To What Extent Do Descriptive Student Generated Rubrics Impact the Stress Levels Experienced by Adolescents During Performance-Based Assessments?

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**Abstract**

 The purpose of the research is to investigate whether descriptive student generated rubrics affect adolescent stress levels when participating in a performance-based assessment. The hypothesis is that using formative assessment processes with a traditionally summative assessment, a concert, can lead to reduced stress and greater clarity for adolescent students. The researcher used students from St. Anne’s-Belfield School in Charlottesville, Virginia. Students in the sixth, seventh and eighth grade choirs and orchestras participated in creating their own descriptive rubrics which outlined levels of performance for the concerts in February. After the concerts, thirty students who agreed to participate in the study took a survey regarding their stress levels and feelings about the rubric. The results showed that 93% of students felt the rubric helped to make expectations for the concert clear. 90% of students felt that the rubric helped to make grading expectations for the concert clear. 67% of students felt that the rubric helped them to feel more comfortable performing. 90% of students surveyed said that testing in general contributes to stress in their daily life. The study confirmed that for this group of students, formative assessment processes helped to clarify learning targets and expectations. If students know the learning target and expectations, they are more likely to achieve them.

**Chapter One: Introduction and Overview**

In 1983 in the United States, the document *A Nation at Risk* sparked the standards movement in education, which prompted politicians to attempt to solve educational problems using new assessment policies (Colwell, 2007). This movement has created a great deal of stress for administrators and educators, all who have experienced the fear of pay-for-performance incentives that are related to student achievement (Ornstein & Hunkins, 2009, p. 42). Performing arts educators have watched this national assessment policy debate evolve, and often feel that either they assess continually or their goals cannot be assessed (Colwell, 2007, p. 5). This creates problems in assessing creative and performance-based tasks as students are usually unclear about expectations, or they expect to receive a high mark for attendance or effort alone (Lehman, 2007). Lack of clarity, or mystery, in the evaluative process can cause a great deal of stress for students and lead to impediments for learning content (Lehman, 2007).

 Assessing whether or not students learn content is not simple. In many schools there can be multiple curriculums to assess. For instance, there can be the official curriculum; the curriculum that teachers teach; the curriculum that students learn, and then the curriculum that is actually tested (Lehman, 2007). These varied layers create difficulties and obstacles for establishing valid assessment processes (Lehman, 2007).

 In recent years there have been efforts to help create assessment validity and accuracy by including students as partners in the assessment process, particularly when clarifying learning targets to be assessed (Stiggins, 2008). Author Rick Stiggins champions the value of assessment for learning, and states that we must help students believe that “success in learning is both possible for them and worth their effort,” only then will meaningful learning occur (Stiggins, 2008, p. 17). If students believe that they can learn from their mistakes, then they will build resiliency, self-efficacy and the willingness to tackle complex tasks (Caine, Caine, McClintic & Klimek, 2009). Students and teachers, however, often think that a performance-based assessment is subjective. This attitude is problematic and creates obstacles for developing clear and valid assessments. These problems can lead to general confusion and increased stress levels for students.

 My research attempts to help create clear and valid assessment parameters for students who are performing in a choir or orchestra concert. In my performing arts classes at St. Anne’s-Belfield School in Charlottesville, Virginia, I have noticed a significant difference in the stress levels of my elementary students versus adolescent students in regards to assessment. Adolescent or middle school students who attend choir at St. Anne’s-Belfield School talk frequently about stress from testing, fear of failure, and fatigue. I have noticed in my teaching that when students begin to receive letter grades in sixth grade, they begin to feel like the stakes are higher, and this causes more stress for them.

 Watching students try to handle stress prompted me to begin using a mindfulness book called *The Stress Reduction Workbook for Teens* by Gina Biegel, M.A., L.M.F.T., in order to help students eliminate stress before singing, and learn ways to self-regulate and relax (Biegel, 2009). In further research about brain development, I learned that the adolescent brain is at a critical time for developing executive functions, which are housed in the prefrontal cortex and allow a person to plan, organize, reason, assess risk, and reflect (Caine et.al., 2009). If students feel threatened, then their fight-or-flight response is triggered in their brain, which shuts down their prefrontal cortex and their ability to use executive function (Biegel, 2009). When students are in a state of “relaxed alertness,” they experience low threat and high challenge and create an ideal state for learning (Caine et. al., 2009, p. 21).

 I began to reason that if adolescents performed in an environment that de-emphasized stress then they would have access to their prefrontal cortex, or executive functions. My hypothesis is that an environment that eliminates stress creates optimal learning for the adolescent brain and helps students to perform well in a concert. My research also theorizes that partnering with the students from the beginning reduces stress, provides assessment clarity and optimizes learning.

 If students are to understand what they are to learn, they must first understand how they are being assessed (Lehman, 2007, p. 20). My research seeks to confirm that if adolescents are involved with creating assessment parameters and use these during the rehearsal process to self-reflect, then they will feel a sense of self-efficacy, empowerment and control over their learning, which will therefore lead to positive outcomes during concerts.

**Chapter Two: Literature Review**

**Introduction**

The word assess comes from the Latin word assidere, which means “to sit beside as an assistant judge” (Orzolek, 2007, p.38). The definition implies that there are multiple people or partnerships involved in the assessment process. Three models for assessment practice are used today in education communities: assessment of learning, assessment for learning and assessment as learning.

 Assessment of learning generally refers to a more traditional top-down model of the teacher student relationship, emphasizing grades, competition and summative tests (Scott, 2012). Assessment for learning generally refers to a more constructivist approach with students as active learners, emphasizing partnerships between teacher and students and formative assessments (Scott, 2012). Assessment as learning generally refers to a reflective approach where students create their own evaluations and self-assess, also emphasizing formative work (Scott, 2012).

 Research is now indicating that assessment of learning and the processes associated with this model negatively impact student achievement; particularly if students are prone to anxiety during tests (Scott, 2012). In contrast, research is showing that formative assessment leads to tremendous achievement gains, where the often politically driven nationalized assessments that are based solely on summative measures, comparisons and competition, are shown to have negative effects on student growth and learning (Chappuis, Stiggins, Chappuis & Arter, 2012).

 It is important to examine the political origins of the current assessment practices and look at what science tells us about these practices. Can a performance-based assessment, traditionally a summative process, become a forum for formative assessment, student partnership, or even assessment as learning? Can descriptive rubrics assist students in being their own evaluators and does this help achievement? In order for students, especially adolescents, to progress, it is critical for them to be involved in their own assessment processes and for these processes to emphasize learning and empowerment, not competition and comparison.

**Politics and the History of Assessment of Learning**

 There are many historical trends emphasizing competition among nations. At any given hour during the recent Winter Olympic Games in Sochi, Russia, a person can find out exactly how many medals various countries have won in comparison with others. Whether discussing STEM, length of school day, or standards, in my experience, there is a feeling among educators that there is pressure from policy makers to get students to achieve. Many countries including the United States, the United Kingdom and Australia are engaging in standards based and nationalized approaches to assessment in attempts to improve student achievement and teacher and school accountability (Fletcher &Shaw, 2012).

 Teachers have been held accountable for student results because of a traditional model of education in the United States. Two philosophies of American schooling during the 20th century have been the school as a factory and the student as a blank slate (Lillard, 2005). Although child development research has shown these philosophies to be outdated, many policies are still dictated by these two ideas, “envisioning how to eliminate two such entrenched ideas is difficult” (Lillard, 2005, p. 3). After teachers have given lessons to students as passive learners and helped them to fill their blank slates, then the teacher administers a test that evaluates and judges who has learned the information and who has not; this form of testing is called assessment of learning (Scott, 2012). In this format, there is traditionally little discussion about the assessment process and limited feedback about the assessment that might help students for future learning (Scott, 2012).

 There has been a growing trend to nationalize the assessment of learning approach in order to increase student achievement through teacher accountability (Fletcher & Shaw, 2012). A critical document fueled the nationalization of curriculum, standards and assessment in the United States, the document, “A Nation at Risk” (Kirst, 2004). This document was written in response to an economic decline between 1980-2 and evaluated the nation’s schools; it stated that schools were responsible for “’a rising tide of mediocrity’ that threatened nothing less than ‘our very future as a nation and a people’” (Kirst, 2004, p.29).

