

# Communication Center

Journal

**NAACC** 

Volume 2, Dec. 2016

# Communication Center Journal

Vol. 2, December 2016

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## RESEARCH

### Facilitating Learning Through Facilitation: How Facilitation Skills Can Inform Communication Center Tutoring Best Practices

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#### Abstract

Communication centers can benefit from the facilitation training literature currently used in the areas of leadership, consulting, and dialogue and deliberation. Skills such as remaining “substantively neutral” or “passionately impartial,” knowing when to intervene, active listening, self-monitoring, questioning and clarification, and modeling good communication practices are all part of the facilitator’s “tool kit” that can prepare peer tutors to be more competent communicators. By drawing from facilitation training, communication centers can equip peer tutors with a skill set that can be easily translated into a variety of interpersonal contexts.

The use of the phrase 'peer tutor' is widely used and accepted in the literature on communication center best practices, but the implications, specifically regarding power and relationships between tutors and tutees, has led to some confusion and misinterpretation of the phrase (Topping, 2005; Turner & Sheckels, 2015). For some, labeling students as 'peer tutors' is misleading because it implies that student tutors and student tutees are of equal power, when in reality there is a significant disparity in experience, expertise, and therefore power (Scott, 1992; Turner & Sheckels, 2015). In order to address this "shadowy line" (Turner & Sheckels, 2015, p. 53) between tutor and tutee, communication centers may benefit from the facilitation training literature currently used in the areas of leadership, consulting, and dialogue and deliberation.

This essay will argue that communication center tutors can be conceptualized as facilitators of communication processes as well as facilitators of the learning process itself. Treating tutors as facilitators provides a comprehensive framework that addresses the role of the tutor, the communication competency skill set needed to effectively tutor, and ways to break down, teach, and practice those skills in order to train new tutors, including those without a communication studies background. Most importantly for communication centers, the facilitation literature clearly addresses dynamics of power and relationship between facilitator and client, using language that may be more in line with institutional and administrative rhetorics and therefore useful for characterizing and explaining the tutoring process within and outside of the communication center. Additionally, conceptualizing communication center tutors as facilitators opens a broad area of communication research firmly rooted in the foundations of competent communication (Bochner & Kelly, 1974; Daniels

& Walker, 2001), providing another avenue for introducing these significant theoretical and pedagogical theories to students.

In addition to the fuzzy implications of acting as a 'peer tutor,' communication centers are confronted with the challenging realities posed by engaging with students across disciplines, as either tutor or tutee (Dannels & Housley Gaffney, 2012). When engaging across disciplines, superficiality is a significant concern. Communication center clients from other disciplines may perceive tutor involvement as superficial when tutors do not sufficiently or appropriately adapt to or integrate discipline-specific practices or language, taking what Dannels and Housley Gaffney refer to as an "etic" approach (p. 100). Communication center tutors from other disciplines may be constrained to a superficial understanding of communication theories and practices due to the limited time and resources some centers have when training new tutors. Dannels and Housley Gaffney suggest that balancing communication expertise of tutors with the situated expertise of clients can be a real challenge for communication centers, and one that requires a reframing of the communication center. The next section lays out how the facilitation literature could provide the sort of reframing necessary to find this balance.

### Defining Facilitation

To facilitate, at the most basic denotative level, means "to make easy." Conceptualizing the communication center tutor as a facilitator, then, would mean that the tutor's role is to make the process of learning easier for clients. This idea, however, is nothing new to the field of communication center tutoring (Allen & Feldman, 1973; Galbraith & Winterbottom, 2011; Roscoe & Chi, 2007). The facilitation literature contributes an expanded definition of the

facilitator, though, that describes the facilitator as a person with no substantive decision-making power who diagnoses and intervenes to help improve process efficiency (Schwarz, 2002). The important aspect of this definition is that facilitators do not have substantive decision-making power; in other words, facilitators cannot be invested in the outcome of the communication process they are facilitating.

### Facilitator Impartiality and Tutoring

In the facilitation literature, facilitator impartiality is a central theme (Britt, 2014; Carcasson & Sprain, 2012; Daniels & Walker, 2001; Dillard, 2013; Kolb, 2004; Ruebke, 2010; Schuman, 2012; Schwarz, 2002; Sprain & Carcasson, 2013; Stewart, 2006). In leadership, consulting, and dialogue and deliberation it is important that facilitators act impartially in order to build trust with the client (Ruebke, 2010) and ensure that the parties involved perceive the process as fair (Daniels & Walker, 2001; Schwarz, 2002; Schuman, 1996; Sprain & Carcasson, 2013). Additionally, remaining impartial about the content can maintain a sense of competency, capability, and agency for the client since the facilitator is the process expert, but the client retains the role of subject expert.

Schwarz (2002) refers to this concept as “substantive neutrality,” in order to indicate the facilitator’s impartiality regarding the content but not the process. While this term effectively establishes the role of the facilitator, it is better suited to the setting of organizational consulting where facilitators are more likely to encounter interpersonal conflicts, power dynamics, and deep conflicting values, and are less likely to have any expert knowledge in the subject matter. While tutors may encounter some of these group dynamics when consulting with client groups, substantive neutrality does not capture the identity management communication center tutors

must do since tutors are more likely to have some expert knowledge in the subject matter, such as knowledge about presentation best practices, creation and use of visual aids, or even institutional practices at their university.

Carcasson and Sprain's (2013) term "passionate impartiality" better captures the complexity of the tutor's role. Originally conceptualized within the frame of deliberative democracy, passionately impartial scholars and students are individuals who are "passionate about their community, democracy, and solving problems, but are also committed to serving a process-focused role in order to improve communication practices" (p. 19). The passionate impartiality framework also makes room for identity management, in that it acknowledges that students and scholars have existing beliefs, opinions, and knowledge bases that they cannot completely set aside. Instead of putting aside their passions or trying to detach themselves from their beliefs and knowledge, students and scholars should channel their energy into a particular process rather than a particular subject or cause.

This idea can be adapted to provide a framework for communication center tutoring. Passionately impartial tutors in the communication center are those individuals who are passionate and knowledgeable about communication theories and the tutoring process itself. Passionately impartial tutors are not required to be experts in the subjects clients may be studying, they do not have a stake in the outcome of a session, and they do not direct clients to make specific decisions. Instead, the passionately impartial tutor helps guide the client through the learning process by helping clients evaluate the benefits and tradeoffs of the possible approaches available to them.



By regarding oneself as a passionately impartial tutor rather than a peer tutor, students may find it easier to establish boundaries with clients since it more overtly acknowledges the power dynamics of the consultant-client relationship, helping students avoid the common missteps that occur when the power dynamic is less clearly managed, such as acting as “near-peer” or “co-peer” (Turner & Sheckels, 2015, p. 52). The passionately impartial tutor has expertise, and therefore power, regarding communication and presentation best practices, but the tutee has power over the outcome of the project or presentation. The passionately impartial tutor also makes space to integrate the client’s situated language and knowledge, easing the process of tutoring between disciplines and avoiding an “etic” approach by engaging the client’s subject expertise (Dannels & Housley Gaffney, 2012). In order to help clients through this process, passionately impartial tutors can draw from the facilitator’s ‘tool kit’ and use the many communication competency-based skills described in the facilitation literature.

### Facilitation Skills and Tutoring

Facilitators have a range of skills and tools they can use to help guide communication processes while remaining impartial to the subject matter (Britt, 2014; Carcasson & Sprain, 2012; Public Agenda, 2012). These skills are often included in communication center training materials already, but the facilitation literature provides additional ways of presenting and teaching these skills to tutors. Many of the facilitation skills are based in the research on competent communication, which refers to an individual’s ability to interact effectively with others (Bochner & Kelly, 1974; Daniels & Walker, 2001). Competent communicators are able to develop and achieve goals, effectively collaborate with others, and adapt to changing situations (Bochner & Kelly, 1974), and skills such as active listening, asking clarifying questions, giving

feedback within communication exchanges, and self-monitoring verbal and nonverbal behaviors allow individuals to communicate competently (Daniels & Walker, 2001).

### Active Listening

Developing effective listening skills is the first step to becoming an effective facilitator. More specifically, facilitators should develop and practice active listening skills (Daniels & Walker, 2001). Active listening can be broken down into actions that can be taught, practiced, and

applied. The specific actions involved in active listening are providing non-verbal acknowledgment, prompting further detail, and paraphrasing individual's opinions and thoughts. Non-verbal acknowledgment is an important aspect because it lets the client know that she is being heard. Prompting further detail is important since it encourages the client to dig deeper and provide a more detailed account of what she perceives the problem to be.

Paraphrasing a client's opinions and thoughts back to her lets the client know that she is not just being heard, but that she is being understood. Paraphrasing can also prompt further detail since if the paraphrase does not accurately capture what the client wished to express, she may be motivated to clarify by restating her idea or by providing more information.

### Asking Questions

In order prompt clients for further detail, facilitators should become adept at utilizing probing questions that encourage clients to consider the costs, benefits, and other consequences of various solutions or approaches, or encourage clients to reflect deeper on the motivations and goals they have (Carcasson & Sprain, 2012). Since any facilitator involvement can be considered a facilitator intervention, any and all questions should be meaningfully motivated (Carcasson &

Sprain, 2012; Kolb, 2004; Schuman, 2005; Schwarz, 2002). Questions in tutoring sessions, then, should focus on guiding the client through the learning process, but facilitators should be careful not to move too quickly through this process.

Facilitators should also be prepared to be flexible with the types of questions that are asked. Some questions, such as those about the assignment, the expectations of the professor, or the make-up of the speech audience, may be standard and necessary in all appointments, but tutors should also be prepared to ask questions that prompt deeper reflection. For example, the question “what is your speech topic?” does not prompt further reflection and locks the client into a narrow set of possibilities for how to respond, but the question “why did you choose this speech topic?” may encourage the client to reflect on the deeper values and interest he holds. Once those values and interests are brought to the surface, it may be possible for the facilitator and client to work together to discover new possibilities without the narrow constraint of a specific topic.

