the line shown on the computer screen was made to deviate from what the subject was actually drawing by up to 10 degrees, forcing the subject to deviate their movement in the opposite

direction of the line seen on the screen in order to reach the target. After each trial, the subjects were asked to say which direction their hand moved. The results showed that the subjects were able to draw the line to the target but their verbal indication of the way moved was towards the target, therefore ignoring their actual movements and relying on the visual feedback. The subjects were aware of the goal and met it but ignored how the goal was completed. In a replication of the study, Slawchesky et al. (2001) increased the deviation of the line up to 40 degrees. At an average of 14 degrees, the subjects were aware of the deviation between their movement and the visual representation on the computer screen, demonstrating that our consciousness enters when the magnitude of the discordance between an action and the sensory feedback exceeds a certain point.

Sarrazin, Cleeremans, and Haggard (2008) combined the visuomotor adjustment research presented above with associative priming literature to investigate the awareness of action. Associative priming is the expectancy that event 2 will happen after viewing event 1 multiple times. The experiment was set up to explore whether retrospective awareness of an aiming movement is influenced by prior conscious expectations about the occurrence of a target shift, by the actual details of the executed movement, or both. Participants were asked to do three tasks:

1. Verbalize their expectancy that a target shift would occur in the upcoming trial,
2. Point to a target as accurately and as quickly as possible, returning to the start position immediately after,
3. Reproduce the spatial path of the movement.

To test the effects of temporal factors, the design included conditions where a 6-second delay was inserted, either between the expectancy judgment and movement or movement and reproduction. Results showed that there was no effect of delay or expectancy on time of adjustment to a target shift suggesting a dissociation between conscious expectancy and control of initial movement. For the analysis of motor

awareness (comparing the actual movement to the reproduction), undershoot (underestimation of movement) and overshoot (overestimation of movement) of action awareness were calculated. Higher expectancy trials resulted in lower undershoot values and higher overshoot values. Since expectancy did not affect actual movement, the authors state that their results suggest a direct link between expectancy and motor awareness. Inserting a delay either between the expectancy judgment and movement or movement and reproduction resulted in higher undershoot values. A higher undershooting demonstrates a sluggish and reduced record of the original movement whereas high overshooting demonstrates an awareness of a more efficient movement that the participant intended to make. Therefore, the authors state that undershoot indicates a sensory-based action awareness, while overshoot is a marker of intention-based awareness. To generalize these results, action awareness is partly an awareness of what we intend to do (as previously mentioned in the earlier studies) and that when the action supports strong predictions, the intentions make a stronger contribution to awareness. The higher undershoot values when a delay was inserted indicate that awareness based on intentions is short-lived and sensory-based awareness takes over, reflecting the actual rather than intended movements. As an example, take a conducting student who performs a short musical excerpt. The results from this study imply that during the activity and for a very short time after, the student is aware of his intentions, or “what should have happened.” As time lapses after the activity, sensory feedback (visuomotor, proprioceptors, even audio feedback) shows increased contribution to the awareness of action. The authors do note that even sensory feedback is time-sensitive.

To summarize, the results of motor cognition research support the forward internal model described at the beginning of this section. An efferent copy of our intended or predicted movement is created prior to movement, the actual movement occurs and we are aware of the

efferent feedback. If the actual movement is considerably different than the intended movement, our consciousness is brought into play. We become aware of the discrepancy between the intended movement and the actual. However, if the actual movement is close enough to the intended (perhaps our intentions are vague, with little detail), we are unaware of the small variance. As time continues, we become less aware of the efferent feedback and our sensory feedback catches up. At this point, we may feel (through proprioceptors), see or even hear from our musicians the incongruence between our intentions and actual movements. For conductors, having clear intentions of not only our musical interpretations, but how we will move, will heighten our awareness.

Motor Imagery, Mental Practice, and Deliberate Practice

Only in the past two decades has research in the field of motor cognition focused on motor imagery, the ability to generate a conscious image of the acting self. A number of findings have contributed to the understanding of mental action as a simulation of the physical action. First, mental performances of actions take the same amount of time as the physical performance of the same actions (Decety, Jeannerod, & Prablanc, 1989; Schott, & Munzert, 2002). Secondly, mental action also follows the same programming rules as executed action; as difficulty of the motor task increases, the duration of the actual task increases, as does the mental movement time (Decety, & Jeannerod, 1996). A study by Johnson in 2000 found that mentally grasping a horizontal bar followed the same optimization principles as the actual movement. Participants indicated verbally an underhand or overhand grip when instructed to grasp the bar in order to place either the right or the left end of the bar on a stool. The results were consistent with a previous study which real grasping occurred (Rosenbaum, Marchak, Barnes, Vaughan, Slotka, & Jorgensen, 1990). Research has also shown that motor simulation of running at an

increasing speed (Decety, Jeannerod, Germain, & Pastene, 1991) or pedaling at an increasing rate (Decety, Jeannerod, Durozard, & Baverel, 1993) results in increased heart and respiration rates which correlate with the level of the mentally represented force. Therefore, imagined actions activate the autonomic system as if real actions were occurring. The current understanding of motor imagery or simulation is that the neural commands for muscular contractions are blocked during motor imagery (Jeannerod, 2006), explaining why we do not actually move.

The field of sport psychology was already investigating the effects of mental imagery on motor performance before the above mentioned research. One of the early explanations was that mental training could modify perceptual organization and provide a new insight into the action to be performed. However, the research in motor imagery demonstrates that covert actions are functionally equivalent to their overt counterparts. Jeannerod (2006) suggests that by covertly rehearsing the motor pathways, the activity of the motor system facilitates further execution. Numerous studies have provided empirical evidence of motor imagery affecting motor performance, testing motor tasks as simple as sequential foot movements or as complicated as executing a basketball free throw shot (Lafleur, Jackson, Malouin, Richards, Evans, & Doyon, 2002; Munzert, Lorey, & Zentgraf, 2009; Vogt, 1995; Yadolazadeh, Salehian, Karbalaie, Behaein, Piruzfar, & Khodaparast, 2011). A meta-analysis of extant research on mental practice found that mental practice has a positive and significant effect on performance, which is moderated by the type of task, the retention interval between practice and performance, and the length or duration of the mental practice intervention (Driskell, Copper, & Moran, 1994).

Research on the effect of mental practice on music skills demonstrates that covert practice alone does not significantly affect performance (Coffman, 1990; Highben, & Palmer, 2004; Lim, & Lippman, 1991; Ross, 1985; Theiler & Lippman, 1995; Rosenthal et al, 1988). In

a study of practice techniques for learning and memorizing a short piano piece, Lim & Lippman tested mental practice, mental practice while listening, and mental practice in conjunction with physical practice. Mental practice alone did not significantly improve performance, yet results did show that mental practice while listening to a recording was significantly better than covert practice alone. To extend the previous study, Theiler & Lippman studied the effect of mental practice on acquisition of skills (rather than memorization) of guitarists and vocalists. Subjects participated in four practice conditions: continuous physical practice, mental practice alternating with physical practice, mental practice with recorded model alternating with physical practice, and motivational control activity (reading portions of a self-help book on performance anxiety) alternating with physical practice. Participants performed with musical score and from memory, with performances being rated on pitch accuracy, rhythmic accuracy, articulation and phrasing, dynamics and expression, tempo, and tonal quality. Mental practice with a model resulted in superior performance for vocalists over a number of dimensions and for guitarist, on tone quality and memory coding. Guitarists performed pitches more accurately under the mental practice with no model and continuous physical practice conditions. The authors suggest that their findings demonstrate that mental practice facilitates cognitive coding and helps create optimal levels of attentional focus.

Highben & Palmer found similar results in a study that tested normal practice conditions, motor feedback only, auditory feedback only, and covert practice. The normal practice conditions were most successful, with the performance after covert practice being significantly worse than all other conditions. An important finding was that pianists with higher auditory posttest scores were less affected by the removal of auditory feedback, suggesting that musicians who are better able to audiate music may be more successful at mental practice. In the above

mentioned studies, it is important to note that the mental practicing was not solely based on the motor act; participants were encouraged to use visual, auditory, and kinesthetic imagery rather than just motor imagery. The authors generalized their findings to overall cognitive processes rather than just the motor act. Contrasting to the music skills of conductors, the musicians in these studies (pianists, guitarists, trombonists, vocalists) create the sound physically. The role of motor imagery in conducting performance may differ significantly from the effect of mental practice on music performance and memorization. However, the research does indicate that mental practice alone is insufficient; physical practice of gesture is necessary for motor skill development.

Research has sought to explain how experts become highly skilled. Ericsson, Krampe, & Tesch-Romer (1993) were the first to propose that the amount of deliberate practice was the contributing factor to expertise. Based on previous research, Ericsson et al. developed a theoretical framework of deliberate practice: effortful activities that improve performance, with the sole motivation for the activity being the improvement of performance, in conjunction with informative feedback. Through two studies, one with three groups of elite, adult violinists, the other with elite pianists and amateur pianists, Ericsson et al. tested the hypothesis that the amount of deliberate practice correlated with performance level. In study 1 (violinists), data was collected through interviews and diary entries on the daily activities, including practicing, of three different levels of elite, adult violinists. The results demonstrated that the two highest groups (the best and the good) spent more time in practice, with the highest group spending the least amount of time in leisure activities. The subjects in the best group were able to accurately estimate their practice time whereas the good group underestimated their leisure time. The best group tended to spend more time in music-related activities.

The second study tested if predictions of differences of proficiency in skill-related tasks could be made based on the measurements of accumulated practice. The procedure included interviews and the diary task as in the previous study, with only two levels of participants: young expert pianists and amateur pianists matched for age and sex. Along with the interviews, the participants completed complex coordination movement tasks, a musical performance task which consisted of deciding an interpretation of a piece and consistently performing the interpretation three times, a digit-symbol substitution test, a two-choice reaction time task, and single tapping tasks. The results showed a correlation between the amount of deliberate practice and performance on the skill-related tasks of single tapping and the complex coordination movement tasks. No differences were noted in the two non-music tasks.

The effects of deliberate practice have been studied in non-musical fields, such as team sports, marital arts, medicine, science, military, and the workplace (Crochet, Aggarwal, Dubb, Ziprin, Rajaretnam, Grantcharov, Darzi, 2009; Ericsson, 2007; Ericsson, & Ward, 2007; Helsen, Starkes, & Hodges, 1998; Hodge, & Deakin, 1998; MacMahon, Helsen, Starkes, & Weston, 2007; Moulart, Verwijnen, Rikers, & Scherpbier, 2004; Sonnentag, 2000; Williams Williams, A. M., Ericsson, K. A., Ward, P., & Eccles, D. W. (2008)., Ericsson, Ward, & Eccles, 2008). The research has primarily included motor skills such as playing a musical instrument, athletic skills such as karate, soccer skills, and surgical skills. One condition of deliberate practice resulting in expert performance is that the practice has to have accumulated over ten or more years. For music education students who are new to conducting and have many other skills they are attempting to develop, deliberate practice may be key to successful acquisition of the skills. As previously mentioned, deliberate practice must include effortful (intentional) exercises with the goal of improving performance as well as instructional feedback. For conducting pedagogy,

the research of deliberate practice supports practicing gestures and learning to provide oneself feedback in order to improve performance.

Focus of Attention

Novice and experts have been compared with respect to the effect of focus of attention. Beilock, Bertenthal, McCoy, & Carr (2004) studied the effect of single-task versus dual-task conditions on novice and expert golfers' putting accuracy. In the first experiment, novice and expert golfers putted in the skill-focused condition, with specific instructions to focus on the step-by-step performance and dual-task condition, designed to distract attention from putting. For the dual-task condition, a series of tones were randomly played and the participant had to verbally signal when a specific tone was heard. The results demonstrated that although the expert golfers performed better than the novices overall, novices performed better in the single-task condition, whereas experts excelled when their attention was distracted from the task. In the second experiment, a time constraint condition juxtaposed an accuracy condition. Again, the expert golfers performed better overall, yet excelled when a time constraint was given. The authors suggest that the time constraint prevented the experts from paying too much attention to the task.

External and internal focuses of attention have also been examined for their effect on novice and experts. In a study of dart players, Schorer et al. had novice and expert players throw darts under seven different instruction conditions, while wearing occlusion goggles (goggles which can change from transparent to opaque). The instructions included: throw at the bull's eye (baseline), concentrate on the return point of your movement (internal), concentrate on the release of the dart (internal), and concentrate on the bull's eye (external), with the last three in combination with either goggles closing or staying open. The results demonstrated that there

were differences between novice and expert throwers in terms of the throwing results and also the discrete movement characteristics. Novices showed a high degree of variability in their throwing patterns unlike the experts. The most important result of this study was that both novice and expert throwers found the instructions to be a hindrance except for the external focus instruction.

Attention of focus has been studied in music skills acquisition (Duke, Cash, & Allen, 2011). The effect of different attentional foci (fingers, keys, piano hammers, or sound produced) on learning a simple piano sequence was tested. After the training blocks, participants performed a test which was assessed in terms of evenness of volume and timing, in order to measure participants' sustained motor control. Results indicate no significant differences in evenness of volume across the conditions, although data varied among participants and conditions. Evenness of timing was differentially affected by focus of attention, with focusing on the sound producing the most even performances. Four expert pianists were included in the study and their retests demonstrated no difference for focus of attention, which contrasts with the results found in the previously mentioned research.

Research on the effect of attentional focus on motor skill development suggests conflicting strategies for novice conductors. Based on their research, Beilock et al. would recommend that novice conductors focus on a single-task and moving step-by-step through the process; for example, planning out and practicing their gestures. However, the research on internal versus external focus of attention suggests that novice conductors should focus on the external feedback, the sound created. The problem with focusing on the sound created is that, unlike pianists, conductors do not physically make the sound. A training program for conductors which allows the gesture to actually change the sound produced may result in external focus of

attention affecting motor learning, but when using live musicians, the variability and inconsistency of audio feedback produced by gestures might cancel out the learning effect suggested by Duke, Cash, & Allen. From my understanding of the research, I hypothesize that novice conductors would benefit from step-by-step planning of gestures (single-task) which focuses on the desired sound in gesture selection (external) and a generalized description of how that gesture is created or will look (external). Rather than focusing on an internal explanation of the movement (“I will move my left hand from quickly from right to left”), a more general description relying on feeling (“I will make a slicing motion with my left hand to show the entrance of a single note”) may be more conducive developing a vocabulary of gesture for novice conductors.

Summary

This literature review focused on six areas of interest to this study: conducting and gesture, score study, movement, motor imagery and mental practice, deliberate practice and focus of attention. Literature suggests that expert conductors are more expressive than novice conductors because they have a more diverse pool of nonverbal behaviors and use the behaviors in combination. Novice conductors tend to have habitual gestures which are perceived as unconvincing. Pedagogical research in conducting has shown that video feedback, self-assessment and competency-based education can positively affect novice conductors’ performance of isolated gestures.

Score study is cited as a practice of expert conductors, while research shows that many undergraduate students are unable to transfer learning of a single instrument score to preparing a large ensemble score. Students need to be taught or guided through the process of score study. Limited literature on the use of audio recordings demonstrates that score studying with a

recorded model positively affects expressive conducting, as long as the conducting aural model is present. Finally, one study showed that guided score study alone did not affect conducting gestures for undergraduate level conductors, but did improve eye contact and score familiarity.

Awareness of movement begins with our movement intentions as exhibited in the internal forward model of action representation. Intentions provide the efferent copy (central signals) of the movement which the sensory feedback (peripheral reafferent signals) are compared to after the movement in conscious awareness. However, since this process is slow, most of our goal-directed actions are automatic and therefore rely on the efference copy of our intended movements without the delay of the sensory feedback system. Literature on the effect of time delay on movement reproduction demonstrates that we rely more on the sensory feedback system when time lapses, whereas the central feedback system is in play closer to the actual movement. For conductors, while we are moving we are relying on the efference copy of our intended actions for movement awareness and only large discrepancies between what we expect to happen and what is happening are noticed. The ensemble's performance may serve as audio feedback to which our efferent copy of intended actions is compared against.

Research in motor imagery suggests that when we imagine ourselves moving, the same cognitive processes for motor representation occur. This assumption is based on the temporal regularities, programming rules, biomechanical constraints and activation of the autonomic system that are consistent in both actual movement and motor imagery. It is hypothesized that actual movement does not occur because the neural commands are blocked. Since the motor system is activated during covert actions, mental training can improve motor performance. In the area of music, research shows that mental practice can be successful if an audio model is

provided and if it alternates with physical practice. The research suggests that motor imagery and mental practice with an audio model may improve novice conductors' gestures.

Experts differ from amateurs in the amount of deliberate practice they have engaged in, typically at least ten years of accumulated practice. Deliberate practice is defined as effortful activities that improve performance, with the sole motivation for the activity being the improvement of performance, in conjunction with informative feedback. Since undergraduate students are new to conducting, students should be engaged in as much deliberate practice as possible rather than rote learning. One effortful activity could be determining gestures appropriate for a musical score and intentionally practicing those gestures, in conjunction with audio feedback.

The literature on motor learning and focus of attention provides conflicting recommendations for novice conductors. Novice golfers were more successful when their attention was directed to their actual movements rather than being divided between two tasks whereas expert golfers were more accurate when their attention was divided and there was a time constraint. Other studies have demonstrated that an external focus of attention aids motor learning. Novice pianists performed more evenly when attending to the sound produced rather than their fingers, the keys or the hammers of the piano. Since the act of conducting does not result in an immediate sound that consistently corresponds with the motor activity, a more internal focus of attention may be more effective. However, novice conductors may benefit from a more general focus of attention on their movement rather than being too specific in their focus.

The diversity of research summarized proposes that novice conductors may benefit from intentionally planning and practicing their gestures in conjunction with score study. The purpose

of this study is to examine the effect of preplanned, intentional movement on novice conductors' gestures.

Chapter 3: Research Questions

Need for the Study

Conducting is one of the many skills music education majors need to develop during their undergraduate careers, yet many musicians have little or no training in movement.

Undergraduate conducting courses focus on basic skill development, sometimes divorced from genuine music. Research has demonstrated that expert conductors differ from novice conductors primarily in the variety of gestures and selection of appropriate gestures for the music being conducted (Byo, & Austin, 1994), suggesting that conducting courses should foster the development of expressive gestures.

The “art” of conducting has had little interaction with the science of movement, particularly motor cognition. Recently, the concept of mirror neurons has been used in method books to explain how conducting affects the ensemble musicians, but the literature has not yet explored the connection of motor awareness or motor imagery to conducting pedagogy. The current understanding of goal-directed action based on motor cognition research proposes a forward internal model which emphasizes an efference copy of the action as the primary feedback, rather than the slower sensorimotor feedback. Our awareness of movement is a mixed rendering of a comparison between the efference copy and the actual action and sensory feedback through visual, kinesiastic and possibly audio feedback therefore it is essential that we are clear in our intentions of movement.

This study sought to explore novice conductors’ unawareness of their own movement by introducing intentional preplanned movement, based on an understanding of the scientific model of motor cognition.

Purpose of the Study

The purpose of this study was to test the null hypothesis that there will be no difference between novice conductors who participate in guided score study and those who participate in guided score study with gesture planning and practicing. It was my intention to address the seeming insufficiency of guided score study alone as a means of improving expressive gesture by asking students to make specific decisions related to intentional movements reflecting the phrases, styles, and other expressive elements suggested by an ensemble score.

Research Questions

1. Will novice conductors who made decisions about intentional movements and practiced the gestures during score study demonstrate more expressive gestures in performance than those who did not?
2. After the conducting performance, will students recall the gestures they executed or the gestures they intended to perform? In other words, will their awareness be sensory-based or intention-based?

Chapter 4: Method

Participants

Although this study focused on novice conductors, some conducting experience was deemed necessary for participants to demonstrate expressive gestures, such as shaping phrases and dynamics, in addition to the fundamental skills of maintaining a pattern and tempo. In order for the study to be generalized to a larger population, six Pacific Northwest universities were approached to participate in the study. Inclusion of participants from different universities controlled for variation in specific conducting instruction.

Contact was made with the conducting instructors at each of the six institutions. Instructors granted permission to allow their students to participate in the study and provided a list of potential participants based on the following criteria: music education majors having had at least one conducting course. Potential participants were approached via emailed letter distributed by their conductor instructor (*Appendix A*). Participants ($N = 20$) had completed 1 to 3 semesters of conducting courses, were upper level undergraduates (3rd year $n = 10$; 4th year $n = 7$; 5th year $n = 2$; 6th year $n = 1$), included males ($n = 10$) and females ($n = 10$) and were instrumentalists having had experience performing in large ensembles.

Music Excerpt Selection

The first movement, “Un ange a fa la credo,” of *Suite Provençale* by Jan Van der Roost was chosen for several reasons: the piece was unfamiliar to the participants; avoided technical difficulty and unfamiliar tonal language as confounding variables; incorporated a variety of articulation styles, dynamics, changes in tempo and instrumentation; and contained repeated melodic material to facilitate learning of the piece.

Design and Procedure

In a preliminary investigation of the topic of intentional movement and novice conductors' gesture, I sought to test the difference between guided score study and guided score study with preplanned intentional movement on the conducting gestures of novice conductors. Undergraduate music students ($n = 8$) were assigned to one of two conditions and then evaluated on their conducting performance. In the first condition, score study with preplanned intentional gestures, students assigned and practiced specific gestures to articulations, dynamics, cues, texture, and phrase shapes. In the second condition, score study only, students were guided through the piece in terms of form, articulation, dynamics, orchestration, and texture, discussing the sound of the ensemble only. All participants were videotaped conducting the piece with an university instrumental ensemble and participated in a post-conducting interview. Two expert conductors evaluated performances based on gestures of dynamics, articulation, cues, releases, and phrasing. Analysis of the mean scores for each rating revealed a significant difference ($p < .05$) for articulation, cues, releases, and phrasing with the intentional movement participants rating higher than the score study only participants. No significant difference was found for dynamics.

Upon reflecting on the research design of the study, I noted one limitation. During the post-conducting interviews, most participants felt that they lacked knowledge of the score. It was determined that two 30-minute score study sessions did not provide enough time for the students to develop a complete picture of the music because of the length of the movement. Two 45-minute sessions were planned for the current study.

Prior to the first score study session, participants were asked to select and submit a video of previous conducting along with a completed musical background questionnaire (*Appendix E*).

The videos from each institution were ranked by the researcher and distributed so that two largely equivalent groups were created for each institution. The researcher, rather than the instructor of the students, ranked the students to avoid bias. An outside evaluator ranked the videos for reliability of the researcher. Ranked subjects were paired and assigned to either the experimental or control group. Assignment to groups alternated at each university. For example, rank 1 and 2 were paired at university A and at university B; rank 1 at university A and rank 2 at university B were assigned to the experimental group, while rank 2 at university A and rank 1 at university B were assigned to the control group. This was to ensure that the expressive ability level and differences of instruction were accounted for and balanced accordingly. This resulted in 10 participants in each condition ($n = 10$).

The experimental group (Gesture) received two 45-minute sessions of guided score study with planning and practicing of gestures, while the control group (Score) received two 45-minute sessions of guided score study only. The score study sessions were between five to seven days apart. Two to three days after the final score study session participants conducted a live instrumental ensemble, followed by an interview on their performance. To minimize the threat of treatment diffusion, participants were asked not to discuss the score study sessions with the other participants or their conducting instructor. The score study sessions were video recorded using a Zoom Q3HD Handy video recorder, the conducting sessions were video recorded using a Sony HDR-CX430V HD Handycam Camcorder, and the post-conducting interviews were audio recorded using a Zoom H2 Handy recorder.

Score Study Sessions

Preceding the conducting session, all participants met with the researcher for two 45-minute guided score study sessions. One hour of score study was determined to not be an

adequate amount of time in the pilot study because of the length of the chosen movement. A combination of score study techniques were incorporated based on the procedures developed by Silvey (2010). While one group was allowed to practice conducting gestures (Gesture group), the other was not (Score group). Common to both groups, a macro-micro-macro score study approach was adopted, a widespread practice of expert conductors (Corporon, 1997). The conductor first gains an overview of the piece before focusing on the details of the musical elements of each phrase. Once decisions of detail are made, the conductor recontextualizes the piece as a whole. The physical scores remained with the researcher between the three sessions (two study sessions and the conducting session) and the participants were asked to refrain from searching out recordings or practicing conducting.