 After this document, there was a bipartisan initiative, Goals 2000, initiated at a meeting in Charlottesville, Virginia, and authored by former Governor Bill Clinton; it outlined many thoughts on education reform, including the nationalization of standards and assessment processes (Kirst, 2004). Since this time, the nationalized approach to assessment has had many faces, from Goals 2000, to No Child Left Behind, to the current Common Core Standards, these approaches have one thing in common; they are nationalized assessment processes put in place by policy makers in an attempt to improve student achievement.

 Black and Wiliam (1998) state that at the heart of the movements in the United States for high stakes external assessment is a distrust of teachers and a belief that testing on its own will improve learning. They also state that formative assessment is not a focus of policy makers because the politicians might feel that it is already occurring and does not need attention. They argue that a focus on standards assessment that ignores the processes of teaching and learning will not help students to achieve (Black and Wiliam, 1998). Research on self-efficacy and stress also shows that the school as a factory and a student as a blank slate are outdated philosophies for learning, and that assessment of learning does not actually contribute to meaningful student achievement and success.

**What Science Says about Assessment of Learning.**

 Teachers and politicians both want to see students succeed. Dr. Paul Lehman (2007) addresses this common goal in a speech to music educators. He states that we cannot have standards without assessment and that one of the most important results of the standards movement is to make assessment both “possible and necessary” (Lehman, 2007, p. 21). There are, however, some flaws with assessment of learning. Testing alone is not enough; support needs to be present for teachers and students to improve (Lehman, 2007). In addition, using only summative tests is not effective: assessment does not only occur at the end of a marking period or the end of the year; it is happening continuously, every minute of every day (Lehman, 2007).

 A summative assessment tests the achievement of students and checks whether or not they have learned enough information (Stiggins, 2008). A formative assessment supports learning and helps students to self-assess, fix what is wrong, and learn over a period of time (Stiggins, 2008). One study reveals that when formative assessment practices are put in place, students see achievement gains of 15 to 25 percentile points on standardized tests (Chapppuis et al., 2012). As assessment practitioners notice, “These are whopping achievement gains—we don’t accomplish them with a good night’s sleep…or a pep rally” (Chappuis et al., 2012). In fact, the study also gave specific suggestions for implementing successful formative assessments: classroom tasks, discussions and homework must be used as opportunities to deepen understanding and correct mistakes; teachers must give descriptive feedback to students in order to help them improve; and students must be trained in how to self and peer assess (Chappuis et al., 2012). One of the most significant findings from the study is that formative assessment actually helps low achieving students most and therefore, “reduces the range of achievement while raising achievement overall” (Black and Wiliam, 1998, p. 2).

 Black and Wiliam (1998) discuss two negative impacts of assessment of learning, or assessments that emphasize only summative tests: 1) grades and marks are overemphasized while actual guidance and advice are lost; 2) students are compared to each other and competition is emphasized rather than learning; low achieving students think they lack ability and are not able to learn. One prominent psychologist, Albert Bandura, at Stanford University, has written and researched extensively about what science tells us about the importance of efficacy, or belief in one’s ability to improve. In fact, he states that it is not only critical for students to believe in their abilities to learn, it is critical for teachers and the entire culture of the school to believe that their students can learn (Bandura, 1993).

**How Can Stress Affect Achievement?**

 Albert Bandura (1993) connects efficacy, or the belief in oneself, with achievement, and also discusses the emotional state of students during evaluation; he concludes that increased stress levels negatively impact learning. He states that students who have a strong sense of self-efficacy actually set higher goals for themselves and are committed to achieving these goals (Bandura, 1993). “It is difficult to achieve much while fighting self-doubt” (Bandura, 1993).

 In addition, he states that there is a difference between possessing knowledge and being able to use it under pressure (Bandura, 1993). When a system of marking is set-up for public comparison and competition, students cannot help but rank themselves according to others. It is difficult to maintain a sense of efficacy when one’s failures have social repercussions (Bandura, 1993). This statement has large implications for an adolescent for whom peer relationships are so influential. Adolescents who do not have a sense of social or intellectual efficacy are more likely to gravitate to peers who do not value academic achievement (Bandura, 1993). Science tells us that an adolescent brain experiencing extreme stress shuts down.

 Beginning in the 1950’s a psychologist named Dr. Hans Selye first recognized stress, studied its effects on both humans and animals, and distinguished between good stress and bad stress (Lenson, 2002). In his writings in 1976, he defined bad stress as distress and characterized it as harmful and unpleasant (Lenson, 2002). Dr. Selye equated good stress with the word eustress coming from the Greek eu, meaning good, also related to the word euphoria (Lenson, 2002).

 Gina Biegel, author of a book on how to help adolescents reduce stress, gives examples of good stress and bad stress in language that adolescents can understand. Good stress is when you feel proud and it makes you want to work harder at something; bad stress is when you get so nervous that you start to do worse on any task (Biegel, 2009).

 A group of scientists at Harvard University use terms like positive stress, tolerable stress, and toxic stress to describe various stresses that can affect children (National Scientific Council on the Developing Child, 2014). Positive stress is a change or challenge in life that ends in growth and a normal part of healthy development, like overcoming a fear, or moving to a new place (National Scientific Council on the Developing Child, 2014). Tolerable stress can negatively affect the brain but only for short limited time periods, like the death of a loved one, a divorce, or an accident (National Scientific Council on the Developing Child, 2014). Toxic stress refers to stressful events that are chronic, repeated and experienced by children without the support of a caring adult (National Scientific Council on the Developing Child, 2014).

 If adolescents experience repeated negative feelings of failure from assessments and they do not have the support of a caring adult, like a teacher or parent, it is possible that those feelings can be paralyzing and become bad stress or even toxic stress. Extreme exposure to toxic stress can increase the risk of stress-related physical and mental illness (National Scientific Council on the Developing Child, 2014). Both animal and human studies show that exposure to elevated cortisol levels, caused from toxic stress situations, can affect the immune system and even alter the function of certain neural systems (National Scientific Council on the Developing Child, 2014). Not all assessments lead to increased stress levels in adolescents, but there are certain characteristics of an assessment of learning experience that can produce stress in students.

 “Many of us grew up in classrooms in which our teachers believed that the way you maximize learning is by maximizing anxiety” (Stiggins, 2008). This statement stems from a belief that the teacher must hide their secrets and intimidate students so that they will outperform others in a competitive summative experience. Research shows that student anxiety, especially about their self-efficacy, can spiral easily (Bandura, 1993). If students try to cope with threats or assessments, and they do not believe in their own academic abilities, then their heart rate increases, their stress hormones elevate and they do not learn (Bandura, 1993).

 In contrast, students are better served by building a sense of self-efficacy through the development of cognitive abilities and the self-regulation skills (Bandura, 1993). The best way for students to know what they are to learn is to show them their assessment (Lehman, 2007). Surprises and mysteries that show up on tests do not yield positive results for student achievement (Lehman, 2007). “Mystery is the enemy of assessment” (Lehman, 2007). All assessment results should be not positive in order to make students feel good (Stiggins, 2008). If a student is not growing that an assessment should show that; however, a student should be involved with formative assessments, should learn how to self-assess, and should not be a victim in the assessment process (Stiggins, 2008).

 The goal is to change the face of efficacy so that “optimism replaces pessimism, effort replaces fatigue, and success leaves failure in its wake” (Stiggins, 2008). It is even more important in an adolescent setting for teachers to believe that students can achieve (Bandura, 1993). As academic demands become more complex and student deficits become more evident, teachers are more likely to lose the belief that adolescents can achieve (Bandura, 1993). It becomes even more critical during the Middle School years to eliminate assessment of learning and turn towards more student involved visions for assessment with students as partners, assessment for learning.

**Assessment for Learning**

 The focus of assessment for learning is the relationship between the teacher and student. Assessment for learning is formative and compares student achievement to learning outcomes, not to other students (Scott, 2012). The assessment process is “done with” the students, enabling them to have information about assessment and how to change the outcomes of their work, resulting in increased empowerment and higher feelings of self-worth (Scott, 2012, p. 32). Assessment for learning is about establishing a line of communication with students from the beginning so that there are “no victims” in the assessment process (Stiggins, 2008, p. 18).

