# Motivation in Private Piano Instruction for Adolescents:

# A Social-Cognitive Analysis of Piano Pedagogy

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**Abstract**

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Social cognitive training for piano teachers in the United States is limited, forcing teachers to learn as they go. While some teachers develop the skills to become effective motivators, others struggle to learn these skills. By bridging the gap between social cognitive research on motivation and piano pedagogy, this document aims to show teachers how to utilize current research to benefit teachers and, by extension, their students. Major motivational concepts are investigated, including expectancy value, self-efficacy, attribution theory, and achievement goal theory. Intrinsic motivational theories of self-determination, flow, and personal or situational interest will be tied to piano pedagogy as well. This paper will give useful, hands-on applications for these theories for piano teachers, with a significant focus on teaching adolescents.

## Table of Contents

Abstract....iii

List of Figures....vi

Chapter 1: Introduction....1

Current State of Piano Teacher Training....1

A Brief History of Piano Pedagogy....4

Modern Piano Pedagogy Texts & Their Problems.... 9

Problems With Current Piano Pedagogy....13

Chapter 2: Student Stages of Development....16

Importance of Parental Support....20

Difficulties of Teaching Intermediate Students....23

Chapter 3: Social Cognitive Theories of Motivation....27

Conceptions of Motivation....27

Expectancy Value....28

Self-Efficacy....30

Attribution Theory....34

Achievement Goal....38

Intrinsic Motivational Theories....40

Flow....41

Personal and Situational Interest....41

Self-Determination....43

Chapter 4: Real World Applications....48
Applying Conceptions of Motivation....48
Expectancy Value....48
Self-Efficacy....50
Attribution Theory....52
Achievement Goal....54
Applying Intrinsic Motivational Theories....55
Flow....55
Interest....56
Self-Determination....56
Other Considerations....58
Age-Related Applications....58
Parental Involvement....58
Identity....59
Teaching the Unmotivated Student....60
The Unmotivated Teacher....62
Chapter 5: Conclusion....65
Summary....65
Suggestions for Future Studies or Research....66
Conclusion....67
Reference List....69

## List of Figures

Figure 1: Attribution Matrix.....35

Figure 2: Hidi & Renninger's (2006) Interest Model.....42

# Chapter 1

# Introduction

## Current State of Piano Teacher Training

**Limited social-cognitive training.** Piano teachers are motivated to start teaching for a variety of reasons, from a personal drive to improve the world through music education, to needing an unconventional and autonomous work structure. Part of the appeal of the profession is the independent spirit and entrepreneurial nature of the field, which requires people to be intrinsically motivated. As a corollary of this self-sufficiency, there are no requirements for anybody to meet before they start teaching piano. Private music lessons in the United States are a mainly unregulated business, and teacher training ranges from private lessons when the teacher was in high school to extensive conservatory or university training. There are numerous professional organizations dedicated to upholding the quality of piano teaching, although many piano teachers work without interaction or contact with these groups. Parents deciding on a teacher for their child must rely on word-of-mouth and the educational background of the instructor, with the onus on the parent to find a teacher that best meets the needs of their child.

Even for piano teachers who have studied at a university, pedagogical training can be optional, and, if they have received it, the level of training can vary wildly between institutions. This is in stark contrast to music education students. Music education students—those preparing to go into the schools to teach general education—are required to student teach: to work under a master teacher to guide them through their first experiences in the classroom. Performance students are required to perform, to learn history and theory, but they get limited—if any—teaching experience. The high number of performance majors that are graduating creates the

problem that although performance degrees dominate piano education at the university level, many university students do not become professional performers. Universities are graduating trained pianists into a market that has a limited number of jobs for performers. Miksza & Hime (2015) researched the career paths of over 1,400 performance major graduates from 192 institutions in the US in the last 30 years and found that many performers find themselves teaching in some form after graduating. The authors wrote in detail:

> Nearly one out of five music performance degree respondents also reported working in the K-12 schools. This suggests that it is fairly common for music performance graduates to pursue teaching as a supplement to their performing work or as an alternative career choice. (Miksza & Hime, p. 182).

Performance majors were more likely to have two or more jobs, and to report that they were working in a job that they did not want or that was not in a field related to music. Students going into the field of music need to be prepared that they might end up teaching: potentially having at least part-time employment to become financially secure is a likely future for musicians, whether at an institution or self-employed.

A person who has taken piano lessons is not necessarily qualified to teach piano. Many piano teachers fill their teaching profile with lists of their performance background instead of their professional development as teachers. Piano majors in school do not always receive pedagogical training; consequently, piano teachers in the community do not necessarily have the training to become effective teachers.

> "There are not really so many exceptional teachers. That is because the process of creating an environment where students want to learn—where they are encouraged, supported, and motivated to do their best—requires an entirely different set of skills that training as a concert pianist does not necessarily encompass. A good teacher knows how to build mutual understanding and respect and the desire to fulfill high standards." (Uszler, Gordon, & Smith, 2002, p. 150)

The remedy for his gap between performer and pedagogue is partially filled by a wide body of literature that exists to help beginning teachers who might have certain deficiencies in their pedagogical education. Typically, this literature provides an overview of all piano literature topics, providing the teacher with an assortment of resources to research any personal knowledge gaps. Piano pedagogy literature became a thriving business in the 20th century, especially after the boom of class piano in the 1930s. In response, universities started teaching piano pedagogy, and, by the 1970s, piano pedagogy literature was accessible to the general public. These books do an adequate job of covering basic topics that a beginning teacher should be familiar with, including various method book teaching styles (e.g. middle-C, intervallic, etc.), suggestions of creating a studio policy (dealing with organizational setup, such as student absences, billing), and even discussing the use of technology, despite these chapters becoming out-of-date practically as soon as the book is published.

Teacher training in the physical domain relies on an entirely oral tradition, almost exclusively in private lessons over many years. The one-on-one tutoring that pianists receive at the start of their life is the foundation for their knowledge that they pass on through teaching. Mastering psychomotor skills requires repetition over time, and the piano teacher's job is to guide students to a level where they are able to perform physical movements without consciously thinking about them (Uszler et al., p. 240). Psychomotor skills take time to develop, and are the reason pianists sometime receive decades of training. It is the most visible side of learning to be a pianist. As a result of the assumed intensive training that piano teachers have received themselves, most modern piano pedagogy books omit mention of physical approaches to the piano. This has not always been the case. Historical texts not only attempted to discuss physical

cues at the piano, but they show modern pianists what past teachers taught their students. The emphasis on certain skills mentioned in these texts reflect the goal that piano teachers had for their students.

**A Brief History of Piano Pedagogy**

As long as there have been pianos, people have been documenting how to play them and how to teach the skills required to become a competent performer, with each text having a goal that reflected that era's views towards music. C.P.E. Bach was one of the first, with his seminal work, *Versuch über die wahre Art das Clavier zu spielen* which he published in 1753, followed by a second part in 1762. From Bach's writings, we can follow how Baroque and Classical era pianists were taught to play. The music of this era, sponsored by the aristocracy, reflects beauty and order. Consequently, Bach wrote about maintaining a pulse, providing harmonic support with the left hand, and emphasizing full flexibility in the fingers to avoid awkwardness in playing. His goal was to assist people, mainly those of the nobility, in their acquisition of technique that would assist them in these things. As pianos and social structure changed, so did the ways that pianists played the instrument. By 1802, Clementi published his treatise, *Introduction to the Art of Playing the Pianoforte*. In as few as 50 years, we can track changes in performance practice, such as detached playing in Mozart, or the new performance practice of legato touch that became standard practice after Clementi.

In the mid-19th century, piano builders developed a stronger and more nimble machine for performers and composers whose repertoire demanded it. The keyboard range—or compass—grew, the touch became more responsive and refined, and pianists became prodigies who made a

living off of touring and performing. The growing middle class supported musicians as they dazzled audiences with their virtuosity and dexterity. As a result, pedagogy emphasized a requirement to play fast, even notes. Pianists needed to be able to cover large swaths of the piano quickly and smoothly. Czerny, Hanon, and other pedagogues developed exercises designed to train fast, independent fingers. These exercises, which once dominated piano pedagogy texts, are still taught today by some teachers.

