

Song and Wind 2.0

GOAL - ORIENTED TEACHING IN THE APPLIED STUDIO

by Karen Marston

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Arnold Jacobs is well-known for his uniquely innovative approach to brass teaching and performance. At a time when many teachers were focused primarily on the details of physical function, he pointed to the internal state of the player—the imagination and its ability to envision outcomes and guide motor function—as the most important component of both practice and performance. Thanks to numerous excellent biographers and recorders of his work, Jacobs' philosophies have been widely disseminated and are well-known to the community; however, comparatively little has been said regarding a clear process by which teachers might implement the Song and Wind method.

The basic premise of Jacobs' approach is that the body is a "study of products," and that motor function is controlled not by conscious thought, but through a clear mental concept of the sound we wish to make. When the player learns to internalize a fully formed, expressive musical phrase, the body can make a match with this concept by realizing that goal through performance. This has been variously called a "singing thought mode," "singing through the horn," or "teaching from the concept," all of which refer to a teaching mode that relies on learning through ear training and imitation, rather than specific directives on how to move or shape the body. Based on abundant accounts of Jacobs' teaching, it is clear that this approach was helpful and even transformative for many players; however, aside from practicing the skill of hearing and/or the skill of playing while hearing, how else can we approach using this philosophy in a practical way?

Many commentators have avoided the notion of a "Jacobs' pedagogy." Well-known biographer Brian Frederickson asserts that Jacobs' process differed greatly based on the needs of each student; therefore, there are no consistent actions which can be organized into a usable method. While this is certainly accurate based on the anecdotal information we have, it may still be possible to extract usable strategies if we look less at what Jacobs *did*, and more closely at how he *thought*. In terms of informing a usable methodology, understanding the philosophy which guides specific pedagogical actions has been identified as more significant than a specified, step-by-step prescription for teaching. (Marston, 2011)

From that perspective, it is helpful to start with a broad view. In a general sense, *Song and Wind* can be described as *goal-oriented*—the desired product is employed as the primary teaching tool—rather than *task-oriented*—composite skills are separated from the whole so that they can be practiced one by one. In Jacobs' words, "I do not teach methods, because an excellent sound in the mind contains in itself everything necessary to its expression." (In Frederickson, pg. 145) Challenging the player to build an

increasingly detailed mental conceptualization of a beautifully resonant tone and an artistically expressive phrase engages the imagination creatively so that focus on the desired outcome is maintained throughout the learning process; thus, the player learns goal-oriented thinking.

By contrast, a task-oriented approach generally disassembles performance into a series of movements, or physical directives, each of which is learned and mastered individually. This process is usually separated conceptually from the act of music-making. Once the player gains an acceptable level of proficiency, tasks are assembled into a usable tone and the player can begin working on expressive ideas. From the simplest definitions, task-oriented teaching focuses first on smaller details, and then stacks them up like building blocks to create the bigger picture, while a goal-oriented method starts with a broad view of musical expression and sound, and then fills in the details over time while holding the big picture in place. (Marston, 2011)

Task-oriented learning has been well-documented by the field. Starting in the 1950s, perhaps as a byproduct of a cultural interest in behaviorist thinking which favored an empirical view of standardizing learning processes (Loubriel, 2005), brass playing began to be codified, categorized, and clearly-delineated in terms of the physicality of performance. Students were advised to complete specific, discrete tasks, such as placing the face in a certain configuration, in order to build the mechanical skills which were thought to be present in expert players. Various commentators presented differing views on exactly which movements were the most efficient and effective, and many years of contention over the "correct" method to teach brass players ensued. (Marston, 2011)

By contrast, what we know about Jacobs' process is far less delineated, and perhaps as a result, less contended. Discourse on *Song and Wind* tends to be more theoretical than practical. Although his ideas evoke both interest and reverence, relatively little is known in terms of exactly how a "singing thought mode" might be taught to students. From this perspective, it has been easier to



discuss, disseminate, and perhaps even implement the comparatively clearer assertions of more behaviorist-leaning teachers; therefore, despite enthusiastic support for Jacob's ideas, the dialogue on teaching within our field often continues to target task-oriented concepts. (Fletcher, 2008; Marston, 2011)

Given this, there are a number of practical reasons to investigate *Song and Wind* more closely and to provide teachers with a framework for applying it. Firstly, it is clear that Jacobs' work was helpful to many players; therefore, it is important to disseminate usable strategies which honor his approach so that his legacy might continue to positively impact future generations of musicians. Further, task-oriented and goal-oriented practices stem from different philosophical grounds and are not complementary. Task-oriented behavior short-circuits goal-oriented thinking because it immediately shifts the player's focus away from hearing sound. Combining or comingling tasks and goals in the teaching studio can cloud the learning process and confuse developing (or advanced) players; therefore, it is important to define both styles as clearly as possible so that teachers might make an informed decision about which method to use.