 It is important to begin this relationship with students by engaging them in the process of defining learning targets (Stiggins, 2008). If students help to define learning targets in student friendly language, such as “I can” statements, then they will begin to see the vision for learning and have the potential to actually work towards those goals (Stiggins, 2008, p. 70). After establishing learning targets, students need to see models of strong and weak work (Scott, 2012). If students are able to see models, they are able to set goals for themselves and begin to self-assess (Chappuis et al., 2012). Another key to assessment for learning is frequent, honest communication between teacher and student and the opportunity for the student to improve and learn from mistakes (Chappuis et al., 2012). Feedback to students, however, should focus on the quality of their work and what they can do to improve, not comparisons with other students (Black and Wiliam, 1998). Some practices that might be helpful in implementing assessment for learning are: have students keep a reflective journal, have students complete all formative work before taking a summative assessment, and have students peer assess (Chappuis et al., 2012).

 Regarding self and peer assessment, students are usually reliable and honest about their own work, and in fact can be too harsh (Black and Wiliam, 1998). Students cannot self or peer assess unless they have a clear sense of the learning targets (Black and Wiliam, 1998). Unlike the description of toxic stress where children lack a supportive adult, assessment for learning demands that a supportive adult be present during the formative assessment processes. When students are invited to be involved with their learning, there will be a significant increase in emotional engagement (Fletcher & Shaw, 2012).

 One clear result from research on assessment for learning is that students are excited about learning. Researchers found that when students have greater autonomy in learning and assessment processes, their achievement improves (Fletcher & Shaw, 2012). Teachers were encouraged by the rise in student enthusiasm for learning material (Fletcher & Shaw, 2012). In fact, teacher efficacy in a student’s ability to learn is essential for actual achievement (Bandura, 1993). Teachers who are disheartened by student efficacy begin to avoid academic problems, this leads to withdrawal and ultimately “occupational burnout” (Bandura, 1998, p. 134).

 Teacher burnout and adolescents with low self-efficacy are a dangerous combination and can lead to devastating results. Adolescents who doubt their abilities can begin to be aggressive verbally and physically and engage in harmful conduct; these choices and a belief that they cannot achieve academically can begin to limit their future occupational options (Bandura, 1993). Middle School teachers find themselves challenged by academic demands and wide ranges of student feelings about learning (Bandura, 1993). Teachers of adolescents need support from the school to help create a culture that believes in the potential of every learner, even those who appear low-achieving (Bandura, 1993).

 If a school faculty has a collective view of being powerless to help students learn, then a climate of “academic futility” pervades the school and can have devastating impacts on student progress (Bandura, 1993). It is also critical that a school support various disciplines and the different methods of assessment associated with those disciplines. It is helpful for all educators if schools connect teachers with current research about best practices for assessment. For instance, if a middle school music teacher primarily uses performance-based assessment and wants to implement assessment for learning practices, what specific techniques are necessary to design a system set-up for student success?

**The Challenges of Performance-Based Assessment**

It is not unusual for middle school students in the United States to choose a performance-based ensemble as their arts elective. These ensembles choices can vary, but might include choir, orchestra, or band. The most common form of assessment in an ensemble music class is the performance-based assessment. This type of assessment typically requires students to demonstrate a certain skill or product that meet certain standards (Stiggins, 2008). Music educators typically have two types of viewpoints about performance-based assessment: the idea that they assess all the time; or the idea that their discipline cannot be assessed (Colwell, 2007). Either of these statements can prove challenging in creating an atmosphere of effective formative assessment or a system of assessment for learning.

 Not only are these philosophies about performance-based assessment challenging, but there are other technical challenges about implementing quality performance-based assessments. One challenge of performance-based assessment in music classrooms is that some conductors equate formative assessment with teachers assessing and then telling students the outcome (Colwell, 2007). If a teacher merely tests students, or has them perform, without some student partnership or learning opportunity after a performance, then they are merely giving multiple summative assessments (Colwell, 2007). Another challenge of a performance-based assessment is to eliminate judgment and bias that occurs when one teacher looks at one performance and determines a student’s grade based on that one event (Stiggins, 2008).

 There are several possibilities in approaching a performance-based assessment that help turn the process into a student centered assessment for learning experience. First, it is critical to determine a performance task and give students enough time to complete the task (Stiggins, 2008). In the case of a music performance, this can mean choosing literature that fits the level of the ensemble and then creating a timeline that allows students to be involved in the assessment process; this timeline should be reasonable and should allow for almost all students to finish without a struggle (Chappuis et. al, 2012). Second, the task or target, like a concert, should assess individual skills in the context of the group performance (Chappuis et. al, 2012). For instance, one cannot assess whether or not an individual can recognize music note names in a choir concert. The target should also focus on what has actually been a focus of instruction (Chappuis et. al, 2012). For instance, perhaps eye contact has been a focus of instruction, but not program design. It would be critical for program design not to be included in the performance-based assessment if it was not a part of actual instruction. Students can be great partners in helping to create targets in language that is easy to understand (Stiggins, 2008). Third, it is important to have multiple raters in order to eliminate bias (Stiggins, 2008). If one implements a multiple rater system during a performance-based assessment, how can the raters agree on criteria? What are the specific steps in creating a system that can aid in providing clarity to students?

**How Can a Descriptive Rubric Help?**

To maximize assessment for learning, it is necessary to develop assessments that have clear targets, that are free from bias, that outline criteria, that is shared with students before the assessment, and that provides students with more than one opportunity to demonstrate learning (Odegaard, 2007). A rubric, defined as a complex scoring guide that shows various levels of mastery, can be extremely helpful for providing clarity and outlining criteria (Odegaard, 2007). A well-written rubric can help eliminate moments where students are asking questions such as, “Is this what you want?” or “I don’t get it” (Chappuis et. al, 2012).

 There are many qualities of a well-written rubric. First, a solid rubric will outline criteria for evaluation, based on learning targets made clear to students (Odegaard, 2007). Second, the rubric should contain descriptive language that describes various levels of accomplishment for each criterion (Odegaard, 2007). It is important that the language is not judgmental, evaluative, or subjective, like “excellent, good, average, or poor” (Odegaard, 2007, p. 244). Language should also be positive, as to encourage students who might be at lower levels of achievement (Odegaard, 2007). “In short, they don’t just criticize—they inspire improvement” (Stiggins, 2008, p. 165).

 There are several techniques in implementing descriptive rubrics that are critical for creating an environment that supports assessment for learning. After creating a rubric and sharing it with students, it is important to build their vocabulary so you can begin discussing the upcoming performance (Stiggins, 2008). It is also important to discuss the wide range of possibilities of the rubric with students (Stiggins, 2008). A low level rating is not a problem as long as students have the opportunity and time to fix what needs improvement (Stiggins, 2008).

 Another helpful technique is for teachers to model work at various levels (Chappuis et. al, 2012). During this process, teachers should show the “messy underside” of performance, building up student efficacy and trust in demonstrating that a performance does not always begin at a high quality (Chappuis et. al, 2012, p. 246). Students will begin to have a sensory knowledge of what a performance looks like, feels like and sounds like when it is done well (Chappuis et. al, 2012, p. 246). When students are involved in these processes, they can then become trained raters, allowing them to self-assess (Stiggins, 2008). Having trained raters can also help to eliminate bias during the assessment and help create an efficient assessment experience (Stiggins, 2008). After a performance, it is important for students to have the opportunity to perform again, or self-reflect (Chappuis et. al, 2012). During self-reflection, is there a way that students can be involved beyond the parameters of assessment for learning? What is a way to take the student partnership even deeper and what are some of the challenges?

**Assessment As Learning**

Assessment as learning is similar to assessment for learning in that it is a formative process that involves students in their own growth and progress (Scott, 2012). Unlike assessment for learning that is “done with” students, assessment as learning is “done by” students (Scott, 2012, p. 32). At the heart of assessment as learning is the student as a self-evaluator, actively engaged in self-improvement, and even creating criteria that will be assessed (Scott, 2012). Students implementing assessment as learning might seek out a peer mentor to help them improve and is in a constant state of self-awareness and self-reflection (Scott, 2012).

 One study explored the level of student engagement after students were asked to create their own learning goals (Fletcher & Shaw, 2012). Drawing inspiration from Vgotsky and his theories that students develop understanding through independent problem solving, the study asked teachers to prompt students to discuss and reflect on curriculum outcomes (Fletcher & Shaw, 2012). Students then created a specific list of skills to be assessed according to those outcomes (Fletcher & Shaw, 2012). Results indicated that students who engaged in assessment as learning demonstrated a willingness to write for longer periods of time, and were emotionally engaged (Fletcher & Shaw, 2012). In addition, students who traditionally were hard to motivate, were active participants in the writing process (Fletcher & Shaw, 2012).