Fast fingers and larger-than-life personalities grew until the public got sick of it. A backlash occurred against empty virtuosity, causing people to start criticizing piano performances as being too flashy, devoid of emotion, and having a low quality of sound. Teachers had to switch from teaching speed and dexterity to sound control. This resulted in pedagogues such as Tobias Matthay, Rudolf Maria Breithaupt, and Otto Rudolf Ortmann coming on the scene. For English speakers, Matthay (1858-1945) tried to deal with the physical tension created by previous pedagogical thoughts caused by an over-reliance on finger independence and speed: he emphasized “relaxation, rotation, and the use of arm weight” (Uszler et al., p. 301). Unfortunately, he struggled to provide clear documentation of the concepts he was trying to get across. While claiming to be scientific, his writing is imprecise, and full of long, descriptive sentences with undefined concepts. His areas of writings cover touch, phrasing, and the use of rhythm, which he patiently and repeatedly attempted to explain in his writings. Despite his texts being unclear, his students were successful pianists, and he influenced a generation of pianists and teachers.

Rudolf Maria Breithaupt (1873-1945) revolutionized the common physical approach of the time from his piano bench in Germany. His focus was on free arm movements, followed by a

secondary focus on finger independence. Common thought at the time focused attention primarily on hand position and the smaller muscles of the hand, before treating the larger muscle groups of secondary importance. Similarly to Matthay's problems, Breithaupt's writing also shows the major pitfalls of discussing physical approaches to the piano: his texts are frequently confusing, conflicting, or even "anatomically impossible" (Uszler et al., p. 298). Once again, despite the confusing writings, his students enjoyed much success in their own careers. The American, Otto Rudolf Ortmann (1899-1979), struck back against common piano playing thoughts about tone color by arguing that the only thing that pianists could control was loudness and duration of a note. He also looked at the muscular and circulatory systems and their influence on sound production.

It is well accepted that students of these teachers were able to create amazing performances at the piano, despite the inadequate explanations. Pedagogues struggle to put into words the chain of movements required to make the appropriate sounds at the piano. Even more confusing is the downright conflicting information given from these pianists. Different schools of thought can lead pianists down different ways of sound production, and there are unresolved issues even today. The advent of videotaping did not assuage this problem, and teachers still struggle to avoid leaving behind confusing and uncertain instructions. What all of these historical writings have in common is that they concern themselves with the movement or physical approach required at the piano and are focused on what the student should do, not how the teacher should instruct it. As piano playing continued to spread across the middle class, teachers shifted towards a broad educational approach in piano.

Piano pedagogy began to concern itself with the way it is taught to beginners in literature starting in the 20th century. As pianos became centerpieces in the family living room, pedagogy texts focused on breaking down the steps to acquire the knowledge for anyone to learn how to play the piano. Piano teaching became more standardized as method books first came onto the scene. Pedagogues started to think about the best way for students to learn about the cognitive side of piano playing and the order in which young students should learn the fundamentals. In addition to teaching people how to move one's body, piano lessons also deal with the issue of how to teach students to read music.

Piano pedagogy in the late 19th century started as "2- or 3- week summer sessions at normal institutes, and often consisted of recitals, private lessons, theory and history classes, and lectures on piano teaching" (Schons, 2005, p. 5). At the start of the 20th century, pedagogy courses began, which focused on classroom music instead of private piano teachers. Group piano classes became very popular, so much so that by 1930, at the height of the trend, there were 880 communities that offered piano classes (Monsour, 1963). This caused universities to start increasing their training for teachers in this field. Between 1950 and 1970, the number of pedagogy courses increased. In 1979, the National Conference on Piano Pedagogy (NCPP) was founded in an effort to correct inconsistencies in piano pedagogy curriculum.

One thing that is seldom dealt with in these books is the actual act of teaching. As it is seen in many fields, teachers in the US are commonly seen as being "born" great teachers, not made. This mindset, which falls into the field of entity/incremental theory (Dweck & Molden, 2005), hinders the creation of better teachers. Pedagogues who believe that they can increase their efficacy as teachers have an incremental view of the world and their abilities, which means

that they can improve with effort. Talented musicians can fall into an entity view of the world, which views the teacher as innately talented and not possessing a malleable talent. If musicians enter into the field with a view that their skills are set, the books that are at their disposal do little to improve their teaching. These teaching books offer little guidance or support in creating lesson plans or how to deal with difficult students.

Historically, music lesson books, or method books, were concerned with the best way to teach a wide group of people with varying abilities how to play the piano as quickly as possible. The first popular modern method book was published in 1936 by John Thompson (which was based on W.S.B. Matthew's 1892 method) and relied on the middle-C method. It was an extremely successful method book, in part due to the fact that it gave the student an easy way to remember where on the piano they can find their starting position. However, it does lead the student to over-rely on finger numbers and/or note names, making it difficult to make the jump to more advanced repertoire that requires movement around the keyboard. In 1955, Landmark Reading was introduced by Frances Clark. This method gives the student the task of learning three main notes: Bass F, Middle C, and Treble G. From those notes on the staff and keyboard, the student learns to find other notes through intervallic reading. This lets the student move around the keyboard freely. It can be confusing to some, since this level of freedom can make it difficult to feel secure in a specific location on the keyboard. Students do get to play in many keys, experimenting with a wide variety of colors or sounds. These students do not get to play chords as quickly as their peers in other methods, making it somewhat less rewarding for older students. However, this is an excellent method for younger beginners who do not yet have the finger strength or dexterity for playing three notes at the same time with one hand. Instructing

students in intervallic reading also requires the teacher to be comfortable with unusual staff notation. Students begin by reading notes on one or two lines instead of the full 5-lined staff. Teachers must be able to counsel parents who are confused by the non-traditional music writing in the early stages of intervallic reading.

A Multi-Key method was introduced by Robert Pace in 1961, and James Bastien expanded that to a Gradual Multi-Key method in 1976. These methods teach students in 5-finger patterns on the keyboard: they start pieces in "D position" or "G position." Students can play chords and familiar tunes early in their piano education, which is aurally rewarding. However, they can become reliant on reading finger numbers or note names and struggle when they have to play music not set in their previously learned 5-finger patterns.

Through all of these different formats, pianists tried to find the best way to teach people how to read all of the complicated ideas in written music. Understanding notes, note values, intervals, and other aspects of theory have been extensively researched and debated. No one method is accepted as the ideal method, and teachers frequently borrow from one method or another to best meet the needs of their students. Indeed, many modern piano pedagogy books deal mainly with the cognitive aspects of teaching by providing an outline for teachers on how to pick which method book is best for different kinds of students.

**Modern Piano Pedagogy Texts & Their Problems**

The four most popular books that shape undergraduate pedagogy content for piano majors are James Bastien's *How to Teach Piano Successfully* (1995)*; Creative Piano Teaching* by James Lyke, Yvonne Enoch, and Geoffrey Haydon (1996); *Teaching Piano: A Comprehensive*

*Guide and Reference Book for the Instructor* by Denis Agay (1981); and *The Well-Tempered Keyboard Teacher* by Marienne Uszler, Stewart Gordon, and Scott McBride Smith (2002) (Johnson, 2002). These texts have shaped many piano students' knowledge of the field and provide a broad overview of the most important aspects of teaching. Each book looks at piano teaching from a slightly different perspective and with a different emphasis.

One of the earlier publications to enter the field was James Bastien's *How to Teach Piano Successfully*, first published in 1973. Bastien was a pianist, and he also was successful at creating an entire series of method books for both youth and adults that are still used today. Now in it's 3rd edition, his pedagogy text is divided into multiple sections, covering topics such as organizational aspects, piano methods, teaching at different age levels, college teaching, technology in the studio, and interviews with famous musicians. Of particular benefit is the book's list of of standard repertoire that is appropriate for high schoolers to play. Bastien warned his readers to use his information only as a guide, and that his suggestions are for the average piano student. Limited practical advice is given, as his suggestions can be as general as calling teenagers “moody and seemingly apathetic for no apparent reason,” (Bastien, p. 14) and aiming to encourage teachers to deal with them by saying that “if sufficient motivation is provided by the teacher, students will be able to move ahead and make progress” (Bastien, p. 143). This is the extent of his advice when dealing with 10- or 11-year old students that he views as being at a particularly difficult age, and he gave little more than written sympathy for a teacher struggling in a lesson. For a pianist with a minimal background in teaching, this book does an excellent job in introducing the topics required for starting a studio, identifying methods of teaching beginning piano, and being a positive and encouraging voice to young teachers.