### Facilitator Intervention

Asking questions is one reason to intervene within a tutoring session, but facilitators may choose to intervene for other reasons. Carcasson and Sprain (2012) note that facilitators may choose to intervene in order to manage time or otherwise adhere to a structured process. This is important to communication center practices since appointments are often booked back-to-back and tutors must keep on schedule. However, competent process-related interventions keep the process on schedule without making clients feel rushed or unimportant. By making the time constraint clear from the beginning of the appointment, process-related interventions may seem less abrupt later in the appointment. Facilitators can also use a process-related intervention

early in the appointment in order to remind the client of the tutoring process and involve him or her in the development of goals that can be reasonably accomplished within the time constraint.

Schwarz (2002) identifies additional reasons for facilitator intervention including the need to respond to nonverbal or verbal behaviors and the need to respond to emotions. Tutors may need to intervene in order to respond to the client's nonverbal or verbal behaviors if the client is moving excessively during his or her speech, or if he or she is using excessive vocal fillers. Tutors may find it necessary to intervene in order to respond to the client's emotions if the client is especially nervous, agitated, or otherwise upset. Clients who experience speech anxiety or have a high level of communication apprehension, meaning they are fearful or anxious of communicating with another person or are made fearful or anxious by the anticipation of communicating with another person (McCroskey, 1977), may require reassurance that the tutor's role is to help them, not to judge or grade them, and that the tutor will keep the conversations and events of the appointment private.

### Modeling Competency

Another communication competency skill that is important to facilitators is the skill of modeling a clear, effective, and appropriate communication style that clients can observe and emulate (Daniels & Walker, 2001). This includes self-monitoring verbal and nonverbal behaviors and providing adequate and appropriate feedback in response to other's communication. These skills are especially important for communication center tutors, since in addition to facilitating appointments that address clients' specific goals, tutors should strive to help clients become more competent communicators in all areas, including the public speaking

that clients often come to the center to improve, as well as the interpersonal communication that goes on between the client and the tutor.

### Facilitation and Tutor Training

The literature on facilitation provides several examples of training manuals developed to help facilitators learn and practice the basic communication competencies need to guide clients through the learning process (Britt, 2012; Carcasson & Sprain, 2012; Public Agenda, 2012; Ruebke, 2010; Schuman, 2012; Schwarz, 2002). Many of these examples are created with ordinary citizens in mind, and do not assume a strong knowledge of communication theory or communication competency (Carcasson & Sprain, 2012; Public Agenda, 2012; Ruebke, 2010).

While these training manuals often approach facilitation within the perspective of leadership and business (Hunter, Thorpe, Brown, & Bailey, 2009; Schwarz, 2002), public dialogue and deliberation (Britt, 2012; Carcasson & Sprain, 2012; Public Agenda, 2012; Schuman, 2012), or conflict management (Daniels & Walker, 2001; Ruebke, 2010), the facilitation concepts can easily be adapted for the communication center setting.

With this in mind, a possible next step for applied communication center scholarship could be the development of communication center training manuals that are styled after the facilitation manuals and include sections on passionate impartiality and breakdowns of the communication competency skills that can be taught and practiced. As stated before, this is not to say that current communication center training manuals do not draw from communication competency — only that the facilitation framework provides a broader, more comprehensive approach. The facilitation framework also provides tutors with a common vocabulary with which to discuss and evaluate their own and others' performance. In training and observations,

tutors would be able to easily identify specific skills, such as balancing process-related interventions with emotion-related interventions, in order to set their own professional development goals as well as give and receive constructive feedback.

Another feature of the facilitation manuals that could be helpful to tutor training is the inclusion of the facilitator's "tool kit" — lists of example scenarios and possible responses, and basic questions that tutors can have at their disposal within appointments (Britt, 2012; Carcasson & Sprain, 2012). While such a "tool kit" is not meant to replace a thorough education in communication theory that can be seen as foundational to good communication tutoring, it emphasizes a certain degree of accessibility and efficiency that may be valuable for communication centers that lack the time or resources to provide in-depth training for tutors from outside the discipline.

For example, a communication center training manual could provide a typical scenario where a client complains about his assignment and remarks that he just wants to get it over with. The manual could provide tutors with several example responses, such as a clarifying question ("What is it about this assignment that you don't like?"), a probing question to encourage new possibilities ("How could you make this assignment more interesting for yourself?"), a probing question to encourage consideration of consequences ("If you 'just get it over with' what might happen?"), or a response to emotions ("I can tell you're frustrated with this assignment. What can we work on together to help you get through it?"). As demonstrated, this commonly heard sentiment in communication center appointments can be addressed with several process goals in mind, and equipping tutors with these "back-pocket" responses ahead

of time can help them to more confidently turn clients' remarks into productive learning opportunities rather than dismissing them as off-hand complaints.

### Conclusion

The fuzzy implications of the phrase 'peer tutor' provide a challenge for communication centers when explaining the tutoring process to clients, colleagues across disciplines, and university administration (Scott, 1992; Turner & Sheckels, 2015). Additionally, as communication is recognized as a core skill across disciplines, communication centers are faced with training tutors and working with clients from diverse disciplines in a way that is substantial, rather than superficial (Dannels & Housley Gaffney, 2012). In order to address these two broad challenges, communication centers can benefit from adopting or drawing upon a broader, more comprehensive framework such as that of facilitation as theorized and developed in the literatures on leadership, consulting, and dialogue and deliberation (Britt, 2014; Carcasson & Sprain, 2012; Public Agenda, 2012).

Conceptualizing tutors as passionately impartial facilitators of communication processes addresses the power and relationship dynamics between the consultant and client by avoiding the misconceptions and contradictory implications of the more traditional phrase "peer tutor." When tutors are seen as facilitators, their role becomes that of the passionately impartial process guide. This role prohibits tutors from becoming invested in the subject matter or the outcomes of an appointment, and prevents them from acting as a "near-peer" or "co-peer" and doing clients' work for them. Instead, this role enables tutors to guide the process, encourage thought and reflection about the consequences of the decisions clients may be considering, and make space in the conversation for the client's discipline-specific needs to be addressed in the

language appropriate to that discipline by using skills such as paraphrasing and strategic intervention. This can help balance the “etic/emic” challenge that Dannels and Housley Gaffney (2012) express by maintaining the consultant’s power over communication and process, and the client’s power over the subject and outcomes.

The facilitation literature reinforces a foundational skill set based in communication competency that tutors can learn and practice. Finally, the literature on facilitation training, which includes communication competency skills that are broken down into manageable actions and the facilitator’s ‘tool kit,’ can inform tutoring training. Using a facilitation framework when approaching tutoring can aid communication centers in better characterizing and sharing their beneficial function within the broader university learning environment by providing an additional or alternative approach to the role of the tutor.

## References

- Allen, V. L., & Feldman, R. S. (1973). Learning through tutoring: Low-achieving children as tutors. *The Journal of Experimental Education*, 42(1), 1-5. Retrieved from <http://www.tandfonline.com/toc/vjxe20/current#.VQcaVSI8PcN>
- Bochner, A. P., & Kelly, C. W. (1974). Interpersonal competence: Rationale, philosophy, and implementation of a conceptual framework. *The Speech Teacher*, 23(4), 279-301.  
doi:10.1080/03634527409378103
- Britt, L. L. (2014). *4C Facilitator training workbook*. Harrisonburg, VA: James Madison University.
- Carcasson, M., Sprain, L. (2012). *CSU Center for Public Deliberation: Student associate training workbook*. Fort Collins, CO: Colorado State University.



- Daniels, S. E., & Walker, G. B. (2001). *Working through environmental conflict: The collaborative learning approach*. Westport, CT: Praeger.
- Dannels, D. P., & Housley Gaffney, A. L. (2012). The blind leading the blind? An ethnographic heuristic for communication centers. In E. L. Yook & W. Atkins-Sayre (Eds.), *Communication Centers and Oral Communication Programs in Higher Education* (pp. xv-xix). Lanham, MD: Lexington Books.
- Dillard, K. N. (2013). Envisioning the role of facilitation in public deliberation. *Journal of Applied Communication Research*, 41(3), 217-235. doi:10.1080/00909882.2013.826813
- Ellinor, L., & Gerard, G. (1998). *Dialogue: Rediscover the transforming power of conversation*. Hoboken, NJ: John Wiley & Sons.
- Galbraith, J., & Winterbottom, M. (2011). Peer-tutoring: What's in it for the tutor? *Educational Studies*, 37(3), 321-332. doi:10.1080/03055698.2010.506330
- Hunter, D., Thorpe, S., Brown, H., & Bailey, A. (2009). *The art of facilitation: The essentials for leading great meetings and creating group synergy*. Hoboken, NJ: John Wiley & Sons.
- Kolb, J. A. (2004). Initial contracting issues in small group facilitation. *Industrial and Commercial Training*, 36(5), 207-209. doi:10.1108/00197850410548602
- McCroskey, J. C. (1977). Oral communication apprehension: A summary of recent theory and research. *Human Communication Research*, 4(1), 78-96. doi:10.1111/j.1468-2958.1977.tb00599.x
- Public Agenda. (2012). Regional plan for sustainable development: Facilitator handbook. *St. Louis Regional Sustainable Communities*. Retrieved from <http://www.southernnevadastrong.org/files/managed/Document/72/St%20Louis%20Regional%20Sustainability%20Facilitator%20Handbook.pdf>
- Roscoe, R. D., & Chi, M. T. H. (2007). Understanding tutor learning: Knowledge-building and knowledge-telling in peer tutors' explanations and questions. *Review of Educational Research*, 77(4), 534-574. doi:10.3102/0034654307309920

Ruebke, T. J. (2010). *Applied large group facilitation training*. Harrisonburg, VA: The Fairfield Center.