 There are some challenges with assessment as learning. Because the approach is individualized for each student, it is complicated and can be challenging (Fletcher & Shaw, 2012). In the assessment as learning process, students are involved in the process of meta-cognition, or control over their own thinking (Fletcher & Shaw, 2012). This involves training students how to self-reflect and may not happen over a small period of time (Scott, 2012). Students may have to be involved with the process and repeat it in order to develop skills necessary to have a deep level of reflection, especially deep enough to create their own criteria and assessment procedures (Scott, 2012). As is with most processes with children, it is important for the assessment as learning experience to be guided by the teacher. It is especially critical as children form their own criteria, that teachers provide models and facilitate knowledge to help them create valid criteria (Chappuis et. al, 2012).

**Conclusion**

 Although there is still global political pressure to create a competitive environment for achievement in schools, science tells us that the clearest way to motivate students is through assessment for learning or assessment as learning. Formative assessment procedures are critical for actual learning to occur (Black and Wiliam, 1998). Science tells us that repeated exposure to assessment of learning, with the teacher as the judge who creates an environment of comparison, can result in low student self-efficacy (Bandura, 1993). In addition, students who do not believe they can learn, especially adolescents, begin to spiral and gravitate towards peers who do not value learning (Bandura, 1993). When a child’s brain is exposed to repeated stressful situations without a supportive adult, the result can be a shut-down of cognitive function and even long term mental and physical illnesses (National Scientific Council on the Developing Child, 2014).

 It is critical for student achievement that teachers in all discipline partner with students to create an atmosphere of transparency about learning targets and assessment (Stiggins, 2008). Particularly in performance based assessments, it is helpful for teachers to use descriptive rubrics and engage students in model work and self-assessment (Chappuis et. al, 2012). Only when teachers partner with students in assessment, especially adolescents, can meaningful learning replace meaningless summative grades that give students no feedback about how to improve.

**Chapter Three: Methodology**

 A teacher’s belief in students’ abilities to achieve is important to their actual achievement (Bandura, 1993). Middle school teachers sometimes doubt their student’s potential to succeed, especially because of a widening gap in cognitive abilities in the adolescent combined with more difficult material in the upper grades (Bandura, 1993). Because of the challenge of assessment in the middle school, I chose to research adolescents, specifically sixth, seventh and eighth graders. Would my study show that a teacher’s desire to include students in the assessment process helps to reduce their stress levels?

**Participants**

 My study focused on the St. Anne’s-Belfield School in Charlottesville, Virginia. I teach at the school and used my own students for the study, as well as students from one other class. My field is performing arts instruction, so the focus of the study is performance-based assessments and how to clearly quantify assessment parameters.

 St. Anne’s-Belfield is a co-educational PK-12 institution with 883 students; the middle school represents approximately 250 of those students (St. Anne’s-Belfield School, 2011). The school is tuition based, yet 39% of the students receive financial aid to attend, and the diversity rate at the school is 23% (St. Anne’s-Belfield School, 2011). The average class size for the middle school is fourteen students, however, the performing groups, orchestras and choirs, can have anywhere from fifteen to forty children in an ensemble (St. Anne’s-Belfield School, 2011). There are weekly chapels at school, yet there is not a religious curriculum of any kind in the middle school. St. Anne’s-Belfield School emphasizes community and holds its students accountable to values in their honor code and mission statement, emphasizing the connection between body, mind, heart and soul (St. Anne’s-Belfield School, 2011).

 I chose to work with the sixth, seventh and eighth graders at St. Anne’s-Belfield School because two major changes occur in the sixth grade. First, students begin receiving letter grades in the sixth grade. At St. Anne’s-Belfield School, I have noticed a difference in the attitudes of children in regards to stress and assessment in sixth grade and a difference in teacher’s feelings towards assessment. In my observations there is a collective fear and feeling that a letter grade has higher stakes. In addition, I have observed that parent reactions to letter grades tend to be different than their reactions to a written comment, or even checklist or conference.

 The second thing that changes for a sixth grader at St. Anne’s-Belfield School is that they get to choose whether they would like to participate in choir or orchestra as an ensemble arts credit. In choir or orchestra, there is an emphasis placed on performing in concerts as part of a student’s final grade. When assessing a student in a group of twenty to forty children, it can be difficult to accurately assess individuals and to communicate to children what parameters are necessary for learning, outside of a simple attendance requirement.

**Procedures Prior to the Survey**

Before working with the children, I submitted a proposal to the Institutional Review Board at Mary Baldwin College. I outlined that my research would be with students from St. Anne’s-Belfield School in the sixth, seventh and eighth grades. Some of these students would be my own, so I confirmed with the board that is was acceptable to use my own students as subjects, an action research project. I also submitted permission forms (see Appendix B) for acceptance, including: a letter to parents outlining the study, a permission form to be signed by parents, a permission form to be signed by students and a permission letter from my administrator, Mr. Fred Chandler, Head of Middle School at St. Anne’s-Belfield School. The Institutional Review Board accepted my proposal as long as all surveys were administered on Monday, February 24, 2014.

 Because of my work with performance-based assessments, I decided to work specifically with the sixth grade orchestra, the seventh and eighth grade orchestra, the sixth grade choir and the seventh and eighth grade choir. All of these ensembles meet at least three times a week for at least forty minutes. Mrs. Debbie Lyle is the conductor of the orchestras and I am the conductor for the choirs. We both agreed that for the purposes of the study we would meet with our groups to create rubrics for upcoming performances on February 21 and 22.

 All students in the four ensembles, approximately 114 children, spent one class period brainstorming about categories to be assessed. The sixth grade orchestra worked as one large group, guided by Mrs. Lyle, to create categories to be assessed. Once they agreed on these categories, they then wrote descriptive sentences identifying levels of performance for each category. The levels of performance included three possible areas: ready to perform; needs more rehearsing; not ready at all and needs support.

 The sixth grade choir, seventh and eighth grade orchestra and seventh and eighth grade choir worked for one class session in small groups to create categories for assessment and descriptive sentences for the three possible levels of performance. After the small groups turned-in their ideas, Mrs. Lyle and I combined the group suggestions into one collective rubric for each ensemble. One challenge was that all the categories had to be able to be assessed by someone who would be in the audience watching the performance. For instance, note name recognition could not be a category, as a person in the audience could not accurately assess this just from a performance. The student generated rubrics, written completely in student language, but edited by the conductors, are listed in Appendix A.

 The next step of the research process was for the ensembles to perform. Although the performance could be considered a summative experience, the groups each continued to discuss and view the rubric during the rehearsals leading up to the concerts, which are formative assessment processes. In addition, the February performance is not treated by either conductor as the only grade for the class. The groups have other performances for the marking period, so that the February performance itself could be a step in the learning process and an opportunity for formative assessment. Both orchestra groups performed on Friday, February 21, 2014; and both choirs performed on Saturday, February 22, 2014. The choirs even had a chance on Saturday to work with each other as trained raters. The sixth grade choir used a rubric to evaluate members of the seventh and eighth grade choir, and vice-versa.

**The Survey**

 The final part of the research consisted of students taking an online survey the Monday after the concerts on February 24, 2014. Thirty students turned in two permission forms: one from parents and the other from them, to be able to take the survey (see Appendix B). Twenty-nine students actually completed the survey. The only students who were not permitted to take the survey were those who did not attend the concert, or those who did not turn in permission forms. Students were invited to participate through email and given reminders, but participation was completely optional. Their grade and outcome was unaffected by their participation, or lack thereof in the survey.

 The survey was conducted through Qualtrics, which ensures the anonymity of each participant. The researcher only has access to the time a survey was taken and the answers given by each participant. Participants were assured of their anonymity through the explanation letter and permission forms; all these were posted outside of both ensemble rooms, in addition to being received by email.

 The survey consisted of twenty questions (see Appendix C). Some questions required a simple multiple choice answer and some required a response from participants. There were four questions about factual student data such as age, gender, performing group and performance experience. There were three questions about how students feel, whether on an average school day, at concerts and at the February concert. There were eight questions about the rubrics and whether they helped to clarify assessment expectations and grading expectations and to make students feel more comfortable when performing. There were three questions about the stress levels of students in general. Finally, there were two questions about whether students had ever been asked to help create their grading parameters with teachers.