Broad Theories: Holistic Teaching and Sub-goals

Within the larger field of music education, there are several related and well-understood learning theories that provide strong support for the efficacy of *Song*

and *Wind*. Using the concept of *goal-oriented teaching* as a starting point, two guiding principles emerge. First, efficient performance engages many capacities within the player, not all of which are purely in the physical domain; therefore, learning should be holistic and multi-dimensional. Secondly, while performing from the mental concept of sound is the primary goal, learning how to function effectively within that state is developmental and can be divided into smaller, learnable sub-goals.

Jacobs frequently talked about teaching the art form of music. He states:

"Performance is always being able to tell a story in music, even at the most elementary stage. The attitude must always be that of somebody imparting knowledge to somebody else, even while he is learning." (in Frederiksen, 1996)

It is clear that he viewed technique and musicianship as being intrinsically linked; therefore, performance is not only a combination of physical skills, but emerges out of an emotional state that is conducive to expressing ideas. This also points to an important intellectual component, in that expression, or the ability to "tell a story in music," is a way of "imparting knowledge." One can quickly deduce that the player must consider, process, and understand that "knowledge" in order to communicate in this way; therefore, the expert player is also thoughtful player. Further, the ability

to express both the internal concept of sound and the emotional content of the music clearly requires the capacity to engage in and maintain mental focus during performance. The resulting theorem is that music-learning must teach the *whole person*, and not just the *instrument*, by going beyond physical skills and addressing mental and emotional capacities as well. Jacobs explains:

"If you want to enter this profession, you have to do it as a musician. I don't like the word 'trombone player,' 'trumpet player,' or 'tuba player.' I know we play these instruments, but we are artists, we are musicians. We choose these particular instrument as a medium in which to express ourselves." (in Frederiksen, 1996)

Given the notion that performance is multi-dimensional, how do we teach something so broad? The answer lies in the goal-oriented concept itself. The "goal" of playing exactly what one hears (and of hearing exactly what one wants to play) requires mastery of many composite abilities; therefore, we cannot expect learners to "get it" right away. Simply singing a target phrase repeatedly and/or shifting one's attention to hearing sound will not necessarily result in immediate improvement for all players. As with any skill, learning is stepwise and developmental; however, if we are to stay true to Jacobs' overall approach, the method

by which we break it down must honor the idea of teaching through the goal. Thus, we can structure learning around *sub-goals*, and employ these composite *capacities* as temporary learning targets, approaching them in the same way as the larger goal of teaching through the musical concept. Given the scope of musical expression, it follows that sub-goals must address all domains—mental, emotional, and physical.

Holistic Teaching: Emotional Skills

From a *Song and Wind* perspective, the primary goal is for the player to hear beautiful, expressive sound and for the body to consistently produce that internal concept through performance. This is both an ideal and a natural state: the mind is focused calmly on hearing the target phrase, the emotions are open and expressive, and the body is in a state conducive to realizing the intended goal. In other words, the mind, body, and emotions are synchronized and working together. From this perspective, “bad” playing is an *unnatural* state in which some element of this equation is out of balance. In Jacob’s words, “All good teaching is a simplifying process, a weeding out of what is unnecessary or distracting.” (in Frederiksen, 1996) Jan Kagarice, professor of trombone at the University of North Texas, mirrors this idea, describing “blockages” within the player’s mind, body, or emotions that prevent the musical concept from emerging. (in Marston, 2011)

Given this, the teacher wishing to implement a *Song and Wind* approach should focus on identifying and clearing out whatever mental, physical, or emotional impediment is preventing the student from hearing and realizing an expressive musical phrase. While this may appear to be an unmanageable directive, observing student behavior and applying a bit of common sense goes a long way. For example, the ability to move air outward and blow freely so that sound is consistently resonant is primarily a physical issue; however, if the individual lacks confidence, he/she will be hesitant to commit, and the body will reflect this emotional state with tension, decreased air flow, or hesitation. Similarly, if the player’s mental state is not focused on the task at-hand—i.e. blowing air—the process might be misdirected, resulting in inconsistent or intermittent performance. (Marston, 2011)