Schuman, S. (Ed.). (2012). *The IAF handbook of group facilitation: Best practices from the leading organization in facilitation*. San Francisco, CA: Jossey-Bass.

Schuman, S. P. (1996). The role of facilitation in collaborative groups. In C. Huxham (Ed.), *Creating collaborative advantage* (pp. 126-140). London, England: SAGE.

Schwarz, R. (2002). *The skilled facilitator: A comprehensive resource for consultants, facilitators, managers, trainers, and coaches* (2nd ed.). San Francisco, CA: Jossey-Bass.

Scott, E. (1992). When peers are not equal: The writing center as a discourse community, presented at the 82nd Annual Meeting of the National Council of Teachers of English, Louisville, KY, November 1992. Retrieved from <http://files.eric.ed.gov/fulltext/ED355514.pdf>

Sprain, L., & Carcasson, M. (2013). Democratic engagement through the ethic of passionate impartiality. *Tamara: Journal for Critical Organization Inquiry*, 11(4), 13-26. Retrieved from <http://tamarajournal.com>

Topping, K. J. (2005). Trends in peer learning. *Educational Psychology*, 25(6), 631-645. doi: 10.1080/01443410500345172

Turner, K. J., & Sheckels, T. F. (2015). *Communication centers*. Lanham, MD: Lexington.

Thin Slices of Public Speaking: A look into speech thin slices and their effectiveness in accurately predicting whole-speech quality

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*Editor's Note: This essay was presented at the 2016 National Association of Communication Centers meeting in Pittsburgh, Pennsylvania. After faculty review, it won the Huddy-Gunn Award as outstanding graduate student paper. Winners of both the Huddy-Gunn Award and the Ferguson Award are offered the opportunity to publish their contributions in this journal.*

The ability to accurately perceive and decipher the surrounding world is essential for human interaction and survival (Ambady & Rosenthal, 1992). People are in constant observation of their surroundings, and in an instant, even under extremely miniscule glimpses, individuals readily and accurately form an impression on what they have witnessed (Carney, Colvin, & Hall, 2007). This skill is a social necessity that enables us to make sound decisions for our individual outcome, form appropriate impressions, and judge others accordingly in various settings. Through this judgment process individuals are able to predict, with a degree of certainty, the state, quality, or outcome of what they are viewing. Some examples include sexual orientation (Ambady, Hallahan, & Conner, 1999), sales effectiveness and achieved sales (Ambady, Krabeenhof, & Hogan, 2006), and candidate hireability during job interviews (Ruben, Hall, & Schmid Mast, 2014; Frauendorfer, Schmid Mast, Nguyen, & Gatica-Perez, 2014b). Research in social psychology supports the accuracy of initial human judgment to

predict outcomes of interaction paradigms and identify personality characteristics through brief “thin slices” of observation (Ambady, Hallahan, & Conner, 1999; Ambady & Rosenthal, 1992; Curhan & Pentland, 2007; and Hack, 2014).

The term “Thin Slice,” first coined and defined by Ambady and Rosenthal (1992), is a brief sample of behavior, not exceeding five minutes in length, extracted from the full-length behavior stream. These thin slices are an efficient means to form judgments and predict outcomes of interpersonal relations from the full-length behavior (Ambady, LaPlante, Johnson, 2001). Previous research using the thin slice method propels the following research questions for this proposed study: can the thin slice method be applied to judge the quality of college level speeches? Communication studies professors have claimed to be able to assess the quality of the speech they are observing within only 30-seconds (Hossman & Erickson, personal communication, 2015). Is this statement true or is it only based on the experience of the observer? Hence, can an individual through only the observation of speech thin slices accurately evaluate the overall quality of a speech? This proposed study aims to establish a framework to investigate and test these claims in hopes of finding an explanation as to whether or not thin slices can be used in the communication education arena to evaluate speeches. The implications of this study, if the findings suggest that the thin slice method can be used effectively to evaluate the overall quality of a speech, would be to apply the thin slice method in assisting universities with their assessment efforts pertaining both to the improvement of students’ ability to speak proficiently and communication center operations.

## Literature Review

### Theoretical Framework

Impression Formation theory concerns itself with how one person is perceived by another (Roedelein, 2006). Since its inception Impression Formation theory has focused on two major issues: “the meaning people give to their observations of others and how to measure exactly a perceiver’s impressions of another” (Roedelein, 2006, p.297). Thin slicing provides an answer to the latter of the two major issues, as thin slices are a measurement of impression. Through brief exposures to a phenomenon, individuals are able to form an accurate impression of an individual’s characteristics, even as quickly as in the span of 39-50 milliseconds (Bar, Neta, & Linz, 2006; Naylor, 2007; Rule & Ambady, 2007; and Thoresen, Vuong, & Atkinson, 2012).

Moreover, within this theoretical framework of Impression Formation, the thin slice approach grants insight into the power of immediate impression formation as either the perceived or the perceiver. Thin slices grant a platform for a broader understanding of appropriate impression management tactics for accurate immediate perception, based on our settings and our desired outcome (Carney et al., 2007). This understanding allows individuals to behave based on how they wish to be perceived in their regular “day-to-day” interactions to promote healthful interpersonal relationships. These healthful interpersonal relationships are dependent on personal impression management and accurate impression formation of our interaction partner’s conduct, even under brief moments of the interaction--for example interpersonal perception and personality disorders (Friedman et al., 2007) and detecting psychopathy (Fowler, Lilienfeld, and Patrick, 2009).

Furthermore, impression formation is used to measure the objective identity of an individual through a subjective impression construct (Tapp, 1984). This subjective construct is dictated by the information portrayed by the actor’s and the perceiver’s’ observational skills

(Quinn, Macrae, & Bodenhausen, 2007). However, in addition to just forming an impression of an individual, impression formation allows the perceiver to assess, based on context, whether the actor is fit for a specific role. For example interviewing research has shown that interviewees, using both verbal and nonverbal cues, strive to make the best positive impression possible of themselves based on the job requirements (Liden, Martin, & Parsons, 1993), and that interviewers judge more favorably for hireability and performance based on positive impression management (Ruben, Hall, Schmid Mast, 2015).

In order for individuals to form these impressions accurately, a phase of information processing must take place before hand. "Humans are constantly acquiring, processing, and generating information or knowledge in their professional and personal lives (McGonigle and Mastrian, 2012, p. 23). Individuals process the incoming information that surrounds them into knowledge to understand the world. Individuals transform this vague surrounding information by processing it and making it clear and identifiable to themselves and relevant to their context (McGonigle & Mastrian, 2012).

This information-processing phase can be better understood through an example of the Brunswikian lens model. Brunswik's lens model was developed in the realm of cognitive psychology to investigate the linear estimation problem, "the judgment process in which probabilistic cues from the environment are related to some criterion" (Tapp, 1984, p.103). This means, the lens model aims to identify whether the cues perceived by the receiving state correlate accurately to the variable portraying the objective state. Ultimately, a high correlation between the perceived state and the objective state indicates an accurate perception of the relationship between the cues and the objective state's variable (Tapp, 1984). What this means is

that an objective state is transmitted and transformed into a subjective perception through the variables presented. Individuals are able to accurately process these variables of information and form an accurate impression of the information via their observation and perception.

Another model that clarifies the information-processing phase and its procedure is Bühler's Language model. Bühler's language model showcases the communicative function of language as a causal relationship between three forces: person one (p1), person 2 (p2), and a stimuli source. The model indicates that p1 identifies the source, produces the information, and this production then affects p2 as a stimulus for recognition of the source (Bühler, 1990). Most importantly, Bühler highlights how the stimuli source is a representation of our world through shared identifications, to accurately comprehend what is being communicated.

Moreover, Bühler's model shows how other extraneous factors surrounding the stimuli source may affect the entire interaction process. For example, p1 notices a pretty woman at a party and attempts to communicate this with p2. However, environmental acoustics distort accurate transmission; thus, p1 relies on head nodding in the direction of the source to relay the message. In this situation p2 as the receiver must process several pieces of information to reach the intended message. They must capture the information, decode what the information is identifying, and finally form an impression based on what they have received and how they have processed it. Bühler's model showcases how individuals are able to filter information throughout the processing phase to form an accurate impression. Research has even shown that information processing and impression formation can be accurately completed for judgment of a person's attractiveness, likeability, competence, and aggressiveness on average in only 100-milliseconds of exposure (Willis & Todorov, 2006).

Finally, it is evident that the impression formation and information processing literature suggests that individuals can form an accurate impression of a phenomenon even under extremely brief exposure time. Individuals are able to acquire, very quickly, objective pieces of information through distinct identifiable variables and form an impression of the phenomenon through their perception. This next section identifies “thin slicing” and how it is an accurate tool for information processing and is used to guide the impression formation of behaviors and predicting overall patterns of a phenomenon through only brief exposures of its happening.

### Thin Slicing

As noted previously, a “thin slice” is a brief sample of behavior, not exceeding five minutes in length, extracted from the full-length behavior stream (Ambady & Rosenthal, 1992). In their pioneering study Ambady and Rosenthal (1993) assessed the accuracy of a complete stranger’s judgment in predicting teachers’ effectiveness in the classroom from 2, 5, and 10-second clips of their lectures compared to end-of-semester student evaluations of the teachers. Their findings indicated positive high correlations between stranger judgments and student evaluations through the use of thin slices as their means of observation.