 Much of the research process actually occurred before the survey itself. In order to test whether student generated descriptive rubrics affect adolescent stress levels during performance- based assessments, students must have partnered to create those rubrics. In the case of both orchestras and choirs, both conductors facilitated this process approximately two weeks before the concerts. The timing is critical to the validity of the research, in that students must not only be involved with making the rubric, but students must also have time to fix what is wrong before the concert. Involving them in discussions and self-reflection before the concert is critical formative assessment and as important as the rubric itself (Chappuis et. al., 2012).

 Ideally there should be a process where students see models of different levels of work and perhaps then view a video of their own concert (Chappuis et. al., 2012). There could also be a system put in place where students become trained raters and help each other before and during a concert to assess (Chappuis et. al., 2012). In this study, the choir and orchestra director discussed the rubrics ahead of time and talked about models and self-reflection, but no actual models were shown or video used.

 The survey itself attempted to ask similar questions in different ways, referring to the rubric and whether or not it helped with clarity of expectation and grading. In addition, the survey asked students general questions about stress in school in order to establish a baseline for each child. Finally, the survey attempted to ask whether assessment as learning and creating rubrics was new to them. This question actually provided interesting insight into whether the novelty of assessment as learning actually created extra stress. If an entire school culture does not involve students in assessment for or as learning, then how can students begin to trust that they are not being tricked, or how can they begin to believe in a teacher student partnership for learning?

**Chapter Four: Report of the Findings**

**Observations Prior to the Survey**

 In my observations, the process of helping students to create a rubric is highly nuanced. How this process is carried out can affect the student experience. In this study, two different conductors guided this experience and each conductor had two different ensembles. Because of the different variables in each of those settings, it is difficult to get a completely accurate picture of student’s opinions about their assessment process.

 There are, however, some general observations from the process leading up to the survey. For instance, all of the final rubrics used student language. The middle school students seem to enjoy the process of using humorous language to describe the lower category of performance. Discussing models of the lower level of performance and having students mimic their versions of performing that is not optimum led to laughter and levity in the classroom. It almost gave a social incentive for students to reach for the higher level of performance. The hidden collective agreement was that the lower level of performance was so ridiculous that nobody would ever yodel on purpose, or make screechy sounds on the string instrument, or wear strange clothes to the performance. Ironically, these are some real problems that students had described and seen based on their experiences in ensembles. When these low level qualities were described with such humor, they suddenly became not as interesting.

 Students can have strong emotional engagement when asked to self-reflect on their work (Fletcher & Shaw, 2012). I noticed that emotional engagement occurred in my choirs during the time after writing their rubric. During the week before the performance, there was an eighth grade male student who was sick and could not sing. Instead of feeling left out of the class, he decided on his own to take out his rubric and rate the class. Although slightly forward, he relished the role of being the rater for the day and would shake his rubric in the air and point at students with suggestions. Seeing this student have a passion for evaluating others was unusual and interesting. He is a student who regularly struggles with a high level of performance, so suddenly he felt empowered and in charge, as if a high level of performance was completely expected and normal for him. When sound assessment principles are used, it helps all students, but especially those who are low achieving (Stiggins, 2008, p. 17).

In discussing the process with the orchestra conductor, we both agreed that student ability to create a rubric depended on a command of language and experience in the ensemble. It might be a harder exercise to do early in the year when students do not have vocabulary to describe different levels of performance. Students might not even have a clear sense of accurate learning targets.

 We also discussed that in our observations, performing arts conductors are constantly assessing students. Each time they rehearse a passage, they are giving directions or suggestions for how to improve technique and how to improve expression. These interactions between conductor and ensemble are forms of formative assessment. With each repetition of a passage, students are changing something and having the ability to improve. Students who have experienced the rehearsal environment for long enough, will develop a lexicon that enables them to be able to create a rubric.

 We both noticed differences in the sixth grade ensembles versus the seventh and eighth grade ensembles. The sixth grade orchestra worked on their rubric as a group, so the experience could be more guided. The sixth grade choir struggled with specifics and did not have a clear vision of categories for assessment. Both orchestra and choir members who are in seventh and eighth grade ensembles are experienced performers and have usually been a part of a performance ensemble before. This seemed to help their process of creating categories for assessment and levels of performance in the rubrics. By letting students see the vision for success, and in this case help create it, they have a better chance of achieving it (Stiggins, 2008, p. 71).

**Demographics from the Survey**

 Thirty children participated in the survey and twenty-nine children completed the survey. 40% of the students were members of the sixth grade choir; 40% of the students were members of the seventh and eighth grade choir; 7% of the students were members of the sixth grade orchestra; and 12% of the students were members of the seventh and eighth grade orchestra. 30% of students were eleven years old; 30% of the students were twelve years old; 27% of the students were thirteen years old; and 13% of the students were fourteen years old. 33% of the students were boys, and 67% of the students were girls.

 90% of the students had performed in a concert more than three times at St. Anne’s-Belfield School. None of the students reported being stressed to the point of sickness. This applied to both how they felt before any concert, before the February concert and also on any school day. Being stressed to the point where one is sick or performing worse is called bad stress (Biegel, 2009). When asked how they felt most days, 37% reported being calm, 7% reported being excited but concentrated and 57% reported other feelings. Out of the 57% or seventeen children who felt other feelings on most days, eleven of them reported feeling stressed—but not to the point of sickness, two of them reported feeling bored, two of them reported feeling happy, and two of them reported being stressed only on test days.

 Participants were given the opportunity to list several items that cause them stress. When asked what typically causes them stress, 90% of participants responded that tests of any kind caused stress. 53% of participants responded that classes caused stress, 20% of participants responded that friends and sports caused stress. Five participants reported that music calms them down when they are experiencing stress.

**Rubric Report**

The survey answers showed that high numbers of participants were clear on expectations for the concert and grading because of the rubric that they had created in class. 97% of students reported being clear about expectations for the February concert, only one student was not clear. 97% of students reported that the rubric helped them to be clear on expectations for the February concert; only one student said the rubric did not help.

 90% of students reported being clear about how they were being graded for the February concert, only three students reported being not clear. Oddly, 93% of students reported that the rubric helped them be clearer on grading expectations; one student who had reported previously being not clear, said that the rubric did help with grading clarity.

 These statistics confirm some of the findings from research surrounding the advantages of assessment for learning. One of the advantages of assessment for learning is that students are given opportunities to understand and extend their content knowledge in a particular area, which can lead to positive attitudes toward learning (Scott, 2012, p. 33). Transparency in assessment is crucial for students (Lehman, 2007). The best way students can know what they need to learn is to show them how they are being assessed, “Sometimes we’ll be surprised to find how little else we have to do” (Lehman, 2007, p. 20). Working on creating a rubric and self-analysis before a concert can lead to great achievement gains (Chappuis et. al., 2012).

 Not only is the process of creating a rubric assessment for learning, but it can be considered assessment as learning. The work is actually “done by” the students and represents a level of self-reflection (Scott, 2012, p. 33). This approach uses peer mentors as fellow evaluators with the goal to eventually make students independent evaluators of their own work (Scott, 2012). The research process touched on elements of this when the students in both choir and orchestra began to discuss their rehearsals and levels of performance before the concerts. When the one sick student began rating others, he began to model a process of peer mentorship. In addition, the choirs began the process to be peer raters when they rehearsed as large groups on the day of their concert and evaluated each other using their rubrics. Assessment as learning needs guidance in order to be successful, as students gain knowledge and skills to take ownership of their own learning (Scott, 2012).

**Unusual Findings**

Even though 90% of children reported being stressed out by testing in school, 43% of students reported that they felt no different than any other day during the February concerts. Another 40% of students reported feeling excited but concentrated. Only two students felt nervous before the concert and other responses included feeling “ready” and “pumped up.” I concluded from this data that students do not equate performing with testing. A concert does not represent nearly the same stress level for them as a test in another subject area.

 This conclusion could potentially be due to one of two things. Either they are used to being graded on attendance and effort and associate singing or playing with high grades, or the rubrics actually helped to create an environment where they can succeed. Because I am familiar with the grading procedures of both ensembles and the programs, I would conclude that the students who performed are experienced, seen in the survey data, and have grown accustom to being their own evaluators. Neither program gives students high grades for simply showing up. Both ensembles are electives, and students who sign-up are usually interested in a certain level of success when performing. There is a wide range of abilities in each ensemble, but the common denominator might be a genuine love of singing or playing an instrument. This would warrant further research and would be particularly interesting to examine why there is such a high level of stress associated with tests in other subject areas, different from that of a concert or performance assessment.