*Creative Piano Teaching* by James Lyke, Yvonne Enoch, and Geoffrey Haydon (1996) is another book that looks at the field of piano teaching in a comprehensive manner. First published in 1977, this is another book currently in its 3rd edition. The three authors, with an 13 additional contributing authors, covered everything from recommended literature to practical business advice, as well as topics that arise when dealing with beginning and intermediate piano students of all ages. It was written in five sections: elementary piano instruction, intermediate piano instruction, adult piano instruction, technology and piano teaching, and the piano teacher as a professional. The chapters give concrete advice to the reader, such as the chapter dedicated to "practice techniques for the intermediate student" (Lyke et al., p. 326), which covers various ways for teachers to instruct their students to practice. There are musical examples given of various techniques, such as blocking chords, exercises to develop hand independence, and rhythmic drills. The writers listed repertoire ideas and included many ideas and places from which teachers can pick music. This book gives more applicable information to a teacher than the Bastien, although it remains vague about how to interact with a student.

Another reference book, Denes Agay's *Teaching Piano* (1981), did an excellent job covering every aspect required to understand music and remains a great resource for teachers looking to review anything from scale fingering to Baroque ornamentation and rhythm concerns. Once again, the main problem is that, despite the extraordinary length and comprehensive view of piano teaching, the text focused mainly on what one needs to know. It does little in the "how" of teaching besides encouraging teachers to be supportive and patient—admittedly correct advice, but limited in usefulness. The many authors of this collection of essays struggled to put into writing a clear lesson plan. In the chapter "What Are the Elements of a Good Piano

Lesson?" (Etts, Ed. Agay, p. 609-611), those listed elements include creating a warm rapport with the student, teaching the student how to practice, assigning pieces for self-study, and giving technique, touch, and tone studies, as well as theory, ear training, keyboard harmony, and creative work. To conclude the list, a teacher should review previous music and assign new repertoire. To a young teacher given a half hour with a student who struggles to stay focused, this list is practically useless and devoid of practical, applicable information. The only concrete advice the authors gave for dealing with students who do not practice is to record them and then play it back to them, trying to shame them into practicing. "This never fails to put an end to a slump, and progress resumes" (Novik, Ed. Agay, p. 628). While the intent is positive, the actual results are questionable, and the authors struggled to convey in words the skills that they acquired over many decades of teaching.

All of the major pedagogy books discuss similar topics, but only one included in-depth discussion of learning theories, historical pedagogy trends, as well as the standard information on how to teach beginning, intermediate, and advanced students. *The Well-Tempered Keyboard Teacher* (Uszler, Gordon, & Smith, 2000) divided teaching into these three different groups of students, as well as looking at age differences, technique, repertoire, and important considerations when setting up a studio, whether privately or working with others. At the end of every chapter, the authors posed questions for the reader to reflect on how a student would learn in a given situation. One of the most beneficial parts of this book is the inclusion of reference lists for the reader to do extensive research on topics that interest them. The lists include not only books and articles but also videos and software that a teacher could utilize in their teaching. Repertoire lists that are given include both common pieces that most students should be familiar

with, and also more uncommon pieces that are seldom heard.

Most beneficial in this book is the the discussion of how a student learns and what is required for learning to take place. *The Well-Tempered Keyboard Teacher* dedicated half a chapter to a discussion of motor-skill acquisition and explained how students learn, as well as offering up sources for further reading. Beyond these limited results, most piano pedagogy texts rely on a teacher's years of experience for them to be skilled enough to teach this aspect of piano playing.

Over the last few decades, research has pointed to the importance of teachers knowing about learning theories (Uszler & Larimer, 1984) and this book is the only one of the four that discussed them. Many learning theories that are applicable to piano pedagogy were discussed at various depths. Included in the literature was well-known psychological concepts such as behaviorism, cognitivism, and humanism. The authors also discussed the stages of concept learning vs. motor skill learning. Hindered because of the book format, perhaps, they did not directly apply these concepts to teaching piano or helping a piano teacher understand how these concepts could be applied to teaching. Still, the book made the strongest connection to actual instruction that a teacher would be faced with in real life.

**Problems With Current Piano Pedagogy**

Pedagogy courses use the above-mentioned texts to educate young teachers, and this body of literature is also available to the general public. Because all of these books cover roughly the same topics, a piano teacher who is familiar with one—or perhaps all—of these texts would be viewed as fairly knowledgeable about the subject. Unfortunately, there is one aspect of this

field that is seldom discussed in relation to teaching piano and is absent from almost all major piano pedagogy books. The books ignore one of the three basic skills that teachers must teach their students to be successful:

1. How to read and understand printed music
2. How to move their body to create the appropriate sounds at the piano
3. How to be engaged and motivated at the piano

Firstly, teaching students how to read and understand printed music is discussed in depth in these pedagogy texts. Secondly, learning how to use one's body to create beautiful sounds at the piano is taught through years of one-on-one lessons that teachers themselves receive. However, the lack of teacher training in the third area—that of motivating the student—has major consequences in a field where student participation is voluntary and teachers must make a living from the continued involvement of their students through multiple stages of human development. Being able to identify and evaluate how students are doing in all three areas can have a profound impact on a teacher's decision when tailoring a lesson plan for the individual student. The field of motivation has been researched for many decades and is now being applied to both classroom settings and private musical education. A successful piano teacher should be familiar with motivational theories that can aid or hinder a student's progress in lessons. Some of these constructs are picked up naturally by gifted teachers who figure out the reasons for this through trial and error over many decades of teaching. A more effective solution would be to make sure that young piano teachers get exposed to these pedagogical constructs and know how their individual actions can motivate or dissuade a student who is moving through various critical stages of life development.

The purpose of this paper is to discuss current social-cognitive theories of motivation, their application to music and piano, and how these theories can be applied to improve teacher training in order to create a more educated workforce in the private service sector. The problems will be as follows:

1. What are the stages of development for a piano student and where is there the highest probability of drop-out?

2. What are the main social-cognitive theories of motivation, and how have they been researched within the music field?

3. How can the motivation theories best be applied to piano lessons, particularly when looking at the different stages of musical development?

# Chapter 2

## Student Stages of Development

Piano teachers often get to work with students over a multi-year period, which spans multiple stages of childhood development. When developing lesson plans for a student, a teacher must know where a student is in their stage of development in order to best choose appropriate tasks, repertoire, or modes of instruction. These stages of development can be broken down in many ways, and some teachers are more aware of certain divisions than others.

Piano students are typically divided by age or ability. Most teachers are faced with divisions of students based on method book levels: books designed to teach musical terms sequentially to students in a logical way, along with pieces that apply these concepts. Most of the major music publishers have their own versions of these books, aimed at elementary-aged children (e.g. Faber & Faber, Alfred, Hal Leonard). There are also books aimed at younger students (e.g. Music Tree, Music Safari, Music for Little Mozarts). For students not in elementary school, for whom cartoon characters seem childish, publishers have created books that progress faster and assume that older students have better fine motor skills. Adult-oriented books also exist, which emphasize left hand chord playing and familiar melodies for the right hand in order for adults to feel aurally rewarded for their efforts. Most teachers will become comfortable assigning a student to a different level of method book relatively quickly. This assignment of a student to a level can also become self-correcting: if a student is placed too low, they will progress faster or show boredom. If a student is placed too high, they will struggle to learn their assignments, or avoid the work all together If a teacher does assign a piece that is too difficult for a student, the best course of action is to quickly switch to a different piece, making

little fanfare about it. There is no need to make the student feel bad about not being able to play a piece, and the sooner they are given a piece that is the appropriate level, the sooner they can begin to feel proud of their accomplishments and abilities.