In their book *Brasswind Artistry*, Severson and McDunn (1983) assert that positive emotional states are crucial to

successful practice. When young students hear music that inspires them, they naturally strive to recreate it. This generates an innate desire to improve and practice becomes something exciting and desirable, rather than a chore. The brain focuses on the ideal target, the emotions are inspired, and the body is mobilized to the task. Without this depth of experience, students are doomed to “flail away” and will rarely find the type of synchronization that leads to good technique. They state:

“Unless the musical concept is in the mind, you are merely stumbling around searching for the proper mechanical combination of muscles, often without knowing if you are right or wrong until your instructor tells you.” (p. 22)

This quote points to both mental and emotional dimensions within the music-learning process. The player must know and understand the musical concept, which contains both technical and expressive information, as well as hold it in conscious thought while performing. This is a multi-layered skill. We are not just executing movements; rather, we are thinking, feeling, and acting, and all of these capacities must function cooperatively.

Research in the broader field of education supports the importance of an emotional component to music-learning. *Self-efficacy*, or the extent to which an individual believes their actions will successfully produce the desired result, is a strong predictor of academic success and classroom participation. Students who feel they will be successful often are. They are also more likely to persist through challenges and stick with a given activity long term. Interestingly, the most productive and motivating self-image is one which slightly *outpaces* the individual’s *actual* skill level, meaning students need to see themselves as being slightly better than they are. This edge generates the confidence needed to take risks and improve. (Artino, 2006)

As teachers, we often use positive reinforcement in an attempt to boost confidence; however, research in this area has identified verbal praise as the least effective option for building this important emotional skill. Primarily, self-efficacy is learned through *doing*. The student needs many positive experiences which teach them that they are capable and effective. Secondly, self-efficacy can be bolstered through observations of others, positive emotional states, such as a productive rapport with the teacher and/

or other students. (Artino, 2006) From this perspective, tone production might be improved by addressing any or all of the above issues, given that a confident player will be better equipped to apply their skills to performance.

A systematic investigation of Jan Kagarice’s teaching revealed a strong correlation between “safety” within the learning environment and feelings of confidence in her students. Kagarice specifically structures learning so that increased confidence is built into the process. Students are presented with information and challenges in an incremental way, by building gradually on skills they already possess. In this way, the player experiences many small but significant victories, so that they can feel confident in the bigger changes, which evolve only over time. She states:

“Each step in the process must be successful before moving on, and each additional step must be incremental and based upon matching a portion of the previous step.”
(in Marston, 2011, p. 315)

Similarly, in his book *Psycho-Cybernetics*, Maxwell Maltz (1960), who is frequently cited as the father of both self-help and sports psychology, asserts that change is only possible when it is accompanied by a corresponding adjustment to the self-image. Regardless of how much practice is dedicated to a particular skill, if the individual does not believe that they are the type of person who is capable of performing, they will backslide to a level that matches their conception of self. In other words, a student may have a sudden breakthrough, but it will only result in permanent improvement if the brain accepts it as realistic. This might be particularly critical in a conceptual teaching model, since the focus is usually on broad ideas and musical concepts, and the student has little concrete information to rely on. In the absence of a strong and positive self-image, i.e. a belief that a positive outcome will eventually occur, negative thinking can quickly set in when a target skill fails to improve or something previously learned is suddenly inconsistent.

Holistic Teaching: Mental Skills

If the *Song and Wind* approach requires the imagination to conceive of the target phrase, then the ability to maintain strong

mental focus, and to do so at will, is clearly a complimentary skill. Even if the student is capable of fully hearing and understanding the nuances of expressive sound, that mental picture must remain in place or it will be of little help in guiding motor skills. Jan Kagarice asserts that directing the student's focus of attention toward a productive learning target is a primary role of the teacher. She states, "you may have great ears, but if you aren't listening, it won't matter." (in Marston, 2011, pg. 138) From this perspective, any exercise that challenges the student to concentrate on a clear mental image of sound can boost overall goal-oriented performance.