 Another unusual finding was that even though the majority of students, in the 90th percentiles, found the rubric helpful for clarity on expectations and grading for the concert, only 67% of students found that the rubric helped them feel more comfortable while performing. Of the 33% (ten children) of those who did not feel that the rubric was helpful in making them feel more comfortable performing, four students said that it just highlighted what they had to work on, therefore, creating more tension during the performance. Assessment for learning can really narrow the achievement gap, especially for students who are traditionally low achieving (Stiggins, 2008). It would require more research to find out if the students who felt pressure were those who traditionally would not self-reflect at all and who would traditionally under achieve during a concert.

 Another student who did not feel the rubric helped them feel more comfortable when performing said that he would have liked more time to practice with the rubric expectations before the concert. This highlights a challenge of both assessment for learning and assessment as learning in that it takes a good deal of time for students to feel like they have had enough rehearsing with the rubric and time to fix issues.

 Another four students also commented that during the moment of performing, they simply were not thinking about the rubric. They made several interesting comments: they do not think about those things (rubrics) when singing; they found the rubric separate from the actual performance; they found it distracting during the performance; or they already knew the concert expectations. These comments highlight the transformative qualities of making music that are difficult to quantify. In some ways, we as conductors do not want students thinking about a rubric during a performance. One of the challenges of assessment for learning is to not let a student’s attention to assessment interrupt the actual process of making music (Scott, 2012, p. 33). “No test can measure the chill that goes up the spine when we hear an emotionally moving performance” (Lehman, 2007, p. 22). In some ways, a rubric might even distract a student from being emotionally open to an aesthetic response during a concert. This would be interesting to research further.

**Student Involvement in Assessment**

 One of the most interesting answers in the survey was to the question about student involvement in assessment. I asked students whether or not teachers had ever asked them to help develop their grading criteria. Out of thirty participants, twelve answered that a teacher had never asked them. Eight more had only been asked once or twice. Eight others had been asked a few times. Two students misunderstood the question and thought that developing grading criteria meant working on improving their own grades.

 Although I theorized that most students would feel positively if they had been asked to help develop criteria, this was not necessarily the case. Only sixteen children who had been invited by a teacher to develop grading criteria could answer this question. Nine of them did feel positively about being asked to participate in developing criteria with a teacher. Some positive responses included being excited and responsible, being happy to be asked to contribute, being in control, and being relieved that they understood the grading criteria.

 In contrast, seven students had mixed reactions and negative commentary. Some negative responses included feeling pressured that they would have to buckle down, and feeling strange about evaluating themselves. One student wrote that participating in developing a rubric felt annoying; this same student said that most days he came to school and felt bored. The negative responses could relate to research that says that a low achieving student is well-served by an assessment for learning process (Stiggins, 2008). If the students who felt negatively about creating a rubric were low achievers, then the rubric only highlighted the work that lay ahead. Any evaluation, especially formative, might represent work. Another possibility is that students who felt negatively about creating rubrics feel stress at school no matter what. Investigating why some students felt negatively about being included on creating grading criteria requires further research.

**Chapter Five: Conclusions and Recommendations**

**Limitations**

 In its simplest form, the data from the survey showed that an overwhelming majority of students (97% and 90%) who were surveyed in choir and orchestra felt that generating rubrics helped them to have clarity about expectations and grades for the choir and orchestra concerts on February 21 and 22. In addition, most students, 93%, did not feel any stress associated with performing. A smaller majority, 67% of students felt that the rubric helped them to feel more comfortable when performing. From these numbers one can generally conclude that having adolescents create descriptive rubrics before a performance assessment helps reduce stress. It most certainly contributes to clarity surrounding expectations and grading.

 The study has its limitations. Members of four different ensembles participated in the study, and all of these groups might have had different formative processes for creating the rubric and reflecting on progress. This could definitely affect the responses. In addition, the amount of participants in the survey was small. Thirty students at St. Anne’s-Belfield School from four different ensembles are not enough of a sampling to draw any general conclusions with certainty.

 The survey assumed that participants had signed up willingly to be a part of the different performing ensembles. Most of the participants were experienced performers. The survey did not ask about their experiences in school academically, nor did it ask whether or not students had ever had stressful performing experiences in the past that might affect their opinions of performing in general. It might have been more accurate for the purposes of the survey to make sure that students came to the study with similar experiences in performing and perhaps a similar academic record. The gender of students might affect their thoughts about competition surrounding assessment. It would be interesting to research how a single sex environment might affect outcomes. The above limitations highlight the difficulties of education research, which is that there are so many variables and moving parts, it is difficult to create a study that is unaffected by student differences, personalities, home life, backgrounds and general mental and physical health.

**Further Research**

 In general, the results from the survey confirmed that student generated descriptive rubrics can help provide clarity to students about expectations and grading. This validates research supporting student self-efficacy and research supporting assessment for learning. The survey also generated some interesting questions for further investigation.

 For instance, 90% of all students who took the survey felt that tests caused them stress at school. This number seems high enough to warrant a survey of the larger student middle school body at St. Anne’s-Belfield School. What can teachers do to help reduce this number? How often are students being tested? Is partnership in the assessment process the answer for other subject areas that do not rely on performance-based assessment?

 Another question for further research is whether the focus on assessment negatively impacts a student’s artistic and musical experience? Is there a balance between assessment focus and artistic experience? One huge obstacle that performing arts educators face is time. Although middle school elective arts classes often meet more often than elementary programs, in my observations, there is typically limited time in arts programs compared with other subject areas. “There is no point in getting excited about assessment if the student has not had an opportunity to learn the material” (Colwell, 2007, p. 7). This would be an interesting area to further research. Do arts educator’s curriculum expectations fit the time they have with students? Is there time and space for experience emotional engagement of the material? Is there time to accurately assess and if so, is the assessment process so detailed that it takes away from the aesthetic experience?

 The last question that emerged from my study is investigating why students might feel negatively about being included on developing their own grading criteria. Are these low achieving students who might be hesitant to tackle formative work? Do students think it is easier to have the teacher make all the decisions for them? I once observed a student at a school within a juvenile detention center. The teacher in the facility asked the student how they would like to begin the class, and gave the student two options. The student was incapable of deciding and finally told the teacher to make the decision; after all, they were the teacher. That moment saddened me to see a student who was so used to not having choices.

 A group of brain researchers used the term “learned helplessness” to describe a child like the one at the juvenile detention center (Caine et. al., 2009, p. 28). “Learned helplessness” describes a child who has not made use of their executive functions and has not experienced a classroom with low threat and high challenge (Caine et. al., 2009, p. 28). These students are used to experiencing fear, triggering chemicals for their fight or flight mechanisms (Caine et. al., 2009). Over a period of time, they feel powerless and start to believe that learning is not an “ongoing process” (Caine et. al., 2009, p. 28).

 Are these the adolescent students who do not feel positive about being invited to help create their own assessment parameters? If an adolescent has experienced environments where they were powerless to change their learning, are they capable of now contributing to their learning and assessment? Research cited the importance of a teacher and school’s belief in an adolescent’s capabilities (Bandura, 1993). Self-efficacy as well as a school’s belief in the child was important for the child’s achievement (Bandura, 1993). This would be an interesting study to conduct with adolescents, to see how many adults in their lives believe in their abilities and whether or not that affects their attitudes towards learning and being involved with creating their own assessment processes.

**Changing a Culture**

 Adolescents are naturally going through a period where they are beginning to use their executive functions independently (Caine et. al., 2009). They are starting to experiment with their own choices, yet the process of making successful decisions does not happen for them overnight (Caine, et. al., 2009). At a time in our nation where educators are influenced by content mastery and high stakes assessment, how can we support middle school students so that they see results in their achievements?

 Here is a possible solution: “Faculties’ beliefs in their collective instructional efficacy contribute significantly to their schools’ level of academic achievement” (Bandura, 1993, p. 117). Research supports the idea that assessment for learning and assessment as learning must not only be the work of one teacher, but the culture of a school. In my opinion, if adolescents are to trust that they are to have a voice in their assessment processes, then they have to feel like partnership is a consistent pattern in their education. Otherwise, their survival instinct will not allow their brain to relax and trust that an environment of low threat and high challenge can work for them (Caine et. al., 2009).