Both groups followed a similar procedure during the first score study session. Each participant read and signed the consent form and then was given their own score and encouraged to make any markings they saw fit. First, they were asked to look through the score for important characteristics of the music. Next, they listened to two recordings of the movement. One recording was a professional recording of a sophisticated ensemble while the other was a live recording by lesser experienced players. Participants were asked to mark their score, think of the form of the piece and the general character of the piece. We discussed the similarities and differences in the recordings. Next, we went through the score, phrase by phrase, to determine the specific characteristics. The Gesture group was asked to not only decide the style of articulation, dynamics, and texture, but also to select and write in appropriate gestures to demonstrate the musical choices they made, using vocabulary that was familiar for them. The Score group was asked to think about and write in their score descriptors of the ensemble sound in terms of articulation, dynamics, and texture.

For the second score study session, we began by listening to the professional recording to remind the participants of the piece. We reviewed the form and made more explicit choices of articulations and dynamics to contrast each section of the piece. The Gesture group assigned gestures to each phrase while the Score group focused on how they would like the ensemble to sound. Next, the Gesture group sang and conducted through the melody line of the piece with the gestures in mind. The Score group only sang through the piece. Both groups were assisted by the researcher on the piano and were allowed to stop and make changes or practice a section if needed.

Each group went through the piece again, this time looking at the material surrounding the melody (bassline, countermelody, etc.) and making decisions on the importance and style of the accompaniment figures. Again, the Gesture group made decisions on the type of gesture they would use to communicate their musical intentions while the Score group focused on describing ensemble sound. To recontextualize the piece, each participant sang through the piece with their decisions in mind but the Gesture group members also conducted while singing. Next, each participant viewed the score and imagined either the sound of the entire piece from beginning to end with their chosen conducting gestures in mind (Gesture group) or just the sound of the entire piece (Score group). Lastly, the Gesture group imagined the sound of the piece while physically conducting and the Score group imagined the sound while talking through their musical decisions.

Experimental group Score Study Sessions Script

Score Study Session #1

Start:

The goal of these two sessions is to help you attain a deep knowledge and understanding of the

music you are going to conduct through a variety of score study techniques. Many expert conductors attribute their musical interpretation, conducting gesture, and rehearsal efficiency to the decisions that were made during score study. During these sessions we will be listening to model recordings, marking the score, singing, discussing appropriate gestures, and practicing gestures.

Part I:

1. Determine the most important characteristics of the music.
2. What is the musical form and general character of the piece?
3. Mark the score in a manner you feel would be helpful to your conducting. For example, circling the meter, dynamic, and tempo indications; labeling primary and secondary melodic material; writing in instrument cues; and adding additional phrase and breath marks in individual parts. What are your reasons for marking these particular musical items and why are they important?
4. Decide appropriate gestures and write in reminders of gesture for the markings you have made.

Part II:

1. Play two recordings of professional ensembles performing the excerpt. Listen for differences between the performances.
2. Discuss the similarities and differences among the performances and
3. How did the recordings influence your musical decision-making and your gestures?

Part III:

1. Identify and sing of the primary melodic line.
2. Sing and conduct the melodic line in a manner that is consistent with how you want the

melody to be performed.

REMINDER: DO NOT DISCUSS THE SCORE STUDY SESSIONS. DO NOT LISTEN TO THE PIECE OR PRACTICE CONDUCTING IT.

Score Study Session Number #2

Listen to a recording

Part I: Let's recall the form of the piece. How can we make decisions about the articulations and dynamics for each section in order to contrast? Let's go through each phrase to decide the important musical elements, singing the style we want and deciding appropriate gestures to communicate that style.

Part II:

1. Identify and sing of the primary countermelody line.
2. Sing and conduct the countermelody line in a manner that is consistent with how you want the melody to be performed.
3. Let's sing and conduct through the piece with these specific gestures in mind.

Part III:

1. While viewing the score, imagine the sound of the entire score from beginning to the end, while thinking of your conducting gestures you just practiced.
2. Go through the same procedure but now physically conduct through the piece as well.

REMINDER: DO NOT DISCUSS THE SCORE STUDY SESSIONS. DO NOT LISTEN TO THE PIECE OR PRACTICE CONDUCTING IT.

Control group Score Study Sessions Script

Score Study Session #1

Start: The goal of these two sessions is to help you attain a deep knowledge and understanding

of the music you are going to conduct through a variety of score study techniques. Many expert conductors attribute their musical interpretation, conducting gesture, and rehearsal efficiency to the decisions that were made during score study. During these sessions we will be listening to model recordings, marking the score, and singing.

Part I:

1. Determine the most important characteristics of the music.
2. What is the musical form and general character of the piece?
3. Mark the score in a manner you feel would be helpful to your conducting. For example, circling the meter, dynamic, and tempo indications; labeling primary and secondary melodic material; writing in instrument cues; and adding additional phrase and breath marks in individual parts. What are your reasons for marking these particular musical items and why are they important?
4. Think about the sound of the ensemble at the markings you have made and make any notes about how you would like the ensemble to sound.

Part II:

1. Play two recordings of professional ensembles performing the excerpt. Listen for differences between the performances.
2. Discuss the similarities and differences among the performances and
3. How did the recordings influence your musical decision-making

Part III:

1. Identify and sing of the primary melodic line.
2. Sing the line in a manner that is consistent with how you want the melody to be performed.

REMINDER: DO NOT DISCUSS THE SCORE STUDY SESSIONS. DO NOT LISTEN TO THE PIECE OR PRACTICE CONDUCTING IT.

Score Study Session #2

Listen to a recording.

Part I: Let's recall the form of the piece. How can we make decisions about the articulations and dynamics for each section in order to contrast? Let's go through each phrase to decide the important musical elements, singing the style we want and writing in how we would like the ensemble to sound.

Part II:

1. Identify and sing of the primary countermelody line.
2. Sing the countermelody line in a manner that is consistent with how you want the melody to be performed.
3. Let's sing through the piece (melody) with the style and accompaniment in mind. (Piano assisted)

Part III:

1. While viewing the score, imagine the sound of the entire score from beginning to the end.
2. Go through the same procedure but now talk through your musical decisions in the piece as well.

REMINDER: DO NOT DISCUSS THE SCORE STUDY SESSIONS. DO NOT LISTEN TO THE PIECE OR PRACTICE CONDUCTING IT.

Conducting Session

The performance ensemble was a university instrumental ensemble at the participants' home institution and the musicians read the movement two to three times with their conductor.

The researcher met the conductors and handed out their scores for study approximately five minutes before conducting. Those in the Score group were instructed only to think about the sound of the ensemble and refrain from gesturing while the Gesture group was allowed to move. Each participant conducted straight through the piece without stopping and was video recorded. After each participant conducted, the researcher interviewed him/her individually, asking the following questions:

For both groups:

1. Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures. (Blank scores were provided for the participants to look at.)

For the Gesture group:

2. How well did you execute the gestures you had decided on and prepared? Please rate yourself on a scale of 1 to 10.
3. How well did the ensemble play in terms of your musical decisions made during the score study sessions?

For the Score group:

2. How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions? Please rate yourself on a scale of 1 to 10.
3. How well do you think the ensemble followed your gestures?

Conducting Session Script

Researcher: You will conduct the ensemble in a complete reading of the score from beginning to

end without stopping. Do you have any questions about the procedure?

Interview questions: Do NOT exceed ten minutes.

FOR ALL:

1. Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

For the Gesture group:

2. How well did you execute the gestures you had decided on and prepared? Please rate yourself on a scale of 1 to 10.
3. How well did the ensemble play in terms of your musical decisions made during the score study sessions?

For the Score group:

2. How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions? Please rate yourself on a scale of 1 to 10.
3. How well do you think the ensemble followed your gestures?

Evaluation

Collected video data of the conducting performances was edited using iMovie software to create twenty video clips without audio, one of each participant. Audio was removed in order to avoid influence on evaluators' ratings of gesture. The twenty videos were uploaded to a private channel on youtube.com and a playlist was made of a randomized order.

Four collegiate-level conductors who also taught undergraduate conducting evaluated the videos (with no audio) of the conducting performances. Evaluators were naïve to the nature of

the experiment and were unaware that they would be comparing groups. Before viewing the study participants, the evaluators participated in a training procedure to acquaint them with the evaluation process. Evaluators were sent via email a pdf of the score for the first movement, an audio recording of the movement and the training evaluation form (*Appendix F*). The evaluators were asked to familiarize themselves with the movement by using the score and the audio recording, then to watch the two videos and rate the conductors' skill at demonstrating articulations, dynamics, cues for entrances, releases, and phrasing on a 5-point Likert-type scale. After the training evaluations were returned, the researcher had telephone conversations with each evaluator to determine reasons for outlying ratings. It was determined that the evaluators had different ideas of what a novice conductor was, ranging from beginning/middle of first conducting class to early graduate students. The evaluation form was revised (*Appendix G*) and sent to the evaluators with a link to the randomized playlist of private videos on youtube.com. The evaluators then watched the twenty videos, rating each on the conductor's skill at demonstrating articulations, dynamics, cues for entrances, releases, and phrasing on a 5-point Likert-type scale. The evaluators' ratings of the five skills were averaged for each participant, generating five mean scores for each conductor. These scores assisted in answering the primary research question:

- Will novice conductors who made decisions about intentional movements and practiced the gestures during score study demonstrate more expressive gestures in performance than those who did not?

The researcher transcribed the audio recordings of the post-conducting interviews (*Appendix H*) and coded the transcriptions in order to answer a secondary research question:

- After the conducting performance, will students recall the gestures they executed or the gestures they intended to perform? In other words, will their awareness be sensory-based or intention-based?

Chapter 5: Results

The purpose of this study was to determine the effect of preplanning and practicing gestures on novice conductors' performance. Previous research has indicated that score study alone does not improve novice conductors' gesture (Silvey, 2011). In order to test the effect of gesture planning and practice, two equivalent groups were created of undergraduate music majors who had had at least one course in conducting. The Score group ($n = 10$) only made musical decisions of articulations, dynamics and phrasing, while the Gesture group ($n = 10$) also selected and practiced appropriate gestures to reflect their musical decisions of articulations, dynamics and phrasing.

Four expert observers rated twenty conducting clips on execution of gestures of articulation, dynamics, cues, releases and phrasing using a 5-point Likert-type scale anchored by "POOR" (1) and "EXCELLENT" (5). The observers were trained prior to the viewing of the clips, were unfamiliar with the participants and unaware of the campuses from which the participants were recruited.

The five skills of articulation, dynamics, cues, releases and phrasing were treated as five separate scores. The four observer scores for each skill were averaged to result in five mean scores for each of the twenty participants. These scores were used to address the primary research question:

- Will novice conductors who made decisions about intentional movements and practiced the gestures during score study demonstrate more expressive gestures in performance than those who did not?

Tests of inter-rater reliability for the four evaluators for each skill were computed using the intra-class correlation coefficient (ICC) using a two-way random model and consistency

definition with average measures. Tests of inter-rater reliability resulted in good internal consistency for articulations ($\rho_I = .86$), dynamics ($\rho_I = .84$), and phrasing ($\rho_I = .81$). Internal consistency for cues was determined to be acceptable ($\rho_I = .76$) and for releases was questionable ($\rho_I = .68$).

MANOVA Results

A one-way multivariate analysis of variance (MANOVA) was used to examine the effect of preplanned, intentional movement on novice conductors' gesture. Score study method was the independent variable (IV) with two levels (Gesture, Score Only). Five dependent variables (DV) (gestures of articulation, dynamics, cues, releases and phrasing) measured the effect of the IV on the novice conductors' gestures for the five skills.

Using Wilks' statistic, there was not a significant effect of score study method on the five skills of gesture, $\Lambda = 0.87$, $F(5, 14) = 0.42$, $p = 0.83$.

Mean Score Differences

No significant differences were found in the ratings for demonstration of articulations, dynamics, cues, releases or phrasing between the Gesture and Score groups. Participants in the Gesture group were rated only marginally higher than participants in the Score group for all skills except for articulation (see **Table 5.1**).

Table 5.1. Mean Ratings and Standard Deviations for Conducting Performance Skills

<i>Conductor Group</i>	<i>Articulation</i>	<i>Dynamics</i>	<i>Cues</i>	<i>Releases</i>	<i>Phrasing</i>
Gesture	3.2 (SD 1.21)	3.3 (SD 1.06)	3.05 (SD 0.85)	3.10 (SD 1.01)	3.38 (SD 1.16)
Score Study	3.23 (SD 0.62)	3.23 (SD 0.69)	2.68 (SD 0.78)	3.03 (SD 0.53)	3.20 (SD 0.78)

Note. Maximum possible rating = 5, Minimum = 1

Post-Conducting Interviews

Post-conducting interviews addressed the following question:

- After the conducting performance, will students recall the gestures they executed or the gestures they intended to perform? In other words, will their awareness be sensory-based or intention-based?

In analyzing the post-conducting interviews, the following areas of interest were exposed while keeping the above question in mind: awareness of gestures, the effect of audio feedback on gestures, tempo and transition issues, and limitations of practicing. An additional question emerged for the Score participants during the interview process: were there any gestures you thought about during the score study sessions?

The participants were asked to talk through their performance, pointing out the specific gestures they used to portray the musical elements discussed in the score study sessions. The responses primarily fell into one of five categories: specific gestures, general gestures, what they were supposed to show, what they did not show, and a lack of awareness. The most specific description of gestures pertained to articulation, using words such as connected and smooth for

legato or heavy and weighted for *marcato*. The association of a horizontal gesture to portray *legato* music had evidently been made for many of the students. As one Score group participant stated: "... making a horizontal gesture to make things smoother, starting in measure 20 to 24. It has a bunch of slurs so it's really easy to see that you want to make that really smooth motion." The awareness of specific gestures was noted for all participants to some degree, with a few who provided suggestions as to what they would show if they had another opportunity to conduct.

Movement was also described in general terms, such as a character they were trying to portray. "I tried to stand up straighter or something right around 12 to be more regal and portray that to the trumpets." "Trying to look kind of happy and well positioned, proper almost because that is how the music is supposed to be." Additional comments regarding general gestures were about using the left hand but not specifying what they did with it or about general cues for instruments such as "I sort of gave them something there."

The Gesture participants tended to describe what they were supposed to show or what they discussed and practiced in the score study sessions as illustrated by this statement: "When I got to the horns I tried to be more broad. I think this where we said resistance, I believe. I don't know; this isn't my score." Words such as "tried" or "attempted" were more frequent in the Gesture group. For this group, some of their preplanned movements detracted from their conducting performance: "I was more focused on my technical maneuver than I was listening back to see if the timpani and snare drum got that." However, the same participant also noted that one preplanned gesture "brought me back in and got me ready for the end of the piece" after he had been lost.

Participants were also aware when they did not do certain gestures (Gesture group) or communicate certain musical elements through their conducting (Score group). For example,

one Gesture group participant stated: “I didn’t do the ‘stop’ pattern. I just did a broader pattern and made sure my ictus was in the same spot.” Score group participants primarily commented on neglecting gestures for dynamics such as not “doing the decrescendo” or “not doing much dynamically.”

Comments from participants in both conditions showed a lack of awareness of movement at times, typically when they were distracted by listening to the ensemble: “I don’t remember being proactive about that. I remember either ignoring it, or catching the second one or doing some other gesture that we hadn’t practiced or talked about. Just pulling something out of the air because my mind was in ‘listen to the ensemble’ mode.” Similarly, some comments seemed to indicate that a discordance in the actual audio feedback and what the participant imagined in score study led to a lack of awareness or a questioning of their movement, as evidenced in this exchange regarding a *ritardando* section:

M: There was no *ritardando* for the timpani part at measure 50 although I did show it.

EB: So measure 50, you felt like you did slow down in that measure?

M: I felt like it didn’t.

EB: Did you slow down in your gesture?

M: I attempted to. Maybe it didn’t come across as slowing down but it felt to me like I tried to slow it down. Or maybe I had given up at that point. It’s hard to tell. It’s entirely possible that I felt like it was happening but what came out was so minute, it actually didn’t translate to the ensemble.

Conversely, audio feedback was sometimes helpful as participants in both groups mentioned that they reacted to what they heard. The Gesture group participants stated that the ensemble’s playing reminded them of their intended movement: “As soon as I heard the tambourine at measure 12, I remembered that I needed to lift my plane a little bit, and I did that.” Score participants also felt that they were reacting to the ensemble’s playing: “I felt kind of reactionary but I could react kind of fast because I knew what I was listening for.” Others felt that they were negatively influenced by the audio feedback of the band as illustrated by this

quote: “It’s hard not to get dragged along with the band when they are playing heavier than I wanted. My conducting just got heavier to match it.”

Tempo was mentioned by some of the participants as being problematic, as they felt that their ensemble had a different idea of tempo than they did. The sections where participants experienced this phenomenon were: (1) at the beginning of the piece, (2) through the *poco ritardando*, and (3) the *meno mosso* section, immediately after the *poco ritardando*. The comments about tempo were consistent for participants at a few of the schools; for example all four participants at School A mentioned that the tempo was too slow either at the beginning or in the *meno mosso* section. Three participants out of four at School C also commented on a slower tempo than they intended for the *meno mosso*. For one participant at School D and one at School E, the ensemble did not slow down enough in the *poco ritardando*. These participants attributed the tempo discrepancies to forgetting gestures or not showing their musical decisions through gestures.

Navigating the transitions, particularly the two *ritardando* sections, was another problem mentioned primarily by the Score participants. “Not actually practicing some of the gestures, I think that was an issue for me. Particularly in moments of *ritardandos*, that stuff.” Another Score participant commented that he “felt fine with everything except for the parts with the *ritardandos*.” As well, four Score participants and one Gesture participant chose to subdivide in the *ritardando* sections which resulted in confusion for the ensemble. Since the audio was removed from the videos, the evaluators were unaware of the mismatch between sound and action. However, this conflict may have resulted in a lower level of performance for these participants that was possibly noted by the evaluators.

All of the participants thought that they would have conducted better if they had more time to learn the piece or to practice between score study sessions. “If this wasn’t an experiment and I did have the chance to practice, I definitely would have tried out these moves.” Most of the Score participants commented on not being able to practice the gestures, as demonstrated by this quote:

I think it was hard because we weren’t allowed to practice the conducting. I think that would have been more beneficial to me conducting in front of everyone. I know that’s not the experiment but just for me, that would have been helpful. I think it was hard for me to apply what we talked about because I couldn’t actually apply it to what I was doing but in my head I could apply it to rehearsing a band. If you had told me to rehearse the band I bet I could have done a lot of things with them.

A comment by one Score participant prompted an additional question for the remaining Score participants (seven) about any gestures they had thought about during the score study sessions. Although the participants were guided to talk about the ensemble’s sound, most were thinking about and selecting gestures to represent the articulations, dynamics and phrasing. Speaking of a gesture which showed a sagittal lean for a particular note, one participant stated: “I kind of thought about it when we were first looking at the piece. Like that motion would kind of go with that.” Another Score participant even connected her movement to a previous conducting except she had done as illustrated in the following exchange:

EB: Did you have a gesture in mind for that?

J: Yah, totally.

EB: So you had thought about it. You couldn’t really practice it because I didn’t let you practice anything but you had thought about it.

J: Like you know *Lincolnshire Posy*, the second movement, with the basses at the end? It was like that moment but it was like. Oh.

EB: So what were you going to do?

J: Like boom (gestures). Like on every second beat.

The post-conducting interviews generated detailed descriptions of what happened during the one minute and twenty seconds the participants conducted, from the viewpoint of the

conductors. The analysis of the interviews illustrated the complexity of learning the art of conducting. In addition to moving with the intention of initiating sound, participants were evaluating audio feedback based on their score study decisions, making decisions of movement according to their evaluations, and attempting to execute the gestures they had either practiced (Gesture group) or were considering for the first time (Score group). Observation of the conducting performances, analysis of the evaluators' ratings and the interview transcriptions and reflection of the individual score study sessions prompted an inquiry into the interaction of *a priori* conducting skills and the score study method to examine if preplanned, intentional movement was beneficial to participants with higher or lower *a priori* skills.

The interaction between *a priori* conducting skills and score study method was investigated through five tests of univariate analysis of variance (ANOVA). *A priori* conducting was based on the researcher's rankings of the previous conducting course videos that each participant had submitted prior to the score study sessions. Participants ranked 1 and 2 were designated as high *a priori* skill and those ranked 3 and 4 as low. Since school D had three participants and E had five participants, the middle students were determined high or low based on the category to which they best correspond. Therefore, School D participants were high, low, low and School E participants were high, high, high, low, low. It should be noted that the *a priori* skill levels may not be comparable across groups as within-group rankings were used. The descriptive statistics indicate that there were no significant differences for score study method for the high and low *a priori* participants. However, it is interesting to note that while the Gesture high *a priori* participants' mean scores were all above the mean scores of the Score group high *a priori* participants, the Gesture group low participants' mean scores were below the Score group low participants for articulations, dynamics, and releases. It seems that the score

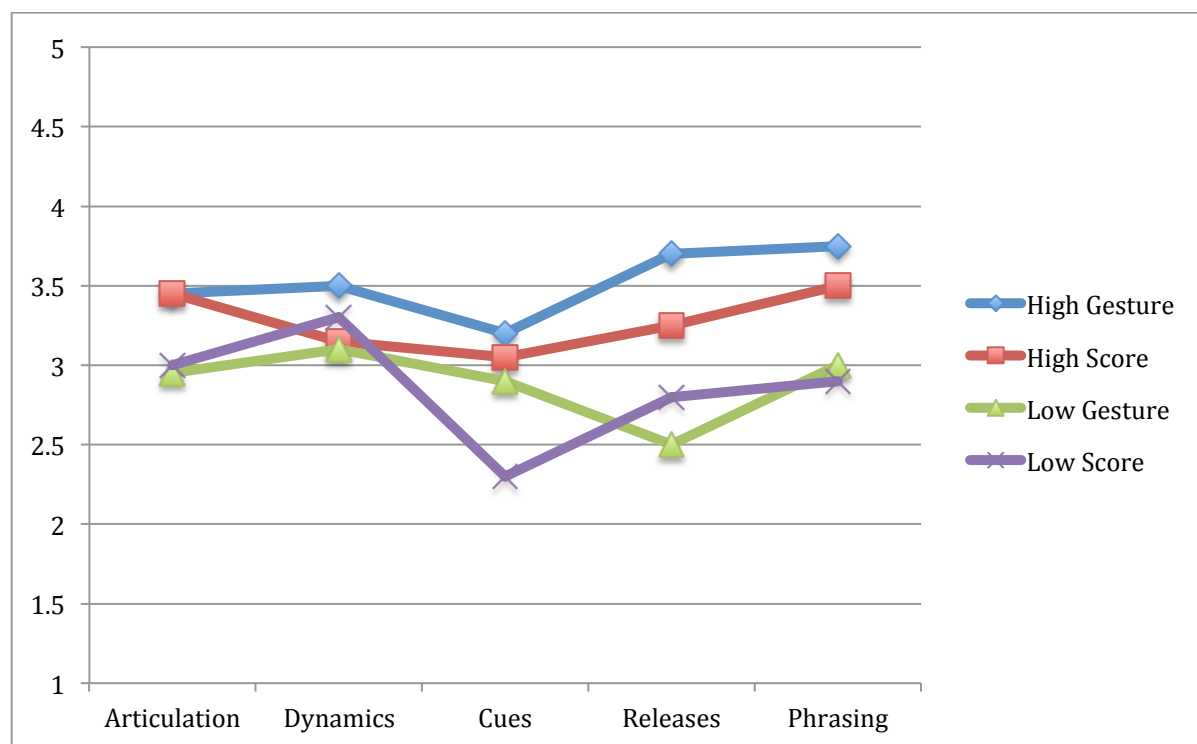
study methods employed by the Gesture group helped the lower ability students in their demonstration of cues and phrasing, which is reinforced by remarks made by Score participants in the interviews describing the difficulties of physically maneuvering through the transitions. For the skills of articulations, dynamics, and releases, a more external focus of attention (the ensemble playing rather than physical movement) may have benefited the Score participants. (see **Table 5.2 and Figure 5.1**)

Table 5.2. Mean Ratings and Standard Deviations for Conducting Performance Skills Divided by A Priori Skill

<i>A Priori Skill</i>	<i>Conductor Group</i>	<i>Articulation</i>	<i>Dynamics</i>	<i>Cues</i>	<i>Releases</i>	<i>Phrasing</i>
High	Gesture	3.45 (SD 1.32)	3.50 (SD 1.21)	3.20 (SD 0.82)	3.70 (SD 0.97)	3.75 (SD 1.27)
	Score	3.45 (SD 0.78)	3.15 (SD 0.99)	3.05 (SD 0.99)	3.25 (SD 0.47)	3.50 (SD 0.85)
Low	Gesture	2.95 (SD 1.19)	3.10 (SD 0.98)	2.90 (SD 0.95)	2.50 (SD 0.68)	3.00 (SD 1.03)
	Score	3.00 (SD 0.35)	3.30 (SD 0.27)	2.30 (SD 0.21)	2.80 (SD 0.54)	2.90 (SD 0.65)

Note. Maximum possible rating = 5, Minimum = 1

Figure 5.1 Mean Ratings for Conducting Performance Skills Divided by A Priori Skill



In summary, analysis of the evaluator ratings of the twenty novice conductors' gestures revealed no significant differences between the groups based on their method of score study. Analysis of the post-conducting interviews aided in answering the second research question of awareness of movement as well as providing possible reasons for the lack of difference between the two groups. In the following chapter, a discussion of the data and analysis of the interview transcriptions will proceed in more detail.