Ambady and Rosenthal’s (1993) study highlighted how the perceiver, even a complete stranger to the phenomenon, can accurately infer personality characteristics and interaction outcome from thin slices. Consequently, scholars have applied thin slicing to assess various interaction types. For example, Hall, Roter, Blanch, and Frankel, (2009b) assessed the nonverbal sensitivity of medical students. They explored male and female medical students’ ability to accurately decode affective cues of rapport from their patients for assessment of overall patient-centered interaction effectiveness. The scholars found that in just the first minute of the



interaction's thin slice medical students were able to accurately predict the patient's rapport. Friedman, Oltmanns, and Turkheimer (2007) used thin slicing to predict individual's personality disorders and found that participants' ratings of personality disorders were reliable and correlated (above .50) accurately with the self-report and peer report of the individual's personality disorders. Additionally, Ambady and Krabbenhoft (2006) investigated the perception of salespeople through thin-slices of vocal channels, and how these thin slices can be used as accurate judgments of sales effectiveness and customer satisfaction. They found that judges were able to accurately distinguish highly effective sales managers from less effective sales managers strictly from 20-second audio clip thin slices of sales managers' interview sessions.

Thin slicing has also been used in business related interactions focusing on interviews as well as courtroom hearings. Schmidt (2012) analyzed whether strangers viewing twelve-second thin slices of employment interviews would conclude the same hiring recommendations as strangers who viewed the interview in its entirety. He found that individuals who viewed the twelve-second slices came to the same conclusion on hiring recommendations compared to individuals who viewed the complete interview. Similarly, Nagle and Brodsky (2012) examined a jury's decision-making process on an expert's credibility through thin-slices of an expert witness testimony. Their findings showed that jurors were able to accurately predict credibility ratings under the exposure of only a 30-second thin slice of the testimony.

Moreover, Benjamin and Sapiro (2006) examined the predictive accuracy of thin slices on the forecasts of gubernatorial elections. Their results showed that participants, naïve to the gubernatorial elections, who viewed ten-second silent thin slice clips of debates were able to

accurately predict the outcome of the election. Kraus and Keltner (2009) used the thin slice approach to study the non-verbal signaling of socioeconomic status (SES) through a get-acquainted interaction task. The participants in the study watched a 60-second slice from the five-minute interaction and were able to accurately identify individuals' high SES and low SES through their engagement and disengagement nonverbal cues shown during the slice. Visser and Matthews (2006) used thin slices to study complete strangers' ratings on predicting the job performance of call center employees. The stranger's ratings from thin slices were compared against managerial reviews and customer satisfaction reviews of the employee. They found that ratings from only 30-second silent and sound video clips of employee's job performance by a complete stranger correlated positively with managerial ratings and customer satisfaction ratings. Their results highlight thin slice's predictive accuracy for job performance ratings.

In investigating the viability of thin slices, Murphy et al. (2015) focused on the reliability and validity of thin slice use for observation of nonverbal behavior. They examined the necessary qualities a slice must have to be effective and accurately predict the phenomenon being studied. They assessed five standards for thin slice reliability and validity; slices' interchangeability, behavioral slices' representation of the whole, slice length, best slice across behaviors, and best represented behaviors by slices. They found that different slices from an interaction are interchangeable for predicting certain behaviors and that 30-second to one-minute slices, particularly from the middle of the interaction, adequately represented certain nonverbal behaviors. Finally, their results showed that the optimal slice length was between 1.5 and two minutes. They claimed that no one slice was superior to another, but suggested that slices from the very beginning of an interaction do not strongly identify the whole.

In sum, research reveals that the thin slice method is versatile in its practical application across various fields. As Ambady noted in 1999, “judgments of these critical social and clinical outcomes such as teacher effectiveness and sales effectiveness, interpersonal expectancies, and mental patient pathology can be made accurately from these brief observations” (p. 538). Correspondingly, thin slices assist organizations in the efficient utilization of time, proper training provision, and maintaining their organizational standards. Thin slice research provides this assistance by indicating that within brief moments the behavioral elements that organizations either aim to increase or decrease can be identified and addressed: effective selling behavior (Ambady, Krabehnhoft, & Hogan, 2006), professional negotiation tactics for desired outcome (Curhan and Pentland, 2007), and hireability conduct (Ruben et al., 2014). Most importantly, thin slice research has created a resourceful method for coding nonverbal behaviors and has proved effective in accurately predicting a phenomenon under brief durations of observations in various interaction types (Ambady & Rosenthal, 1992; Ambady & Rosenthal, 1997; Carcone et al., 2015; and Murphy, 2005).

It is evident that thin slice research studies have focused on the prediction of behavioral outcomes, personality characteristics, and impression formation in social, clinical, and organizational settings (Grossman, 2015; Houser, Horan, and Furler, 2007; Lambert, Mulder, & Fincham, 2014; McIntosh & Park, 2015; Richerson & Nicole Shelton, 2005; Tom, Tong, & Heese, 2010; and Tskhay, Xu, & Rule, 2014). Though the thin slicing research design has been used in various studies in relation to measuring specific behaviors, personality, and impressions, it has never been applied to measuring public speaking performance. Thus, the objective of this proposed study is to apply the thin slicing research design to public speaking assessment.

Particularly, this study will explore the use of thin slices in accurately judging and predicting the quality of speeches presented in public speaking or oral communication college courses.

The proposed study aims to extend thin slice research and its practical application into the communication education arena. It will focus on extending the thin-slice method to the quality evaluation of oral communication in undergraduate college level public speaking courses. The first hypothesis in this proposed study is that thin slices will accurately judge the overall quality of a speech. The second hypothesis is that observation of a thin-slice qualifies as a suitable substitute for whole-speech observation. The last hypothesis is that the ideal thin slice for accurately predicting speech quality will be between 30-seconds and 1.5-minute in length.

The primary goal is to apply the study's findings in assisting universities with their assessment efforts pertaining to the improvement of students' ability to speak proficiently. Universities must demonstrate improvement throughout their assessment plan timeline and must meet their plan's objectives to showcase their level of commitment and progress in enhancing their student body's academic development. In order to meet these assessment plan objectives, universities must be able to evaluate student performance and provide adequate assistance as needed for proper intellectual development. Thus, communication centers and their resources across universities are used to assist with these efforts to properly assess the student body's current communication proficiency. Additionally, to conduct these evaluations and provide communication center assistance, a university requires financial support. Research has shown that state and federal support for state university funding is continuously decreasing while tuition is rising (Heller, 2001). Therefore, if universities were able to identify a technique that would assist in effectively completing certain objectives of their assessment plans, this

would prove financially beneficial for the institutions as well as educationally-beneficial for the student body.

A technique to optimize the fulfillment of a university's assessment efforts would prove valuable. Based on the findings of this proposed study ecological validity may be established for the use of the thin slice method in speech evaluation across campuses nationwide. In other words, if reviewers are able to accurately rate a speech through only its thin slice, this will reduce the time required to review and rate speeches. In turn, it will offer the opportunity to review more speeches, which will optimize the time needed for evaluation of the overall performance of the student body's speaking abilities at the university. Moreover, this optimization of speech evaluation time through the use of thin slices would reduce the funding necessary to acquire reviewers (heavily graduate students and adjunct professors) to evaluate speeches, which would free funds for the university to use for other areas related to their assessment efforts and overall intellectual development of the student body.

## Methods

### Participants and Reviewers

A convenience sample of 60 undergraduate students from a mid-sized Southern university will be asked to participate to review the speech stimuli. All reviewers will be randomly assigned to a thin slice duration category (15 reviewers per 30-second, 15 reviewers per 1-minute, and 15 reviewers per 1.5-minute) and the remaining 15 will be assigned to the full-length speech category. Reliability of reviewers' ratings in each category for the speech's overall quality will be calculated for all reviewers combined and for each individual judge (Ambady and Rosenthal, 1993).

### Data Collection Procedures

**Measures.** A measure of the overall quality of the speech will be obtained using Thomas and Rucker's (2002) "Public Speaking Competency" instrument that uses a 5-point Likert scale across 20 items to assess speech quality (See Appendix). The overall quality score of the speech will be calculated as well as the five elements of speech: introduction, body, conclusion, delivery, and speech competency.

Items 1-20 measured the four predominant characteristics of speech competence. Items 1-3 asked the evaluator to rate elements of the introduction (Cronbach's alpha = .71). Items 4-8 asked the evaluator to rate elements of the body of the speech (Cronbach's alpha = .81). Items 9-12 asked the evaluator to rate elements of the conclusion of the speech (Cronbach's alpha = .85). Items 13-19 asked the evaluator to rate elements of delivery (Cronbach's alpha = .81). Item 20 asked the evaluator to provide a global assessment of the speaker's speech communication competence based on the speech as a whole. The 20-item public speaking competency scale yielded a Cronbach's alpha of .87 (Thomas and Rucker, 2002, p.23).

**Stimulus materials.** A student from a mid-sized Southern university, more specifically an undergraduate student enrolled in an introductory communication and public speaking course will be selected to participate in performing a speech for the study's stimulus development. A student enrolled in this course will be selected, in particular, because he or she will be given the opportunity to willingly participate in this research in exchange for extra credit directly towards

the grade on the speech performed in class. The student will perform his or her speech in a controlled location.

The speech will be recorded using the proper technology to control for any variables relating to environment and video characteristics. The speech presented by the participant will not exceed 9-minutes in length. The speech will be recorded using a high-definition video camera or iPad with a resolution of 1920 X 1080 pixels. Full-length videos will be edited using iMovie software to create the speech's thin slices. A thin slice of each duration will be extracted from the full-length speech: a 30-second, 1-minute, and 1.5-minute slice from the first three minutes of the speech (0:00-3:00), a 30-second, 1-minute, and 1.5-minute slice from the middle three minutes of the speech (3:00-6:00), and a 30-second, 1-minute, and 1.5-minute slice from the last three minutes of the speech (6:00-9:00). The three clips of each thin slice duration will be compiled in random order (to account for judge's memory effect) into one video and shown to the judges. A total of 9 thin slice clips and 1 full-length video will be used for this study.