 In the diverse population of the United States, building a consensus of belief in student’s abilities seems daunting. With our emphasis on the nationalization of curriculum, and standards since the 1980’s, the obstacles for changing a culture so that student’s needs drive assessment procedures can seem overwhelming. The positive news is that assessment is a subject of great debate. Some cultures are modeling interesting ideas about nationalizing curriculum and assessment.

 The Finnish people have gained many accolades lately for their high scores on achievement tests (Partanen, 2011). The PICA survey measures achievement of fifteen year olds in reading, math, and science (Partanen, 2011). Since 2000, the Finnish adolescents have always finished in the top tier of scores in all three areas, competing with countries such as South Korea and Singapore (Partanen, 2011). Interestingly, Finland also ranked in *Newsweek* in previous years as the country with the highest quality of life (Partanen, 2011). Known for nationalization of programs, the Finnish education system emphasizes creative play, deemphasizes homework, and the Finnish language actually contains no word for “accountability” (Partanen, 2011). Can a country like the United States, with so many challenges in educating all children apply models like those in Finland to help students achieve?

 Although the sampling size on my survey was small, it definitely showed that the students who participated in the process of creating their own rubrics were clear about expectations and grading because of it. Other research confirms that formative assessment involving students as partners can lead to huge achievement gains (Chappuis et. al., 2012). If nothing else, further research and experimentation is warranted. Author of books such as *The Element* and *Out of Our Minds*, Ken Robinson, spoke to a group of educators at the Virginia Association for Independent Schools. He challenged educators by asking why standardization has to be a fast food model where all schools end up looking alike (Robinson, personal communication, November 2, 2009)? Education is complex field because it does involve so many people, interactions and variables. As we attempt to nationalize our programs and make systems that work for children, let us not forget the children themselves. In the era of summative testing, we may have forgotten that it is formative work and partnering with children that lead to real achievement gains. At the heart of achievement is learning, and this is driven by what teachers and students do in the classrooms, together, as partners (Black and Wiliam, 1998).

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**Appendix A: Student Generated Rubrics**

**Student Generated Performance Rubric for 6th Grade Choir**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Level 1**: Ready to Perform | **Level 2**: Needs more rehearsing | **Level 3**: Not ready at all and needs support |
|  |  |  |  |
| Posture | Standing tall, hands by side, head up, looking at the conductor. You impress the audience with your posture. | Slouching, hand in front or behind back, fidgeting, wandering eyes and mind. | Never sitting up, or even sprawled on the floor, touching other people. You distract the audience with your posture. |
| Facial Expression | Engaged face, smiling, in the moment. | Glum, staring into space, not focused. | Distracted, or falling asleep, rolling eyes. |
| Focus/Concentration During the Concert | Fully engaged in the concert. The audience can tell from your body that you like what you are doing. | You are engaged for part of the time. The audience might notice your focus wandering. | You are in your own world. The audience can tell that you do not care about the concert. |
| Attitude—before and after the concert | Positive, supportive, encouraging, appropriate, helpful. | Expressionless, “just there.” Waiting for others to do things for you. | Unsupportive, ugly attitude, sassy. All the focus is on you and your needs. |
| Presentation | Concert dress. You and the group look organized and focused both on and off stage. | Some of concert dress is there, but not all. You look unprepared and the audience feels nervous for you. | You stand out because you are not in concert dress. The audience notices you and can tell that you are unprepared. |
| Singing | Cathedral in mouth.Sarah Dulaney effect.Matching pitch. | Spread mouth. Face looks different than the group, pitches are sometimes correct. | Mouth closed, or all pitches are off. |

**Student Generated Performance Rubric for 7th/8th Grade Choir**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Level 1**: Ready to Perform | **Level 2**: Needs more rehearsing | **Level 3**: Not ready at all and needs support |
|  |  |  |  |
| Posture | Army posture. Confident.Standing straight, hands at sides, shoulders back, folder in front, eyes on conductor. | Shy presence. Slightly slumped, little eye contact, hands in pockets. | Body is showing that you don’t care, slumped over or sitting down, hands are anywhere, falling asleep, eyes are darting around. |
| Facial Expression | Happy, smiling, bright eyes. | Fake smile (clown smile) or straight face. | Look bored, dull eyes. |
| Focus/Concentration During the Concert | Eyes on conductor, connecting with audience, positive, aware. Paying attention no matter what. | Wandering eyes, half singing, in between full focus and not, slightly distracted. | Why am I here? Don’t sing at all, waving to parents, eyes all over the place. Totally distracted and distracting others. Looking bored. |
| Concert Etiquette—before and after | Paying attention during the warm-up. Be on time, not rushing to leave. Interested in the performance. Attention is on performers. | Whispering, getting distracted. Talking between songs. Attention is on friends. | Interrupting. Won’t stop talking, very distracted. Disruptive and distracting to others. Attention is on me. |
| Appearance | Required concert dress. Neat hair, appropriate shoes. Engaged. | Parts of concert dress correct. Clothes a little ruffled. Hair sort of everywhere. Dress reflects a slight “attitude.” | Everything is wrong. Hair messy. “I thought I was going to a movie.” |
| Vocal Projection | Loud, clear, good diction—long vowels and clear consonants | Loud, clear. | Mumble, no projection. |
| Pitch | Matching Pitch | Incorrect Pitch | Yodeling badly, screaming. |
| Mouth Form | Two fingers of space | One finger of space | Spread mouth, mumbling, chin out |

**Student Generated Performance Rubric for Haydn Orchestra (Sixth Grade)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Aspect of Performance** | **Level 1**: Ready to Perform | **Level 2**: Needs more rehearsing | **Level 3**: Not ready at all and needs support |
| **Rhythm** | Plays with even tempoPerfect countingHolds notes long or short enough | Plays with mostly even tempoCounting mostly correctSlightly behind or ahead of the beat | Uneven tempoCounting is wrong Notes are not long or short enough |
| **Bowing****(Articulation)** | Straight bowUses the right part of the bow so it matches the other playersUp and down bows correctUses good changes of style  | Mostly straight bowMostly matches the other players on how much bow to useDoes some changes of style | Crooked bowNever uses the correct amount of bowHits other strings with bowNo style   |
| **Intonation** | Uses the correct finger patternsListens to match the other players’ notesPlays the right sharps and flats | Mostly uses the correct finger patternListens sometimes to the full sound | Finger patterns are wrongDoesn’t listen or know they are playing the wrong notes |
| **Synchronization** | Plays loud and soft at the right timeListens to be together with everyone elseStarts and stops at the right time | Plays some loud and soft partsTries to listen to be the same as other playersGets most starts and stops together | Plays all the same volumeNot starting and stopping together |

**Student Generated Performance Rubric for Mozart Orchestra (Seventh and Eighth Grade)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Aspect of Performance** | **Level 1**: Ready to Perform | **Level 2**: Needs more rehearsing | **Level 3**: Not ready at all and needs support |
| **Rhythm** | Plays with even tempoAccurate countingDivides the beat correctlyHolds notes long enough | Plays with mostly even tempoCounting not always accurateSlightly behind or ahead of the beat | Uneven tempoCounting is off and wrong / doesn’t understand the countingDoes not divide the beat or hold notes the right length |
| **Bowing****(Articulation)** | Straight bowUses correct length of bowBowing is in the right directionUses correct style with slurs, staccato, legato, etc. | Mostly straight bowSlightly off on length of bowsSlightly wigglyMisses some slurs, staccato, legato | Slanted bowNever uses the correct amount of bowScreechy or scrunchy soundsTimid/inconsistentNo correct articulation  |
| **Intonation** | Full rich sound with clear notesUses correct finger patternsThinks of the orchestra as a whole – good harmonies result | Fairly good tone with notes mostly clearMostly/sometimes uses correct finger patternHarmonies sometimes in tune | Fingers way off |
| **Dynamics /****Synchronization** | Correct use of accentsDynamics are accurate volumeGood crescendos and diminuendos Start and stop together | Some use of accentsUnorganized loud and soft spotsMostly together | No changes in soundNo accentsWrong volumesNot starting and stopping together |
| **Posture** | Instrument held upLeft wrist correctRight shoulder stillRight arm moves at elbow | Mostly holding instrument upLeft wrist looseRight arm some movement at shoulder | Instrument touching lap or really lowLeft wrist flatRight arm moves from shoulder |
| **Behavior/Attitude** | Great postureEnergetic performanceAppropriate dressProfessional behavior(quiet, on time, has music) Respectful of other performers | Disrespectful of one category of first column | Falls short on 2 or more of first column |

**Appendix B: Permission Forms**

February 11, 2014

Dear Middle School Choir and Orchestra Parents,

I am in the process of completing a Masters of Education degree with a focus in leadership. I am beginning to conduct research for my graduate thesis. My topic explores middle school students and their participation in performance based assessments. My actual research question is: to what extent do descriptive student generated rubrics impact the stress level experienced by adolescents during performance based assessments? Just for reference, a rubric is a chart that describes and ranks different levels of student work. The goal of a rubric is to help students understand expectations for a particular class, project or test. For the purpose of the study, the performance assessment is a choir or orchestra concert. The rubric outlines expectations for concert participation and provides clarity for student achievement.