Jacobs is known to have encouraged students to practice playing simple tunes by ear, a skill which targets the ability to maintain focus on the aural goal. Severson and McDunn identify this type of ear training as a "sound-to-sound" model, in which the brain learns to associate pitch with a specific tone on the horn, rather than with a notation on the page. The historical research of McPherson and Gabriellson (2002) confirm that prior to the mid-19th Century, this approach was common. Students generally learned through an apprenticeship model and technique emerged as a byproduct of progressive musical challenges, often taught through improvisation. While the application of a sound-to-sound model in music has not been adequately researched, studies of children learning to read (words) show that metalinguistic abilities—or stored aural information about speech—form connections between sounds and symbols in the brain that are critical to the learning process.

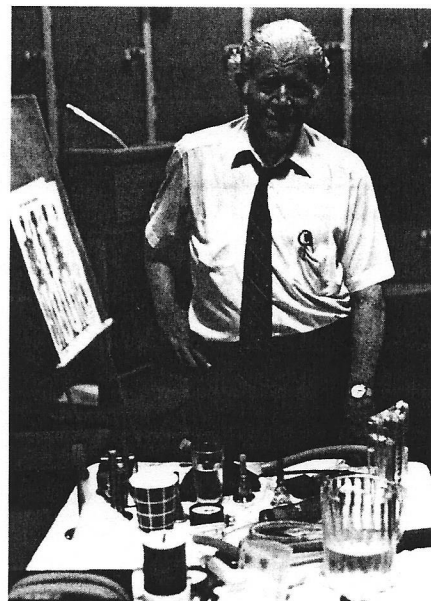
The ideal level of mental focus for learning has been described by the broader field of education as a state of *flow*, or optimal experience. In a more casual language, this is often referred to as being "in the zone," meaning skills are functioning at an optimum level, concentration is high, and there is a clear sense of engagement, or even joy, in the activity. Well-known researcher Mihalyi Csikszentmihalyi, who is the originator of *Flow Theory*, lists several key indicators of this state. Individuals report being completely absorbed in what they are doing, even to the extent that they fail to notice the passing of time, their awareness and action merge so that they feel a strong sense of clarity about how to proceed, the challenge level is high, but a match for their skills, and the activity is experienced as being intrinsically rewarding, meaning it is performed for its own sake and not for the purpose of

garnering external praise. (in Rothunde, 1991) The ability to reach a flow state during both practice and performance has been correlated with a conceptual approach to teaching, in which the student is consistently redirected to keep their focus of attention on sound and expression, rather than physical directives. (Marston, 2011) If we continue to investigate music-learning along these lines, many more intersections between the mental, physical, and emotional aspects of performance will quickly emerge. The thoughtful teacher will have little difficulty identifying these connections, particularly if he/she is adept at observing the learning process of the student. Once we become aware of the need to balance and counterbalance these domains, we can take a holistic to approach the learning process. Rather than isolating and drilling low-functioning skills sets, which might actually serve to increase their severity, we can look for the underlying causes of imbalance within the individual. For the teacher, a key question is: *At this moment, what is the physical, mental, or emotional blockage that is preventing my student from realizing his/her goal?*

Sub-goals and Automation

All of the above concepts are predicated on the ability of the player to build and use efficient muscle memory in performance. In this automated state, the musician imagines an expressive musical phrase and the body performs it efficiently and easily as a conditioned response to a given musical thought. (Buck, 1944; Sloboda, 1985; Bloom, 1986; Barry & Hallam, 2002; Kutz, 2003) From this definition, mastery occurs when the player can fully integrate his/her mental state, emotions, and physical skills. As the saying goes, "what you think about, you bring about." We know that Jacobs commonly advocated ear training, teaching by imitation, and the use of learning targets, such as a breathing apparatus, but is there a way to approach this somewhat systematically so that a clearer model for teaching might be articulated?

A more careful look at what we know about muscle automation produces some compelling ideas. First, it is developmental. In the initial stages, it is helpful to introduce "sub-skills," or smaller movements which are learnable, but will contribute to the larger goal. At this stage, the student works to translate verbal instructions into movement and the process is necessarily directed by conscious thought. This can be overwhelming, so the teacher should target only small, incremental goals which the student can readily achieve. Once basic movements are learned, goal-