These divisions can help a teacher quickly find materials suited for a student based on a superficial evaluation. An experienced or educated teacher will also be able to identify aspects of the student that would have them using one book over another. However, once a student has been learning piano for a while and has progressed through a number of method book levels, a teacher has to find different material for the student, and work to present the material in a way best suited for their development. This is where knowledge of other developmental divisions can assist a teacher.

In early childhood education research, Edwin Gordon found divisions between what he called developmental and stabilized music aptitudes. His research, summarized in his 2003 *A Music Learning Theory for Newborn and Young Children*, discussed critical periods of a human's life, when it is essential for certain neurological connections to be made before cells are pruned and can never be regained. This period of pruning happens at around age nine, so that children older than this age have reached a period stabilized music aptitude—they can no longer change the potential to which they can grow. Younger children, those under the age of nine, are in the developmental music aptitude stage, where their brains are still able to change their potential. Children in the developmental stage do not have a consistent preference for a particular way of musical phrasing and can only notice changes in dynamics, timbres, and tonal ranges when the differences are extreme. Teachers working with these young students should know that they should not expect young children to be able to hear subtle differences. Students who have

reached the stabilized music aptitude level of development can start to hear more subtle differences and listen for both tonal and rhythmic differences in melodies.

Even though large neurological changes have slowed once a student reaches their stabilized music aptitude around the age of nine, there are still benefits that can happen in the brains of older students. Tierney, Krizman, and Kraus (2015) have discovered that, even when music training doesn't start until high school, there can still be significant positive neurological changes in the brain. They discussed how educators can make dramatic changes in the structures of the adolescent brain before leaving this last extremely plastic stage of brain development. The researchers concluded that skills learned in music class can engender in a person the desire to become a lifelong learner. Tierney, Krizman, Skoe, Johnston, & Kraus (2013) have also concluded that general music classes—not private music lessons—were all that were necessary to improve enhanced speech encoding (identifying speech above background noise), something that was noted as significantly better in trained musicians than the general population.

Educators have been dividing up students into groups since at least the start of the 20th century. G. Stanley Hall published "The Ideal School as Based on Child Study" in 1901, dividing students into three groups: kindergarten, elementary, and adolescence. Hall believed that the three age groups needed specific styles of teaching, including a more mothering style for the youngest group, drills and repetition for the elementary-aged students, and relaxation and encouragement in freedom of expression for the adolescent. In his 1929 treatise, *The Aims of Education*, Alfred North Whitehead defined three stages of learning: romance, precision, and generalization. He argued that students must first be enchanted by a subject (romance), then work on specific rules within the topic (precision), and finally apply the knowledge to a

romanticized view of the topic (generalization). If a student does not progress through these three stages at the right speed, they will become unmotivated in the precision stage if they were not inspired during the romance stage or if they spend too long in the romance stage without ever progressing on to learning the rules of precision. In both of these systems, teaching a student in one phase of development with the wrong style of interaction would cause a student to feel unmotivated.

More recently, Benjamin Bloom returned to a three-tiered system of learning during his study of successful pianists in his 1985 book *Developing Talent in Young People*. One chapter dealt with the process that people undergo to become a concert pianist, written by Lauren Sosniak. In this chapter, she interviewed a group of 21 concert pianists and looked for common developmental stages in each of them. The goal of the study was to find high achieving pianists and identify commonalities in their education, parental interactions, or attitudes. She found that they all went through a first stage with a friendly, warm piano teacher who gave the students a wonderfully positive first piano experience. A common factor for all of these pianists was that music was an integral part of their home life, which caused them to develop a routine that got them to the piano regularly and to develop a personal identity as a pianist with the knowledge that they would still be playing the piano in the future. Then they moved to a teacher who emphasized technical skills, gave them an objective measure by which they were held accountable, and introduced a more intensive practicing schedule. The students spent a tremendous amount of time at the piano compared to their peers, and parental monitoring of practice time was reduced because the students were self-motivated. They started reducing the number of other activities in their life to increase their practicing, lesson, and performance time.

Feelings towards their teacher in this stage were those of respect. In the third stage, they entered adulthood and studied with a master teacher who helped train them to think about the music both individually and personally. They were intrinsically motivated, and music became a personal event for them.

All of these researchers and educators identified a middle stage where precision, drills, and technique were emphasized. This middle stage has been identified as starting anywhere between eight years of age (Hall) to 13 (Bloom). Sosniak wrote:

> The process of learning seems just as likely to falter if the learner remains in a particular phase for too long—either playing with music long beyond the usefulness of this enticing period or working at precision longer than the student could stay interested without being given a glimmer of something beyond technical mastery. (Sosniak, Ed. Bloom, p. 431)

Knowing when to shift from a friendlier, caregiver type teacher to a more technician-oriented teacher could change a student's feelings towards piano. It is also possible that a teacher could discover that they interact better with students at one level or another, and that facilitating a shift to another teacher at the appropriate developmental stage could re-focus a student who is finding their current teacher to be less than ideal.

**Importance of Parental Support**

Although piano teachers have little to no influence over a student's relationship with their parents within the context of music, they can advise parents on levels of involvement at home. There are aspects of parental involvement that researchers have found that influence a child's likelihood of continuing to pursue music lessons. McPherson (2009) discussed the benefits of having a parent be authoritative, where the parent is highly involved in the child's learning and works towards the child's autonomy. This is in contrast to being authoritarian, where the parent is

minimally involved, sets up a highly structured or controlled life, and leaves the child feeling like they have little autonomy or ability to make decisions for themselves.

The pianists discussed in Bloom (1985) all went through three stages of parental interaction. The first stage saw parents who were highly involved and helped create a routine for their young children at the piano. They got plenty of attention and praise from their parents, and this helped them feel special. In the middle stage of development, the parents shifted to being less hands on, which resulted in their not attending lessons with their children and instead spent more time offering transportation to their child, and making large financial commitments, such as buying a piano. By the time the concert pianist got to the third stage, the parent's role was entirely financial.

Other researchers have also created a three-tiered level for parents. Creech (2010) has studied the different types of parental support given to music students, and divided them into groups of behavioral, cognitive, and personal support. Younger children (9-11) in the earlier stages of instrumental study (violin, in this study), had better success with behavioral support from the parents, such as monitoring and helping with practice time at home and going with their child to lessons. Once they got to the ages of 11-13, the students who continued had the best outcomes with cognitive support, seen in encouragement, attending professional concerts together, listening to and discussing music at home, providing musical resources, and encouraging their children to participate in extra-curricular music activities. Personal support was seen as being most helpful for children over the age of 13, who enter into a musical “mid-life crisis” when dealing with performance anxiety and fears of negative judgement. This is also the time that students must decide to commit or distance themselves from their interest in music,

when it is most difficult for parents to find the right balance between giving their child autonomy or independence and retaining the close relationship and a feeling of engagement.

The main conclusions from Creech's study were that parents should have an open discussion with their children about appropriate parental involvement, discuss practicing within the limits set by the teacher, ensure a structured practicing environment at home, remain interested in the quality of the student-teacher relationship, keep an open communication with the teacher about the child's progress, and always be engaged listeners of their child's performances. This high level of cognitive support has also been supported by Csikszentmihalyi, Rathunde, and Whalen (1993), who claim that these types of interactions are positive for adolescents in all talent areas.

Since not every student gets ideal parental support, there can be some concern what impact this could have for a child who receives minimal or no parental support. Creech also discussed how there have been a number of students who have succeeded in their musical careers without significant parental support. Possible conclusions were that the teacher-student relationship was able to overcome this lack or that the decreased involvement of the parent was viewed as increased autonomy by the student, which increased their motivation. Bloom (1985) also discussed the issue of minimal parental support and suggested that siblings and peers can also aid in creating a supportive environment.

> We believe [musical skills] can be learned more easily if they are valued in the individual's immediate environment, and only rarely can they be learned well if parents and other significant persons in the individual's environment devalue or scorn them. (Sosniak, Ed. Bloom, p. 545)

**Difficulties of Teaching Intermediate Students**

One of the difficulties that teachers face is the multitude of changes that students are undergoing during their adolescence. Neurological pruning is happening in their brains. Their priorities and decision making abilities are changing. In addition, students are moving from more basic repertoire to more advanced, which requires more advanced practicing strategies. If students do not know how to utilize advanced practicing strategies, their progress can stall, which can cause them to feel poorly about their abilities. As they grow, their motivations for playing their instrument can change, and what got them to start an instrument might not be enough to get them to continue as they hit adolescence (Hallam et al., 2016).