## Procedures

Upon participants' arrival to the laboratory, the study will be explained to the participants and those agreeing to participate will be asked to sign a consent form. Participants will be informed that the study is interested in the process by which speech presentations are evaluated.

Participants will then be directed to a computer and instructed to watch their assigned videos and rate them using the Public Speaking Competency Instrument (Thomson & Rucker, 2002).

Once participants have completed rating their video for quality, they will be thanked for their participation and free to leave.

## Data Analysis

To test our hypotheses, the proposed study will utilize a one-way analysis of variance (ANOVA) to determine whether there are any significant differences between the means of the three thin slice durations of the speech (30-second, 1-minute, and 1.5-minute slice) and the full-length speech. The independent measure in this design is the duration of each speech video. The dependent measure is the quality score given to the speech video. The aggregate means of judges' evaluations using the Public Speaking Competency Instrument (Thomson & Rucker, 2002) on the quality of the full-length speech will be used as the index for the overall speech quality score. This score will then be used to compare against the aggregate means of the quality scores from each thin slice category extracted from the full-length speech.

Results indicating no significance between the thin slices and the full speech would require a post hoc F-test to identify if any of the thin slices between one another show any significant differences.

These statistical analyses will produce answers to the following questions: first, can any of the three thin slices used accurately predict the quality of the speech? Second, is a specific thin-slice duration, between 30-second, 1-minute, and 1.5-minute, superior in accurately predicting the overall quality of whole speech? Third, is a speech thin slice a significant substitute for judging speech quality compared to viewing the speech in its entirety? Finally, based on the findings, can speech thin slicing be used as an assessment technique for Quality Enhancement Plans (QEP) enacted by universities accredited by the Southern Association of Colleges and Schools (SACS) and other speech-focused academic enhancement efforts?



## Discussion

The descriptive statistics of this study will be the mean and standard deviation of the four speech durations and the full-length speech. Based on previous literature the results could show no significant differences between thin slice and full-speech ratings of speech quality. These findings would indicate that thin slices are an accurate predictor of speech quality and a suitable substitute for speech evaluation compared to viewing a speech in its entirety.

Additionally, if no significant differences were found between the three thin slices during the post hoc F-test this would highlight that any slice of at least 30-seconds in length would qualify for speech evaluation. If differences were found between the three slices it would identify one of the three thin slices as a superior choice for evaluating the quality of a speech. For example, if no initial significant differences are found and a post hoc test identifies differences between the 30second slice and the remaining two slices then evaluations of speeches could be conducted under 30-second slices instead of viewing the entire speech

Under the circumstance that no significant differences are found between the thin slices and the full speech, then academic institutions would be able to modify their means of evaluating speeches presented in public speaking, oral communication college courses to include the use of the thin slice method. Since the thin slice method would provide an accurate platform for rating a speech it would reduce the time required to review and rate speeches. Moreover, it would offer the opportunity to review more speeches. This opportunity would allow for a prompt tally of the overall performance of the student body's speaking abilities and in turn grant universities a superior and more efficient method for completing the objectives of

their assessment plans. The optimization of evaluation time through the use of thin slices will also allow universities to reduce the overall funding required for hiring reviewers and designate the freed funds for distribution across other areas of intellectual development per assessment plan requirements.

### Future Direction

If the hypotheses of this proposed study are supported, it would extend thin slice research beyond the prediction of only behavioral outcomes, personality characteristics, and impression formation in social, clinical, and organizational settings. This study would highlight the effectiveness of thin slice use for quality speech evaluation in assessment for higher education institutions. Based on the results, future research could evaluate the effectiveness of slices that are shorter in duration than the 30-second slice length used for this study. Previous literature speaks to the human ability of impression formation in extremely brief exposures to a phenomenon. Thus, future research could extend this study's methodology and support the idea that speech thin slices as short as 2-seconds could be used to effectively evaluate the quality of a speech. These future research findings could tremendously enhance the means by which academic institutions evaluate speech proficiency through observation of speech performance under brief exposure of speech thin slices.

## References

- Ambady, N., Hallahan, M., & Conner, B. (1999). Accuracy of judgments of sexual orientation from thin slices of behavior. *Journal of Personality And Social Psychology*, 77(3), 538-547. doi:10.1037/0022-3514.77.3.538
- Ambady, N., Krabbenhoft, M. A., & Hogan, D. (2006). The 30-Sec Sale: Using Thin-Slice Judgments to Evaluate Sales Effectiveness. *Journal of Consumer Psychology*, 16(1), 4-13. doi:10.1207/s15327663jcp1601\_2
- Ambady, N., LaPlante, D., & Johnson, E. (2001). Thin-slice judgments as a measure of interpersonal sensitivity. In J. A. Hall, F. J. Bernieri, J. A. Hall, F. J. Bernieri (Eds.), *Interpersonal sensitivity: Theory and measurement* (pp. 89-101). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers
- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological bulletin*, 111(2), 256.
- Ambady, N., & Rosenthal, R. (1993). Half a minute: Predicting teacher evaluations from thin slices of nonverbal behavior and physical attractiveness. *Journal Of Personality And Social Psychology*, 64(3), 431-441. doi:10.1037/0022-3514.64.3.431
- Ambady, N., & Rosenthal, R. (1997). Judging Social Behavior Using "Thin Slices". *Chance*, 10(4), 12-51.
- Bar, M., Neta, M., & Linz, H. (2006). Very first impressions. *Emotion*, 6(2), 269.
- Benjamin, D. J., & Shapiro, J. M. (2009). Thin-slice forecasts of gubernatorial elections. *The review of economics and statistics*, 91(3), 523-536.
- Blanck, P. D., Rosenthal, R., & Cordell, L. H. (1985). The appearance of justice: Judges' verbal and nonverbal behavior in criminal jury trials. *Stanford Law Review*, 38, 89-164.
- Bühler, K. (1990). *Theory of language: The representational function of language* (Vol. 25). John Benjamins Publishing.
- Carney, D. R., Colvin, C. R., & Hall, J. A. (2007). A thin slice perspective on the accuracy of first impressions.

*Journal of Research in Personality*, 41, 1054-1072. doi:10.1016/j.jrp.2007.01.004

Carcone, A. I., Naar, S., Eggly, S., Foster, T., Albrecht, T. L., & Brogan, K. E. (2015). Comparing thin slices of verbal communication behavior of varying number and duration. *Patient education and counseling*, 98(2), 150-155.

Curhan, J. R., & Pentland, A. (2007). Thin slices of negotiation: Predicting outcomes from conversational dynamics within the first 5 minutes. *Journal of Applied Psychology*, 92(3), 802-811. doi:10.1037/0021-9010.92.3.802

Eisenkraft, N. (2013). Accurate by way of aggregation: Should you trust your intuition-based first impressions?. *Journal of Experimental Social Psychology*, 49(2), 277-279.

Fowler, K. A., Lilienfeld, S. O., & Patrick, C. J. (2009). Detecting psychopathy from thin slices of behavior. *Psychological Assessment*, 21(1), 68-78. doi:10.1037/a0014938

Fraundorfer, D., Schmid Mast, M., Nguyen, L. S., & Gatica-Perez, D. (2014b). *A step towards automatic applicant selection: Predicting job performance based on applicant nonverbal interview behavior*. Manuscript in preparation.

Grossman, R. B. (2015). Judgments of social awkwardness from brief exposure to children with and without high-functioning autism. *Autism: The International Journal of Research & Practice*, 19(5), 580-587. doi:10.1177/1362361314536937

Hack, T. (2014). Forming Impressions: Effects Of Facial Expression And Gender Stereotypes. *Psychological Reports*, 114(2), 557-571. doi:10.2466/07.17.PR0.114k17w6

Hall, J. A., Roter, D. L., Blanch, D. C., & Frankel, R. M. (2009a). Nonverbal sensitivity in medical students: Implications for clinical interactions. *Journal of General Internal Medicine*, 24, 1217-1222. doi:10.1007/s11606-009-1107-5

Hall, J. A., Roter, D. L., Blanch, D. C., & Frankel, R. M. (2009b). Observer-rated rapport in interactions between medical students and standardized patients. *Patient Education and Counseling*, 76, 323-327. doi:10.1016/j.pec.2009.05.009

Harris, B. (2013). Subversive Infusions: Strategies for the Integration of Information Literacy Across the Curriculum. *Journal of Academic Librarianship*, 39(2), 175-180 doi:10.1016/j.acalib.2012.10.003

Heller, D. E. (2001). *The states and public higher education policy: Affordability, access, and accountability*. JHU Press.