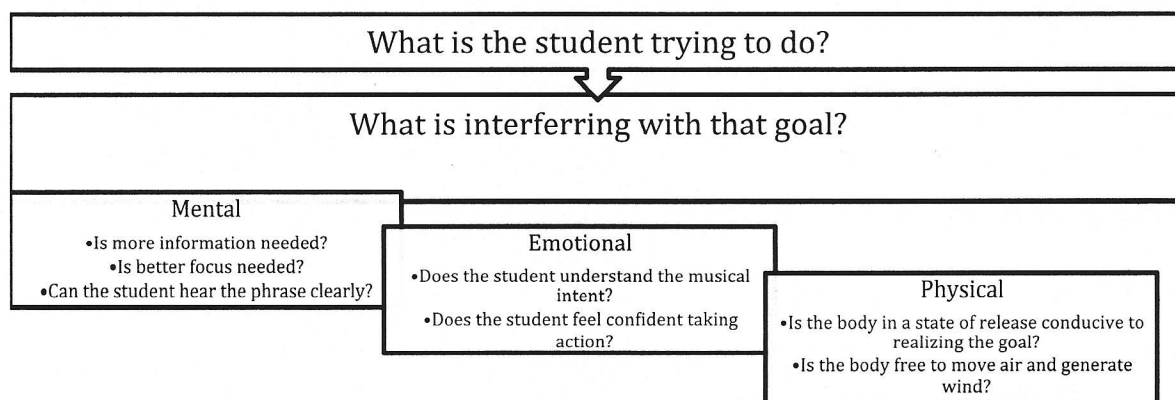


stacking, or stringing movements together into usable patterns, becomes possible. Less coaching is needed at this stage and the student can begin to act independently. Once automation or muscle memory is achieved, efficient movement has become a habit and is no longer controlled through conscious thought; rather, nerve centers in the brain take over control and the player can initiate movement by imagining the desired outcome. Performers who remain in this state—i.e. a state of *non-attention* to specific movements—can continue to improve almost indefinitely. (Sloboda, 1985; Bloom, 1986)

Given this, while muscle automation is the end goal, it is not an immediate or quick solution. Simply shifting the student's focus of attention to the desired musical product may improve performance temporarily, but it will not immediately lead to the mind-body connection needed for a fully automated state; therefore, *goal-oriented learning is developmental and must be supported by a meaningful, stepwise process that can accommodate the different learning styles of individual players.*

If we catalogue some or all of the mental, emotional, and physical skills listed above, it is clear that goal-oriented teaching must address numerous capacities within the larger category of *Song and Wind*. Loubriel (2005) discusses this using the concept of *causation*, meaning changes to one area of goal-oriented performance will facilitate complementary shifts in all others. *Upward causation* occurs when component skills, such as ear training, musicianship, or blowing air, are strengthened, and in turn generate improvements in the individual's overall ability to function in a "singing thought mode." Likewise, improving the

Figure 1: A summary model for goal-oriented teaching



ability of the player to engage in the overall goal of hearing the musical phrase will facilitate improvements in all component skill sets, an effect which Loubriel calls *downward causation*, or working from a top-down approach. Given this, lagging skills might best be supported through indirect means, by working with a complementary goal, rather than directly isolating the source of the glitch.

Viewing learning in this way, i.e. as a web of interdependent skills, all of which relate back to the overall goal of communicating ideas through sound, we might begin to formulate a map which charts the various components of a "singing thought mode." For example, focusing on a target phrase will be of little help if the player is not yet capable of moving air in a way that is conducive to realizing that concept; therefore, time spent on exhalation will likely have a positive impact on overall performance. It is at this point that maintaining focus on the essential nature of *Song and Wind* becomes critical. If all learning is to honor the *goal-oriented* mode, then even when *instruction is broken down into smaller parts, the process should relate to and be reflective of the ultimate goal of communicating through sound*; therefore, sub-goals, or the component parts of the "singing thought mode" should relate directly to the expressive and communicative nature of music. (Marston, 2011)

As sub-goals are mastered, they should be allowed to fall from conscious control so that attention can be redirected to the larger goal of expressing sound. For example, once the student can consistently move air freely and has connected this skill to the capacity to make a beautiful



tone, this should no longer form the focus of targeted thinking or teaching. Rather, the player should be directed to imagine the sound they wish to make so that the body can respond by providing the air required to complete the task. This affect has been codified by behavioral scientists and is echoed strongly by expert musicians. Well-known bassist Victor Wooten describes an ideal learning mode as a form of *concentrating* vs. *not concentrating*, and asserts that once the player can do something, that skill must be forgotten in favor of placing focus on the music. (Wooten, 2008)