Researchers and teachers have been noticing a decline of students after a certain age for many years. A large-scale study, conducted by Daniel. V. Steinel (1990), found that there was a decline in students taking private music lessons as they grew older. Within the researched group, 33.6% of 9 year old boys had taken lessons, but this number dropped to only 9.8% by the time they reached age 17. The Music Teachers National Association also conducted a survey in 1990 and found a large decrease between elementary and secondary school ages in private studios (MTNA 1990). Anecdotal evidence exists among teachers, even if no current studies continue to research this topic. Current researchers continue to try to give support to music teachers who attempt to work against the dropoff of music lessons in the teenage years (Cremanschi, Ilinykh, Leger, & Smith, 2015). Cremanschi et. al contend that the decline of students in music lessons cannot be blamed entirely on sports participation, as sports participation also drops at the teenage levels. As students transition from a more inclusive sports structure (i.e. club sports geared towards everyone) to a more performance-oriented training schedule, sports also struggle with a

decline of student participation.

The general US perception of music as a worthy subject could also be hindering people's adherence to a music education. McPherson & Hendricks (2010) did a multi-country analysis of music education and found that American students generally view music as interesting to participate in outside of school, but had a low opinion of its relevance and its value within the school curriculum. Current US society places low value on music as an academic subject, and students are simply reacting to this reality that they live in.

There are many problems that teachers face when teaching adolescent piano students. Teenage piano students have a high dropout rate. Sports and other extracurricular activities take up valuable practice time. Teenagers are highly susceptible to peer pressure (Berndt 1979) and lack the ability to make decisions based on long-term results. Even their preference for listening to certain types of music changes during adolescence, although listening frequency is at its highest rate for the rest of their lives (Bonneville-Roussy et al., 2013). They start to believe people's accomplishments are based on innate talent instead of hard work (Asmus 1985, 1986). Individually, these topics are difficult to counteract with one 30-minute piano lesson per week, but faced with these all together, it is not surprising that teenagers drop out of piano lessons.

While researchers study attrition in music lessons, sometimes they do little more than diagnose a problem and offer little help in suggestions for future actions. Williams (2002) looked at three case studies of students who dropped out of music lessons. None ended up with negative feelings towards music, but neither did Williams suggest anything more than the need for new, practical solutions to help against attrition.

The field of teaching adolescent piano students is largely ignored in lieu of the currently more popular early childhood music education. Much research has been done to show the importance of music training for young children (Gordon 2003), and, as a result, music classes for young children are common. Teenagers have not had this same boom in the music field despite the major neurological changes going on within the adolescent brain. One of the main problems is that teachers teach these middle-schoolers similarly to their younger and older peers, despite changed motivators.

Berndt (1979) looked at motivations in adolescents and concluded that 8th and 9th graders were most susceptible to peer pressure. At this age, they were more likely to make decisions based on conforming with their peers than younger students (3rd graders). Urdan & Maehr (1995) suggested that "the environment of most middle-level schools is not well suited to the developmental needs of early adolescent students" (Urdan & Maehr, 1995, p. 229). The researchers suggested that group projects allow students to achieve their goals of social solidarity with the teacher's academic goals. Both of these studies suggest that teaching these students with social goals in mind could be beneficial.

Wigfield & Eccles (2000) discovered that early elementary children "have distinct beliefs about what they are *good* at and what they *value* in different achievement domains" (p.75). As they grow up and enter adolescence, their beliefs in their abilities goes down, with the biggest decline happening right after the transition to junior high. This is in contrast to their beliefs in their self-efficacy: although the students believe that they can complete a task, they believe that their peers will be better than them.

The problems that arise can be overwhelming to a teacher who is not prepared to deal with them. A lack of training can cause a mismatch in communication and problem solving skills. A teacher who uses a method book designed for young children will have great difficulty when trying to use that same book with a 14 year old. Using the same teaching strategies for both age groups will be just as detrimental. Social science research has given us many ways to look at motivation, which is a primary tool that teachers have to teach. Motivating a student to play the piano at home or in front of others can be challenging, but there are tools that can be used.

# Chapter 3

## Definition of Social-Cognitive Theories of Motivation

Initially, researchers viewed motivation as a result of external stimulus. They created the theory of behaviorism, which conceptualizes people's actions as a result of an external event. Pavlov's famous experiments with ringing a bell to train a dog that food was imminent created the condition that ringing a bell would cause the dog to salivate before the food was presented. This is an example of external stimuli creating a reaction. Researchers in the first half of the 20th century like Watson, Guthrie, Thorndike, and Skinner focused on behaviors being a direct result of external stimuli, or behaviorism. By the 1970s, researchers proposed that motivation should be viewed differently, since humans are social, thinking beings, and looked at how humans understand or think about their behavior instead of just blindly reacting. Researchers like Bandura, Gagne, and Piaget worked within this field.

### Conceptions of Motivation

As researchers tried to refine their focus within the field of motivation within social-cognitive constructs, they narrowed their view into four distinct areas. All of the researchers in these areas try to discover the causes of behavior, and—for the focus of this paper—how a teacher can initiate and change that behavior. Education—and now music education—are researched specifically through the social-cognitive lens of motivational theories that have become standard conceptualizations across the field. The four theories within the social cognitive conceptions of motivation are expectancy value, self-efficacy, attribution theory, and achievement goal theory. Understanding how these theories work and how they have been

researched within music and piano studies can assist teachers in their interactions with their students.

**Expectancy Value**

Researched primarily by Jacquelynne Eccles (Eccles 1983; Eccles & Wigfield 1995; Eccles, Wigfield, Flanagan, et al. 1989; Eccles, Wigfield, Harold, & Blumenfield 1993; Eccles, Wigfield, & Schiefele 1998, Wigfield & Eccles 2000), this theory stems out of research from Atkinson (1957), who originally stated that people have a need to work constantly towards success and avoid failure. From that, the theory of expectancy value broadened until it now states that motivation is made up of "expectancy, value, fear of failure, and hope for success" (Linnenbrink-Garcia et al. 2011, p. 228). This theory explains a person's motivation as based on their belief in their ability to do something (i.e. the expectancy component), and whether they think the result is worthy (i.e. it has value). A person's actions are then modified by their fear of failure and hope for success. If a student has a low fear of failure and a high hope for success, that student should be motivated to continue to choose tasks that will allow them to achieve their goal.

There are four modifiable components to this model: attainment value, intrinsic value, utility value, and cost (Renwick & Reeve, 2012). If a student views a task as important, they view it as having high attainment value and are more likely to complete the task. A student who views a task as intrinsically valuable and gains personal pleasure from the task will also be more motivated. Utility value means whether or not the student views a task as being of use to them—will learning how to play scales make playing a Mozart sonata easier? Cost refers to the time and

effort required to complete a task, which will take away other opportunities in their lives and can use up emotional resources. Since the four components to this model can be modified, teachers can use this theory to increase motivation of their students by building up repeated successes and matching task difficulty to the student so that they are most likely to succeed—increasing the expectancy component and minimizing their fear of failure. Conversely, teachers can also increase motivation by increasing the value of the end result by showing a student that they need the skill (increasing the utility value) or by letting the student determine the end result (increasing the intrinsic value for the student).

Eccles has been one of the most prominent researchers in this field, and she has conducted many studies in general education. Researchers have used this theory to study students in a school setting because it provides a system in which to study students and their achievement. Achievement in schools is regularly measured by tests and grades, which provide an easy quantitative statistic to measure. One of the drawbacks is that music and piano students are frequently not graded in the same manner that a math or English student is, thus making it harder to study music within this framework. Additionally, most piano students take lessons privately, not in a primary school setting, making the achievement side of the equation much harder to study when there is no standardized test given to large populations of students (unlike, for instance, the Associated Board in the British Commonwealth countries).