Houser, M. L., Horan, S. M., & Furler, L. A. (2007). Predicting Relational Outcomes: An Investigation of Thin Slice Judgments in Speed Dating. *Human Communication*, 10(2), 69-81

Lambert, N. M., Mulder, S., & Fincham, F. (2014). Thin slices of infidelity: Determining whether observers can pick out cheaters from a video clip interaction and what tips them off. *Personal Relationships*, 21(4), 612-

619. doi:10.1111/pere.12052

- Liden, R. C., Martin, C. L., & Parsons, C. K. (1993). Interviewer and applicant behaviors in employment interviews. *Academy of Management Journal*, 36(2), 372-386.
- McGonigle, D., & Mastrian, K. (2012). Introduction to information, information science, and information systems. *Nursing informatics and the foundation of knowledge*, 22. [PLEASE COMPLETE THIS REFERENCE]
- McIntosh, L. G., & Park, S. (n.d). Social trait judgment and affect recognition from static faces and video vignettes in schizophrenia. *Schizophrenia Research*, 158(1-3), 170-175.
- Murphy, N. A., J. A. Hall, M. Schmid Mast, M. A. Ruben, D. Frauendorfer, D. Blanch-Hartigan, D. L. Roter, and L. Nguyen. "Reliability and Validity of Nonverbal Thin Slices in Social Interactions." *Personality and Social Psychology Bulletin* 41.2 (2014): 199-213.
- Nagle, J. E., & Brodsky, S. L. (2012). Thin Slices of Testimony. *Jury Expert*, 24(5), 4-7.
- Quinn, K. A., Macrae, C. N., & Bodenhausen, G. V. (2007). Stereotyping and impression formation: How categorical thinking shapes person perception. *The SAGE Handbook of Social Psychology: Concise Student Edition*, 68. [Is 68 a vol# or a page #--confusing]
- Richeson, J. A., & Nicole Shelton, J. (2005). BRIEF REPORT: Thin Slices of Racial Bias. *Journal Of Nonverbal Behavior*, 29(1), 75-86. doi:10.1007/s10919-004-0890-2
- Roeckelein, J. E. (Ed.). (2006). *Elsevier's dictionary of psychological theories*. Elsevier. [PLACE OF PUBLICATION?]
- Ruben, M. A., Hall, J. A., & Schmid Mast, M. (2015). Smiling in a Job Interview: When Less Is More. *Journal Of Social Psychology*, 155(2), 107-126. doi:10.1080/00224545.2014.972312
- Tapp, S. R. (1984). Brunswik's lens model: A review and extension to consumer research. *Advances in consumer research*, 11(1). [PAGE NUMBERS?]
- Thomson, S., & Rucker, M. L. (2002). The development of a specialized public speaking competency scale: Test of reliability. *Communication Research Reports*, 19(1), 18-28.
- Thoresen, J. C., Vuong, Q. C., & Atkinson, A. P. (2012). First impressions: Gait cues drive reliable trait judgements. *Cognition*, 124(3), 261-271. doi:10.1016/j.cognition.2012.05.018
- Tom, G. t., Tong, S. T., & Hesse, C. (2010). Thick slice and thin slice teaching evaluations. *Social Psychology Of Education*, 13(1), 129-136. doi:10.1007/s11218-009-9101-7
- Tskhay, K. O., Xu, H., & Rule, N. O. (2014). Perceptions of leadership success from nonverbal cues communicated by orchestra conductors. *The Leadership Quarterly*, 25(5), 901-911. doi:10.1016/j.leaqua.2014.07.001

Willis, J., & Todorov, A. (2006). First impressions making up your mind after a 100-ms exposure to a face. *Psychological science*, 17(7), 592-598.

Visser, D., & Matthews, J. L. (2005). The power of non-verbal communication: Predicting job performance by means of thin slices of non-verbal behaviour. *South African Journal of Psychology*, 35(2), 362-383. doi:10.1177/008124630503500212

## Appendix

## PUBLIC SPEAKING COMPETENCY INSTRUMENT

NAME \_\_\_\_\_ EVALUATOR \_\_\_\_\_

Circle one of the sets of numbers before each numbered question based on whether that statement is excellent (5), good (4), average (3), fair (2), or poor (1).

1. The speech begins with a strong attention-getter	5	4	3	2	1
2. The purpose of the speech is clear in the introduction.	5	4	3	2	1
3. I can identify the speech introduction.	5	4	3	2	1
4. I can identify the main points in the speech body.	5	4	3	2	1
5. The pattern of organization is clear in the body.	5	4	3	2	1
6. Supporting material in the body of the speech is adequate.	5	4	3	2	1
7. Supporting material in the body of the speech adds interest to the speech.	5	4	3	2	1
8. Supporting material in body of the speech aids my understanding of the topic.	5	4	3	2	1
9. I can identify the speech conclusion.	5	4	3	2	1
10. I can identify the purpose in the speech conclusion.	5	4	3	2	1
11. I can identify a review of the main points in the conclusion.	5	4	3	2	1
12. The closing of the speech is strong.	5	4	3	2	1
13. The speaker's pace/speed makes the speech understandable.	5	4	3	2	1
14. The speaker's volume makes the speech understandable.	5	4	3	2	1
15. The speaker's behavior (i.e., gestures) is smooth.	5	4	3	2	1
16. The speaker's eye contact adds to the speech effect.	5	4	3	2	1
17. The speaker is relaxed and comfortable when speaking.	5	4	3	2	1
18. The speaker uses her/his voice expressively.	5	4	3	2	1
19. The speaker uses his/her body expressively.	5	4	3	2	1
20. The speaker is a competent communicator.	5	4	3	2	1

Part I: Total Score: \_\_\_\_\_





## PRAXIS

### Music as an Effective Anxiolytic Intervention in Communication Centers

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#### Abstract

While all Communication Centers support speakers, through consultation, in becoming more confident and competent oral communicators, the staff at one center wondered about the anxiety that speakers bring with them into the consultation. As one would expect, there is public speaking anxiety. With help from staff members who had been recruited from the pool of speakers previously worked with, the uncertainty of what is to come during the pending consultation was identified as a second source of anxiety. In an effort to help, music was used as an anxiolytic intervention.

#### Rationale

When Writing Centers first evolved, hands on practice eventually informed theory. The same has happened for Communication Centers. In Greensboro we have worked for over fourteen years to create and maintain a safe and judgment-free learning space where students, faculty,

staff, and members of off-campus communities can enter into meaningful dialogue, about oral communication, with a trained communication consultant who is a student. This work largely takes the form of student-speakers sitting down with undergraduate consultants. Most of our work with faculty, staff, and off-campus citizens involves our developing and facilitating interactive oral communication learning models (workshops). Occasionally our student consultants have worked one-on-one with faculty, staff, or off campus citizens. Initially we functioned largely by practice which was informed by peer educator literature. By year five we were looking to other literature for theory which might inform our practices. As a result, our practice became informed by writing center, counseling, and listening literature. We came to value the process of seeking out literature from disciplines not familiar to us as we looked to create and maintain a safe place for the self-improvement of those we work with. As we began to establish our own scholarship, around years 6 and 7, we approached literature broadly as we sought to participate in the move towards the establishment of communication center theory and literature.

The majors and minors of our student-consultants extend beyond the College of Arts and Sciences, our organizational home, into all of the professional schools. We look to leverage our student-staff's disciplinary ways of knowing as we enter into our work. It is very common, for example, to hear our consultants connecting what they have learned in their course work outside of the center with something new we are experiencing. It is through what we learn from our new experiences that our communication center way of knowing has developed. To that end, while we cannot identify our next big problem or how it will affect knowledge generation,

it is just as hard to predict from which body of literature our next challenge will be solved. We embrace this cross-disciplinary approach as we seek to answer questions.

We took a cross-disciplinary approach when we first considered ways to lower the anxiety experiences those who come to us for support have, when they are with us. The approach led us to music literature. This essay seeks to answer a few basic questions regarding the ability of music to mitigate feelings of anxiety and stress associated with preparing for and practicing public speaking. Focusing specifically on the context of speakers visiting communication centers, we first provide context then address four general issues: the reasons speakers seek support from Communication Centers, the theoretical basis for the anxiolytic or anxiety-reducing effects of music; initial attempts to employ music at the University of North Carolina at Greensboro (UNCG) Speaking Center; and suggestions for the future use of music as an anxiolytic tool in Communication Centers.

### Who comes to our Speaking Center and why?

While Writing Centers as a field of study or way of knowing is represented by a vast body of literature, theory, and practice, Communication Centers is a newer field with a small yet growing academic ethos. Generally, Communication Centers support speakers in becoming more confident and competent oral communicators. A few more specifically seek excellence. While the support at some centers focuses on “public speaking: others incorporate assistance in such areas as group presentations, class debates, group communication, effective class discussion, listening, speech anxiety, nonverbal communication, intercultural communication, interpersonal communication, interviewing, PowerPoint presentations, communication and gender” (Turner & Sheckels, 2015, p. 13), storytelling, English Language development,

multimodal composing, and more. Essentially the consultation work being done in 2016 supports speakers as multimodal communicators who, through entering into meaningful dialogue about their own communication, are learning to effectively develop and deconstruct messages. This support is likely guided through goals articulated by each individual speaker who visits a center. While Communication Center directors might like for this articulation to be a genuine interest in personal gain by an individual speaker, it is more likely to be paraphrased or read from a course assignment which requires the speaker to come in and “get” specific support, or it is articulated as, “my teacher said we have to come.” While most speakers sit down and enter into meaningful dialogue about oral communication with a peer educator, other successful models find speakers sitting with faculty, graduate student consultants, or professional tutors.

The work of each center supports the needs of a particular campus in ways that are unique to the political, cultural, and curricular territory of the campus. As Emery (2006) notes, it is difficult to justify comparing Communication Centers to one another. Still, it is helpful for each individual center to examine usage. Sharing usage across centers, while not a current practice, has the potential to greatly advance the Communication Centers movement. Our most extensive one year self-examination occurred as we celebrated ten years of service in 2011-2012. We found that we served around 2,900 speakers in face-to-face consultations. By analyzing our usage data, we are able to identify that, among the users, 72.15% of the speakers were native speakers of English and 27.85% of them did not speak English as their first language. The largest student group we interacted with was freshmen with 28.54% (825 students). In addition to freshmen, there were significant numbers of seniors (24.35% - 704 students), and English

language learning students from UNCG's on-campus Interlink Language Center (20.72% - 599 students) also visited. Juniors accounted for 15.22% (440 students) and sophomores took a portion of 7.61% (220 students) of the total speakers. The remaining speakers included graduate/doctorate students (1.11% - 32 students), off campus community members (0.35% - 10 speakers), faculty (0.10% - 3 speakers), and others (2.01% - 58 speakers).