Key to this type of model is that the student must *learn by doing*. As Jacobs states, "The ability to learn is greater than the ability to teach," (in Frederiksen, 1996) meaning the ability to learn from firsthand experience outpaces any teacher's ability to explain something. Specifically, Bloom investigated the training careers of twenty-five top performers in six different fields

(including music) and discovered that they spent an average of 25–50 hours per week for 12–16 years fully engaged in their activity. While such a level of mastery is not appropriate to the goals of all learners, it is clear that the most meaningful learning mode is one in which the player is actively applying goal-oriented thinking to the task of performance, rather than listening to a teacher explain how to move.

This allows for multiple phases within the teaching process. Obviously, students need certain types of understandings in order to proceed into learning, but too much focus on verbalizations can distract from the goal-oriented process and interrupt the formation of muscle memory. Jan Kagarice employs a multi-phase teaching model in which she is *either* delivering information or coaching the player through a mode of *learning by doing*, but not both simultaneously. In other words, the player incorporates new information, and then applies it to the goals of performance through active practice. During these phases, Kagarice provides only quick, targeted feedback intended to reinforce the learning goal. (in Marston, 2011)

Thus far, we know three features of muscle automation: it is developmental, multi-layered (contains sub-goals), and learned through active doing (rather than thinking about doing). Now the key question is *how do we do it?* The field of music education has identified the concept of *proximal goals* as an effective teaching tool for promoting ongoing progress. Specifically, instruction is paced so that the student is presented with challenges which are just past their current level of functioning within a specific learning target. This allows for the compounding of many

positive outcomes because the student is presented with goals they can achieve, so boosting self-confidence is a fortunate byproduct. (Artino, 2006; Kennell, 1992) Through observation, intuition, and/or experience, the expert teacher becomes adept at honing in on exactly where the student is and how much challenge will facilitate productive learning while minimizing frustration. (Duke & Simmons, 2006; Marston, 2011)

Proximal goals are highly conducive to goal-oriented instruction because they allow the teacher to conceive of progress as a series of inter-related but individual goals, each of which can be practiced individually, while still contributing to the overall product in a positive way. For example, if a student is struggling to reproduce pitch accurately, the teacher should take steps to determine the highest level of functioning within the series of sub-goals that are needed in order to produce that skill. This may be as basic as matching pitch at the piano or as advanced as singing the phrase in smaller chunks. In either case, collaborative discussion—i.e. asking the student what they do or do not understand—and/or careful observation of the player's mannerisms, performance, or verbal responses can all provide clues as to what type of proximal goals would be most helpful. Trial and error is also a valid strategy; if one goal fails to facilitate increased understanding and performance, the target can be either simplified or

made more challenging. For the teacher, a key question is: *At this moment, what is just beyond my student's current level of functioning within the physical, mental, or emotional goal that I am targeting?*

A Model for Goal-Oriented Teaching

Taken together, these two principles—holistic teaching and learning through sub-goals—inform a fairly clear course of action for implementing some of the concepts which characterize *Song and Wind*. By engaging in a series of diagnostic questions, the teacher can determine a goal-oriented path for supporting the ultimate product of singing through the horn. **Figure 1** provides a flow chart for this process, along with several examples of possible issues that are associated with each learning domain.

The payoff of this approach is that we can retain the natural process for training artistry and creativity for which Jacobs' *Song and Wind* is revered, while providing students with a clear path for improvement. Setting proximal sub-goals which target the next logical step in a process of goal-stacking provides a developmental, systematic map for training the mind, emotions, and body to work in synchronicity with the player's own artistic voice. Further, this targets the needs of the player so that learning is individualized and adaptable, allowing the teacher to function as a guide and

a mentor. Given the amount of content within the field which focuses on task-oriented learning, the concepts presented in this article may provide a meaningful framework for discussing in greater detail the possible benefits and strategies inherent to goal-oriented instruction.

In closing, I wish to convey that much of the philosophical work behind this article was inspired by in-depth observations completed during my doctoral dissertation project, which focused on the teaching methods of Jan Kagarice at the University of North Texas. Her thoughtful, dynamic approach to music-making is both revolutionary and highly effective. Although it is not possible to capture the full scope of her work in this or any article, it is my hope that the concepts presented here might prompt others to incorporate some aspects of a goal-oriented approach to brass pedagogy.

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