The importance of either the expectancy of success or the resulting value can possibly change in a person as they grow up, as Wigfield and Eccles (2000) have suggested. They suggest that student's beliefs in their abilities go down significantly just after the switch from elementary school to middle school or junior high, which they attribute either to increased understanding of

teacher feedback/criticisms lowering their beliefs or that the school system change allows the students to compare themselves differently against their peers, lowering their beliefs. In addition, students often go into a much bigger school, where they interact with many more of their peers. In a three year longitudinal study, Eccles and her colleagues (Wigfield, Eccles, Yoon, Harold, Arbreton, Freedman-Doan, & Blumenfeld 1997) have found that students' beliefs of the value and usefulness of their school topics decrease over time and that their interest in reading instrumental music decreases the most. They also experience their largest feeling of competence drop within the domain of music. Young students start out being optimistic about their abilities and become more realistic as they hit middle school, so that their belief in their abilities better matches those of their teachers and parents. This decline of competence has been found to continue past the jump to middle school, as further studies (Jacobs, Lanza, Osgood, Eccles, & Wigfield 2002) looked at a larger sample size of students across grades 1-12 and again found that the declining competence trend continued into high school and that this decline of competence caused a correlating decline in task value for the students.

A larger, societal view of music was researched by McPherson & Hendricks (2010) and concluded that, although student interest in music was high, their competence beliefs and views on its value were generally lower than for all other subjects. Students were not convinced that music had value for them academically.

**Self-Efficacy**

Self-efficacy is a theory championed by Bandura (1982, 1986, 1989, 1997), which looks at a person's perception about their feelings of competence within a specific task. The main

premise argues that people who believe they can succeed, will succeed. People pick up on clues in their lives that will give them information on their likelihood of success or failure. There is evidence that self-efficacy can predict a number of outcomes: “academic achievements, social skills, smoking cessation, pain tolerance, athletic performances, career choices, assertiveness, coping with feared events, recovery from heart attack, and sales performance (Bandura, 1986)” (from Schunk 1991, p. 207-208). Although similar in nature to expectancy value theory, this theory looks more closely at a person's self-recognition of having a skill necessary to complete a task instead of an overall feeling of competence (e.g. performing a piece at a concert tonight vs. being a good musician). Self-efficacy looks at a person's feelings in relation to a particular goal and their predictions of outcome. If a person thinks they can accomplish a task they face, they are likely to tackle that goal. If a person thinks that they will be unable to succeed, they are less likely to try and more likely to give up when faced with obstacles. The best way for a person's self-efficacy to be determined is by having completed related tasks—if a person has completed similar tasks, doing an analogous task should be achievable. By viewing a successful peer whom you rate as having similar skills to yourself, you can also increase your self-efficacy beliefs, but to a smaller extent. External cues can also influence how you believe you are doing—getting positive reinforcement can increase self-efficacy, but only if this is followed by success. In order to succeed, students must build upon past, smaller experiences.

While this premise has been applied and studied in a variety of fields, Schunk (1982, 1991) has refined his research to applications in the classroom. His results have concluded that students with higher self-efficacy are more likely to succeed at assigned tasks than those with lower self-efficacy. Students who believe that they will succeed are more likely to be successful,

even when controlled for past achievements and learning.

Martin (2012) looked at self-efficacy beliefs of middle school band students. The students in her study mainly reported high self-efficacy and cited ability as the strongest attributional factor for their success. Students with the lowest self-efficacy levels cited performances more often than students with high self-efficacy as the reason they felt unconfident. Low self-efficacy students also compared themselves to their peers more and cited negative feedback from their teachers as having made a significant impact on their feelings. Conclusions from the study cautioned music educators to avoid negative commentary to their students, as these small comments can make a large difference in student's minds.

These studies all emphasize the concept that students who believe that they can achieve something will work harder and be more persistent in the face of obstacles. Teachers must be aware of their student's feelings towards playing the piano and adjust accordingly. If a student has a lot of self-doubt (low self-efficacy), they could be at risk for dropping out of piano lessons. Teachers must be aware that their job is to create a ladder of successes for their students and must be patient so that the students can achieve a growing feeling of success as they progress. Although piano lessons are solitary by nature, since viewing those similar to ourselves be successful can be motivating, students should be around others who are roughly of the same ability whenever possible.

Verbal positive reinforcement from a teacher can help persuade a student that they have the ability to complete a task, so teachers should continue to provide verbal reaffirmations when possible. However, don't give them when failure is likely. Students also get feedback from their own experiences, and physical signals such as raised heart rate or shaking hands can convince a

student that they do not yet have the abilities to perform as desired. Self-efficacy alone does not result in positive results: a student must have the capabilities to complete a task, and self-efficacy will give them the confidence to try. If they have been getting feedback from their teacher that leads them to believe that they are learning and improving, their motivation will go up.

Students will only be motivated towards a goal that they value and believe that they can achieve. Unattainable goals are not motivational. If achieving a goal takes a lot of effort or work, a student will still judge themselves to be not as capable as someone who easily attained the same goal. By contrast, if a student achieves a goal that they perceive as easy, their self-efficacy won't be raised very much.

Because meeting goals will increase self-efficacy and motivation, teachers need to set goals with their students and make them a priority. These goals need to be attainable and short-term. Well defined goals are essential. If a goal is too general or too long-term, a student will not be highly motivated. Teachers also need to make sure that students know how to practice in order to achieve the desired goal. If the student goes home with only a vague idea of what they need to do to be successful, they will have a lower feeling of efficacy. One way to increase self-efficacy is to view other's successes. The use of group lessons or studio classes to let students observe other's growth can increase (or decrease) their own feelings of efficacy.

McPherson & McCormick (2000) found that self-efficacy made the biggest difference in a musical performance test, where “self-efficacy accounted for the greatest part of the variance of the examination result” (McPherson & McCormick 2000, p. 37). Those students who were able to enter into the exam with strong beliefs in their abilities were able to turn those feelings into actual results. Practicing their instrument only got them so far: students must be able to find a

confidence and belief in their own ability in order to give them a feeling of competence when performing.

In 2006, McPherson & McCormick continued to study self-efficacy, this time with an even larger study (686 students) than their previous one in an effort to replicate their previous study findings. The researchers looked at practicing habits—both formal and informal—and cognitive strategies. Yet again, they found that self-efficacy was the largest predictor of student achievement. They acknowledged that performing a musical instrument requires not only mental discipline and self-efficacy but also time spent in the practice room acquiring the requisite skills. Suggested in the article is that students start musical performance exams with the piece that they are most comfortable playing, since a successful performance can increase the student's self-efficacy even in the short term. Starting with a harder piece that is difficult can give them a sense of futility and less able to continue successfully.

Self-modeling has also been researched to determine if it increases performance (Schunk 1991, p. 218). Schunk & Hanson (1989) looked at how children who viewed a tape of themselves working on a problem were then able to improve their performance. This could point to the use of recording to improve a student's abilities.

**Attribution Theory**

Attribution theory connects people's successes and failures to what they attribute as the cause. Weiner (1985) first applied this theory to the educational setting, looking at how asking why something happened will cause them to continue or discontinue a course of action depending upon their answer to the question. The things that people can attribute to their success

or failure include both internal/external variables, as well as stable/unstable (changeable) variables. Ability is an internal, stable variable, while effort is internal but unstable—people can change the amount of effort they put into something. External variables include task difficulty (which is malleable) and luck (or chance—over which they have no control).

**Attribution Matrix:**

| | *Internal* | *External* |
|---|---|---|
| *Stable* | Ability | Luck |
| *Unstable* | Effort | Task Difficulty |

**Figure 1:** Attribution Matrix

Attribution theory argues that people will assign their successes and failures to different places on this matrix, and depending on their views, it can change their motivation levels. People who think that their success depends on effort will increase their effort when faced with a challenging activity. Those who believe that their success falls into the category of luck will give up when faced with a challenging situation. Since feedback can influence a person's beliefs about the causes, teachers who provide feedback after a student's failure, implying that the student does not have the ability, will decrease motivation in the student, whereas teachers who emphasize that the student's failure was based on a lack of effort can be more motivating.