I am writing to ask your permission to survey your children after the February concert. Before the concert, students will be asked to generate a rubric in order to help them create expectations for the concert. After the concert, they will be surveyed on their stress levels during the performance.

It is completely optional for your child to participate in this survey. If you choose to have them participate, all surveys will be anonymous. The poll will be conducted through Qualtrics, which guarantees the anonymity of each participant. Students will in no way be penalized for their answers, or lack of participation.

**If you are comfortable with your child participating in the study, please sign the consent form below and return it to the Middle School office. In addition, please have your child sign a form of consent, a procedure required for students over age six.**

You will each receive an email after each concert with an electronic link to the poll. If your child chooses to participate, then they just have to spend a few minutes completing the survey. Their anonymous answers will be submitted online.

Please contact me if you have any specific questions about the research.

Thank you for considering,

Victoria Redfearn Cave

**Mary Baldwin College**

**Adolescent Stress Levels During A Concert**

 I understand that I have been asked to participate in a research study about stress levels during a concert. I will be asked to take a survey online after the concert in February. The survey should take 10-15 minutes. I understand that I do not have to participate. If I do participate, I can quit at any time. I also understand that I do not have to answer any questions I don’t want to answer or do anything I don’t want to do. My parents, teachers, and others will not be told what I have said or done in the study. No one but the researcher, Ms. Redfearn Cave, will see the answers. At no time will your name be used or associated with those answers. I understand that my grade will not be affected by choosing to or not to participate in the survey.

 This study is being conducted by Victoria Redfearn Cave at Mary Baldwin College. Her phone number is 434-825-7093 and her email is vredfearncave@stab.org. If I have any questions or concerns about the study, I can call or write and ask her about them.

 When I sign my name, this means that I agree to participate in the study and that all of my questions have been answered. I have also been given a copy of this form.

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Witness\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Witness Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Consent to Participate in Human Research Project**

**Mary Baldwin College**

**Research Topic: Adolescent Stress Levels during Performance Based Assessments**

**Victoria Redfearn Cave, IN 632, Inquiry Research Project, 434-825-7093**

 You have been asked to allow your child to participate in a research study at Mary Baldwin College. The purpose of this study is to examine the stress levels of adolescents after a concert, or performance based assessment. Before the concert, students will participate in creating their own expectations and grading chart for the event. The survey will ask students if the experience of creating their own expectations helped to reduce any stress felt during the concert, if any. The premise is that student involvement with the grading process will help them to feel a partnership between conductor and student, therefore, reducing their stress level at a performance. The purpose of the study, terms of your child’s participation, as well as any expected risks and benefits, must be fully explained to you before you sign this form and give your consent.

 Students will simply have to go online to a site called Qualtrics and complete a survey for 10-15 minutes. The questions will not ask their identity, only their age and gender. They will then be asked questions about their feelings during concert time and their feelings about creating grading expectations as a class.

 Participation in research is entirely voluntary. You may refuse to allow your child to participate or may withdraw your child from participation at any time without penalty. The investigator may withdraw your child from participation at her professional discretion.

 If, during the course of this study, significant new information becomes available which may relate to your willingness to continue to have your child participate, this information will be provided to you by the investigator.

 There will be no information from the survey which will be able to identify you or your child. The survey is anonymous.

 If at any time you have questions regarding this research or your child’s participation in it, you should contact the investigator at 434-825-7093 or vredfearncave@stab.org. If at any time you have comments regarding the conduct of this research or if you wish to discuss your rights as research participant, you may contact Dr. James Harrington, the advisor to this research project at 866-849-0676. You will be given a copy of this consent form to keep.

I have read and understand the above description of the research. Anything I did not understand was explained by Victoria Redfearn Cave and all of my questions were answered to my satisfaction. I consent for my child\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to participate. I acknowledge I have received a personal copy of this consent form.

Signature of Parent/Legal Guardian/Date

Signature of Investigator/Date

January 15, 2014

Dear IRB Committee Members,

 I am the Middle School Head at St. Anne’s-Belfield School in Charlottesville, VA and I give Victoria Redfearn Cave, researcher, permission to have access to orchestra and choir students in grades six through eight students in order to complete a research project for her Master’s thesis. I understand that she will have them complete a short ten to fifteen minute survey. This survey will help her gauge student stress levels as they approach and complete a performance, which is the general topic of her academic work. I understand that this survey is optional.

I have been informed that a letter to the parents will be distributed that explains the purpose of the study and what the researcher will ask of the students. I also understand that each parent and student will be asked to fill out and return consent or assent forms before they will participate in the survey. I have been informed that a checklist will be maintained of all students that return both forms.

I understand that the student will be given the survey to complete online through the confidential service, Qualtrics. If they choose, the students will complete the survey at home. The researcher will not know the identities of the students. All information from the survey will be solely used for the purpose of constructing the academic thesis.

I understand that the analysis will be reported in the final research paper. Only the researcher will have access to the survey answers. I anticipate no risks for the students to take part in this study or as a survey participant and support Ms. Redfearn Cave in her final project to obtain her Master’s Degree.

Sincerely,

Fred Chandler

Head of Middle School

**Appendix C: Survey Questions**

**Q1. What is your performing group at St. Anne's-Belfield School?**

* Sixth Grade Choir
* Sixth Grade Orchestra (Haydn Orchestra)
* Saintly Voices
* 7/8 Grade Orchestra (Mozart Orchestra)

**Q2. How old are you?**

* 11
* 12
* 13
* 14

**Q3. Are you a boy or a girl?**

* Boy
* Girl

**Q4. How many times have you performed in a concert at St. Anne's-Belfield?**

* This was my first concert
* 2-3 Times
* More than 3 times

**Q5. Before a concert at St. Anne's-Belfield, I usually feel**

* Not sure, this was my first concert.
* No different than any other day
* Excited but concentrated
* Nervous
* So nervous that I cannot think. I sometimes fell sick.
* Other

**Q6. I was clear about expectations for the February concert (play-a-thon for orchestra).**

* True
* False

**Q7. The performance rubric that we created during class helped me to understand what was expected of me during the February concert (play-a-thon for orchestra).**

* True
* False

Q8. If you answered "false" to either of the above two questions, what would help you be clear about performance expectations?  If you answered "true" to the above two questions, write SKIP in the box.



**Q9. How did you feel during the February concert (play-a-thon for orchestra)?**

* No different than any other day.
* Excited but concentrated
* Nervous
* So nervous that I could not think. I felt sick.
* Other

**Q10. Were you clear about how you were being graded for the February concert (play-a-thon for orchestra)?**

* Yes
* No

**Q11.**

**Did the rubric we created together in class help you understand how you were being graded for the February concert (play-a-thon for orchestra)?**

* Yes
* No

Q12. If you answered "no" to either of the above two questions, what would help you understand how you are being graded for the February concert?  If you answered "yes" to both, write SKIP.



**Q13. Did the rubric help you feel more comfortable about performing?**

* Yes
* No

Q14. If you answered "no" to the above question, why didn't it help?  If you answered "yes", write SKIP.



Q15.

If you usually feel nervous, or so nervous that you are sick during a concert, what helps you to feel better?  If you feel excited before a concert, what helps you to feel this way?



**Q16. Most days I feel**

* Calm, I do not find school stressful.
* Excited and concentrated
* Nervous
* So nervous that I cannot think, I feel sick most days
* Other

**Q17. My typical stressors at school are (you can have more than one answer)**

* Friends
* Classes
* Tests of any kind
* Sports
* Boyfriends/girlfriends
* Family Life
* Other

Q18. What typically helps you to calm down if you are experiencing stress?



Q19. How many times have you ever been asked by a teacher to develop your grading expectations or criteria?



Q20. If you have had a teacher ask you to develop your grading criteria, how did this make you feel?  (If this has not happened, write SKIP.)