Chapter 6: Discussion

The purpose of this investigation was to determine if there would be a difference between the gestures of novice conductors who incorporated movement planning and practicing during score study versus those who did not. Twenty undergraduate music majors from five universities in the Pacific Northwest (United States and Canada) participated in the study. Two largely equivalent groups were created based on videos from the participants' previous conducting course. Both groups received two 45-minute researcher-led score study sessions, with the Score group ($n = 10$) focusing only on the desired sound of the ensemble in terms of articulation, dynamics and phrasing, and the Gesture group ($n = 10$) matching and practicing conducting gestures to communicate the desired ensemble sound. All participants conducted a live ensemble at their institution and participated in a post-conducting interview with the researcher. Conducting performances were video recorded and interviews were audio recorded and transcribed. The videos of conducting performances were edited to eliminate audio then uploaded to a private channel on youtube.com in a random order. Four expert evaluators rated the participants on their skill at demonstrating gestures of articulation, dynamics, cues, releases and phrasing, using a 5-point Likert-type scale. The analysis of the ratings assisted in answering the research question posited in this study:

Will novice conductors who made decisions about intentional movements and practiced the gestures during score study demonstrate more expressive gestures in performance than those who did not?

The results revealed that there was not a significant effect for group assignment. The method in which the participants studied the score did not significantly affect their demonstration of gestures of articulations, dynamics, cues, releases and phrasing. The mean scores of the two

groups were very similar for all skills. Analysis of the interview transcriptions revealed that comments recalling specific gestures of articulation were prevalent for both groups. As well, Score participants had remarked on the association of horizontal motion for *legato* articulation and vertical for detached articulation, as demonstrated by the following statement:

When I got to the slurred part in measure 20 going into 21, I tried to be a bit more horizontal with my movement to get that connectedness and the slurred quality that was in there and once the horns come back in with their part, trying to go back into the slightly more separated style. That was the main thing that I was trying to get across with my conducting was trying to use different planes and different vertical versus horizontal movement just to try and emphasize those different articulation qualities and the different reiterations of the themes.

Although we had not discussed what gestures would match the sound that the Score participants wanted, the associations they had formed in their previous conducting courses and experiences were apparent.

The largest difference in mean scores was for the gestures of cues with Gesture participants scoring an average of 3.05 and Score participants an average of 2.68. Due to the form and orchestration of the piece, the most obvious opportunities for cues were at the beginning of the movement and at the transition before the recapitulation. The lower ratings for the Score participants confirm the comments from the interviews regarding issues with maneuvering through the transitions. Participants in both groups mentioned during the interviews that they wished they had cued better. Some knew whom to cue but were unsure of the seating of the ensemble. This may demonstrate a procedural error of the score study process that future research should take into consideration.

The two score study groups differed in the variability of the evaluation scores. Standard deviations for the Gesture group were 1.21, 1.06, 0.85, 1.02 and 1.16 for articulations, dynamics, cues, releases and phrasing which are considerably higher than the Score group standard

deviations of 0.62, 0.69, 0.78, 0.53 and 0.78. Standard deviations for the Gesture group for articulations and releases were nearly double, suggesting that more variability lies within this group of conductors. The variability for releases could possibly be attributed to the questionable inter-rater reliability ($\rho_r = .68$) for this particular skill. Releases may have been more difficult to evaluate because of the absence of audio from the videos. Descriptive statistics were used to further examine the variability within groups using *a priori* skill as a variable. As *a priori* skill was determined using the rankings at each school, where a ranking of 1 at one institution may not represent the same ability as a ranking of 1 at another institution, the high and low *a priori* groups are estimates of prior ability to provide a broader view of the data.

The high *a priori* students did not differ in their mean scores for articulations (3.45, 3.45), which reinforces the analysis of the interview transcriptions where it was noted that Score participants had made connections of gesture for articulations; horizontal motions for *legato* and vertical for more *marcato* or *staccato* sections. The low *a priori* group was also very similar between experimental conditions for articulations but the Score group was slightly higher. Surprisingly, while the mean scores for the Gesture participants in the high group were above the Score participants' means, the opposite was true for the low group for articulations, dynamics, and releases. It seems that the score study methods employed by the Gesture group helped the lower ability students in their demonstration of cues only, which reinforces previous remarks made regarding the Score group's comments on the difficulties of physically maneuvering through the transitions. For the skills of articulations, dynamics, releases and phrasing, a more external focus of attention (the ensemble playing rather than physical movement) may have benefited the Score participants. This would be in agreement with the results of previous studies on focus of attention and musical skills (Duke, Cash, & Allen, 2011).

In contrast to the results of the current study, a preliminary investigation of the topic of intentional movement and novice conductors' gesture had revealed a significant difference ($p < .05$) for articulation, cues, releases, and phasing with the intentional movement participants rating higher than the score study only participants. No significant difference was found for dynamics. The Score (control) participants in the preliminary investigation were told during the score study sessions to not think about conducting gestures and comments were made during the interviews of the unfairness of not being able to practice the gestures. It is possible that the preliminary Score participants did not perform very well because they felt they were at a disadvantage, while the Score participants in the current study found ways to mentally prepare for the conducting performance.

During the score study sessions of the current study, Score group participants were directed to think about the ensemble sound or the character of the articulation they would hear. I refrained from telling the participants that they could not think about movement as I did not want to draw their attention to the fact that they were not moving. Instead I tried to redirect their comments if they began to mention conducting gestures; eight of which did. One participant even wrote "meld" in her score during a session, indicating that she would join two beats in her conducting gesture. As well, participants motioned along with the recordings or with their singing, sometimes in a pattern, other times showing the general shape or direction of a phrase. I did not comment on the movement but would try to distract them from continuing to move. Only during the five study minutes before the conducting session did I ask students to only think through the piece without physically moving. At various times throughout the score study sessions and the final five minutes of study, some participants showed concern over not having "practiced" conducting. All study participants were unaware of the two conditions, except for

one Score participant who had seen a Gesture participant conducting before her last score study session. I attempted to mask the conditions by assuring the participant that she did not need to practice because she had developed clear musical intentions of the piece.

During the post-conducting interviews, there were indications that the Score group participants had been thinking about the gestures they might use to portray the musical decisions they were making. One participant's comment about a specific, sagittal motion she used to portray a lean on a note prompted the inclusion of the following question for her and the remaining seven Score participants: were there any gestures you thought about during the score study sessions? The association of certain gestures to musical characteristics, such as a sagittal motion to indicate *tenuto*, or horizontal motion for *legato*, coupled with the desire to do their best, had the Score participants preplanning their movements as well - just inside their heads. Evidence of this was even detected from the comments of the two Score participants who were not asked the specific question about their thinking:

EB: You think it was in your head pretty good what you wanted to hear?

G: I think so. The piece isn't too complex. Like it's the same section and the same section. I think right before we did this, I played it in my head a lot, *just what I was going to do*. I think that really helped because I could hear all the parts in my head.

Motor cognition research suggests that we are aware of our intentions in a goal-directed movement. Expert conductors have clear musical intentions that contribute to the intentions of movement. For the novice conductors, refining their musical intentions in score study may have also contributed to their intentions of movement. This would suggest that the main difference between the two score study methods was the actual practicing of gesture, as the majority of both groups had developed musical ideas and had intentions of how they would communicate those ideas. Which begs the question: what type of practicing is beneficial for novice conductors? The results from this study would suggest that physically practicing the gestures does not

significantly improve the conducting performance. Rather, score study that develops clear musical intentions may be the most beneficial for novice conductors.

A replication of this study could try to control for the movement and thoughts of movement. First of all, the Score participants could be told that they were to study the piece in order to evaluate a performance on expressivity. In this way they would be focused on the sound without thinking of conducting gesture because they would be unaware that they would eventually conduct the piece. To try to eliminate any physical movement during score study sessions, participants could be asked to bring their main instrument to the score study sessions and play the musical phrases rather than singing, which would preoccupy their hands.

After the conducting performance, will students recall the gestures they executed or the gestures they intended to perform? In other words, will their awareness be sensory-based or intention-based?

The transcriptions of the post-conducting interviews suggest that awareness of movement for both groups was both intention-based and sensory-based. Participant comments regarding specific and general gestures and musical intentions indicate intention-based awareness, whereas comments of audio and visual feedback and the physical feeling of movement indicate sensory-based awareness.

Motor cognition research suggests that we are aware of our intentions of movement and only when the sensory feedback is at a large enough discord with the predicted feedback of the efferent copy of our actions does our consciousness come into play (Desmurget, & Sirigu, 2009; Imazimu, 2010; Jeannerod, 2006). Participants' answers to the question of what gestures they used to portray the music reflect their awareness of intentions rather than the physical gesture: "At measure 17 I looked at the horns and my pattern was probably the same but I tried to make it

a different pattern than the previous section. At measure 20 I tried to make it more flowing because of the style there in the upper woodwinds.” There are numerous statements of “trying” or “wanting” to do a particular gesture such as: “The beginning was staccato so I really wanted to have that bit of a flick but not as dramatic as towards the end.” When comments were specifically about a movement they were typically paired with the intention behind the movement: “I do remember in measure 8 bringing in the left hand to let them know there was a decrescendo there.” Comments of general gestures such as being more regal or more lyrical also demonstrate the intention of the movement rather than the actual movement itself. Since the gestures are based on musical intentions and, as noted earlier, the musical intentions often had a gesture associated with it even for the Score participants, it is difficult to say if the awareness was of movement or of the musical intentions.

Evidence of sensory feedback is found in comments of what it felt like they were doing or not doing, as in this example:

I wasn't as expressive with my baton hand as I could have been. I felt like it mostly stayed the same height. My pattern was pretty much the same height. You might be able to tell the difference from legato and a more marked tempo but the accented and tenuto sections, I didn't feel like there was as much of a difference in my conducting.

It is difficult to say if the participant physically felt no difference in plane height and articulation or if it was more of an internal feeling she was having. Movement awareness is difficult especially when there is no visual feedback as one participant mentioned: “I sort of meant to show the syncopation but I'm not sure it happened. Just like more, sort of like accenting the second beat of the pattern to bring in the low brass on beat 4. It felt like what I was doing but I'm not sure what it looked like.” However, some participants received a different type of visual feedback from the ensemble: “And they were all looking at me the most they had ever looked at me so you could tell something was wrong.” “I was a little slow in my subdivisions and then the

band didn't know what to do in 51, they were giving me confused looks. I knew I did that one wrong.”

Audio feedback let the participants know when they were on track with their gestures. As one participant stated: “I know I did the *ritardando* because they did the *ritardando*.” For others, the audio feedback was an indicator of what they were not doing, triggering them to note the discordance between their intended movement and the actual movement. Often this occurred at changes of articulation or dynamics: “Sometimes I would hear it and then I would be like, ‘Oh I’m not doing that correctly. I need to switch my pattern now.’” It could be worthwhile to investigate at what point the audio feedback causes a large enough discordance between how the conductor feels the movement and what they are hearing, through a design similar to the research of Fournieret and Jeannerod (1998) and Slawchesky et al. (2001).

In a study of motor cognition, Fournieret and Jeannerod (1998) designed an experiment which created a mismatch between what the subjects actually did and what they saw themselves doing (visual feedback). Participants were instructed to draw a straight line between a starting point and a target, but their hand was hidden by a mirror showing a computer screen of the resultant line and the target. On some trials, the line shown on the computer screen was made to deviate from what the subject was actually drawing by up to 10 degrees, forcing the subject to deviate their movement in the opposite direction of the line seen on the screen in order to reach the target. After each trial, the subjects were asked to say which direction their hand moved. The results showed that the subjects were able to draw the line to the target but their verbal indication of the way moved was towards the target, therefore ignoring their actual movements and relying on the visual feedback. In a replication of the study, Slawchesky et al. (2001) increased the deviation of the line up to 40 degrees. At an average of 14 degrees, the subjects

were aware of the deviation between their movement and the visual representation on the computer screen, demonstrating that our consciousness enters when the magnitude of the discordance between an action and the sensory feedback exceeds a certain point. A study could be designed to investigate if conductors' gesture would be affected by audio feedback without awareness and the point at which the discordance between audio feedback (ensemble sound) and action (conducting) would cause an awareness of the variance. In the case of the current study, it may be that the audio feedback served as a reminder to the conductor rather than an actual discordance.

Participants' comments pointed to moments when they lacked awareness of their movements. These moments tended to be when the participants were distracted by what they were hearing in the ensemble and trying match it to the aural image they had in their heads. Treviño (2008) observed in his study of the effects of the use of an aural model that it may be unreasonable to rate a conductor who is confronted with the audio of their internal aural image for the first time against someone who has had the opportunity to hear the piece. Participants in Treviño's study performed best when conducting with the recorded model they had studied with; the sound that fit exactly with their aural image. Even though the participants in the current study had all studied with recorded models, the sound of the ensemble was still a surprise to them. Many of the participants mentioned that the ensemble sound was not what they were expecting, even the very first measure:

I think the thing that caught me off guard, you know when we listened to the recordings during the score study sessions and looking at it, I knew that only the trumpets started out but for whatever reason the moment I got there and I went to cue it and it was just the trumpets, it sounded so wrong!

Even with the use of model recordings, novice conductors need to be taught or coached through reacting to a sound that is incongruent with their aural image. For this study, it may have been

beneficial to video record the participants on a second time through the piece or to have all of the participants listen to the ensemble once before conducting.

However, while most participants were “taken aback” or “freaked out” from the differences they heard in the ensemble’s playing and the aural image in their head, one Gesture participant seemed to take a different approach as revealed in the following answer when asked if the ensemble followed her gestures:

I think towards the end it was more in line. Definitely at the beginning I felt, and also I think for me too, I started and there were a couple things like the forte and the piano at the beginning that didn’t happen. So I tried to be a little bit more conscious of certain gestures like crescendos and certain feelings and I think they responded decently well for a first run through.

This participant was rated above the mean for all five skills, scoring the highest for articulation. She was not the oldest nor most experienced nor was she the highest ranked conductor at her school. Future research could examine sources of distraction during performance and how novice conductors may learn to cope with these challenges.

Score Study Sessions

Although the amount of time for score study sessions was consistent between the two conditions, the added time needed for the Gesture group to match a gesture for articulations, dynamics and phrasing and to practice their chosen gestures may have detracted from the amount of time learning the piece. Reflecting on the score study sessions and reviewing notes made after each sessions, I noted that the Score participants had ample time to sing through sections and to contemplate the decisions they were making while the Gesture participants often seemed rushed to complete the activities in the time allotted. This perhaps allowed the Score participants to develop clearer musical goals, which would contribute to a better performance of the piece (Silvey, 2011; Treviño, 2008).

Differences between participants were also noticed during the score study sessions, particularly in regards to the conductor's ability to sing through the melody. Some were able to hear the melody and remember it, while others took longer to grasp it or had difficulties throughout the two sessions. For Gesture participants this proved to be somewhat problematic, as it would interrupt their practicing of gestures or seem to divide their attention between singing and moving. Highben and Palmer (2004) noted that musicians who were able to audiate music were better at mental practice. Perhaps the ability to hear the music in their heads helped participants in the mental imaging portion of the score study procedure which was included as a way to focus the participants on the larger picture of the piece.

Although a script was followed for the score study sessions, the diversity of conducting ability in the Gesture group (noticeable because they were practicing the gestures) caused the score study sessions to be somewhat tailored to fit the needs of the participants. For example, some participants had basic skills that needed to be coached such as posture and positioning, or left hand independence. Again, the attention to these basic skills reduced the time to learn the piece and distracted the participant's concentration from the gestures. To some degree, the Score group sessions were modified as well depending on the strengths and weaknesses of the participants (singing, developing musical ideas). Some participants used descriptive words and characters for the melodic ideas, others focused more on the technical aspects of the music, and participants from one institution represented a specifically pedagogical approach to score study because they anticipated possible problems and solutions. While some were very vocal in sharing their ideas, others sat in quiet contemplation and had to be asked what they were thinking about.

Participants were asked during the score study sessions to mark their scores in any manner they wanted using the highlighters, colored pencils and post-it notes provided by the researcher. The time used for this task varied among participants, primarily by school. Some students had a very detailed way of marking their scores while others asked for assistance. While some had to be asked to move quicker through their markings, others had to be prodded and reminded to write the gestures or the musical ideas in their scores.

It is possible that the score study sessions may have differed only in the practicing of gestures as many of the Score participants were thinking about their movement in conjunction with their decisions about musical intent. Physical practice was included in the score study sessions for the Gesture group as deliberate practice. Deliberate practice is described as effortful activities that improve performance, with the sole motivation for the activity being the improvement of performance, and include informative feedback (Ericsson, Krampe, & Tesch-Romer, 1993). During the score study sessions, feedback was provided for the Gesture group by the researcher. Perhaps the amount of deliberate practice needed to improve the gestures is more than we had time for. It has already been noted that the physical practicing for the Gesture group seemed to take away from internalizing the actual music. Also, the researcher feedback may have not been as beneficial as video self-assessment could be, as indicated in the literature on conducting pedagogy (Madsen, & Yarbrough, 1985; Price, 1985).

Since all score study sessions were guided by the researcher, it is unknown how the participants would have performed if they had prepared on their own. Previous research indicates that most undergraduate students would not study a score for a large ensemble in the manner of the current study (Lane, 2006). It may have been worthwhile to include a third group of participants who score studied independently to compare with the Gesture and Score group.

Conducting Sessions and Interviews

The performance ensembles had all played through the piece at least twice before the conducting sessions with a very limited amount of rehearsing. The musicians were not given any specific instructions, such as make sure to follow the conductor or make sure to play all the correct dynamics and articulations even if the conductor is not demonstrating it, with the intention of keeping the ensemble neutral. The run-throughs were led by the conductor of the ensemble which may have affected each ensemble's interpretation of the piece. For example, one ensemble was stuck in the slower tempo at which their conductor had read the piece and would not keep up with the participants. However, one participant, who was the highest ranked for this institution and who received the highest ratings for the Score participants, was able to exert his opinion of tempo on the ensemble demonstrating that a lack of insistence on the part of the other participants may have contributed to the ensemble not maintaining a quicker tempo.

All participants were given their scores approximately five minutes before conducting the ensemble, allowing for a review of their musical decisions. Participants were either introduced by the conductor of the ensemble or by themselves before starting the piece. After the one minute and twenty seconds performance, participants were taken for an individual interview with the researcher. Because of rehearsal time constraints, participants at two institutions performed in back-to-back pairs and then had individual interviews resulting in the interviews for four participants being delayed up to ten minutes after their conducting. The time lapse may have caused these participants to have less awareness of their movement. The results from a study by Sarrazin, Cleeremans, & Haggard (2008) imply that during an activity and for a very short time after, a person is aware of his intentions, or "what should have happened." As time lapses after the activity, sensory feedback (visuomotor, proprioceptors, even audio feedback) shows

increased contribution to the awareness of action and that even sensory feedback is time-sensitive. A comparison of the interview transcriptions of the pairs of participants showed that for one institution it was actually the participants that were interviewed first who commented on not being able to remember what they did. Perhaps the second participants were mentally reviewing their performance while waiting for their interview. For the other school, there was no indication of a difference in remembering gestures, although one of the delayed interview participants did mention that she didn't really remember the sound for a particular section.

The conducting performances and the interviews illuminated an important issue of limits of ability and self-efficacy for novice conductors. A few of the participants commented on their lack of conducting ability interfering with the demonstration of the musical decisions they made, such as this Score participant:

Personally something that I'm still working on with my conducting technique is getting my left hand to be more independent from my right hand. I feel like I do a lot of mirroring in my left hand and that is something I'm working on, trying to get that more independent so I can do a little bit more phrase shaping with that. I feel like if I were to do this like maybe a year down the line when I've had worked on that a bit more I'd be able to do better at that, but right now I feel like that specifically was just kind of held back by my limitations in my conducting abilities.

Another Score participant mentioned that turning the pages caused her to be unprepared for the next entrances. One of the Gesture participants made the following comment regarding his conducting skills:

I feel like I'm still early enough in my conducting skills that I don't necessarily have all the skills to do what's in my head and the skills I do have aren't up to the standard I have. Even just kind of knowing the difference between a gesture like this (demonstrates a gesture) or a gesture like this. They are really similar but which one more appropriately fits the context. I don't feel like I had the tools necessary to fit each gesture of the piece but I'm getting there at least.

These three participants were all the lowest ranked at their schools confirming the limitations of their ability or perhaps their low self-efficacy. Other low ranked participants mentioned a lack of

confidence or commitment to the gestures affecting their ability to influence the ensemble, as demonstrated in the following exchange:

EB: How well did the ensemble follow your gestures?

H: I didn't think they followed them very well but I also don't think that what I was conveying may have been enough. Because they had seen the piece once and had gotten it in their ear of what the tempo was before. So when I wanted to speed up the tempo or I wanted to make that *crescendo*, I think the gestures were there but because I didn't have enough of a presence maybe, you know because if you're nervous and I'm still a student, I think that has a lot to do with if they would have responded to me more or not. If I was to put more presence or maybe even more confidence into my motions that might help for them to want to look up from their music and see what I'm doing.

EB: What do you think would have helped with that, just more practice with it?

H: Me being very sure of myself, I'm sure they sensed my nervousness. I think honestly, if I even got up in their faces more, I'm thinking about the tempo. Like if I needed to change something – okay we started slow but how can I get this to speed up, really engaging the face and the eyes and getting my baton in their face. Lots more confidence and more, I'd like to say attitude, I guess. Trying to get what I want out of them. Because it's such a big group, it's you against the entire ensemble, it's a big thing. You got to be able to control that.

Although these participants may have had the correct intentions, they could have been at a disadvantage because of their lack of confidence in communicating their musical intent. Future research could focus on specific methods of coaching novice conductors on how to confidently communicate their gestures to the ensemble.

The selection of the correct gestures was mentioned by only one participant yet others recalled gestures that were incorrect or not the most useful when trying to effect change in the ensemble. For example, one participant stated that he subdivided more than he wanted to in order to establish the tempo when in reality the subdivision probably caused the ensemble to play slower. Another participant tried to use a rounded gesture to increase the tempo. The participants had good intentions but the gesture chosen did not convey the message to the ensemble: "I was trying to be really big coming to beat two, showing a larger gesture, like a turn, not turning my wrist over all the way but making the pattern more sort of swoopy, if you will, to

show that I wanted more air flowing.” The guided score study sessions were an effort to help the Gesture participants in selecting the clearest gestures. The interview transcriptions reflect a need for conducting instructors to provide scaffolding for students to explore and discriminate gestures.

A focus on gestures and physical movement is an example of an internal focus of attention whereas the participants who directed their attention to the sound of the ensemble demonstrated an external focus. Previous research on focus of attention suggests that an external focus can improve experts’ golfers putting performance (Beilock, Carr, MacMahon, & Starkes, 2002) and evenness of timing for novice pianists (Duke, Cash, & Allen, 2011). The challenge for conductors is that their physical movement does not directly create a sound or a result like the movement of a pianist or a golfer. The audio feedback from the ensemble is the result of their movement and requires conductors to transmit their musical ideas through their movement. In other words, gestures do not create sound, they communicate an idea of sound. Therefore preplanning of movement may have caused the Gesture participants to be too focused on the actual movement rather than the communicative aspect of the movement. In order for students to guide the ensemble in a meaningful manner, they need to develop a musical intent, choose the correct gesture to reflect the musical intent, and then effectively communicate the gesture to the ensemble. A balance of both internal focus (physical gesture) and external focus (communication and audio feedback) may be required for novice conductors to improve their communicative gestures.

Participants commented on the brevity of the piece they conducted and how quickly the performance progressed: “It moves so quickly on the first read you can’t really dwell on how much you influenced it, you just gotta [sic] keep going to the next one so you don’t screw up.”

Research on novice and expert golfers has demonstrated that novices performed better with no time constraints (Beilock, Carr, MacMahon, & Starkes, 2002). Perhaps the quick tempo of the movement and the short phrases (typically four to eight measures in cut-time) were overwhelming for the novice conductors, particularly the lower ranked participants. A replication study could use a slower tempo piece or a piece with longer phrases to allow participants more time between changes of articulation, dynamics or instrumentation.