Austin & Vispoel (1992) researched attribution theory in 5$^{th}$ to 8$^{th}$ graders and how they viewed musical failure. The students, 107 of them, were presented with a fictional student who failed to perform up to the required standard, and the students were asked questions about the situation. The researchers concluded that students who believed failure was due to improper

practicing strategies would work harder at the next challenging situation. Students who believed that a a failure was based on insufficient effort instead of ability also believed that future performances were likely to go better. General music students didn't view failure as strongly as instrumental students, who projected feelings of guilt, anger, or humiliation onto the situation. The researchers warned teachers against using public competitions to motivate students and that failing students should be given strategies to help them in the future. They also suggested the application of individualized goals to a classroom of music students to better increase student interest in their studies.

Another study in 1998 (Legette, 1998) asked over 1,000 students from elementary, middle, and high school who were taking private music lessons about their views on success and failure. Again, most students viewed success and failure as dependent on an innate ability. One of the difficulties discussed in this study was that success due to effort often results in pride, while failure despite strong effort often results in feelings of shame.

Asmus (1985) found that 6$^{th}$ graders in his study believed that a person's success or failure in music was based on internal reasons, both ability and effort. The inner-city school students had a stronger belief that effort had an influence on the outcome, while the suburban students believed more strongly that ability had a stronger influence on outcome. This suggests that teachers can influence how students perceive failure and success in music. When Asmus (1986) expanded his research to look at 4$^{th}$-12$^{th}$ graders, he again found that students generally attributed success to internal reasons. Since he had a larger age range, Asmus was also able to discover that students, as they got older, tended to assign musical ability to an internal stable factor and assign less influence to effort. This could be because students moved from a general

music education to a more instrument-specific education environment, or because attributions in general change as one grows up. Asmus also discussed the importance of teaching style on the resulting attitude of students, their beliefs towards success, and the likelihood of continuing in music in the face of obstacles.

These studies show that beliefs about ability being fixed vs. having a potential for growth change over time. As students grow older, they tend to lean towards believing that they have a fixed capability. However, since students who believe in a growth mindset are more likely to have better practice strategies and be more effective practicers, which one causes the other? Do students with effective practicing strategies believe that they can improve, or do students who believe that they can improve develop better practice strategies?

McPherson & McCormick (2000) suggested that teachers be aware how they frame student success or failure after an event, since it can influence a student's attributional beliefs. They also stress that it is important for teachers to discuss practice strategies to ensure that students are attributing their successes and failures to the amount of effort that they are putting into the preparation for their performances. In their study, they looked at what 349 instrumentalists between the ages of nine and 18 would attribute their results on an externally graded music exam, as well as the pertinent self-regulatory and motivational influences. Most students reported high internal attributions, which shows a positive outlook and which should help them in their future endeavors.

The studies within the field of attributional theory all agree that it is better to have a world-view in which the locus of control is internal, since this gives the individual the power to change the course of their life. A person who understands that their musical performance can be

influenced by their own actions is more likely to be motivated to practice, than a person who believes in an innate musical ability controlling their life.

**Achievement Goal Theory**

Achievement Goal theory (Ames 1984) explores how student goals represent perceptions and beliefs about their purpose in an evaluative setting. The overall theory states that students will be either task oriented (frequently called mastery orientation), or ability oriented (typically called performance orientation). Those who are mastery oriented will learn for the sake of learning: they are easy to teach, they feel accomplished when learning, they like improving their feelings of competence, and they enjoy working on something challenging. They will seek out challenges without need for external prompting, because they are internally motivated to master the task at hand. Performance oriented students are those who have a goal of accomplishing a big task or outperforming their peers and whose self-worth is reliant on their performance (Ames 1992). They are driven to be seen by others as being able to perform a task or show competence at a particular ability. Since Ames originally formatted these orientations, researchers have divided these two main goals into smaller subsets which include performance-avoidance or mastery-avoidance orientations and even work-avoidance orientation (Elliot & McGregor, 2001, Elliot & Harackiewicz 1996, Urdan & Maehr 1995). The people with these avoidance motivations act in such a way to avoid showing off their competence or incompetence at something. Work-avoidance motivated people are motivated to do as little work as possible towards completing a task. This paper will focus primarily on the main two divisions of Achievement Goal theory. Students of either orientation can be low or high achievers, and high achievers of either orientation will appear to behave similarly. While, in theory, for long term

participation within the music field, we want students to be mastery oriented, various events in our lives require different motivations.

Mastery oriented students tend to use better learning strategies, have higher levels of achievement, and attribute success or failure to effort. When faced with obstacles, they are more likely to persist, and they can be identified as students who have grit. They interpret feedback differently than performance oriented students. These are all skills and orientations that teachers strive to impress on their students because master oriented students are generally easier to teach. Performance oriented students can choose poor learning strategies because they are focused on one event that has short-term consequences in their lives. They work to protect their ego and avoid getting into situations where they can be seen as failing. Students who are performance oriented will be resistant to working hard, since they view that as a sign that they have less ability than others. This can be seen in piano students who view themselves as untalented and therefore practice less. Teachers can influence their student's motivational goals through their teaching style, such as changing focus during lessons to emphasize effort over innate ability and removing external comparison between students (Schatt 2011).

Schmidt (2005) researched $7^{th}$-$12^{th}$ grade band students and discovered that students who were mastery oriented had higher levels of practice time, better performance scores, and a more satisfying private lesson experience. Music students found intrinsic motivational factors to be the best motives, rather than external aspects. In 2007, Schmidt again looked at mastery motivation and found that band students had high levels of intrinsic-mastery motivation. Results also showed that motivation factors were higher in students who recorded longer practice times outside of school.

Hruska (2011) looked at the use of mastery goals to increase student motivation in high school music class. Teachers display their values through their selection of goals for their students. Teachers who emphasize mastery goals over performance goals can motivate their students to be more engaged learners who use higher level thinking skills and more effective learning strategies compared to performance oriented students. Performance oriented students use skills such as rote memorization or rehearsal to remember facts. Hruska's conclusions included a number of suggestions to enhance mastery orientation: use portfolio assessments over exam testing to show a range of improvements for the student to lead to mastery orientation. Provide clear goals that are not too easy nor too challenging to allow students to be motivated to reach that goal. If the goal is too easy, students will complete the task but not be inspired, while goals that are too difficult can have negative effects on motivation. The acceptance of mistakes as a part of the learning process will lead children to a more mastery oriented thinking. Reward effort, not ability. Use student leadership to motivate less motivated students, since peer learning is beneficial and sometimes more effective than learning from an authority figure. Mastery oriented students "are motivated by the goals and challenges presented to them," (Hruska 2011, p. 6) and the teacher must work to set appropriate goals.

**Intrinsic Motivational Theories**

Another grouping of theoretical constructs used to explain a person's behavior comprises the following three intrinsic motivation theories. These three main intrinsic motivation theories look at motivation from a point that excludes all external motivators.

**Flow** is the term that the researcher Csikszentmihalyi (1975) identifies as the state of complete involvement with an activity, usually to an extent that the person loses awareness of the passage of time or space around them. When skill and challenge are matched at a high level, a person will enter a state of flow. Those who experience this state of being feel capable of meeting an activity's challenges instead of feeling overwhelmed or bored. While this state can happen while experiencing any activity, entering into a state of flow is more likely to happen in music or the arts. Flow is a highly desirable state of being, and people who experience it enjoy it and find it rewarding. People are more motivated to continue an activity if they believe that they are likely to enter into a state of flow during that activity.

Research in this vein of motivation has been done primarily by Csikszentmihalyi, although others have organized studies to look at the concept. O'Neill (1999) looked at adolescent musicians and compared high achievers with the average. She determined that the high achievers experienced more flow experiences during their practice time than low achievers. Music teachers and parents can only give a limited amount of external support to a student who is learning an instrument before a child must become intrinsically motivated to complete their practicing on their own. Because students need to spend many hours practicing an instrument to become high achievers, they need some positive feelings for tolerating the long hours that are required at their instrument. Researchers now believe that the more a student can achieve this enjoyable “flow” state, the more time they are likely to spend practicing and become high achievers themselves.