Among all of these speakers, about 1,375 (47.56%) speakers visited the center for the first time and 1,516 (52.44%) were returning speakers. The majority (81.11% - 2,345 speakers) were from faculty referrals which aligns with King and Atkins-Sayre's 2012 findings regarding why students visit. About 76.24% (2,204 speakers) of speakers came as a requirement of their classes. Most of the speakers who came worked on the organizing/invention of their oral communication assignment (41.20% - 1,191 speakers) or looked for practice feedback (38.40% - 1,110 speakers).

In analyzing the purpose of the consultation for each classification, most freshmen and juniors worked on organization whereas the majority of consultation with sophomores and seniors were focused on practice/delivery. Interlink students mostly sought help to improve their verbal and non-verbal American conversation practices.

#### Evolution of our efforts to decrease anxiety

In 2011, we wondered about the anxiety that speakers bring with them into our consultation rooms. As one would expect there is public speaking anxiety, especially if the speaker is going to stand up and practice his or her speech. With help from our consultants who were recruited from speakers we worked with previously, we also identified the uncertainty of what is to come during the consultation as a source. Still, in our early practice without theory stage of

evolution, we contemplated behaviors that we could put into practice which might relieve these anxieties. This caused us to make some changes. All of our consultations would start with a genuine attempt to connect interpersonally with the speaker. We would also verbalize a short statement of what happens during a typical consultation. An article about consultations would appear in our newsletter each semester. Copies of the newsletter would be available in our lobby and our desk managers would prompt speakers-in-waiting to look at the short articles if they had questions about consultation processes. We wanted to add music to our lobby as a means of anxiety reduction. Our student staff was immediately interested in adding music of their own taste to the workplace. It became clear that we would need criteria for identifying which music could be added. Our student staff would not respect a random list, and so we would have to do research to determine what music should be played. All of the changes, we hoped, would result in lowering some of the initial consultation anxiety felt by our speakers.

In the training of our consultants we would put greater focus on empathetic listening, unconditional positive regard, confirmation, and the SOFTEN technique which is comprised of a series of nonverbal behaviors practiced by the consultant (Cuny, Wilde, & Stevens, 2012). In essence we increased the relational dimension of our training. The focus of the 300-level course required of all consultants shifted too. No longer were we offering a course that trained consultants. We were now offering a theory and practice course, certified as appropriate for preparing communication consultants by the National Association of Communication Centers.

In 2013, the training of our desk managers would change. They would be asked to see themselves as hosts to the speakers waiting. They would host a series of “small gatherings” in our lobby throughout their shifts. In this role, they would attend to the speakers through verbal

and nonverbal behaviors. As such our desk managers would be setting the stage for the consultations. Verbally, they would continue to greet everyone who walks in and offer to help. They would also attempt to connect, through conversation, with the speakers in our lobby. While this connection is likely to be made by way of small talk, the role of this talk is big (Ward & Schwartzman 2009). Nonverbally they would smile, maintain open posture, lean forward, take notes as necessary, make eye contact, and nod their heads—all behaviors which we adapted from Wassmer's (1978) SOFTEN technique. These behavioral modifications match the verbal and nonverbal behaviors that our consultants practice when in consultation.

One area of anxiety reduction practice remained in development at the speaking center. In the fall of 2009 we first started to more seriously consider what role music might play in reducing the anxiety that speakers, waiting in our lobby, experience. By the summer of 2011 we were ready to focus more on what music should be played.

### How Can Music Reduce Anxiety?

Some researchers believe the theoretical basis for the anxiolytic effects of music lies in its ability to promote relaxation through its effect on an individual's autonomic nervous system (Thaut 1990; Lane 1992). The sympathetic nervous system, one of three major components of the autonomic nervous system (ANS) and part of the body's peripheral nervous system, is responsible for controlling visceral functions like heart and respiratory rate, digestion, salivation, perspiration, and other similar functions. The ANS largely regulates these functions below the level of consciousness. Some research suggests that the auditory stimulation of music occupies a number of the bodies' neurotransmitters thereby diverting feelings of anxiety, fear, and pain (Miluk-Kolasa, Matejek 1996; Knight & Rickard 2001; Cooke, Chaboyer, Hiratos 2005).

The result is a more positive experience with reductions in some of the physiological symptoms of stress and is one that establishes the effectiveness of music as an anxiolytic treatment. Other researchers have found the anxiolytic effects of music to function primarily on perceptual indicators of stress with reductions in physiological stress less consistent (Updike 1990; White 1992; Winter, Paskin, Baker 1994; Burns, Labbé, Arke, Capeless, Cooksey, Steadman, Gonzales 2002). Some of this research indicates that listening to music facilitates feelings of mental and physical relaxation via music's ability to refocus attention onto more pleasurable emotions (Bailey 1986; Bonny 1986; Brown, Chen, Dworkin 1989; McCaffery 1990; Magill-Levreault 1993; Koch, Dain, Ayoub, Rosenbaum 1998). By listening to music, subjective anxiety is reduced, consequently establishing music as an effective anxiolytic treatment. Despite the fact that researchers seemingly point in two different directions, the net result is the same: anxiety is reduced, either physiologically, perceptually, or both. While a majority of this research has focused specifically on medical patients and reductions in stress and anxiety accompanying surgical procedures and other medical treatments, these findings can be more generally applied to non-medical situations that arouse anxiety. The fact that an individual is experiencing stress associated with illness or an imminent surgical procedure does not seem to determine the effectiveness of music as an anxiolytic as it has also been shown to ameliorate anxiety and attenuate the physiological correlates of stress in healthy volunteers (Evans 2002; Hayes, Buffum, Lanier, Rodahl, Sasso 2003; Chafin, Roy, Gerin, Christenfield 2004). Regardless of its source(s), the physical health of the individual seems to matter less than the individual's perceived and physiological levels of anxiety. As a result, anxiety while waiting for a medical



procedure seems largely equivalent to the anxiety while waiting to practice or prepare for a speech, at least as it regards music's ability to ameliorate that perceived anxiety.

In fact, researchers Knight and Rickard (2001) note that undergraduate students who were exposed to a cognitive stressor task involving preparation for an oral presentation demonstrated that listening to Johann Pachelbel's *Cannon in D Major* prevented significant increases in subjective anxiety, systolic blood pressure, and heart rate, which are indicative of reductions in both perceptual and physiological stress. At the UNCG Speaking Center, as at other communication centers, many speakers find themselves in similar situations, waiting anxiously to practice oral presentations. The fact that music has been shown to have powerful anxiolytic effects in these specific types of situations lends great support to the benefits of incorporating music in the main lobby at the UNCG Speaking Center and in other higher education centers.

### Our Initial Attempts to Incorporate Music

Initial attempts to incorporate music at the UNCG Speaking Center began by focusing on playing certain types of music. While music has been shown to have significant and positive anxiolytic effects on listeners, the type or genre of music goes a long way in determining its effectiveness. Only by listening to certain types of music can an individual experience the positive emotional states that are associated with the buffering of anxious reactions (and in some cases, better performance on a variety of cognitive tasks). Music with minor or dissonant harmonic structures is often associated with fear or alarm and negatively impacts emotional processing, increasing feelings of stress and anxiety (Graham, Robinson, Mulhall 2009).

Additionally, songs with lyrics that listeners are familiar with often results in listeners singing

along or listening to the lyrics rather than focusing on the instrumental qualities that support the lyrical and vocal line. Focusing on lyrics rather than the qualities of the music itself interferes with the anxiolytic effects of a selected musical piece (Smith 2008). If the desired effect, therefore, is a reduction in anxiety then the type of music selected matters greatly. According to some researchers, relaxing or sedative music characterized by slow tempo, repetitive rhythms, gentle contours, and string instruments reduces subjective anxiety (Updike 1990; White 1992; Winter, Paskin, & Baker 1994). Labbé et al. suggest that the Baroque style of Classical music is a particularly effective anxiolytic genre. The Baroque style, exemplified by composers like Johann Sebastian Bach, Antonio Vivaldi, George Frideric Handel, and Johann Pachelbel, is characterized by moderate and slow tempo markings (e.g. Adante 73-77 beats per minute, Adagio 55-65 beats per minute, Largo 45-50 beats per minute) and an absence of crescendo and accelerando. These characteristics fit in nicely with the slow tempo and gentle contours suggested by Updike, White, and Winter et.al.

Taking cues from the aforementioned research, we concluded that several genres could potentially work for anxiety reduction in the UNCG Speaking Center. We began most obviously with the genre of Classical music, specifically Baroque pieces like Vivaldi's *Four Seasons* and Pachelbel's *Cannon in D Major*, both of which have been addressed by researchers. While many non-Baroque composers, like the Impressionist Claude Debussy, for example, have some compositions that conform to the same criteria, it is critical to note that there are many composers within the larger genre of classical music that would simply not fit the bill. Ludwig van Beethoven's bombastic *Symphony No. 5*, for example, especially its universally recognizable first movement, *Allegro con brio*, contains many of the qualities which make a piece of music

unfit for anxiety reduction. *Symphony No. 5* is in a minor key (C minor), is characterized by an Allegro tempo of 109-132 beats per minute (bpm), and incorporates both accelerando and crescendo. Pachelbel's *Cannon in D Major*, in contrast, is characterized by a major key, is in an Adagio tempo of 55-65bpm, and contains neither accelerando nor crescendo. Significantly, even some Baroque composers have pieces that are not ideal for anxiety reduction. Bach's famous *Mass in B Minor*, for example, is not only in a minor key but also contains numerous vocal lines (e.g the *Kyrie and Gloria* sections). By paying attention to key, tempo, the absence of lyrics, the types of instruments used, and other important musical qualities, effective anxiolytic musical selections should be more straightforward.