Beilock, et al. (2002) also noted that novice golfers performed better under the single-task condition. The multi-dimensional nature of conducting creates inherent difficulties for novice conductors, as they are required to divide their attention to a multitude of tasks:

For the first time you are hearing all of it... where the sound in your head and what's actually happening meet. For me, some of it I stop thinking about what I'm doing gesture-wise and I'm just listening and being surprised. And going in my head, "Does that fit it? No? Why?" All these things, down the list of what I want to touch on, fix.

Madsen and Yarbrough (1985) used a competency-based approach to devise a method of teaching conducting skills that trained students to appropriately model various beat patterns, tempos, dynamics, styles, preparations, releases, cues and to maintain eye contact using operational definitions, a conducting laboratory, self-observation by videotapes, and a minimum of teacher feedback. This method focuses on specific skills rather than a more holistic approach to conductor education. Perhaps the participants in the current study were still too new to the "art" of conducting and required more of the step-by-step and single-task assignments as suggested by the research of Beilock, et al. (2002) and Madsen and Yarbrough (1985). Future research could examine the effects of intentional movement with graduate conducting students.

Conclusions

This study sought to explore novice conductors' awareness of their own movement by introducing intentional preplanned movement, based on an understanding of the scientific model of motor cognition. The purpose of this study was to test the null hypothesis that there would be no difference in conducting performance ratings between novice conductors who participated in guided score study and those who participated in guided score study with gesture planning and practicing. It was my intention to address the seeming insufficiency of guided score study alone as a means of improving expressive gesture by asking students to make specific decisions related to intentional movements reflecting the phrases, styles and other expressive elements suggested by an ensemble score. The research questions this study addressed were:

1. Will novice conductors who made decisions about intentional movements and practiced the gestures during score study demonstrate more expressive gestures in performance than those who did not?
2. After the conducting performance, will students recall the gestures they executed or the gestures they intended to perform? In other words, will their awareness be sensory-based or intention-based?

The results of this experiment failed to reject the null hypothesis. The mean scores for the Gesture group and the Score group for ratings of demonstration of articulations, dynamics, cues, releases and phrasing were not significantly different. Post-conducting interviews showed that the majority of the Score participants were matching gestures, particularly for articulations, to the musical decisions made during the score study sessions. Future research could try to isolate movement to the experimental group; however, the current study suggests that novice conductors will think about the gestures required to express their musical intent, even when not guided to do so.

The analysis of the interview transcriptions illuminated the thought processes of novice conductors while they conducted a piece for the first time. While this study sought to investigate the effect of intentional movement on novice conductors' gestures and awareness of movement, other areas of possible research emerged from the interviews, such as the effect of audio feedback on participants' gestures and awareness of movement and the conflict between the aural model they created and the live ensemble sound. Similar studies could include more conducting sessions as a repeated measures experiment to investigate how participants contend with the audio feedback during score study between conducting sessions and if they can more effectively communicate their musical intentions in subsequent sessions. Video assessment could also be included in the score study sessions to aid awareness of movement.

One of the roles of the conductor is to express the music through the gestures he or she uses. Conductors also rehearse ensembles and most novice conductors are music education majors who are developing their rehearsal technique alongside their conducting skills. Future research could include a rehearsal portion in the conducting performance session to investigate how preplanned, intentional movement would affect rehearsal technique. If novice conductors are more intentional in their planning of movement, perhaps they will rehearse more through the gestures and less verbally. Conducting instruction that coaches novice conductors on how to respond to audio feedback could benefit both the students' rehearsal skills and their conducting skills, as the ensemble sound demonstrates whether or not their gestures have been clear in expressing their intent. Young conductors need to learn to follow up on verbal instruction with physical movement that supports the same musical ideas. Thinking through their gestures prior to the rehearsal may facilitate this.

Opposition to planning gestures may be based on the belief that the conducting will become choreographed or robotic and not adjust to the audio feedback of the ensemble. As shown through the post-conducting interviews, the audio feedback reminded both Gesture and Score participants of what they were supposed to be doing and they would change their pattern to match the articulations or dynamics they were hearing. Score participants were sometimes negatively affected by the sound of ensemble, with their gestures reflecting the sound they heard rather than the sound they wanted to hear. Perhaps this occurred because they did not have the opportunity to practice the gestures. However, preplanning movement may cause for unnatural or contrived gestures, as one of the Gesture participants had felt in the study. It was not so much the gesture, as one of the Score participants executed a very similar gesture in the same section, but the feeling of it being manufactured or forced that caused the gesture to be unsuccessful. Another Gesture participant had mentioned that there were portions of her performance where a gesture came naturally, one that she had not practiced but was just “in the moment.” The results from the current study seem to suggest that score study alone, without preplanning of gestures, could foster this natural gesture. Perhaps it depends on the level of student or more specifically the comfort of the student with his or her own body movements. Future research could investigate how body awareness or comfort affects novice conductors’ ability to naturally demonstrate their musical intent.

The lower level novice conductors in the current study indicated that a lack of confidence might have caused their gestures to be less meaningful to the ensemble. Conducting instructors need to address not just the development of technical skills and gesture but also the communicative aspect of conducting. Many participants commented that the ensemble didn’t follow well, particularly in regards to tempo but perhaps they were not convincing enough with

their gestures. Conducting pedagogy needs to integrate the development of confidence and communication in conjunction with technical and expressive skills.

Since many novice conductors are music teachers in training, the processes and habits formed in conducting courses are vital to their success. The position of music teacher requires many hats, only one of which is artistic conductor, therefore time for score study can be limited because of the many other responsibilities they have. Instilling in conducting students the importance of score study for clear musical intentions and encouraging them to find the method that works for them is critical to their success as artistic music educators.

Intention of musical ideas and movement for novice conductors is essential to learning how to communicate through gesture. As motor cognition research indicates, goal-directed action is based on the intentions and predicted feedback of the movement. Conducting pedagogy should focus on the development of score study techniques that develop musical intent, a vocabulary of gestures that correspond to the musical intent and a manner of making these gestures communicative.

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Appendix A: Institutional Review Board Approval

Human Subjects Division
JUL 24 2012
UW

UNIVERSITY OF WASHINGTON
Human Subjects Division
Box 359470
HUMAN SUBJECTS REVIEW COMMITTEE APPLICATION

BOX FOR COMMITTEE USE ONLY

MASTER COMM. INVESTIGATOR

APPLICATION NO. 43403 EC

Check this box if your project falls into one or more of the minimal risk ("expedited") categories of research (see web site for listing of categories) and send us only two copies of all your materials.

I. PRINCIPAL INVESTIGATOR (Provide all the information requested. Correspondence will be directed to this person. You may designate a contact person other than yourself in section II., below.)

Name Erin Bodnar Title Ms.

Home Institution (source of paycheck) University of Washington

Home UW Department (if applicable) Music Division Instrumental Conducting

UW Position or appointment (choose the most appropriate one):

Faculty: Regular Faculty Appointment Research Faculty Appointment Clinical Faculty Appointment
 Visiting Faculty Appointment Dual Appointment with PNNL
 Other (describe): _____

Student: Matriculated Undergraduate Graduate or Professional Student (matriculated or approved "On Leave") WWAMI Student

Resident or Fellow at the UW or Local VA UW Administration or Staff None

Mail box or address 1433 NW 64 St, Apt 403, Seattle, WA 98107

Telephone 206-316-0378 Fax 206-685-9499 e-mail bodnar@uw.edu

II. CONTACT PERSON (Provide all the information requested.)

Name Erin Bodnar Title Ms. Position Graduate Student

Mail box or address 1433 NW 64 Street, Apt 403, Seattle, WA 98107

Telephone 206-316-0378 Fax 206-685-9499 e-mail bodnar@uw.edu

III. TITLE OF PROJECT: The Effect of Intentional Movement on Novice Conductors' Gesture

IV. SIGNATURES: The undersigned acknowledge that: 1. this application is an accurate and complete description of the proposed research; 2. the research will be conducted in compliance with the recommendations of and only after approval has been received from the Human Subjects Review Committee (HSRC). The lead researcher is responsible for all aspects of this research, including: reporting any serious adverse events or problems to the HSRC, requesting prior HSRC approval for modifications, and requesting continuing review and approval.

A. Investigator: Erin Bodnar [Signature] 7/24/12
TYPED NAME PLUS SIGNATURE DATE

B. Faculty sponsor (for student): Dr. Steven Morrison [Signature] 7 July 12
TYPED NAME PLUS SIGNATURE DATE

C. The Chair, Dean, or Director acknowledges the researcher is qualified to do the research, sufficient resources will be available, and (if no external funding review occurred) there was an internal review of scientific merit.
Dr. Richard Karpen [Signature] 7/18/12
TYPED NAME PLUS SIGNATURE DATE

LAURIE E. EERGER AUG 14 2012 APPROVE DISAPPROVE

HUMAN SUBJECTS REVIEW COMMITTEE SIGNATURE _____ DATE _____

Subject to the following conditions: _____

Period of approval is one year, from AUG 14 2012 through AUG 13 2013

o Subject numbers are approved as described in this Human Subjects Review Application unless otherwise indicated above in "Subject to the following conditions" or in an accompanying letter.

VALID ONLY AS LONG AS APPROVED PROCEDURES ARE FOLLOWED

Human Subjects Review Committee Application Form UW 13-11 (Rev. 5/25/2012)

Appendix B: Letter of Agreement from Cooperating Institutions

Letter of Agreement

November 19, 2012

To the University of Washington Institutional Review Board (IRB):

I am familiar with Erin Bodnar's research project entitled The Effect of Intentional Movement on Novice Conductors' Gesture. I understand {name of institution}'s involvement to be providing five students to participate in two score study sessions with the researcher, and to provide an ensemble for the five students to conduct.

I understand that this research will be carried out following sound ethical principles and that participant involvement in this research study is strictly voluntary and provides confidentiality of research data, as described in the protocol.

Therefore, as a representative of {name of institution}, I agree that Erin Bodnar's research project may be conducted at our agency/institution.

Sincerely,

Appendix C: Consent Form

UNIVERSITY OF WASHINGTON CONSENT FORM Instrumental score study and conducting performance study

Researchers:

<u>Researchers</u>	<u>Position</u>	<u>Department</u>	<u>Phone</u>
Steven J. Morrison, Ph.D.	Professor	Music	206-543-8986
Erin Bodnar	Graduate Student	Music	206-316-0378

Researchers' statement

We are asking you to be in a research study. The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask questions about the purpose of the research, what we would ask you to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When we have answered all your questions, you can decide if you want to be in the study or not. This process is called "informed consent." We will give you a copy of this form for your records.

PURPOSE OF THE STUDY

We are trying to better understand the effects of score study for novice conductors. To do this, we are guiding novice conductors, one-on-one, through different methods of score study to determine which method is most effective. Participants will spend two 45-minute score study sessions with the researcher, followed by a conducting performance with an instrumental ensemble. The conducting performance will be videotaped and then analyzed in order to determine which methods of score study are more effective.

STUDY PROCEDURES

If you agree to participate, you will be asked to fill out a brief questionnaire about your musical background. You will then be videotaped conducting a large instrumental ensemble on a piece of music. The videotape will be analyzed by the researcher. This will take approximately 10 minutes.

You will be placed in one of two conditions which will be two different approaches to score study. All participants will meet with the researcher on two occasions, each for 45 minutes, to be guided through score study of a piece. During these score study sessions, you will listen to recorded models of the piece, be asked questions about the piece, be asked to write your ideas in the score, and be asked to sing the musical lines.

After two score study sessions, you will conduct a large instrumental ensemble on the piece you score studied. You will be videotaped and the recording will be analyzed by an expert conductor. Immediately following the performance, you will be interviewed about your performance. You will be asked to describe the conducting gestures that were successful and

those that were not. You may refuse to answer any question during the interview. The interview will be videotaped and analyzed by the researcher. The performance and interview will take approximately 15 minutes.

If you agree to participate, the total amount of time will be approximately 2 hours over a one-week period.

RISKS, STRESS, OR DISCOMFORT

Some people may feel nervous or uncomfortable when they are conducting large ensembles. You can choose not to participate in the study or you can stop the procedure at any time. Some people feel that taking part in research is an invasion of privacy. Others may find that being videotaped is an invasion of privacy. The recordings will be destroyed after the study is complete and published. The recordings and the results of the conducting performance analysis, along with all personal information gathered, will be kept confidential. We do not anticipate any further contact with participants once they have completed the task.

BENEFITS OF THE STUDY

If you agree to participate, it is expected that you will benefit from the one-on-one score study sessions and from the experience of conducting a large instrumental ensemble.

CONFIDENTIALITY OF RESEARCH INFORMATION

The data collected (musical background information, video-recordings, scores) will be confidential. The data will be linked to your name until the study has been published, no later than September 1, 2014. The researcher and the expert conductors who will analyze the video recordings will have access to identifiable data. Video recording and identifiers will be destroyed upon publication, no later than September 1, 2014.

OTHER INFORMATION

Being in this study is voluntary. You may refuse to participate and you are free to withdraw from this study at any time without penalty or loss of benefits to which you are otherwise entitled.

Printed name of study staff obtaining consent Signature Date

Subject's statement

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later about the research, I can ask one of the researchers listed above. If I have questions about my rights as a research subject, I can call the Human Subjects Division at (206) 543-0098. I will receive a copy of this consent form.

Printed name of subject Signature of subject Date

Copies to: Researcher
 Subject

Appendix D: Recruitment Email Script

Recruitment Script

We are trying to better understand the effects of score study for novice conductors. To do this, we are guiding novice conductors, one-on-one, through two different methods of score study to determine which method is most effective. Participants will spend two 45-minute score study sessions with the researcher, followed by a conducting performance with an instrumental ensemble. The conducting performance will be videotaped and then analyzed in order to determine which methods of score study are more effective.

If you agree to participate, you will be asked to fill out a brief questionnaire about your musical background. You will need to send in the questionnaire with a video of yourself conducting from a previous conducting course.

You will meet with the researcher on two occasions, each for 45 minutes, to be guided through score study of a piece. During these score study sessions, you will listen to recorded models of the piece, be asked questions about the piece, be asked to write your ideas in the score, and be asked to sing the musical lines.

After two score study sessions, you will conduct a large instrumental ensemble on the piece you score studied. You will be videotaped and the recording will be analyzed by an expert conductor. Immediately following the performance, you will be interviewed about your performance. You will be asked to describe the conducting gestures that were successful and those that were not. You may refuse to answer any question during the interview. The interview will be videotaped and analyzed by the researcher. The performance and interview will take approximately 15 minutes.

If you agree to participate, the total amount of time will be approximately 2 hours over a one-week period. Participation or non-participation in this study will have no effect on your grade for this course.

A sign up sheet is circulating. Please write down your name and email if you are interested in participating in this study. Thank you.

Follow-up Email Script

Dear _____,

Thank you for volunteering to participate in a study on methods of score study and conducting.

To set up our first meeting where you will fill out a musical background questionnaire and conduct (piece of music), please email me back your preferred time on (date).

Thank you,
Erin Bodnar
University of Washington

Appendix E: Musical Background Questionnaire

Music Background Survey

Age: Years _____ Months _____ Sex: M / F

Educational Experience:

Do you hold a degree in music? Y / N If yes please list degree: _____

Are you studying for a degree in music? Y / N If yes please list degree: _____

Year in School: _____

Please detail the extent of your musical training:

Have you taken private lessons on an **instrument**? Y / N

Have you performed in an **instrumental** ensemble? Y / N

If you answered yes above, please list the instruments, check if you received lessons and/or played in an ensemble, and record the number of years you played the instrument:

Instrument _____ Lessons _____ Ensemble _____ # of years

Instrument _____ Lessons _____ Ensemble _____ # of years

Instrument _____ Lessons _____ Ensemble _____ # of years

Have you ever taken private **voice** lessons? Y / N _____ # of years total

Have you performed in a **vocal** ensemble? Y / N _____ # of years total

Please list the types of ensembles: _____

Have you ever taken private conducting lessons? Y / N _____ # of years total

Please describe your conducting experience, listing any type of conducting (choral, instrumental, marching band, conducting courses, middle school or high school teaching experience).

Appendix F: Evaluator Training Form

EVALUATOR TRAINING

1. Please familiarize yourself with the first movement of Suite Provençale using the recording and score provided. You will be evaluating novice conductors on their gestures demonstrating articulations, dynamics, phrasing, cues and releases. The videos will have NO audio so it is essential that you know the short movement beforehand in order to evaluate their gestures.
2. While evaluating the two conductors, you may reference the recording or the score at any point. You may watch the videos more than once or sections of the video, if needed. The conductor's chosen tempo may differ from the recording and therefore should NOT affect your ratings.

Using the five point scales below, please rate the conductor's skill at demonstrating the following. Check one box for each of the five items. To check a box, double click the box, and select "checked."

Training Video #1

1. Articulation:

Poor	1	2	3	4	5	Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2. Dynamics:

Poor	1	2	3	4	5	Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Cues for entrances:

Poor	1	2	3	4	5	Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4. Releases:

Poor	1	2	3	4	5	Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5. Phrasing:

Poor

1

2

3

4

5

Excellent

Appendix G: Evaluation Form

EVALUATION OF STUDY VIDEOS

1. Please familiarize yourself with the first movement of Suite Provençale using the recording and score provided. You will be evaluating novice conductors on their gestures demonstrating articulations, dynamics, phrasing, cues and releases. **Please base your ratings on undergraduate students who have had one semester of conducting class.** The videos will have NO audio so it is essential that you know the short movement beforehand in order to evaluate their gestures.
2. While evaluating the conductors, you may reference the recording or the score at any point. You may watch the videos more than once or sections of the video, if needed. The conductor's chosen tempo may differ from the recording and therefore should NOT affect your ratings.

Using the five point scales below, please rate the conductor's skill at demonstrating the following. Check one box for each of the five items. To check a box, double click the box, and select "checked".

Participant #1

1. Articulation:

Poor	1	2	3	4	5	Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2. Dynamics:

Poor	1	2	3	4	5	Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Cues for entrances:

Poor	1	2	3	4	5	Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4. Releases:

Poor	1	2	3	4	5	Excellent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5. Phrasing:

Poor

1
2
3
4
5

Excellent

Appendix H: Post-Conducting Interview Transcriptions

PARTICIPANT #1

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

G: In the beginning, [it] starts with piano and forte and I kind of got a little messed up. When I started the piece I don't know if I got nervous or what; it was supposed to be forte but I conducted piano, but I kind of caught myself in measures 2 and 3, and went with the crescendo into measure 4 and then I tried to stay big and staccato. I probably could have been more staccato; I was focusing more on big, I was trying to see if I had the ensemble's attention. It's so much different conducting a group instead of a recording. I wasn't able to do that but in the past I had done that, its just you don't know if they will follow you or how well they will follow you. The band followed me really well so I went with that. Instead of changing my dynamic at A, I just catered to the front row more- I did that throughout. I tried to stand up straighter or something right around 12 to be more regal and portray that to the trumpets. At the B section I tried to have heavier gestures to do the accents. It kind of helped the syncopation in the clarinets and stuff, because I kind of felt them going along with me and that was a surprise but it was a good one. Measure 20 I tried to stay legato and I focused more on the front row and I tried to make my movements more fluid at measure 25 for the horn part; for some reason I thought the bassoons had it so I was looking at them but then I switched to looking at the horns. [At] measure 29, it was softer but I don't think I remembered that. I looked up more than I looked at the score. I don't know if I hardly looked at the score at all now that I think about it. I don't know what/how to feel about that. When I read things I look up more.

EB: You think it was in your head pretty good what you wanted to hear?

G: I think so. The piece isn't too complex. Like it's the same section and the same section. I think right before we did this I played it in my head a lot, just what I was going to do. I think that really helped because I could hear all the parts in my head. I think that really helped and that's probably why I looked up more. I don't think I did it too soft here. I was kind of waiting for this section to happen. Since I wasn't looking at my score, it didn't come when I thought it would. But when it did come I tried to slow down. I probably could have made it more tenuto but I just slowed down with my hands. And this part, I think I took it way too slow, [be]cause it just felt so draggy and boring and I felt really bad the whole time. I was like, "They are going to hate me, it's too slow." And they were all looking at me the most they had ever looked at me so you could tell something was wrong. And I didn't know if I should speed it up or keep going and being confident, so I just stuck with it because that's how I reacted in that situation. I tried to be really big, sometimes I feel kind of ridiculous being so big but then when I see band directors doing it, it just seems so natural so I hope it comes off that way. So I tried to, like kind of give them the hand, I don't know if I did for this part here, but I wanted the woodwinds to still be loud so I focused on the front row. I remember specifically bringing them down at 46.

EB: With your left hand?

G: Yeah, I think with my left hand, I think I meant to lean more on the eighth notes but I didn't because I was focusing on the bringing down. In all the slowness the trumpet line didn't get lost but it didn't stick out as much towards the end. Especially the end felt really slow because I think you can't ritardando if you are already slow. I think I was just worrying. I didn't really do that much with the crescendo. At the end I looked at the timpani player, I remember that. They just held the last note and the last note probably could have been longer because normally it can be longer and its okay but I just wanted to finish. And that's that.

EB: How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions? Like on a scale of 1 to 10, what would you score yourself?

G: Maybe a 6 or 7 because I forgot to do so many of them that I didn't portray what I had studied because I forgot to do some of them but the ones I did mirrored what we did in score study.

EB: Can you give me some specific examples of those, the ones that really mirrored? We kind of talked about some of them.

G: The hand at measure 46. Trying to do the beginning I think I did more of the crescendo at measure 3. I think a lot of the articulations I did. I could have done more staccato. But I know I tried to be more accented at B, legato after that and tenuto at 25 and things like that.

EB: Articulations you felt like you did a pretty good job at?

G: Yeah I think so.

EB: And dynamics? Being bigger and smaller?

G: Yeah, I think that's what I tried to focus most on, was dynamics, and I don't know if it worked that well. I kept getting bigger and bigger is what I remember- I don't think I came down too small except for giving the hand. I think I just kept getting bigger.

EB: How well did the ensemble play in terms of your musical decisions made during the score study sessions? Did you hear what you wanted to hear from them?

G: Um, I think I was focusing so much on conducting I don't know that I was fully listening which might be dumb.

EB: No, you weren't instructed to listen- but was there anything you noticed that they followed or didn't follow?

G: I think they followed the accented part really well, especially the off beats, because I just remember hearing that really well. They followed my time really well even into the slow death march at the end there, they just followed me all the way, in time. Maybe not so much in

dynamics and maybe that was me because I didn't get small, I just got big. I think some of the articulation they got.

EB: Anything else that stood out to you about your performance? Or anything you wished you would have done?

G: I wish I would have been better. Had a second chance. When we do score study I feel like a lot of things that we talked about would pertain to rehearsing the ensemble that all those things would have been really great to rehearse an ensemble with.

EB: But were harder to match a gesture to in the moment.

G: I think hard because we weren't allowed to practice the conducting. I think that would have been more beneficial to me conducting in front of everyone. I know that's not the experiment but just for me conducting in front of everyone that would have been helpful. I think it was hard for me to apply a little bit what we talked about because I couldn't actually apply it to what I was doing but in my head I could apply it to rehearsing a band. If you had told me to rehearse the band I bet I could have done a lot of things with them.

EB: You had a lot of ideas behind the music and how you could have done that.

PARTICIPANT #2

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

J: In the beginning I used a small pattern to start it. And then a bigger pattern, so it didn't look like I was starting off weird, even though when I did, it didn't really come across. It was a rocky start so I didn't do as much dynamic stuff.

EB: Do you know why it was a rocky start? They just seemed like they weren't prepared to play?

J: They just probably weren't prepared to play or I did something that made them not prepared.

EB: But you didn't feel like you did anything weird?

J: It probably wasn't clear enough. It wasn't clear enough, obviously, because they didn't all come in. For the most part through the first measure to A, at measure 9, it was a fairly medium pattern size. I tried to do as staccato as possible. Then measure 9 to 16 was a little bit lighter and more connected for the difference in style. I tried to look at the people playing the main melodies but that didn't really work out because I didn't really know where they were sitting. And I was kind of looking at 7 different things at the same time- trying to. At measure 17 I looked at the horns and my pattern was probably the same but I tried to make it a different

pattern than the previous section. For measure 20 I tried to make it more flowing because of the style there in the upper woodwinds.

EB: Was that mostly in your right hand, in your baton?

J: Yeah, I felt like I didn't really use my left hand until measure 35, at least I didn't consciously think about it. I tried to put emphasis on beat 1 of measure 28. I don't know how well it came across but I was actively thinking about it. That might be where I slowed down, because that's where the syncopation comes in. It just felt like I was moving my baton through molasses. It felt really slow. I thought the *ritardando* went ok, but it was a little shaky at the beginning of measure 35- but then it got going but it was still pretty slow and I guess I should have made bigger gestures to make them go faster. It seemed like we were dragging and it was kind of slower when it should have been more upbeat.

EB: Did you feel like you had bigger gestures or smaller or just the same?

J: I think I had about the same. I don't think there was a huge contrast, which probably helped them in slowing down. I tried to incorporate my left hand from 35 to about 40 but the tempo really caught me off guard so I stopped using it around measure 40, around 39 to 43, somewhere in there. I went to a medium size pattern in 43 to 46. I think I just conducted it the same to the end. I think I was a bar ahead of myself in my head, because they got to measure 50 when I thought they would get to it later; they got to it early, I just wasn't expecting it. The percussion was faster than I anticipated which is probably because of the recording and I didn't convey what I wanted nor did he know what I wanted and the cutoff was really bad. Or going into the fermata, the cutoff was okay but the fermata was non-existent.

EB: You mean you didn't hold the note?

J: That I didn't show, I kind of just went from conducting to holding.

EB: All the sudden you were there.

J: There was no smooth transition.

EB: It's hard to remember, it goes by so fast. How well did you execute the gestures you had decided on and prepared? On a scale of 1 to 10.

J: Probably like a 4, between 4 or 6. I felt like there was a lot to remember and kind of incorporate in the small amount of time we had. I think if I would have had more time to practice it, it would have been a lot more solid. I definitely remembered everything we had talked about, I just don't know if my brain connected with my hands and I showed what I was thinking or at least seeing.

EB: Was there anything that you felt that you did show pretty good, like maybe in terms of articulations or dynamics that you remember us talking about or phrasing?

J: The legato, the flowing section in measure 20, that I remember- I thought I did okay. I think from 24 to 28, I showed the long detached style. Then I went back to the medium style in 29 and I thought I did that okay.

EB: Kind of the contrast section we had talked about.

J: The section I think we spent the most time on.

EB: How well do you think the ensemble followed your gestures?

J: Not very well, probably a 4. Maybe it was a combination of them not following and me not giving clear, specific gestures.

EB: Anything else that went well or you wish you would have done?

J: There's a lot I wish I would have done. They all cut off at the same time, I think. I also thought in the beginning there were more people that started. So that caught me off guard. Just more familiarity with the song and the melodies probably, I mean obviously would've helped, I could have shown more of the gestures. When we studied this last week, you said that when I got it in my head, I conveyed what I was trying to do. I remember on Monday it was really bad because I didn't really know what the song was or anything about it. Friday I felt was better and I don't know what happened in between.

EB: The weekend happened.

PARTICIPANT #3

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

T: At the beginning I tried to do a small, light gesture to make the first entrance piano. The first trumpet player didn't play as confidently as I was hearing in my head. I immediately went from this little to a much bigger gesture. Mainly, throughout the piece especially at the beginning, I was struggling to find time. It didn't feel as light as I expected and they were a little bit slower than I wanted to go- right at the beginning, just the first four bars or so. I tried to add my left hand in fairly often to try to get more sound out of the band, like bar 5 where it's forte. Places like bars 9 to 12, I tried to do a more smooth, legato gesture. Each time we came to one of these 16 bar sections, I tried to make that a very light part of it. It didn't really go quite like I expected. I was happy with some other things that happened. Like at B, I actually managed to cue the horns and that kind of thing.

EB: Do you remember how you cued them?

T: I just turned towards them, I didn't give them a big gesture or anything but I looked towards them and turned my whole body towards them. Some of the dynamics I definitely could have done more with; I feel like I didn't do much dynamically throughout the piece, as far as showing that in my conducting. I was pretty happy with both the ritardando things, the one at bars 33 to 34 went pretty smoothly into the last section. Although because everything before felt so heavy, the last section didn't have the weight that I wanted and I was trying to show that weight.

EB: Do you remember how you showed that weight?

T: I think I was trying to subdivide a little bit in my conducting gestures. It's hard to remember what you were doing since it was the first time I'd ever done that. Yeah, subdividing through there. It was one of the other things I did because it felt heavy at times. I just started subdividing at times a little bit more than I had first wanted to just to get the tempo established more and it just felt like the motions were too big and slow to portray time well to the band. They were obviously more comfortable with it than I was. From what I felt when conducting, I felt they had their own way that they wanted to play it and they weren't paying too close attention to me.

EB: They had seen it three ways already.

T: I think they kind of had their own idea of it in their heads. It's hard not to get dragged along with the band when they are playing heavier than I wanted. Throughout the performance my conducting just got heavier to match it. I didn't have the convenience of verbally telling them what I wanted to do with the style of the piece beforehand at all. Towards the end, things I thought went pretty well. I did a horrible job of conducting the crescendo the last 4 bars and cuing the first trumpet solo there. The ritardando at the end I also felt fairly good about. I kind of got the breath in there that I wanted although the last note, my hand positioning was just— I wanted to start with my hands lower out in front of my shoulders, and then raise them up on the last note and I had them really high and kind of wide already and didn't have much room to show note length there.

EB: How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions? On a scale of 1 to 10.

T: I'd say about 5. I made some decisions and then I got dragged along with what the band was already doing. Sometimes I tried to fight them and other times I just let it go. It wasn't the most comfortable experience for me up there so I was just kind of at times holding on instead of leading.

EB: Would there be something specific like articulations, dynamics, phrasing, that you...

T: Dynamics. Dynamics I totally neglected for most of it I felt. I could have done much more with dynamics. Especially coming from teaching middle school for the last quarter because that's a big part of middle school, just getting the dynamics and things. I'd always conduct dynamics a lot in middle school so I'm used to having really strong dynamic conducting in that way and I didn't portray that very well.

EB: Did you feel like you were stronger in the articulation or cues or phrasing?

T: I felt articulation and phrasing were probably stronger. I got legato at some places where I should have but it wasn't consistent throughout. I definitely feel stronger as far as the phrasing and style goes. Well, marking phrases and things I don't feel I did such a great job of, although I don't feel it's entirely necessary on this piece because it's nice little 4 bar phrases. I feel like the articulations, especially, were one of the stronger things I conducted and the dynamics one of the weaker things.

EB: How well did the ensemble play in terms of your musical decisions made during the score study sessions?

T: Not particularly well. I felt like they weren't following me very well, like I said. I feel like they had formed their own ideas about how they were going to play this and I didn't feel like I was being followed particularly closely. Yeah, it felt like instead of them being cars of a rollercoaster and I'm the track, it felt like it was just a car with a driver in it already and it would go wherever it would please. I really didn't feel like I had much control over them at all.

EB: Anything else that stuck out to you about the performance?

T: It was such a brief piece. I just had trouble getting out of my score and really connecting with the ensemble at all. Just because I was making sure I was in the right place the whole time and things. Making sure especially getting up to that ritardando at bar 33 and 34, making sure I was ready for that sort of thing. It's such a short piece and it seems like in most music something that is 30 seconds away is something you start getting prepared for as a conductor, if it's something you are concerned about. From the beginning I was like, "Okay, keep time, keep time, maybe a little bit of legato here and then make sure we get this part right and go on."

PARTICIPANT #4

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

S: At the very beginning I tried to give a piano breath, pickup sort of. And then beat 3 of bar 1 again forte pickup, then piano. That's something I thought I tried really hard to do. I remember cuing just the front people in bar 4. I think the bar before A I gave a decrescendo like we were showing.

EB: Do you remember how you think you did that?

S: I sort of brought my left hand down, I think. I don't really remember, it's all a blur. At A I was sort of confused, I don't think I really showed any gestures except for staccato; there was so much going on I forgot who I was supposed to pay attention to. I sort of cued them a little bit. B we talked about making the hands lower and more vertical, I think so. I think I did that. 4 after

B I cued just woodwinds, then when the horns come in after B in bar 24 I remember trying to do the more horizontal connected thing we talked about. I think I cued the trumpet in bar 28 and I tried to make that more staccato. I don't know if I conveyed that very well, I tried to go from the low smooth, horizontal to the really light fluffy thing for the trumpet, clarinet, piccolo. 32 and 33 I think I made myself more broad just by making my gestures bigger and a little ritardando. I completely did the coming back into the tempo different than I ever had, I sort just got confused and made it up. I sort of gave them a cut off but I didn't really want to. I wanted to just carry through there and just make the pickup to C part of the bar but I sort of cut off and did an awkward pickup. At C, I tried to make more bold, bigger gestures; I think I might have slowed down there, throughout most of C it kind of stayed the same. Bar 43, I sort of cued, looked at the front row. I sort of gave them something there. I was thinking I might have. I tried to make that more smooth even though it was bold. In bar 46 I gave a decrescendo just bringing my left hand in. I remember giving a cue to the trumpets in bar 46. It's always the trumpets. All the trumpet lines, I'm aware of those, I'm giving all the trumpets cues. I feel bad for everyone else. I think I slowed down too early, maybe in bar 49. Bar 50 came way sooner than I thought it would. I completely forgot to look at the percussion, I sort of looked at them but then didn't really give them that hold very well. I wanted to show a fortissimo but I don't think I really got there with my gestures.

EB: You don't think it was as strong in terms of your gestures?

S: Like the crescendo from 46 to 51 I don't even know if that existed in my gestures.

EB: What about the release?

S: I think it was better because we talked beforehand, because before I was going out and out and holding it this way and then cutting off instead of showing just gradual. It was almost like holding really fast, like bringing my arms out really quickly. I just sort of held it there and gave a vertical release.

EB: Good, it's hard to remember what you did right after. How well do you think you executed the gestures you had decided on and prepared? On a scale of 1 to 10.

S: The ones we prepared? Like a 6. I forgot about most of them. There were ones I remembered and I did them, but knowing me, I know that up there I was more like this, and everything was smaller, when I'm up there I forget to just bring things out. I think 6 is maybe even generous, I don't know if the things I thought I was doing even showed.

EB: They may have been understated, do you think?

S: Yeah definitely, I don't even feel like I was out like we talked about, I feel like I was more in. Just here the whole time.

EB: Do you think, in terms of dynamics or articulations or phrasing, which do you think your gestures came across most?

S: Maybe, knowing my dynamics and my articulations, I feel like were probably really understated, so maybe phrasing because I know my left hand likes to do its own thing and show things. I know I gave a lot of breaths, I wasn't really cuing the right people but I showed the breath in the next phrase and how it felt with this hand flopping around. Probably phrasing for that reason.

EB: How well do you think the ensemble followed your gestures? Do you think you heard the style and articulation and dynamics that you had decided on, that you wanted to hear?

S: Sometimes. I think it was kind of neutral.

EB: So they did a good job of following your neutral gestures then?

S: They followed me perfectly then. If that's the way it was, it's hard to tell. But if I was neutral, then they did a great job.

EB: Is there anything else that stood out to you?

S: I remember at the very beginning I thought I gave a nice pickup but everyone came in so much slower than I was going, and I sort of followed them which isn't really what I'm supposed to do.

EB: So the tempo was kind of slow?

S: Yeah, it wasn't really where I wanted it, but I don't really know what my cue, my pickup looked like [gestures].

EB: But you felt like you gave a pretty strong...

S: I just remember like the first couple bars, "oh this is a lot slower than I intended."

EB: Did you change your gestures at all?

S: I don't really remember. I just went with it, followed them. Just so we could stay together, I didn't want things to fall apart.

EB: Right, because there's that question mark of if you did something, would they...

S: I don't know how well they know the music, I don't know if they were even really paying attention to me, if they might have just been stuck in their music.

PARTICIPANT #5

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

A: For example, I tried to do smaller gestures for the piano in bar 1, and bigger gestures for fortes and then the piano and then the forte again. At the beginning I tried to do a wider gesture or slightly harder to make sure the off beat is caught. Blah.

EB: I know the beginning when they didn't come in the first time was like – AH! But you did exactly the right thing because then they were like, “Oh we really need to watch,” and then you took a good breath, and that helped but I think the professor may have gone a click up, right? So it was just getting used to you and then N (the second participant) had it easy. That's the thing about going first. Go on.

A: I tried to do... now I'm not sure. Did I do that or did I imagine myself?

EB: That's true. So you think you might have.

A: Or you wanted to but that might not actually have happened. And it's funny how little you remember after you do something, right? Especially after a performance you tend to remember the things that didn't happen. For example, right after the performance I was thinking they didn't come in when I did the beginning thing.

EB: So you were thinking about that instead of other things you were going to do?

A: I'm fairly certain, I definitely tried to do the different gestures for the different articulations we talked about. For the woodwind staccato stuff I tried to make a higher plane and more flicky. I'm not sure how well the difference between accents and tenuto's that we talked about before happened. I don't think that really happened. Just broad and longish. I did do legato for that (measure 20). And that takes us to the first slow down which I think went fairly well. After that it was okay. I did try to do a decrescendo here, although I think I made it too small than I meant to.

EB: So you made them softer?

A: No, I was thinking about this afterwards. I think in general perhaps in a large ensemble, gestures should probably be bigger than you were expecting so that people can actually see it.

EB: Okay possibly, especially after we were just doing it in a room by ourselves with a piano.

A: I think in the staccato section before with just high woodwinds that might have been a small gesture would have been appropriate, especially if the instrumentation was thinner, but here it was brass and we are coming towards the end. I mean even if it was smaller I think it should have been wider. But then I didn't think about this until after.

EB: How well did you execute the gestures you had decided on and prepared?

A: I don't actually know.

EB: If you were to give yourself a rating out of 1 to 10.

A: 7-ish. I mean, I remembered all the things that I wanted to do. I'm not sure how well that happened, also partially because my hand was shaking a bit especially in the legato. I hope it didn't look like blah. But that happened. I can tell you now that I had no idea what my left hand was doing. I think it tried some mirroring. But I was never in the habit of mirroring, even when our conducting professor showed us what mirroring was. I tend to concentrate more on my right hand, which is strange because I'm left handed.

EB: That is weird. Were there any specific gestures that did work really well, that you did execute?

A: Not really. To be perfectly honest, I have a feeling that whatever I did up there, it would have sounded pretty much the same.

EB: That leads me to my next question, how well do you think the ensemble followed your gestures?

A: Oh I think if I had did something really giant and drastic they would have but for some reason I didn't start the beginning as soft as I had mentioned but they were like, "Nope, you mean soft."

EB: So they were following what was on the page but not necessarily what you showed?

A: Yeah, because after they had played it once or twice they knew what it was supposed to sound like, so even if I wouldn't have done it, they would have done it anyways. If I had, for example, slowed down a lot they would have done that. Or at least half of them would have. It's a really good ensemble and they follow really well but if I would have done something stupid they would have been like, "No, you don't mean that!"

EB: That's true. They weren't given any instructions like they need to follow you. That always plays into it. I think that's all my questions. Anything else you want to share about that experience.

A: I can tell you something else that I didn't really do at all. I didn't actually make eye contact with anyone. So that was sort of important.

EB: We didn't really talk about that or focus on that.

A: When we were looking at the score I thought I had a pretty good idea of who I should be looking at but then it went by so fast. And I didn't.

EB: Where did you find yourself looking?

A: Like brass, which should have been trombone. Here I would have stared at the flutes for a bit. I didn't really cue any specific instruments. For that matter, it wasn't like there were any giant solo entrances. But now that I think of it, there wasn't really any eye contact going on.

EB: Anything else? It is amazing how fast it goes by. Faster than when we were just singing it.

PARTICIPANT #6

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

N: So this question is just about the gestures?

EB: Yes, just about the gestures.

N: My first gesture to open the piece, I was thinking "one-and," and I was coming down to two, see, I can't remember if I breathed which might have been unclear why it was off at the beginning, then it threw me off for the dynamic changes. When I got to bar 4 I guess I didn't really change there. I got smaller at A, more focused towards to the woodwinds. And then...

EB: More focused, like you turned towards a little bit?

N: I think so. I noticed that throughout the whole thing, I kind of forgot what instruments played the melody, or else I looked at one of the ones that weren't at the top of the texture. Like if the trumpets and flutes were playing, I automatically looked at the trumpets although it might have been them (flutes) that would have stuck out more.

EB: So more focus on woodwinds there.

N: When I got to the trumpets and the brass I got more broad but more, like a bigger gesture but I think it was still in the same style. When I got to the horns I tried to be more broad, and I think this is where we said resistance, I believe. I don't know, this isn't my score.

EB: That's right – that's on purpose, so try to remember what you did.

N: Oh yeah, this is the syncopations. I didn't do the stop pattern I just did a broader pattern and made sure my ictus was in the same spot. Just more clearer. And then this I got smaller and I brought up a high plane, but it's forte so I could have stayed a little lower I guess, but I think I changed characters. So yeah, measure numbers. The horns were measure 16. The woodwinds at 20 for a higher plane. Okay this is where I said it, 24 is where I said resistance. I was pretty broad but I think I actually got more broad when the syncopations start happening, just to show it more clear like before. In measure 32 to 33, the rit. What I have been practicing lately is... I was watching an opera conductor who is working with my girlfriend, and I was just watching him, so let's say a singer ends on 2 and the orchestra has something on 3, so I was watching him,

he would go 1-2 cut it off – 3. So I was trying things like that. So I definitely tried that here to get them back in to tempo. So that's 32 to 34. At 35 I had a big gesture. I don't think I had a crazy amount of ictus.

EB: What do you mean by that?

N: So I think I was more non-expressive than with a flick.

EB: So there was probably more immediate rebound from the ictus?

N: Yeah, I think I was still pretty broad here- I didn't do anything to point these out but I was thinking about it. And then when the flutes, well the woodwinds come in with the melody here, I got a higher plane again. I didn't come down in dynamic. From here on, yeah, just broad. I don't think I did everything we discussed.

EB: That leads into my next question. How well did you execute the gestures you had decided on and prepared? On a scale of 1 to 10.

N: I think that when I had the higher plane and that was what I was wanting to get. I think I did those sections with a higher plane and I think I did those well. And I think that the cutoff was better, like it was what we talked about. I think that for the rest, not the rest of it, but, I could have been a little bit more on what we were talking about. Pretty much right after the first note didn't speak right away, I kind of just started freaking out and I was like, "Oh crap." And then what ended up happening was that I turned two pages and so I looked down and was like "Oh whatever, I know where we are," kind of thing. I don't think I actually even, because of that, my mess up and then turning too many pages, I kind of just abandoned the score which led me to look at the wrong instruments or look at the instruments that weren't at the top of the texture. Overall, like give yourself a grade? Like a C plus, B minus? We got through it. I definitely could have been much more expressive with what I was doing to show what I wanted.

EB: Anything in particular that stands out that you wish you would have done?

N: You see the one thing I was thinking about was the stop pattern here. And what I realize is that even though they all have accents, it's still kind of like a line, just going right? So if I would have done the stop pattern it would have been like a juxtaposition. Like two different things. I thought that what I did here worked and I guess, the second time it happens, when the brass do it, I guess it worked. What I really wished I had done, was given a little like...what does he call it... Like a non-expressive prep beat...

EB: Like a deadbeat.

N: Yeah, I thought if I had done that, then right from the bat it would have been more secure.

EB: How well do you think the ensemble followed your gestures?

N: I thought that the ritardando bar was actually really well done (at 33). I thought they watched me very well. I held this a little longer than I what heard the first conductor do so it's nice to know they were watching.

EB: Not on autopilot?

N: Getting back into tempo I did the cutoff thing and then I gave them an extra little second to realize that I was going on, and it was right in tempo and I don't know if it was any slower but, because there is a tempo change, I thought that they were following me well and I thought that at the end as well they were following me great. They came in right when I moved.

EB: In terms of articulation, do you think...

N: I really liked all of the horn entrances, they didn't sound like tut-tut-tut, they sounded like what I wanted them to be, like broad. And I really liked the off-beats, the off-beats worked really well. I don't really know if that could be attributed to me doing anything.

EB: Was there anything else about that performance that stood out to you?

N: I guess it taught me to not freak out if something goes wrong. And nothing really went wrong but it didn't go exactly as planned.

EB: Which is hard when you don't know what to expect, right?

N: The main thing that I noticed was that my gestures didn't reflect the dynamics, the whole way through. So right at the beginning I was wanting to be small and then get big and then get small again, they just did it, they just did it, so that worked. But at the same time, it's like because of me realizing that the upbeat didn't work, and we were only in 2, so that first bar was gone.

EB: That little dynamic change happens really fast.

N: It's like boom. So yeah, I thought the ensemble did great.

PARTICIPANT #7

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

S: Like what I did just now?

EB: Yes, what did you just do now? We talked about all these musical ideas. What happened in your gestures, what did you do as you conducted to show what you had decided?

S: Well, it's kind of a blur now. It's hard to remember what I exactly did. I wanted to go like this at the beginning for the trumpets, I'm not sure if that actually happened.

EB: To go like...?

S: Like to have a sort of pointed gesture. And sort of more broader arm movements for the slurred sections. To bring in the horns at rehearsal B, sort of more forceful arm movements than I had been using.

EB: Are you talking about what you did or what you were thinking about doing?

S: It's what I thought I did.

EB: That's good.

S: Just more sort of staccato baton motion at A. Trying to think back it's kind of funny, because it wasn't that long ago.

EB: But it's only a minute and 20 seconds, so it goes by fast.

S: I guess I was kind of meaning to paint a little bit at measure 20 with the slurred sections.

EB: Like more horizontal?

S: Yeah. Well, the cutoff and the sort of more, I don't know how to describe it, the more sort of, just bigger.

EB: Maybe more weight?

S: Yeah, weightier and kind of, I don't know. My words are escaping me. Like prep beat for the C section at 35. Pickup to 35.

EB: You were showing the prep for this one, or just all throughout this section?

S: Well, just the cutoff and the prep for the new section.

EB: Yeah that seemed to work out well.

S: I sort of meant to show the syncopation, but I'm not sure it happened. Just like more, sort of like accenting the second beat of the pattern to bring in the low brass on beat 4. It felt like what I was doing but I'm not sure what it looked like. And then getting smaller for decrescendos.

EB: Do you feel like you did that at measure 42, that you did a decrescendo?

S: I think I was starting to do one and then I saw the forte and then I was like "Oh wait."

EB: And gave up.

S: Yeah, I think so, a little bit. Oh, I did a little sort of like lean thing, where is it? It's harder to find on this one because it's not all colored. So measure 12, I guess for the fall down, like a push with the baton, more like forward motion. I tried to do that again at measure 46.

EB: Yes I did see that.

S: And then I sort of just held my arms up for the last 4 bars to get them to play louder and then conducted the second last bar in 4 instead of 2 for the rit. I can't really think of anything else.

EB: That's good, that's a lot of stuff. How well did the specific gestures you used, like the push and the other things you mentioned, in the conducting performance portray the musical decisions you made during the score study sessions? Do you think they were pretty well matched to what you decided?

S: I think so. The push one for sure.

EB: Did that one kind of come naturally or did you...

S: I kind of thought about it when we were first looking at the piece. Like that motion would kind of go with that.

EB: Like how you were singing it?

S: Yeah.

EB: Were there any spots that felt like what you did wasn't portraying the musical decisions? Do you recall that at all?

S: Yeah actually, whenever I turned the page I was kind of like, "Oh, where am I now," kind of thing. I mean it isn't that long and I knew the piece but just sort of the fact that I couldn't see exactly where we were, I kind of lost my concentration a little bit, I kind of went on autopilot a little bit.

EB: So at the page turns? Any other places that...

S: Yeah. At the beginning I didn't do as much of a dynamic contrast as I wanted to. I'm not actually sure if I did anything there. I think I caught onto the crescendo but I kind of missed the first bar, forte. I guess, in measure 28 the lean thing would have come into play but I didn't do it there.

EB: How well did the ensemble play in terms of your musical decisions made during the score study sessions? Like did you hear it because you showed it?

S: Yeah I heard it, I don't know if it was because I showed them or just because they figured to do that as well.

EB: Did they sound like how you thought they would sound when we were score studying? Like were those musical decisions, were they there?

S: A little bit, the brittle section was a little funny, but I don't think anyone was playing xylophone either.

EB: Maybe that was it.

S: I remember that section, measure 28 to 32, didn't sound at all like what I pictured. And also the section afterwards with the descending low brass chords.

EB: How did that sound different that what you had imagined?

S: I think I was just unprepared for it a little bit. I didn't let them slow down as much I wanted to.

EB: When you say you weren't prepared for it, was it because of turning the page?

S: Yeah I think so. I think I turned the second page into measure 20 and I was still trying to figure out where I was. And then that happened. I kind of felt like I was behind the ensemble.