These qualities can be applied to non-classical music too. While not specifically addressed by many researchers, other genres of music often conform to the criteria of effective anxiolytic musical selections. Reggae, but more specifically Dub Reggae, is often characterized by major keys, slow tempo, string instruments, and the absence of vocal melodies, accelerando, and crescendo. Keith Hudson and Soul Syndicate's *Black Heart* is a good example of a dub track that meets the aforementioned criteria. *Black Heart* is in a major key, is comprised of primarily string instruments (electric guitar and bass), has simple sedate drumming keeping a tempo of roughly 55-65bpm throughout, and is strictly instrumental. King Tubby and the Aggrovators' *Dub Fi Gwan* is another example of a Dub track with slightly different qualities that still conform to the characteristics of an effective anxiolytic song. *Dub Fi Gwan*, which features many of the echo and reverb effects that are synonymous with Dub, is in a slightly quicker tempo of 73-77bpm, has mellow rhythmic drumming, is composed primarily of string instruments (electric guitar, bass, and piano), features no crescendo or accelerando, and is strictly instrumental.

Additionally, the loose and expansive category sometimes referred to as New Age music often lends itself to effective anxiolytic selections. Encompassing artists from the singer and composer Enya, to the classical composer Philip Glass, to traditional Celtic musicians, many New Age artists compose music specifically designed for relaxation by incorporating musical qualities like slow tempo, string instruments, repetitive melodies, and gentle contours. For example, the pianist Laura Sullivan's *Snowfall on Water* features string instruments like piano and cello, is largely in a major key, is roughly 65-73bpm, and features repetitive melodies.

When the UNCG Speaking Center began incorporating music in the main lobby during the summer of 2011, we largely focused on Classical, Dub Reggae, and New Age. In expanding this program, however, we were interested in incorporating musical selections from other genres provided they correspond to the features of an effective anxiolytic piece. For example, instrumental music composed for yoga or meditation could work. In the summer of 2012 we added instrumental jazz, world lullaby, and Brazilian Café instrumentals. These additions were a welcome change. As our playlist continues to change, we believe, greater variety will appeal to and expand the diverse musical tastes of speakers and our staff members as well.

### Suggestions for Getting Started

We believe that directors who might be looking to minimally try testing the effects of relaxing music will find a good place to start is the purchase of a Native American Flute, Yoga, or Meditation collection by various artists or *Guitar Lullaby* by Ricardo Cobo. All of these purchases will yield music that supports stress reduction/relaxation.

### Suggestions for Future Use of Anxiolytic Music at Communication Centers

There is still work to be performed, research to be conducted, and problems to be solved before any systematic assessments of the effectiveness of music as an anxiolytic treatment in Communication Centers can be offered. Many questions still remain: Do musical selections outside the genre of Baroque music provide the same degree of anxiety relief that selections within the genre do? Do speakers prefer certain genres to others? Do speakers find some selections either fail to mitigate or actually increase anxiety? In a given block of time, is it more effective for a single genre to be played or should different genres be mixed together? Does a piece of music with lyrics in a foreign language compare favorably with a piece of music without lyrics? Many of these questions can be answered only by experimentally designed research. Such would need to have controlled conditions so that music can be isolated as an independent variable. The UNCG Speaking Center does not have the resources or research focus to mount this effort.

Other issues need to be addressed. For example, what are the legal issues regarding playing music? Online music programs like [Pandora for Businesses](#), a fully licensed customizable for-fee service, offer listeners access to many different genres of music. However, at present there is no way to ensure that the computer generated musical selections will conform to the criteria of an effective anxiolytic piece. Perhaps Vivaldi will be followed by Beethoven, or King Tubby by Bob Marley. The same holds true for radio stations and online streaming. Yoga, meditation, or Native American Flute music might be better choices when using a service like Pandora for Businesses. Other online programs allow users significantly more control over musical selections. Will our plans to test [Music Online: Classical Music in Video collection offered by Alexander Street Press](#), a fully licensed subscription service

provided by our University Libraries prove useful? Is staff-owned music shared while at work an option? These questions need to be addressed before we can ethically and legally expand music as an anxiolytic intervention at the UNCG Speaking Center and into other communication centers.

### Conclusion

While questions still remain, and obtaining data in the form of experimental research is needed, incorporating music as an anxiolytic treatment in Communication Centers holds much promise. Helping to reduce and manage speaker anxiety is one of the major roles of communication Centers, and while anxiety management is often something addressed during a consultation itself, creating a comfortable, welcoming, and low-stress environment while speakers wait for their appointments is yet another way to help them become more competent and confident public speakers.

As a result of our efforts, we feel confident that this practice of playing music as an anxiolytic treatment for anxiety is worth adopting by others. If communication centers with experimental research capacity adopt these music ideas, they could move practice to communication center theory. The theory generated could inform Writing Centers and other Learning Spaces. This would in turn positively affect the ethos of the Communication Centers field of study. There is great potential in both this practice and the related research. What happens next remains to be seen.

## References

- Bailey, L. (1986) Music therapy in pain management. *Journal of Pain and Symptom Management* 1, 25-28.
- Bonny, H. (1986) Music and healing. *Music Therapy* 6A, 3-12.
- Brown, C., Chen, A., & Dworkin, S (1989) Music in the control of human pain. *Music Therapy* 8, 47-60.
- Burns, J., Labbé, E., Arke, B., Capeless, K., Steadman, A., Gonzales, C. (2002) The effects of different types of music on perceived and physiological measures of stress. *Journal of Music Therapy* 39, 101-116.
- Chafin, S., Roy, M., Gerin, W., & Christenfield, N. (2004) Music can facilitate blood pressure recovery from stress. *British Journal of Health Psychology* 9, 393-403.
- Cooke, M., Chaboyer, W. & Hiratos, M. (2005) Music and its effect on anxiety in short waiting periods: a critical appraisal. *Journal of Clinical Nursing* 14, 145-155.
- Cuny, K.M., Wilde, S.M. & Stevens, A.V. (2012). Using empathetic listening to build relationships at the center, In Yook, E. & Atkins Sayre, W. (Eds.), *Communication Centers and Oral Communication Programs in Higher Education: Advantages, Challenges, and New Directions*. (pp. 249-256). Lanham, MD: Lexington.
- Emery, D. L. (2006). Front and center: Speaking, listening, and assessment in the contexts of communication instruction. *International Journal of Listening*, 20, 62-65.
- Evans, D. (2002) The effectiveness of music as an intervention for hospital patients: a systematic review. *Journal of Advanced Nursing* 37, 8-18.
- Graham, R., Robinson, J. & Mulhall, P. (2009) Effects of concurrent music listening on emotional processing. *Psychology of Music* 37, 163-169.
- Hayes, A., Buffum, M., Lanier, E., Rodhal, E., & Sasso, C. (2003) A music intervention to reduce anxiety prior to gastrointestinal procedures. *Gastroenterology Nursing* 26, 145-149.

- King, M. L. & Atkins Sayre, W. (2012). Focusing on faculty: The importance of faculty support to communication center success. In Yook, E. & Atkins Sayre, W. (Eds.), *Communication Centers and Oral Communication Programs in Higher Education: Advantages, Challenges, and New Directions*. (pp. 147-162). Lanham, MD: Lexington.
- Knight W.E.J & Rickard, N. S. (2001). Relaxing music prevents stress-induced increases in subjective anxiety, systolic blood pressure, and heart rate in healthy males and females. *Journal of Music Therapy* 38, (4): 254-272. doi: 10.1093/jmt/38.4.254
- Koch, M.E., Dain, Z.N., Ayoub, C. & Rosenbaum, S.H. (1998) The sedative and analgesic sparing effect of music. *Anesthesiology* 89, 300-306.
- Lane, D (1992) Music therapy: a gift beyond measure. *Oncology Nursing Forum* 19, 863-867.
- Magill-Levreault, L. (1993) Music therapy in pain and symptom management. *Journal of Palliative Care* 9, 42-47.
- McCaffery, M. (1990) Nursing approaches to nonpharmacological pain control. *International Journal of Nursing Studies* 27, 1-5.
- Miluk-Kolasa, B., Matejek, M. & Stupnicki, R. (1996) The effects of music listening on changes in selected physiological parameters in adult pre-surgical patients. *Journal of Music Therapy* 33, 208-218.
- Smith, M. (2008) The effects of a single music relaxation session on state anxiety levels of adults in a workplace environment. *Australian Journal of Music Therapy* 19, 45-66.
- Thaut, M. (1990) Neuropsychological processes in music perception and their relevance in music therapy. In *Music Therapy in the Treatment of Adults with Mental Disorders* (Unkefer R ed.), Macmillian, New York, pp. 3-32.
- Turner, K.J. & Sheckles, T.F. (2015). *Communication Centers: A Theory- Based Guide to Training and Management*. Lanham, MD: Lexington Books.
- Udpike, P.L. (1990) Music therapy for ICU patients. *Dimensions of Critical Care Nursing* 9, 39-45.



Wassmer, A. C. (1978). *Making contact: A guide to overcoming shyness, making new relationships, and keeping those you already have*, New York: Dial.

Ward, K. & Schwartzman, R. (2009). Building interpersonal relationships as a key to effective speaking center consultations. *Journal of Instructional Psychology*, 36 (4), 363-372.

White, J.M. (1992) Music Therapy: an intervention to reduce anxiety of patients in the myocardial infarction patient. *Clinical Nurse Specialist* 6, 58-63.

Winter, M.J., Paskin, S., & Baker, T. (1994) Music reduces stress and anxiety of patients in the surgical holding area. *Journal of Post Anesthesia Nursing* 9, 340-343.