EB: Good. Is there anything else about that performance that you did that you wanted to comment on? How well did you think you did those gestures, on a scale of 1 to 10?

S: How well I did?

EB: In terms of how you showed those musical decisions.

S: Like maybe a 7? I don't think I was as committed as I could have been. Maybe like a 6 or 7.

EB: You had mentioned when we were singing through you had thought about how you would move on that tenuto, were there many other things that you had thought about how you would show it as well when we were singing it.

S: Yeah, these offbeat brass chords at 35. Just like energizing beat 2 so they could bounce off of it almost. I had thought about that.

PARTICIPANT #8

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

J: So the beginning I thought I gave the staccato style kind of thing. I thought I could have done more of the dynamic contrast.

EB: How was the staccato gesture, how did you show that in your gesture?

J: Just more ictus. I don't know if I actually did it, I thought I did. It wasn't as great as I thought.

EB: Which part? Do you mean the ensemble?

J: No, me. Myself conducting it. I thought I could have done more... to show what I wanted.

EB: To show those decisions you made? Like in what ways?

J: Yah. Like later on, first of all I didn't know who to cue and stuff. It was like, "Oh, you are playing now."

EB: So the specific cues and specific instruments.

J: Like many times I looked up at something and "Oh no, they aren't playing. Where am I right now?"

EB: Maybe we spent a lot of time talking about dynamics and stuff but not exactly who would be playing it?

J: Well we did talk about who would be playing it but I guess where they would be.

EB: Because you are used to seeing them from the back. So back to the specific gestures that you did.

J: The little, in measure 12, the little press and release, I thought I did that well. And then I got lost afterwards. Measure 17 with the basses I was like "Okay, I'm totally going for that," and then I didn't go for that. That sucked.

EB: What do you think happened? You just heard it and you were conducting along.

J: I didn't hear it.

EB: It was your favorite part!

J: I know, right? Then this part, measures 20 to 24. I thought I showed the legato pretty well. I was looking at the flute section but it was just the piccolo.

EB: So you were looking at the flute but it should have been the piccolo

J: Yeah.

EB: What about in these sections? What about in terms of articulation? You said you did the legato, right?

J: Yeah. I think I went into a more marcato thing... or did I? I don't remember. I think I got surprised because the horns started playing. I was like "Oh the horns, look at them. Oh god. Now that parts over, where am I now? Oh piccolo, look at them."

EB: It goes by pretty fast, doesn't it?

J: And this part, 35 in the pickup and on. I sort of caught it late that it was fortissimo, I kind of went like "Oh, we are fortissimo now. Oh here we go." And then two bars later I started sort of going for it.

EB: In terms of your gestures? What specifically did you do two measures later to show the fortissimo?

J: Like a bigger pattern. 33 the poco ritardando I remember we marked that we were going to decrescendo so the next part, the loudness of it, would be more of a surprise. But I didn't do that. So it wasn't really a surprise or anything.

EB: So there was no gesture that happened with that?

J: No. 42, same thing with the diminuendo. I didn't do that. One thing that I thought went well was the ending. It seemed like the percussionists were together because I did it in a 4 pattern. I don't know if I'm supposed to or if I'm allowed to.

ME: You did it and it worked- that means it was the right thing to do, right?

J: I sort of slowed down in 49. I think we discussed that.

EB: Did you decide to do the 4/4 beforehand or was that kind of just while you were up there?

J: Beforehand.

EB: When we had been looking at it and singing it. My next question. How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions? So the ones you actually did and committed to.

J: Like the one with the, I think it went pretty well. You mean if the ensemble responded to it?

EB: In both ways. If you were able to show it in a manner that was clear and if you did heard it back.

J: I thought [at] 12 I heard it back. And then the ending.

EB: Right, you said it was clean and together.

J: And the legato 20 to 24.

EB: Was there anything else that you did... it's so much easier to talk about what you didn't do, I know. Is there anything else you did that you thought was really great? Or you were pretty happy with.

J: The beginning I guess. But then I started following them instead of leading. I think maybe the tempo dragged.

EB: Did it feel a little slow to you?

J: I don't know, did it feel slow to you? (laughs)

EB: No. (laughs) It was good. How well did the ensemble play in terms of your musical decisions made during the score study sessions? Did they match the sounds that you had in your head? I know you said you heard the tenuto.

J: I mean they're really great musicians so they will play musically.

EB: So they played well. Do you think you affected that?

J: Not really because I was following them. I got lost. Sort of.

EB: You couldn't tell. On a scale of 1 to 10 how would you rate your performance of gestures to show those musical decisions you made?

J: Well because I didn't do that bass thing that's like 5 points right there. Can I do it again?

EB: Did you have a gesture in mind for that?

J: Yeah, totally.

EB: So you had thought about it. You couldn't really practice it because I didn't let you practice anything but you had thought about it.

J: Like you know Lincolnshire Posy, the second movement, with the basses at the end. It was like that moment but it was like, "Oh."

EB: So what were you going to do?

J: Like boom. (gestures) Like on every second beat.

EB: I think you might have done that. Like a little one of those. Almost like a bass drum hit. I'll have to look at your video. Okay, so 5.5 for that because of that. Fine, you are hard on yourself. Were there any other gestures, I know you told me you thought about the end, you thought about

subdividing this while we were singing it. Was there anything else you were thinking about how you would conduct it? I remember one time I saw you write down *meld*. Was there anything else you thought about while we were talking, in terms of how you would actually conduct it? I remember seeing you write *meld*. But I think you might have wrote it there before you thought about this stuff. Did you kind of think about how you would conduct it the whole way through while we were talking about how you wanted the ensemble to sound?

J: Yeah, but I didn't really think about pickups, so that's what was like...

EB: But you thought about the articulation, like how you would show things like that? I know it's hard to think back to what you were thinking about last Friday.

J: I think it was this. I was maybe going to do it in a 4 pattern but then I didn't and I didn't really slow down I think. And also I remember thinking about giving it a breath there, in measure 34. Sort of shaping the last note a little more.

PARTICIPANT #9

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

M: You just want me to go start to finish?

EB: Yes.

M: The beginning was staccato so I really wanted to have that bit of a flick but not as dramatic as towards the end. Right at measure, is it measure 3 or 4 with the piano, I tried to bring it down a little bit and then grow into the forte and kind of finished out that page.

EB: You looked really relaxed up there. You even smiled.

M: I felt relaxed. And yah I just kind of finished out that phrase. I wanted it a little lighter at A, with the different harmony and all that jazz.

EB: Did you change anything there? Do you remember what you did?

M: I brought up my plane a little bit but I think in my excitement doing it, I didn't do as much of a dramatic change as I wanted to do. I just kind of cruised through that. When the trumpets come in at measure 12, I tried to give them more attention. I wanted it to be slightly more legato than it was before that. I tried to give some emphasis to beat 2 of measure 16 going into the B section, kind of letting the horns and the baritone have something to pick up off of. I tried to add a little more balance for the syncopated rhythms for the woodwinds there. I don't think it was as dramatic as I had in my head, out of my excitement. Brought up my plane again at measure 20, when the woodwinds kind of take over the melody. Tried to make it more legato going into

measure 25. I kind of just went back to closer to what it was at the beginning but a little bit more quiet with the flutes, E-flat clarinet and trumpet taking over the melody there, kind of how the introduction ended right before letter B, measures 28 to 32. Slowed down when I got to the poco ritard. I went a lot slower at C then I was expecting to do.

EB: I wondered if you would notice that. But it made sense.

M: Yeah. I guess in the short time we had I hadn't thought about it. I mean the beginning is 96 and this goes to 88, so there's no way I would have done it that slow. At the speed we just performed it, I would not have gone that slow so I kind of let the band dictate that a little bit. But got the volume I was looking for, I tried to do a bigger gesture and I was making sure that I was level on the plane that I wanted. With the 10 billion flutes that we have in Symphonic Band, I was trying to look at them a little bit and give them some attention towards measure 40 and pretty much to the end where they have the eighth notes. Then I tried to bring it down a little bit, a little more legato measure 46. I slowed down towards the end, measure 48, I think I had written down that I was going to do it in 49 but that last half note in the horn and trumpet part, beat 2 of measure 48, I felt that that was a more appropriate spot to slow down. And slowed down, tried to make my gesture bigger and I went out of time at measure 50 which I wasn't expecting to do, I just kind of did that. And showed the whole note and then the fermata. Just kind of got a feeling for how long to do the fermata.

EB: How well did you execute the gestures you had decided on and prepared?

M: Based on what scale?

EB: On a scale of 1 to 10, how well were you at executing those actual gestures, do you think?

M: Maybe like a 7, I think it was good. But as I said, I don't think they were as crisp and as clear as they were in my head. I still don't feel like I knew the piece too well. I feel like I did a pretty job for how much time I had but there were definitely miles of improvement I could have done.

EB: Are you saying they were more general than a big difference between legato and staccato or was there anything in particular...

M: Yeah, I think I got every gesture that I wrote in the score, I just didn't do them as cleanly as I would have liked to.

EB: Not as much contrast as you would have liked?

M: Yeah.

EB: How well do you think the ensemble followed your gestures?

M: I think they followed them actually pretty well. I feel like they didn't really change too much but I think that was because of the lack of clarity in my gesture. I was receiving a lot of eye

contact from almost everyone in the ensemble. I think that they know and like me, or at least I hope they like me. I think they were trying hard so I got that vibe and I felt like it was kind of all on my shoulders.

EB: Hence the smile.

M: I think I made a pattern mistake and that's why I smiled. I think I did two one beats and then I got right back into it. Maybe when you watch the tape. But I was happy with the way they responded. I think I could have got more out of them if I had done it. I think I got exactly what I asked for, which was not as much as I wanted.

EB: Do you have any other comments about the performance, or the score study process that we went through?

M: I don't think so.

EB: Just more time would have been helpful. Or being able to practice.

M: More time definitely and maybe too, just kind of sit and start and stop with a recording as much as I wanted to. I think just sheer repetition would have helped a lot too. I feel like I'm still early enough in my conducting skills that I don't necessarily have all the skills to do what's in my head and the skills I do have aren't up to the standard I have in my head.

EB: So the physical practice is important.

M: Yeah, and even just kind of knowing the difference between a gesture like this (does a gesture) or a gesture like this, they are really similar but which one more appropriately fits the context. I don't feel like I had the tools necessarily to appropriately fit each gesture of the piece but getting there at least.

PARTICIPANT #10

EB: What did you think?

C: It was funny getting to conduct with them and hear things or not hear things that we had talked about in our conducting prep. Specifically, the thing that most caught my attention, and I don't know if the video camera will show you, I looked up and kind of smiled. The fact that the band, after the *poco ritardando*, I had forgotten about the *poco ritardano*, I don't know why. I was doing that in our conducting session too. When we got to the *poco meno mosso*, everyone was still really, really slow and for a second I tried to give a little bit more of a sharp, or what I thought, maybe it didn't come across that way, little bit more of a sharp gesture. It's best for the music, for me to just give in to this, and try to make the best that could possibly happen. I don't want to blow the experiment, I'm not sure if that was part of the experiment, or if they are just used to other people conducting it and never speeding up, or they just weren't watching me. I definitely, you can see it, it was like, "Oh my gosh, I'm in wet cement."

EB: Unfortunately, I think they had an idea of how that went that was much slower than all of us had talked about because that kind of happened to everyone.

C: That's really interesting.

EB: I heard them rehearse it and it was at a slower tempo. Not quite that slow, but a slower tempo. I'm not sure how much they rehearsed it compared to other groups. They seemed kind of stuck in that.

C: *Poco meno mosso* would hint that we should have gone a little bit faster, right?

EB: No, a little bit slower but not much.

C: A little bit.

EB: Let's start from the beginning. I want you to talk through the performance that you just did and pointing out specific gestures you did that you remember doing that helped portray those musical decisions that you made during the score study sessions. Try to be as specific as you can, right hand, left hand, what was going on, what do you remember doing. And give the measure numbers since we are audio recording

C: At the very start, measure N, I guess, or 0, the pickup measure. I was really excited, I put my hands out, my usual "I'm a bear hunter" plane, and then I remembered to bring it in and I looked at the trumpets, and I felt like I had pressed into the plane but as we talked about that piano note in the trumpets was nasty. It was very insecure sounding to me; it seemed like two people played and both of them cracked on that first note. That was my first observation. Relating to the study, I adjusted my plane and I tried to be very light in my conducting. Very staccato with my ictus so they would know that I want them to play staccato. I tried to get larger at the forte, which happens beat 4 of measure 1 and bring it back down at beat 4 of measure 2 at the crescendo. I don't think I used my left hand to assist with the crescendo in measure 3. But it could have just been a moment thing that I did and I forgot about it. I wasn't aware. Not relating to what we were talking about, I felt like when the band came in, I was thinking more about looking at everyone and trying to connect with them, rather than being really good with my technique. I think I was riding the time, I could have been mirroring or just hanging out with the left hand. I do remember in measure 8, bringing in the left hand to let them know there was decrescendo there. A nice little pop, pickup into measure 9 just to re-energize, we had talked about that. I think I might have gotten a little bit more legato or less pointed in this section A to B, or it seemed that way. I don't know if it was a decision so much as me reacting to the ensemble or not insisting, we had talked about the intention, not being forceful, or not wanting to come across as Mr. You're-Not-Playing-Short-Enough. I don't know if it was a choice or habit or just giving in to the ensemble. Definitely more legato going into 16. Oh, going back, as soon as I heard the tambourine at measure 12 I remembered that I needed to lift my plane a little bit and I did that and I reached back to the tambourine player. I think that was good for the ensemble because the people in the back were playing at that time and it's important to direct everyone's attention back to that sound. Which doesn't blend, I guess they are taking over for the woodwinds, it's tambourine and brass which is kind of really, really high and medium to low

registers. I got more legato going into measure 17, not super legato but something less pointed to get across the marcato accents in the horn part, we had talked about that. I did not get, as far as I know, more legato when the flutes, oboes, upper woodwinds came back in with their figure all slurred and that was me not paying attention. Not a choice. I don't remember doing anything 24 and 25 differently. Yeah, I should have been giving them a bit more goo. We had talked about the resistance for the tenuto marked French horn parts. I was growing, I'd imagine, I felt my core getting excited for the offbeats (sings). I was probably just getting bigger and totally ignoring any type of specific conducting, just my window was probably getting larger and larger. At measure 33 the poco ritard happened and I was not being proactive about that, I reacted to that. Held the fermata instead of keeping the note its full duration, on the downbeat of 34, the inferred downbeat. Breath release, fermata. I think I just did a circle to make it clear. If I was thinking ahead, I don't know if we talked about this in our session, I might have made the release also give information about the articulation I would like them to come in with, pick up before C. I think I was much more easygoing, legato in here. I don't remember, I didn't talk about it, that's what it was! (turns back) I kind of showed a bit of resistance when the French horns came in, I went into this figure 8 kind of thing to show the nebulous, not lack of pulse or lack of beat, but we had talked about that murky sound. And it just seemed to feel good, it seemed to feel good to do that. That was at measure 24. I don't think I did anything different until the end, when in measures 47, 48 and 49 I slowed down a little bit and then gave 1, 2, and tried the breath and didn't work, halfway worked, to be expected, some people just held right through. I'd say, you'd have to listen to the recording, but I think about half to 65% of the people got the breath. I was more focused on my technical maneuver than I was [on] listening back to see if the timpani and snare drum got that. I don't know if they understood my slow down or if I was locked in with them. It's kind of one of those "rehearse a couple times" and you kind of get a feeling for how it should go, and you both ride the time together. That's how I would view it. And then cut off, measure 51, end of the piece. I tried to be round with it but still somewhat clear to show this is where the sound stops but I want it to be a nice ending not a "DAAAT".

EB: I think you achieved that pretty well.

C: Okay, and that was it.

EB: So no other specific gestures you remember doing? No? That's ok.

C: Oh the little- (sings).

EB: I was wondering, "Did he just not realize he did that?"

C: The self-indulgent move at measure 46.

EB: So you do recall doing that?

C: I do recall doing that. I remember feeling kind of "Eeee," measure 42, 43, 44. And then I knew the lick was coming. I just kind of let it go, it's in the past and de-de-de-de-dah. It brought me back in, and got me ready for the end of the piece.

EB: So with those gestures, how well did you execute those gestures that you decided on and prepared? Like on a scale of 1 to 10?

C: Gosh, probably like a 6 or maybe a 7.

EB: Was there anything specifically you thought you did well? Or was it dynamics, articulations, was there anything in particular?

C: I felt pretty good about the contrast. It's hard for me to say I did a good job or was effective at it, because I was trying to be good and not practice. If this wasn't an experiment and I did have the chance to practice, I definitely would have tried out those moves and I think what I'm comparing it with, I know I can be really good about this, I know I can do a legato really well but I hadn't practiced and I hadn't thought about it so it was kind of me still figuring out what exactly to do. I think for the drastic changes, I was there, and I did do a good job of making it clear. This figure 8 pattern is not legato. And the fermata went pretty well, after the poco ritardando. We didn't come in at tempo. That could have been me, that could have been the band. I thought that they responded very well to that. I didn't hear anybody going on.

EB: That's true and you were the only one that did that.

C: Cool.

EB: I don't know if they would follow but they did. So that was good.

C: Gesturally, I don't think I did it, I was thinking about it or maybe I caught the second one but not the first one. At 35, the (sings – the offbeats) I don't remember being proactive about that. I remember either ignoring it, or catching the second one or doing some other gesture that we hadn't practiced or talked about. Just pulling something out of the air, because my mind was in listen to the ensemble mode.

EB: Right, and they were at this weird tempo that you weren't expecting. I believe you kind of did the second one, kind of. That was another that one. I wondered if you remembered you did that. It was a little afterthought-ish.

C: I'm sure if there was anything that I didn't realize, it's that I went to my... I would leave things out or omit things. Like go to a bigger window, just kind of a sunny day, maybe mirroring because I'm nervous that the ensemble is not following or listening to each other, or watching me. It's more like "here's the beat."

EB: Like general conducting.

C: Yes, very stereotypical. I'm doing a beat pattern, with both hands, hoping that you will play with me. Like we talked about, sometimes you turn into the metronome rather than the expressive, artistic director. I think any of the things that are unaware to me were forgetting the things we talked about and going back to my habits.

EB: So how well do you think the ensemble followed your gestures? We kind of talked a little bit about it.

C: Not horribly well, I don't think. It was a weird thing. I was more concerned about not falling apart and making sure that I was using the things we had talked about, or trying to use those things. My ears were not extremely open to whether or not they were doing the things. The symphonic band, in my past experience with them, has been one of those bands that you could be peeling an orange and they might play the same. You know, they're good, they sound good.

EB: But they are little bit on autopilot, is that what you mean?

C: They are very much on autopilot unless you stop and talk about it and use words or use a diagram or use an explanation. Waving the stick might not get it across to them. They might think that you know if I were to go from a legato to a very staccato, that I'm upset with them and that I want them to follow the beat, rather than think "oh I should be playing that staccato or forceful." I don't know. That's a little interpretation I feel might be an issue. So no, to answer your question, I don't feel that the band responded too well. Especially the tempo at C. The drastic slow down. I was trying to pick them up and I know it's harder to speed up than slow down a big train but that was exceedingly difficult to the point that I was like, I'm just going to give in.

PARTICIPANT #11

M: I felt that I wasn't as prepared because I only got about an hour and a half to look at the score and couldn't think about it in between. I didn't have time for myself to imbed the ideas that I wanted to do and I also didn't have a group to practice them with.

EB: And you didn't practice at all.

M: Yeah.

EB: So we are going to talk a little bit about what you remember right away about your performance. So if you can talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. You did some really good things gesturally and we'll see how many of them you recall.

M: I'm just a little out of practice.

EB: Try to be as specific as you can and give measure numbers for the specific gestures.

M: In the beginning, pickups to measure one. Well first of all, I probably didn't give a very good instruction on what my dead beat would look like.

EB: It was really clear, the only thing that was missing was your breath. Just a little inhale and they would have been fine. You had such a nice small gesture for the piano.

M: It wasn't quite as piano as I would have liked it.

EB: Their sound?

M: Yes, their sound. I kind of forgot about the crescendo in measure 3.

EB: So you didn't do a gesture there?

M: I don't believe I did a gesture for that. But I believe I did a gesture, just my left coming down in measure 4, for the whole group to be in. In measure 8, I tried to do a decrescendo with the hand pulling back on the sound a little bit. I'm just talking through what I did gesturally, not what I heard?

EB: Just gesturally first and we get to do what you heard afterwards.

M: At A, measure 9, I didn't do much. I just beat time. Trumpets come in pickups to measure 13, I believe it was just a downbeat at 13 where they came in. Again, pickups to measure 17 the French horns, it was a downbeat in 17. Tried to do a bit of a crescendo in 18 and 19. In 21, I realized my conducting wasn't very legato. So I slightly changed my conducting style to fit that, to what I heard. I wasn't exactly paying as much attention as I probably should have been. I tried to do a smooth gesture with my left hand to signify legato feel. When the French horns came in at pickup to 25, I'm pretty sure I just gave a downbeat. Also in pickups to 29, downbeat on 29. In 33 and 34, I was trying again to decrescendo with the sound. I didn't slow down as much as the band did and I wasn't ready for the poco meno mosso. C was another downbeat. C is 35. I forgot my decrescendo at 42. I did a decrescendo in 46. I wanted to do a crescendo from 47 to 50-51. I just didn't coordinate it very well so I didn't really do it, then I tried subdividing in 50 but that did not work. I was a little slow in my subdivisions and then the band didn't know what to do in 51, they were giving me confused looks. I knew I did that one wrong. I asked for a crescendo in the last measure and they did respond to that.

EB: How well did the specific gestures you used, like the decrescendos and crescendo, in the conducting performance portray the musical decisions you made during the score study sessions? Like on a scale of 1 to 10.

M: Like their reaction to my conducting?

EB: Just your gestures. Did you think your gestures portrayed all the musical decisions made during the score study questions?

M: I think they did a fairly accurate job of representing the music but I didn't feel like they were followed as well. Because I feel that the band has rehearsed a few times and they have set ideas for what they are going to sound like according to their director. I feel that they were paying more attention to the page than the conductor.

EB: If you were to strip their sound away, and just watch a video of you conducting, that probably portrayed your concept of the piece?

M: No, I feel that because I wasn't as prepared, I wasn't as expressive with my baton hand as I could have been. I felt like it mostly stayed the same height. My pattern was pretty much the same height. You might be able to tell the difference from legato and a more marked tempo but the accented and tenuto sections, I didn't feel like there was as much of a difference in my conducting. So the accented and the staccato were probably pretty much the same thing.

EB: How well did the ensemble play in terms of your musical decisions made during the score study sessions? We kind of answered that.

M: Not so much.

EB: Not the way you wanted it to go, right? When we were score studying and even this last time when you were looking through, were there specific gestures you thought of? I know I didn't direct you in talking about gestures at all but were there things that you were thinking of while we talked about the musical ideas or were you kind of just focusing on the sound of the ensemble?

M: I was a little bit thinking of my gestures but it was mostly after the fact, like "Oh, I should have maybe done that." Like I probably shouldn't have subdivided into 4. It makes more sense to me on paper and maybe if I had an ensemble to rehearse that with then it would make sense to them also. I was a little bit second guessing myself on the cue in the beginning, the dead beat and I forgot to breathe. That was a conductor error, something I forgot. I wish that I could cue better, that I was on top of it, that I knew where all the entrances were. That was one thing that I would have liked to do better. Differentiating my patterns, making them bigger and smaller according to the dynamics. The staccatos definitely being pointed, I mean they are quick and light, and your accents are a little bit heavier but they are still a little aggressive, like the staccatos. And the legatos being a little more flowing and then I was actually doing them immediately when the time came. Sometimes I would hear it and then I would be like "Oh, I'm not doing that correctly." I need to switch my pattern now. Was that kind of along the lines?

PARTICIPANT #12

EB: Go ahead.

T: I just – without actually practicing some of the gestures. I think that was an issue for me. Particularly in moments of ritardandos, that stuff. Just some...

EB: Okay, we are going to start talking at the beginning of the score. First of all, talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

T: I know I probably did not start it as softly. So my gesture at the beginning was probably a bit bigger than suggested. That whole first chunk I don't know if I did anything that really influenced the dynamics there. But I did try to use my wrist in kind of a flicking gesture to keep the lightness and the bouncy quality. The cat playing with the ball of yarn we talked about. I tried to get a little bit more horizontal at letter A. We talked about the flowing and the feeling of keeping that moving forward. The horns were not the dominant sound at letter B, and so I think I cued in the horn direction and I think I gave them a gesture with my left hand signaling to come out more. Perhaps if I had given gestures to the others to get softer that may have been more effective. My gesture started to go down and giving a more heavy for the accented section there. I tried to just move side to side, in a horizontal way, and flow in a smooth way with no, or as little, vertical direction as I could around 21, with the woodwinds. I tried to indicate the little lift between the two chunks of the phrases, in the middle of bar 22. I tried to show a little clip, little lift there.

EB: Right, because you had a really clear idea of how you wanted that little phrase to go.

T: And then... yeah... Some of it was kind of... I don't know what I did gesture-wise. For the first time, you are hearing all of the... where the sound in your head and what's actually happening, you are hearing that meet. For me, some of it I stopped thinking about what I'm doing gesture-wise and I'm just listening and being surprised. And doing in my head, "Does that fit it? No? Why?" All these things, moving down the list in my head of what I want, touch on, or fix.

EB: Being more of a listener, reactor, rather than a leader of what you want? Or somewhere in the middle?

T: I think somewhere in the middle. I don't know. I try to react, I try to influence ahead of but... It moves so quickly on the first read you can't really dwell on how much you influenced it, you just gotta keep going to the next one so you don't screw up.

EB: Get behind.

T: Or fall apart. I know that at this, 2 bars before C, this whole thing. I imagined this moving into kind of 4 and controlling each one of those notes. It was a combination of me not prepping that that was what was going to happen and the ensemble having their own idea and having three other conductors before me. But that just moved through that. Maybe there was a bit of a ritard but it wasn't anything influenced by me. I don't think. And because of that, I was taken by surprise of that, the pickup to C, that lift and breathe, was not as clear and together. This was a bigger and heavier gesture. Keep this fuller and accented, was my intent. I tried to do some kind of motion of taper. I think I came in to the body, so my hands got closer together and closer to my torso, like in 42 when the melody tapers off. So I tried to do that. I don't know how much clarity I got for the pickup into the next phrase at 43 and if I was too much with the previous and not preparing the next as quickly. I attempted to start softer on pickups to 47 leading to the end. It wasn't too loud, it wasn't that loud for me. It wasn't like I had to overdo it, like "Woah, woah, come down," but perhaps I could have done something to prepare that a little better, that I wanted that smaller. The percussion ritardando at measure 50, it was up to them. I mean, they

did it and I was along for the ride. Because it was, for me, a first read. I think part of it is that, well, I think part of it is that I just, how to articulate this? I think it's that whole thing of what you want to hear and what you're actually hearing and kind of the battle to not let that influence what you are doing. So here, I was along for the ride with the percussion and because in that, however many seconds, for that very short amount of time, in my mind it doesn't flip to listen and just follow them so you are with them to now I need to prep everyone for this last note, in enough time. So I think the prep for the last note, it wasn't a disaster but I think it could have been better. I didn't really like the balance at all, of that last note. I just held it and went for the style, a little crescendo to energize the release. I would take a look at my release. I could do a better gesture for the release. Maybe trying, I think next time I would try a counterclockwise both hands gesture than whatever I did which was something kind of counterclockwise and a gripping of the sound.

EB: Do you think that affected the sound of that release? Is that why you are saying that?

T: I think it might have affected the quality of the sound but I think more so just the precision of the release and whatever sound. Kind of an eraser release. Whether that was high woodwinds to low sound or just everybody cutting off.

EB: How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions? Like on a scale of 1 to 10? Or were there some that matched better than others?

T: I'd say throughout the entire thing, a range from about 5 to 7-ish. I think the light gestures, some of that was good, other times was probably too much arm for as light as I wanted it. I think my accented heavy gesture was good and some of this flowing business at 21, I think that that was fine. I think bar 25, that area, there was not a gesture that came out that adequately reflected the sound that I wanted. Those ritardandos, those transitions between those sections, more like 5.

EB: How well did the ensemble play in terms of your musical decisions made during the score study sessions? I know we kind of talked about you hearing their version of it.

T: I don't think that there was as quick of a change from their own interpretation, maybe of the other times before me that they played it. It takes a while, it's not an instant, like they aren't looking for it, or if it's not clear. And that could be, mostly I'd blame myself. The change from what they are seeing from me and what I want, was as quick. And it's the same thing for me, when I'm trying to influence something it goes by so quickly, you can't really dwell on it. It either happens or it doesn't, in this fast piece. I don't know if I want to say that they weren't as receptive to what I was trying to show but I think it goes back to their kind of interpretation, whatever that is based on, playing it three times or whatever and how quickly they can interpret the information coming from the podium and make the change. I just don't know if in this short amount of time whether my gestures were ineffective or not.

EB: When we were score studying, I was trying pretty hard to direct you to just think about the ensemble sound. How many times did you feel you thought about your gestures as well? Were there certain things you had decided you would do or you had thought about?

T: It was there. It certainly was there. But I tried to follow instructions and not dwell on it. So particularly I knew that the transitions were going to be something I would want to practice and think about. And I didn't.

EB: And those were kind of the spots that you feel didn't go as well. Is there anything you recall thinking "Oh at this point, I'm going to do this with my left hand for this," or anything specific?

T: Just in the last 5 minutes before we went. That's when I had the most time to think about it. And I was looking particularly... I decided to try not to micromanage the percussion right before the fermata, which I didn't but the gesture and kind of following them to prep the final fermata, it still took me by surprise. I did think I was going to do the big, in 4 before C and that didn't happen. I was thinking about cuing the percussion, the tambourine and the snare drum, at certain moments when they come in. And that was out the window, the way we were going. In terms of that, that's about it. I did think about the initial prep and that I would want to be clear and show the style.

EB: I thought they were right with you on that, I thought you did a really good command of that first note.

PARTICIPANT #13

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

S: So I think it started okay, it just didn't feel like it was together, with the trumpets. Maybe that was me and not being clear enough but the second time was clear enough. I don't know.

EB: So what do you remember about your gesture specifically?

S: Right at the beginning you mean?

EB: Yes.

S: I just didn't get what I wanted. I don't know if that was my gesture or not or if that was just the trumpets. With the dynamic changes, I didn't do enough, I wasn't prepared enough for the changes.

EB: Because you were thrown off?

S: And then it just happens really quickly and not being ready for that. I felt that my gesture was kind of responding to what I was hearing a little bit, at the beginning, like suddenly it's loud, I need to look louder so I wasn't really getting that across. I think articulation-wise, I was kind of getting what I was showing. And then I was just trying to think about being more lyrical at A, with the flute line and the oboe, I think that was okay. I could hear it well. I don't know. I

didn't really do anything different for the trumpets, for their little phrase, I wasn't really listening down.

EB: So you felt pretty much the same style of gesture throughout letter A?

S: We had talked about giving this direction more and I don't think I gave enough direction. Like from A through the trumpets. I think at B I was trying to be more heavy from both the horns and the woodwinds, like the heavy accent feeling. I think it came out okay. Gesture-wise for this melodic section measure 20, I think that was good. I was trying to be conscious of being more horizontal in the plane and not coming off very much and getting a singing quality sort of. And the next little bit, 25, once the horns got started I was focused on the bassoons, they didn't really look at me, so I don't know if my gesture really did anything but it was nice to hear it and get that viscosity in the sound and the thickness and the resistance. It was nice to hear it come through, I don't know if that was just me responding to what I was hearing or not. Then I went back, I looked for whoever was playing xylophone- I didn't actually see who was playing, I tried to give it a more articulate quality in my gesture. It was okay. In 33, the ritard going into it, I think was okay. I could have been more clear in how much I wanted to slow down probably. I kind of looked up and it was there all of a sudden.

EB: So did you feel you didn't slow it down as much as you intended to before?

S: I didn't want to slow it down too much. So I think it turned out okay. Just coordinating the cutoff of that into the next section here was a little iffy I think. And this is what I was saying earlier at 35, at C. Going back to the trombones, the basses, the baritone, the saxophones, getting that thing on the and of 2 or the and of 4, I was just kind of responding to what they were doing it, I kind of think. I didn't really change much for the next 8 bars, I don't think. I'm not really sure why. Just looking at the score, at 38, it would have been nice to cue the first trumpet, but I didn't. Just thinking about the last phrase at 43, thinking about how that is leading to this. Quick change to piano for the last bit. I think my gesture, I tried to reflect being very small, I just don't think I got big enough at the end. Other than that I think it was all right. The ritardando was fine and the cutoff was okay.

EB: I agree. You got quite small here. My next question is how well did you execute the gestures you had decided on and prepared? Like if you were to rate yourself on a scale of 1 to 10.

S: I don't know, it's hard to say. I don't think I did terribly, maybe a six or seven. It's all so in the moment, it just kind of happens and I forgot. It's like one of those, you see yourself doing it sort of things, you know. I don't know. But I think I tackled some of the issues that I wanted to, especially the articulation stuff and thickness of the scoring and that kind of thing. So I think I got that stuff but like I said before, I think I was just responding to a lot of things I was hearing.

EB: So not necessarily being in front?

S: Yeah.

EB: Were there any gestures you remember executing or not executing?

S: I feel like the section at 17 where we have this heavier section, I think that went okay at least how I somewhat planned it. Not being able to see myself, I think it was okay with the offbeats there. And this lyric section 20-21, I think that went well and the transitioning to the thicker thing. Except just missing the thing at C, I think I went back to it, but it was just not— I didn't really believe myself when I was doing it.

EB: You didn't really believe yourself?

S: I mean, I don't know, I just kind of threw my arms up and I don't know. I mean if I was playing I don't think I would have believed what I was showing.

EB: How well do you think the ensemble followed your gestures?

S: I think they followed okay, I already mentioned the bassoons not looking up. But I think a lot of it you can see without looking up, I think it comes through.

EB: Most of what you heard were things that were in the score?

S: I think so. And being their second read through, it's understandable but it's still not very hard to play. I did get a lot of eye contact with people, which is good. It's hard to tell if that's just them reading the music or them reading my gesture as what I read the music as, I'm not really sure.

PARTICIPANT #14

EB: First of all, how did you think it went? What were your reactions to it?

M: I thought it was good. I thought it went well. It started off a little bit rocky with the prep beat, I just hadn't actually really thought about it.

EB: We hadn't practiced it or gone over that.

M: Then I didn't do any dynamics at the beginning. But then, it started off way harder and then I was like okay let's do this a little bit more. I covered some of the things I wanted to do. In some ways I portrayed what I wanted to portray. When the French horns had the melody and they were supposed to be more sonorous I tried to make more horizontal instead of like bump bump. And the offbeat with the basses, I tried to show some of that.

EB: You are already getting into the first thing so let's talk through that. So please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

M: The first beat was a little bit rough but they caught on pretty fast. On measures 1, 2 and 3, I didn't really have dynamics, which was a shame. But I was beating the pattern so there was time. Measure 4 they all came in good, nice and loud. I was kind of just beating time around there. Trying to look kind of happy and like well positioned, proper almost because that is how the music is supposed to be. Starting off the piece happy wasn't necessarily a bad thing. Maybe not the exact mood I was looking for but it worked. There was a nice contrast I think I tried to show a decrescendo at measure 8.

EB: Do you remember what you did to show that?

M: It would be right hand. I barely used any left hand so decreased or smaller pattern. I might have done more flicky for the (sings). I didn't do the bah-dum, like I meant to. I think they did. For the most part I was just changing my right hand pattern because my brain matter wasn't keeping up. I felt kind of reactionary. But I could react kind of fast because I knew what I was listening for.

EB: So at 17 did you still feel like you were reactionary for that?

M: I mean, certain things I know, like I know when it's going to change, like have a big instruments change. Like overall I reacted a lot and even this time I reacted because I didn't know what exactly to look at. I feel like that is one of my bigger problems as a conductor. Like really just learning, if like clarinets, flutes, just being able to point out where people are and knowing who's come in. But it wasn't too bad. I might have showed this but I'm not sure. I heard them. And by showing that I just put a little bit more bounce, almost like a quarter note bounce in my right hand to show that. And I probably bobbed my head a bit and swayed because I'm not supposed to do that. This came in screeching loud so I might have tried to tone it down, at 20. I might have tried to get them a little quieter but it is forte. I think I did a more legato pattern for that because it is longer more legato phrasing. I definitely did that for the horns at 25, looking towards them because it was like, "Okay, I know you guys have the melody this time." 29 is when I definitely heard the basses like off the beat (sings) and I tried to show some of that, with still kind of a crisp right hand for the trumpets and the crisper melody. I don't know how I showed it. Maybe subdivision in here, but also just looking towards the tubas and seeing if they could bring that out. Poco ritardando, they kind of did that on their own pace.

EB: You don't think you led that?

M: I don't think I started to lead that but I think they started it and I led it from there. They kind of grabbed the baton and I took it back from them. They started slowing down and then I wasn't clear to with the entrance at 34. Could have been more clearer with that. But that was fine. This is just huge. Even in score study I didn't know exactly what I would do there. Between 35 to 42.

ME: Wait so you didn't know what you would do there?

M: I mean, I might bring out a character kind of or try and have a certain stature or something, but I didn't know, like I couldn't really cue anybody to vary any efficiency. There's no dynamic

movement so I couldn't do any with my left hand really. I wasn't too sure but I just beat through that and it worked. Even if it wasn't necessary, that happened. I don't think I did the decrescendo in 42. Then 43 happened. I definitely heard the bari sax, bass clarinet and tenor doing the eighth note line and I looked over at them. I didn't do the decrescendo in 46. It all passed pretty fast. I don't know if I kept a steady tempo. Then 46, going in to it, I'm not even sure how well I showed the giant crescendo— I think I should have used left hand there or I don't think I went down too much. But I think they, if I remember right, they decrescendowed or got quiet, probably not piano but mezzo piano and then they came up. The last, 50 and 51, was kind of like, working it out, I didn't make eye contact with the snare drum player and wasn't exactly sure and hadn't really worked on it. And then my release on the last note was like, "There's the last note, okay, thank you!"

EB: You had said in this middle section that you weren't sure what you were going to do. We didn't talk about how you were going to gesture things, but were there other spots you had thought "I'm going to show this by doing this," while we were doing the score study or even in the 5 minutes you were in here before you conducted?

M: It wasn't too much of do this by doing this. I knew more of what I wanted it to sound like. I had nowhere in here where I had like specific "Oh, I'll use my left hand here," it was all just kind of what I wanted it to sound like. In general, I would do it with my right hand, when it got to it, I would try to do it with my right hand with my pattern.

EB: Like you did in this performance or in general in your life you would do that?

M: In this performance, I aspired to show some of the things with my right hand. Like for instance the forte and piano in the beginning, I didn't really have to think about what I would want to do because it's obvious to me that I would just be like (sings and gestures). I actually thought, yeah maybe in the 5 minutes, I did think about how I would do the pattern, and I didn't do it but I mean (laughs).

EB: So you thought about how you would change the size of the pattern to show the dynamics?

M: Yes, so (sings and gestures). I forget how I had, but I would have to do a quarter note before I to show that it was about to change. I thought about that but I didn't really think about much else. I think I probably envisioned the way I would cut off a little bit but not even that.

EB: Mostly it was just the sound of the ensemble, like we talked about.

M: Yeah, how I wanted it to sound.

EB: How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions? Like on a scale of 1 to 10, how well those decisions you kind of made on the fly.

M: Well, I mean it's hard to tell without seeing it.

EB: What do you recall? From what you recall do you think it was?

M: From what I recall, it was pretty effective. Like certain things definitely needed practice. Especially like, for instance I think the first 4 bars I wasn't able to portray well because I was caught off guard. But also even if I hadn't I don't know how well I could have, just on the go.

EB: Because you didn't have the opportunity to practice?

M: Yeah, there's just a couple things that I think having the opportunity to practice would have a huge influence. Like here, the decrescendo here. There's one more spot where I felt like specifically that not practicing the movements had made it more difficult for me.

EB: Where was the last spot? The very end and then measure...

M: Measure 47 to 49 the decrescendo, I think. The first four measures. There were other things where practicing might have helped but I felt like I could have done it on the fly.

EB: How well did the ensemble play in terms of your musical decisions made during the score study sessions? Did they fit how you thought it would sound?

M: The only thing was dynamics, I think. I thought to an extent that they weren't too watching me, to an extent. They do watch but they do their own thing. Like the first measure, I wasn't completely clear so they'll just read the music and just nail it. But what I found surprising was they didn't do the dynamics in the first 4 measures. And I feel like although that's something I definitely should have showed, they definitely could have done that very easily. I'm sure people did that but others didn't and that carried over. If you see forte, piano, forte, it would seem kind of significant like this might be important. Also it's first day after a concert and this is easy music, so it's just like "Ah, just go through it." So there's that dynamic. Aside from that, they sounded great. I was really able to hear the inner parts with them than with the recording. There was even a part where I was like, "Oh wow, I'm sure we went over that but I got it this time." Like I heard it. They played very well. I think they were a little bit screeching, the high voices took the forte to heart. But for the most part, they were pretty good.

EB: Do you have any other comments about the score study and the process you went through?

M: It was pretty stress free.

PARTICIPANT #15

EB: I think I know how you thought it went.

M: It went kind of okay. I didn't see any eyeballs except for the very beginning, even in parts it's specifically written ritardando. I felt like maybe I was a little too staccato in some places where they didn't quite get the feel, like especially at the beginning where they were off and they

just kind of ran with it. I felt like I wasn't doing anything, I was just standing up there, looking pretty, sort of. Like here I felt like I didn't hear the crescendo at all until we were on A and I tried to show that a tiny bit.

EB: Let's start at the beginning. So talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

M: The beginning, the pick up, it wasn't together; this was interesting because the lead trumpet player looked down as soon as I gave that which is interesting, and I felt like after that, it sort of threw me off, because you know how fast the dynamic changes are in measures 1 and 3, so that threw me off but I hopped back on the bandwagon. In measure 8 I felt like I did some sort of decrescendo in my left hand and made it smaller because it's just woodwinds but I didn't hear one (decrescendo). So maybe I could have influenced that a little more, maybe I could have got taller. I felt that some entrances were weird. Trumpet section did something weird in measures 12 to 16. For pickup to measure 17, I tried to be as big and fat and angry sounding as I thought for the horns.

EB: Do you remember how you did that?

M: I was like down and big, like pretending I was hugging a bear. I was kind of doing downward pulses. For the woodwinds, I didn't give a crescendo, but one happened probably just because of the instrumentation because piccolo came in, and everything gets louder when piccolo comes in. I guess the French horns and baritone in 25 wasn't as connected as I wanted it to be even though I attempted to keep the sort of connectivity from the woodwind choir from 21 to 24— I'm not sure if that was them or me but I felt pretty connected. I felt I was still showing some ictus because it is tongued. I portrayed a character change in pickups to 29 with the xylophone, muted trumpet, piccolo and clarinet but I didn't hear one.

EB: How do you remember portraying that character change?

M: It was very sort of light and flicky, very small and I was smiling like I was being playful. Pickups into 33, nobody was watching so when I went into 4, they just sort of barreled through and there was nothing there, which threw me for a loop until the end of the piece. So 33 and 34 were not poco ritard one bit, it was infuriating. Therefore going into 35 I didn't look fortissimo because I was taken aback by my band going 3 measures ahead of where I was. Through C to about measure 43 I kind of went on autopilot to find my bearings and by autopilot I mean I wasn't showing much of anything except for listening to try to figure out where I was. In 43, I tried to show lyricity in the baritone parts. Again there was no eye contact made and it sort of sounded like how it did before, so not really slurred and not really tongued. Sort of a mezzo land of articulation. There was kind of a decrescendo at 46 although I did show one, at least with the left hand, it may have not been as prominent of a decrescendo as I wanted. I didn't quite lead the crescendo in 47 to 50 as well as I wanted to but I felt like I was driving it forward by sort of intensifying my gestures and my eye contact a little. There was no ritard for the timpani part at

measure 50 although I did show it. The only time I actually saw people make any form of eye contact was at the very end, when I cut off.

EB: So measure 50 you felt like you did slow down in that measure?

M: I felt like it didn't.

EB: Did you slow down in your gesture?

M: I attempted to. Maybe it didn't come across as slowing down but it felt to me like I tried to slow it down. Or maybe I had given up at that point. It's hard to tell. It's entirely possible that I felt like it was happening but what came out was so minute it actually didn't translate to the ensemble.

EB: How well did you execute the gestures you had decided on and prepared? On a scale of 1 to 10.

M: Probably about a 5 because about half the time I actually did and the other half I was taken aback by what I was listening to that it didn't sort of happen. I thought I was more being reactive rather than proactive. Like I was listening to it and being like, "Huh?" And then the suddenly the gesture that I wanted to show it came around and I missed it. Same with measures 43 to 46 where I wanted to bring out the lyricalness of the baritones and sort of do the very dramatic decrescendo into 47 where it sort of builds and intensifies to the end. I don't remember where I was going with that. Oh, that I was being reactive instead of being ahead of it so by the time we had gotten there it was like, "Oh well." One of those kind of moments where it's kind of like, "Oops, I missed it," because I was listening which is hard not to do with an ensemble. Especially when now it's a live ensemble and it's not in your head. And I kind of wanted to stop and go back but you told me not to. I really wanted to stop and go back.

EB: I know but you did a great job. I could tell you thought about stopping but you just kept going. How well do you think the ensemble followed your gestures?

M: On a scale of about 1 to 10, I'd say about a 0. I mean in the beginning it sort of worked. And then I guess that was about it. My conducting professor talks about where the ensemble needs you the most is the beginning, the transitions and the end. Minus the transition part, for example 30 to 35, I felt like I wasn't needed. I felt like I just said "Ready, set, go," and it just happened. And I'm not sure if it's just because they are sight-reading or it's the second time and it's simple, or it's a Monday or it's me. In that order.

EB: Were there any other things you wanted to say about the process or the performance?

M: Well I tend to err on the super prepared side so going into this having like maybe 2, like rehearsals and not being able to take it home with me or listen or even practice, I really felt like "Holy crap, here we go." And maybe that translated to the ensemble. Which, that's really interesting and makes sense, because people notice and see things when you are standing in front of them.

EB: Like you said, they all kind of know you too.

M: And it's simple, it doesn't change meter ever and it's not really difficult technically. So I guess that sort of helped with feeling unprepared but I really didn't feel comfortable with going up there with that much practice shall we say.

PARTICIPANT #16

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

H: A big thing that I tried to do with the prep at the very beginning was to try to give the kind of breath I want the wind players to make, or string players too. Just because it creates a better sound, so a nice deep front from the diaphragm breath with the prep. Going into measures 3 and 4 using the left hand upwards to make that crescendo, I tried to do that a little bit. Overall, I took advantage of the sections, like the measure before A, the end of measure 8 with the and of two, like the upbeat into the phrase in the next measure. I found myself taking advantage of those a lot and trying to make those preps really good so people would come in together and the entrances would be really solid. I tried to make a contrast between the different styles, so there were a couple sections, like the contrast between the length of the notes in the trumpets at the very beginning and then going into places like with the trumpets and piccolo later at measure 28 when that starts, it's a lighter gesture so I tried to make a difference in the length of horizontal stroke I was using and how much wrist I was using for the more staccato stuff, trying to make it a more smaller gesture. Same kind of concept making that horizontal gesture to make things smoother, starting in measure 20 to 24; it has a bunch of slurs it's really easy to see you want to make that really smooth motion. Also, in measures 35 and 36 on the and of two when the trombones and the baritones come in with that chord, I tried to use the left hand on 2 to prep that in. The first time didn't work out so well because I was working with a tempo that I didn't really like, but I tried to get it in there, I tried. I thought about it, it was there.

EB: So how did you feel about that tempo?

H: Oh, just in general I was expecting something a little faster, so there was a moment in there, I think when the flutes come in with main gesture, somewhere in the middle, I think it might have been in 29 or 30, I'm not exactly sure, just trying to get them to speed it up, it was a lot slower than I would have taken it and maybe the prep I gave was slower than I intended that might have given them a gesture of a slower tempo. I was fighting that a little bit, it was like pulling a freight train. I worked with it though, I tried to work with it and tried to keep things steady, when they're in a groove like that it's hard to get them out. I tried to keep things together in the middle there. I would have taken it a bit faster, I think it's just because of the way I practiced it, I heard it faster in my head, so when I came to and they started I thought "Geez, I gotta speed this up." I felt like I really couldn't, I was stuck in that rut there. It was hard to move an entire ensemble to a faster tempo. I tried. I did kind of that rounded motion to speed things forward. I can't explain this (as she gestured). That kind of thing. Just to try to get it faster, it was really hard. I wanted

to do the poco ritardando at the end and I was looking at the timpani player and it wasn't happening in my hands and he was looking at me so we knew but I completely skipped over that. So I would have done that differently.

EB: But you recall eye contact with him?

H: Yeah, I saw him and he saw me, and I was like "I'm sorry, I'm sorry, I should have done it."

EB: So you kept going the same tempo?

H: I just kept going the same tempo and we got to the last chord and I was like "Oh man." It just zoomed by me way too fast.

EB: It goes by pretty quick. How well did you execute the gestures you had decided on and prepared? If you were to rate yourself on a scale of one to ten.

H: I think for intention for what I've gotten out of this and what we had planned, I would give myself maybe a 6 or a 7, just because I had those things in mind going in and I remembered some of them even if the technical aspect of it wasn't very refined. However, if I'm going to talk about how clear it was to the ensemble and being able to make it consistent every time, I would give myself a four.

EB: When you say make it consistent every time, do you mean the style?

H: Yeah, if I were to go in there and do it again, it might be a little different. Just because I haven't seen the piece. If I had time to work with it a little longer, maybe to just get some of those concepts really into my baton that would have helped a little bit.

EB: How well do you think the ensemble followed your gestures?

H: I didn't think they followed them very well but I also don't think that what I was conveying may have been enough. Because they had seen the piece once and had gotten it in their ear of what the tempo was before. So when I wanted to speed up the tempo or I wanted to make that crescendo, I think the gestures were there but because I didn't have enough of a presence maybe, you know because if you're nervous and I'm still a student, I think that has a lot to do with if they would have responded to me more or not. If I was to put more presence or maybe even more confidence into my motions that might help for them to want to look up from their music behind the music stand, up to me and see what I'm doing more.

EB: So what do you think would have helped with that, just more practice with it?

H: Me being very sure of myself, I'm sure that they sensed my nervousness. I think honestly, if I even got up in their face more, I'm thinking about the tempo, is what I'm thinking like if I needed to change something, "Okay, we started slow but how can I get this to speed up," really engaging the face and the eyes and getting my baton in their face. Lots more confidence and more, I'd like to say attitude, I guess. Trying to get what I want out of them. Because it's such a

big group, it's you against the entire ensemble, it's a big thing. You've got to be able to control that.

EB: Was there anything else you'd like to say about this process?

H: I mean I was nervous when I went up there and all but it was all right I guess. I've learned a bit about my own conducting and where I need to go with it and some new techniques, so that's nice. I'll get to spend more time with that.

PARTICIPANT #17

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

H: For the beginning I took a big nice breath to bring everyone in but they kind of didn't come in when I did and that caught me off and I kind of got timid into measure 4.

EB: I thought your prep was really good, by the way.

H: Thank you. I just didn't hear what I thought I was going to hear.

EB: Maybe only if you had been more directed to where the trumpets and trombones were. That would be the only thing. But your prep and your breath were awesome.

H: Great! I did it on purpose. I don't remember if I did anything on purpose here because I was still freaked out by the way it was sounding. And then here I did lighten up my beats a little at letter A because I wanted it to be lighter, so I didn't make my gestures as heavy. Here, I remember, I think I did a heavier beat and then I think I got lost in the 16-17 area. But here, at 22, I did more horizontal so it would be more flowy. In the 26-ish area, I had it still, more brass, I don't know how to describe it, it was more heavy, I guess. I keep using light and heavy.

EB: So where your ictus was? Where your plane was?

H: I think I was just broader in my body. I hit the stand once. I don't remember where it was. I think it was slowing down here at 33. Here, I remember having bigger gestures because there was a lot more going but I was kind of freaked out because this, I didn't know quite how to do that ritardando at 33.

EB: Gesturally you mean.

H: Yeah, because I didn't practice the moves. I remembered having bigger gestures through 35 to 42. I remember at 43 doing the horizontal again because I wanted it to be lyrical.

EB: That was a really clear change.

H: I don't know what the heck I was doing for the ritard. I feel like it wasn't, I don't know. I tried to be more heavy with my gestures, but I don't know, it didn't work out. And I was way too wide for the fermata. I think it came unexpectedly and I was way out here and so I just held it way out here. I guess it showed that it was a wholesome sound, maybe. Maybe it was a good thing?

EB: How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions?

H: I didn't do as much as I thought out.

EB: If you were to rate the gestures you did based on those musical decisions maybe on a scale of 1 to 10, how well do you think you did in terms of the gestures?

H: Maybe like a 5.75.

EB: Okay 5.75! During our score study sessions, I know I was directing you to think about how the ensemble would sound, was there any point that you started thinking about your gestures as well? Like how you were going to, like for example, you told me at measure 20 you were really flowy and you said you showed this by horizontal motion. Was that a decision you made up on the podium or do you think you made that beforehand?

H: I think it was probably just on the podium because I wasn't allowed to direct at all. So it must have been up there. I don't know. I mean in our conducting class we've been talking about that, that horizontal motion has a more connected feel.

EB: So that connection has been made for you?

H: Yah.

EB: That's good. So 5.75, rating yourself very harshly. How well did the ensemble play in terms of your musical decisions made during the score study sessions? Did what you hear match what you did in the score study?

H: It sounded a lot different in my mind. The changes were a lot more drastic.

EB: In your mind or?

H: Yeah, in my mind. They were a lot more varying with the different sections like measure 12 through 16 sounded the same as 17 through 20, to me.

EB: Do you think you were showing it to be different?

H: Probably not. Because I wasn't thinking about it as much as how I would put it in my body as what I was wanting it to sound like. We said this would be really bold and stately and this would be a little more connected than the previous one. But I didn't hear any difference.

EB: What about when you got to the flowing section and you were more horizontal? Do you recall if that sounded more horizontal? It's okay if you don't remember.

H: I don't really remember.

EB: I think it's really interesting that the connection has been made so strong. Have you just been doing that in conducting recently?

H: Probably in the last semester of conducting, and we haven't conducted a lot this semester, except for Haydn 104 and that, it was probably because of Haydn 104 because he talked about how you don't have to direct every beat. Like you don't have to do the same pattern for every beat. We experimented a lot with different things you can do with not beating every beat and doing something out of the normal to show what you want to hear. So it probably came from that.

EB: I thought it was really good. So those are all the questions I have. Are there any comments you want to make about the process? I know it was disconcerting for you not to be able to practice. And I think you saw one of the other participants practicing.

H: I saw her conducting.

EB: So that was partly my mistake because you weren't supposed to know what the other ones were doing. But there were two conditions. So there are two different conditions. When you set up an experiment, you have a control group, which you were part of, and then the experimental group, which she was a part of. So in the control group we just talked about the music and the other group got to actually practice the gestures and plan out their gestures, to look at intentional movement. It seems not fair right? What's interesting is that when you knew you wanted floating sound, you were more horizontal. But things like transitions, were like "Oh, I haven't figured out how to do that." Any comments that you have about that?

H: It was hard to figure out how to get all the words that we talked about into my body. Because in conducting right now, the fourth step in our chart thing is getting physical, what are you going to do with your body. Which is what I didn't get to do and I wasn't allowed to think about it or anything. That was really hard. So I got offbeat, I was doing 2 on 1.

EB: But you were aware of that.

H: Yeah, I was aware and I was trying to get back on. I was trying to do stylistically what we talked about. Because I thought that was goal of what you were trying to do. I thought it was seeing if students could just think about the emotion that they want to portray without doing any practicing beforehand of what they would do.

EB: Yeah, it was.

H: So I was trying to, like, ok, I'm not thinking about it but this needs to be light, so every time I would go through ok this needs light, light, light. This needs light now it's heavy, heavy and strong, bold. So I would just repeat the words but I don't know.

EB: Did you think about the gesture at all though? It's okay if you did.

H: The gesture for light?

EB: For light or heavy? Or what that translates to in the body? Or were you focusing on just the words?

H: Not just the words, but like for light we said bouncy. So I would think about bouncing, bouncing hands I think.

PARTICIPANT #18

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

K: The beginning, the first 8 measures through A, I tried to keep it relatively simple, kind of going with that first statement of the theme.

EB: So simple in gesture – what do you mean?

K: Just not... like at the basic level, just one, two, one two. Whereas at letter A I tried to bring it up a little bit, just to kind of indicate that, bring out the idea of the higher voices with the lighter articulation, I guess, kind of a shift in plane. There were some things I was trying to... that performance didn't go quite how I was expecting it to but that's okay.

EB: Do you know why? I know you were kind of rushed getting here. Do you feel that had anything to do with it?

K: Maybe, but mostly I think I wasn't clear enough, especially before C with the ritard there.

EB: You wanted to go into four, didn't you?

K: I wanted to go 1 2 and 1 2 3 4 and go down into 4 to bring that down but they just kind of went right through it. And I don't know what happened at the end. Apparently they didn't want to play the last chord, or did I just... I don't think I missed that.

EB: Maybe you were just trying to slow it down more than they wanted to.

K: Yeah, that's what I think. I felt fine with everything except for the parts with the ritards. Everything else I was reasonably happy with what I did. When I got to the slurred part in measure 20 going into 21 I tried to be a bit more horizontal with my movement to get that

connectedness and the slurred quality that was in there and once the horns come back in with their part, trying to go back into the slightly more separated style. That was the main thing that I was trying to get across with my conducting was trying to use different planes and different vertical versus horizontal movement just to try and emphasize those different articulation qualities and the different reiterations of the themes.

EB: So that's what you thought most about with your gesture because we also talked a lot about phrasing of the melodies and stuff too. You had a pretty good idea of how you wanted it to go.

K: I think another thing that contributed to it not going quite how I wanted it was I think I was focusing too much on that and not so much on cues. Like there were a couple parts where I should have cued horns there or trumpets in a couple places, so they were kind of uncertain about their entrances. Like even at the beginning I was thinking, "Okay, what style am I going to do this in," when I should have been thinking trumpets. So they weren't very confident with their entrance at the beginning just because I wasn't on the ball there like I should have been.

EB: Your gestures were really nice and small at the beginning. They showed the dynamics.

K: That's what I was trying to do.

EB: It did that. Were there any other specific gestures you remember, I know you said the planes and the horizontal/vertical? Does that pretty much cover it?

K: I feel like there was something else. There were a couple spots where I guess kind of keeping with that horizontal idea, like in measure 14 here, I think I went in to a four pattern briefly to get more of the sideways motion.

EB: Right, so phrasing it in four.

K: Kind of phrasing kind of ideas.

EB: For those specific gestures, the plane height and the vertical and more horizontal, how well do you think those gestures portrayed the musical decisions that you made during our score study sessions? Do you think they matched pretty much what you had wanted?

K: For the most part, yeah, I think.

EB: If you were to rate yourself on a scale of 1 to 10 on the gestures.

K: On the gestures, maybe like a 7 or a 7.5. I don't know. I felt like I had the basic stuff that I wanted there but there were some more things I could have done just as far as dynamics go. I think I was focusing more on articulation quality and not so much on managing dynamics. So I think the basic stuff that I wanted was there but there was more I could have gone into beyond that.

EB: For the decisions of plane height and vertical versus horizontal, were those decisions you made on the podium or were you thinking about them during our score study sessions?

K: Yeah, I was kind of thinking about that during the score study sessions.

EB: I know there were a couple times that you even talked about, like here you said, "Maybe I should conduct this in four," and I kind of went past that and we talked more about how the ensemble would sound, but you were making those decisions?

K: Yeah, I definitely wanted to go into four there and I wanted to go into four at the end, especially at the, with the side drum, just to conduct that part and make sure that was there. And same with those quarter notes, 2 before C, I wanted to go into four to make sure to get that. Maybe having gone through it now, I'm thinking maybe I would have not gone into four. I don't know.

EB: You might not have in the performance? Like what you actually did?

K: Like in the performance I might not have gone, if I had a chance to do it again, I might not have actually gone into four, I may have just have stayed in 2 but gone in four at the end, because I definitely feel like it needs to then at the end there but before C, maybe not. But I was consciously trying to think of those kinds of things in the study sessions. Trying to think about things like that.

EB: Things like that, yeah? And the matching of the vertical and horizontal? Anything else? Like when we talked about the phrase shapes were you thinking about what you would do?

K: Yeah, I was trying to think about what I would do. Personally something that I'm still working on with my conducting technique is more, getting my left hand to be more independent from my right hand. I feel like I do a lot of mirroring in my left hand. And that is something I'm working on is trying to get that more independent so I can do a little bit more phrase shaping with that. I feel like if I were to do this like maybe a year down the line when I've had worked on that a bit more I'd be able to do better at that, but right now I feel like that specifically was just kind of held back by my limitations in my conducting abilities.

EB: And you didn't get to practice it, right? We never practiced the gestures. How well did the ensemble play in terms of your musical decisions made during the score study sessions?

K: Yeah, for the most part. I think it sounded fine, the notes were there. There were some spots that the articulation wasn't quite what I wanted. And there weren't quite the shifts of character that I would have liked.

EB: Was that a matter of them not following your gestures?

K: Probably. I don't know. I feel like I was.... Let me think. Yeah, that was probably definitely part of it. I think at A it was pretty good. But maybe could have been a little bit lighter. I don't

know. I was also probably not listening to them as much as I should have, or thinking “Oh gosh, what is going on?” Yeah, I don't know.

EB: That's my last question. Any other comments about the process of doing the score study and then going and doing the performance, just having to run through it once?

K: It was fun and I think it was a good process. Definitely doing that kind of score study helped a lot. I wish I had more chances to go back and actually do a couple more run-throughs of that and work with them on that because that would be fun.

EB: It's a lot of pressure to show it all in one go.

K: Yeah it is, especially after only spending under 2 hours with the piece, it's a little bit of a daunting task to be like “Here's this music, now you are going to conduct.” Personally if I had been doing this on my own time I would have taken more time to really go through and conduct it in my head, and work on...

EB: Conduct it in your head?

K: Well, conducting while audiating the piece in my head. Just conducting through the score and solidifying some of those gestures. But it was definitely helpful doing that score study and thinking more in depth about the overall character of the piece and musically what is going on because that definitely is a large part of, that goes a long way of informing what you do as far as gestures and things as a conductor.

PARTICIPANT #19

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

H: I tried to start out with a light harpsichordy-type, sticky staccato feeling at the beginning and try to build up some momentum up to through the sixth measure and then back down and then once A came along keeping that kind of light feeling still throughout until measure 16. Once measure 17 came in with the horns and the baritone having that heavy feeling (sings).

EB: So did you feel your gesture was lower?

H: I felt like it was lower- whether it came off as lower, is something to be said but I was thinking lower and I tried to adjust my face for that. I know elevation-wise, I can't remember if I was lower with my elevation, but I tried to at least show that with facial expressions and even just with the articulation of the conducting to kind of signal that and plodding through there. Once measure 20 came, tried to be smooth and connected for the flutes and the oboes, up in there.

EB: So more horizontal?

H: Yes and more fluid getting away, kind of a contrast from the detached plodding of the low instruments. The pickups into 25 with the horns not as plodding but a little bit more pressing throughout 25 through 28. Once 29 came, that kind of funny part, where I think it's almost tongue-in-cheek, joking there, I tried to be lighter so going from a pressing motion and a pressing feel to just a little bit lighter and up.

EB: Do you think you were elevated at that point?

H: I think I was. But again...

EB: It's hard to remember, I know.

H: It's so hard to think back because it goes so fast. It's done already? (laughs) But it was in my head and the next step is getting it out from my head and into my hands. And then from there having the ritard, going down and I know I showed the ritard because they did the ritard. And then breathing into C, poco meno mosso so that just being a little bit more stately. I think I had it at a little bit of a slower of a tempo than the beginning, I can't exactly remember, I felt more stately compared to what I had done previous. And then bringing it down a little bit from measure 41 to 42, to signify the little bit of decrescendo, down to forte from a fortissimo

EB: How did you do that?

H: I think I used maybe some elevation change and maybe some gesturing downwards. From 43, just keeping it a lighter feeling because it was more of the higher instruments with the flutes and oboes and down to the bari sax but seeing if I could just make that more of a counterpoint feeling, a little bit more even. And then at the end, with the downward da-da-da-da in measure 46, decrescendo there, I don't think it came off how I was thinking it in my head because when I got to that part I didn't feel like I cued the decrescendo in that downward motion but by the time I got to 47 I was smaller and crescendoing up to 50.

EB: I noticed that. You got a lot smaller there.

H: It was more, and I felt definitely that it was more of an abrupt change so instead of going down there and then coming out, it was kind of more still forte oh that's right, you mean mezzo piano, right here piano. That's just one thing to think about, making sure I have the line always going, and there's places for abrupt changes but right there I wanted, not so abrupt and then crescendoing to the end and I think I held it out pretty good and sustained that ending note.

EB: Yeah, a nice release to it. It was good. Nice and strong. It was clear. How well did you execute the gestures you had decided on and prepared? If you were to rate yourself on a scale from 1 to 10.

H: I think I would probably go with a 6. Because just some of them again, you know, as I'm going through, in my head I'm saying, "Make sure I do this and oh, I didn't do that," right then. I think there were definite parts where I wanted to do more but I didn't do it. Probably a 6. But

there were parts that I kind of naturally just felt myself, I didn't even really think about it as much when I was preparing, and then kind of in the moment, with the music, it was like "Oh, that line is going there."

EB: Do you remember any of those times?

H: I can't, but it was like just certain parts I felt something, or all of a sudden I just knew the trumpets were going to come in. I think there was that one point where I cued the trumpets and I hadn't really practiced that and it was just kind of a spur of the moment, I want that to come out. It's just so interesting, you know, when you're right there – all of sudden you think different things and you hear different things and you're like, "Oh, I actually want to bring that out."

EB: How well do you think the ensemble followed your gestures? Like when you went for the trumpets or even things we planned out? Were they in line with what you showed?

H: I think towards the end it was more in line. Definitely at the beginning I felt, and also I think for me too, I started and there were a couple things like the forte and the piano at the beginning that didn't happen. So I tried to be a little bit more conscious of certain gestures like crescendos and certain feelings and I think they responded decently well for a first run through. There were definitely parts that I wanted to hear that I didn't hear as much and I don't know if that was because I didn't cue it right or just because it was that first run through. But I think overall it was a decent response.

EB: Are there any other comments you'd like to make about the score study session that we did or the performance? You did seem really natural up there and it seemed pretty easy to you?

H: I think the thing that caught me off guard, you know when we listened to the recordings during the score study sessions and looking at it, I knew that only the trumpets started out but for whatever reason the moment I got there and I went to cue it and it was just the trumpets, it sounded so wrong! I felt like the whole band should have come in right there, for whatever reason, it took me way off, and that's why I think I got thrown off with the pianos and fortes right at the beginning because....

ME: It was not the sound you were expecting?

H: Yeah, for whatever reason. And I knew that too. I'm wondering why did I expect something that I knew wasn't going to be there? So I thought that was really interesting and just definitely took me off guard. It was just some lone trumpets - where is everybody? I almost thought that I had done something wrong at first and I almost wanted to stop and I was like, no keep going. That definitely, that was interesting, that beginning.

EB: Were they sitting where you thought they would be? We didn't talk about where everyone would be.

H: That was one thing, like right before I got up there, it was like, "Oh that's right - where are they sitting?" There were people sitting differently because in wind ensemble it's a different

orchestration. There were a couple parts where I was like, “Just kidding!” Like the trumpets were over here and the French horns were over here. That’s one thing maybe for future reference is make sure to look and make a mental image of where everyone is in the band so when you go to cue somebody they are actually there.

PARTICIPANT #20

EB: Please talk through the performance you just did, pointing out the specific gestures that you did to portray the musical elements that you had discussed in the score study sessions. Please be as specific as you can and give measure numbers for the specific gestures.

N: Measures 1 and 3, when the entrances, the new people come in, or like the crescendo, I was trying to be really big coming to beat two, showing a larger gesture, like a turn, not turning my wrist over all the way but making the pattern more sort of swoopy, if you will, that I wanted more air flowing. I did more of a, at least I thought I was, in measure 7, a little more articulate with the pattern. Then I leaned back on my heels in 8 to show that I wanted less sound. I got a little smaller in measures 9 through 12. I tried to give a rearticulation of 2 to show the subdivision, the entrance of the trumpet and trombone. And I was having a hard time because I’m not used to working with winds, like I didn’t know where to look. I just kind of buried my head in the score but I wasn’t really looking at my score. Because I didn’t have the time to really orient myself, and being a string player and we didn’t talk about it. The entrance into 17, I tried to be more articulate but at the same time give a strong enough beat for the clarinets and the people with the offbeats to rebound off of. And then get a little swoopier when the flutes come in at 20. I pretty much stayed calm. I don’t remember doing anything specific, the entrance into 25, but 29 I more or less, I wasn’t as articulate as I was at 17 as I was at 29 with the offbeats but I feel like I did the same thing. 32, I tried to go into four to do more ritard but they had not rehearsed that in such a way. It made it obvious to me. Just to get everyone on the same page, I did a cutoff and restarted at C. And made the pattern pretty strident and large because that was the sound I wanted. Got a little smaller through the upper woodwind passage at 43. Then back and forward again to get that crescendo, 47, 48, 49, and then 50. I forgot all about the timpani and the percussion, conducting through 50, I should have but I didn’t conduct through that, I just held it. Then 51 and cut off.

EB: How well did the specific gestures you used in the conducting performance portray the musical decisions you made during the score study sessions?

N: If by coincidence only. I felt like because I wasn’t allowed to practice with the baton that I was sort of in shock, especially not having a lot of work with winds myself, just trying to keep the pattern going. I wasn’t really able to do a lot of the gestures that I, if I had worked with the group before sort of in a process, with myself working through the piece, conducting it and not just studying the score. I feel like the movement needs to be really, at least for me...

EB: Well you had very specific, you were very sure of what you wanted. You knew what you wanted right away.

N: Yeah I was. The gestures may perhaps, did not convey that to the fullest extent.

EB: If you were to rate yourself on a scale of 1 to 10, on the gestures alone.

N: Gestures alone, that was maybe like a 4 and a half.

EB: It didn't feel like it portrayed all those decisions you had made?

N: Yeah definitely.

EB: At any point when we were doing the score study sessions were you thinking about what gestures you might use to portray the music?

N: Ah... yes?

EB: I know there were a couple times and I persuaded you to think more about the ensemble sound.

N: Yeah there were a couple, definitely. Yeah, to think about the sound and when you gave me the score upstairs, you said just think about the sound.

EB: So you did?

N: Yeah.

EB: It's okay if you were, some gestures that you thought about, but can you specify where they were?

N: Yeah, thinking about that and the offbeat patterns that reoccur.

EB: Yeah, I was going to ask you about that one because that's true. You need to show a strong downbeat to get that offbeat to occur. We didn't talk about that but you knew about that.

N: Yeah, you kind of pulled a fast one on me.

EB: I did? (laughs) So in here, deciding to go into 4 in measure 33?

N: I had thought about that. And I was committed to my decision, it's just if the group has rehearsed it another way, they're not going to be ready. I don't know what anyone else did, I just had to do what I wanted to do and just be prepared to reset.

EB: That was a good decision. So that was made on the spot?

N: Yeah, there's a breath there anyways and it didn't sound like a mistake or anything.

EB: Any other spots that you remember thinking, "I want it to sound like this, so I think I'll do this in my gesture?"

N: Leaning in which may or may not be a good decision. But for things like this-

EB: Those low syncopated notes?

N: Yeah, those entrances, leaning into those a little bit with my body. And actually making myself smaller and larger and the frame as well in this crescendo at the end.

EB: You had thought about that?

N: Yeah, I had thought about it.

EB: How well did the ensemble play in terms of your musical decisions made during the score study sessions? In terms of what we talked about, what they did, was that close to how you were expecting to hear it?

N: Yeah, they more or less got the effect of the piece but nit-picky tiny little things were not necessarily there. Like, if it was my ensemble that I was working with I would have just stopped there and said, I want more space. A lot of the things that we talked about in the score study are things that I would have just said in rehearsal not things that I necessarily would show through gestures.

EB: Any other spots like that? I guess maybe going into four, like how much you are going to slow down?

N: Yeah, I would have just stopped there if I had had the chance or felt like that was possible. And the offbeats I would have said off the bat, I want more space in between those notes. As a conductor in rehearsal, I like to measure and assess as I go. I don't like to show up and lecture for a while and then go into it.

EB: Hear what they are going to do first?

N: Not that I'm like practicing in a rehearsal when I'm conducting but that it's a process as a conductor too. That I'm also in rehearsal conducting.

EB: Did the ensemble follow your gestures pretty well then?

N: Yeah, what I did give they followed, I'd say.

EB: Any other comments you have about this process of score studying and getting up and just going once through it?

N: Being just more analytical about the score and thinking about sound and then going out and doing it through gestures, I would have liked to have had more talk about gestures to convey what we had talked about in the score study.

EB: That's a thing that you normally do then?

N: Yeah, that's normally what I do.

EB: Just matching the gesture to...

N: That sort of score study process.