**Personal and situational interest** are the two different types of interest that a person has. Personal interest is a long-term, stable trait related to the person's identity, while situational

interest occurs when something in the environment, such as a novel event, sparks a person's enthusiasm into action. A person's motivation will start out as externally created, usually by a situation, and could transfer to a personal, internal motivation. Teachers can use situational interest to capture the attention of a student and then use the novelty of a scenario to develop their interest into a deeper, more internally driven trait.

Hidi & Renninger (2006) have developed a four-phase model describing how interest develops from situational to personal and discuss how teachers can help students develop personal interest in a topic. In their model, interest starts as triggered situational interest, which, if externally supported, can develop into maintained situational interest if initial interest is sustained. Maintained interest is focused concentration on an activity that can last a significant duration. If a young student finds the cartoon character drawn in their method music book to be humorous, their interest will be *triggered* to look at the book. In order for the student to continue to be interested in the book, the teacher will need to *maintain* interest by showing how the information contained within its pages is important.

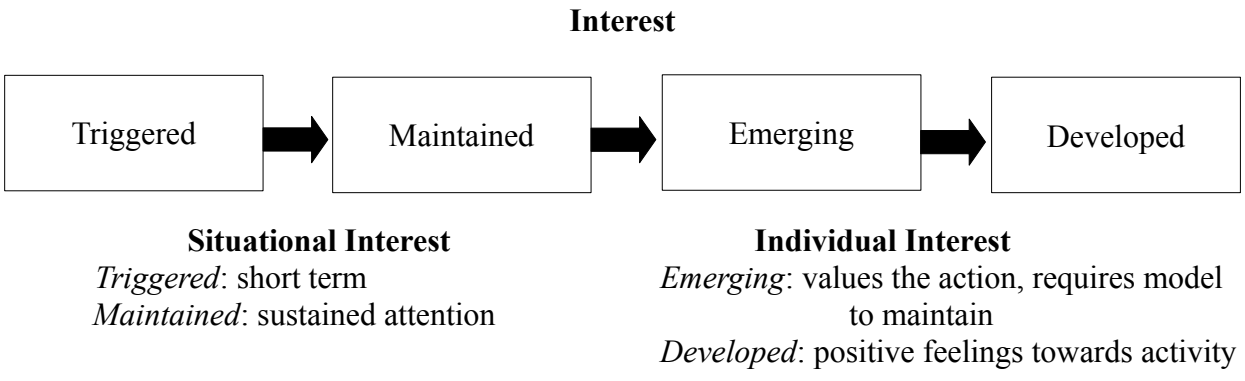


**Figure 2:** Hidi & Renninger's (2006) Interest Model

Situational interest can evolve into individual interest and will move through emerging interest before turning into developed individual interest. If the young student from the above example begins to value music, they will wish to keep learning out of their book but will need assistance from a teacher to continue. They would be in *emerging* interest level at this point. As the student matures, their interest becomes internalized, and they continue in their music learning despite setbacks that they encounter. Learners in the *developed* interest stage enjoy their chosen activity and seek it out. Ideally, people will progress through the stages in this order, although they can regress back to earlier stages.

A case study by Renwick & McPherson (2002) found their subject to be more engaged in music that was self-selected than music that was assigned. The student who was engaged in practicing strategies that were more advanced, practiced longer and persevered in the face of obstacles when working on a piece of music that was personally interesting to them. The researchers concluded that intrinsic interest in a piece can translate into a highly motivated student. Suggested in this study is the importance for students to have a strong personal interest in some of their repertoire that they are studying and to balance formal practice with informal practice, which, combined, can create a high-achieving student.

**Self-determination theory** states that people are motivated by three needs: competence, relatedness, and autonomy. People act in order to gain and protect these three things. Deci and Ryan have done the most research in this vein (Deci 1980, Ryan & Deci 2000). People are motivated internally to need to feel competent at something within their environment, to feel a relationship with others, and to feel that they have control over their own environment through

their own decisions and without external constraints. The more that these three facets can be met, the more internally driven a person will be, and the more likely that they will be driven to seek out challenging activities that fulfill their personal needs. The more restricted a person feels in regards to these things, the less internally motivated they will be. Deci, Vallerand, Pelletier, & Ryan (1991) conclude that the best way to have motivated students is for the parents and teachers of a student to embrace the child's self-determination.

> "Autonomy support by adults begins with taking the child's frame of reference...The specific supports for self-determination we suggest include offering choice, minimizing controls, acknowledging feelings, and making available information that is needed for decision making and for performing the target task." (Deci et al., 1991)

While this style of teaching is of limited use during classroom settings, the private piano teacher has a wonderful opportunity to incorporate and utilize these perspectives. In particular, the ability to tailor repertoire maximizes the student's choice, and the one-on-one relationship allows for the teacher to acknowledge the student's feelings immediately.

Evans, McPherson, & Davidson (2012) found that students who quit playing their instrument had strong correlations to decreased psychological feelings of competence, relatedness, and autonomy compared to when they were most engaged with their instrument. The students felt that, compared to others, they didn't have the skills to play their instrument, or they felt like their identity among their peers was at risk by participating in band, which was seen as less than ideal. Others felt like they had no control over their participation and played only because their parent wished them to. Their sense of autonomy was diminished by participation in music lessons, which decreased their motivation. Evans et al. concluded that music teachers need to make an effort to make sure that all three self-determination facets are met in order to best keep students from dropping out.

The more that the three key factors of self-determination theory are realized for a student, the more likely they are to continue with their playing. Teachers can change their behavior from an authoritarian style to more autonomy-supportive style to better support students. This includes being highly responsive to the needs of the student, as well as maintaining high demands. Kupers and her colleagues (Kupers, van Dijk, van Geert, & McPherson 2015) observed lessons and looked for differences between authoritarian and autonomy-supportive teachers. Autonomy-supportive teachers had the following characteristics:

> a) Tap into students' inner motivational resources whereas controlling teachers rely on extrinsic motivation such as giving deadlines or requesting compliance.
> b) Provide a rationale for the assignments they give by explaining why something is important (in contrast to controlling teachers who usually do not provide this kind of information).
> c) Use informational language and ask students to take responsibility for their learning (in contrast to controlling teachers who use more directive, pressuring language such as 'You should do this').
> d) Are patient by giving their students a chance to self-pace their learning (in contrast to controlling teachers, who are typically less patient and more inclined to take over aspects of the task, by using such language as 'Here, let me show you').
> e) Acknowledge and accept student's expressions of resistance and negative emotions (compared to how controlling teachers try to change the student's behaviour). (Kupers et al., 2015, p. 336)

The researchers discussed how a teacher's behavior of following autonomy-supportive actions elicited autonomous behavior from some students, while not from others. In the study, the researchers coded lesson interactions and looked at the ways that teachers tried to motivate their students. Teachers all had different ways in dealing with students who gave little to no reaction or feedback when asked, which showed the relationship between teacher and student to be a two-way street. Teachers changed their behavior in the lesson depending on how engaged the students were; the students also changed their behavior based on the teacher's actions. This required the teachers to react to every student individually. “Friction in the interaction is not

necessarily something to avoid at all cost; rather, a moderate amount of asynchrony in the lesson might well have a role in challenging and stimulating students" (Kupers et al., p. 355).

In regards to teaching, the role of extrinsic rewards has been researched, as it can be seen as an effort by the teacher to control a student. Many teachers use some sort of external reward system in an effort to motivate students. Deci, Koestner, & Ryan (1999) reviewed the literature and concluded that extrinsic rewards can lower motivation in students, in particular for children (as compared to college-aged students). When teachers try to control a student's self-determination, the level of motivation will decrease. If the reward is contingent on a student completing a task, this can decrease motivation. However, rewarding a student for their increased knowledge can increase the student's feeling of competence, which raises their motivation. In that case, if you take away the reward, the student is still left with a higher feeling of confidence than before.

Küpers, Dijk, McPherson, & van Geert (2014) analyzed self-determination and connected it with skill acquisition in instrumental music lessons. They wondered why some students progress quickly and effortlessly while others struggle and how was it that successful learners could bounce back from obstacles that diminish other's motivation. Since development towards autonomy is healthy and desired, music lessons can show this development because learning a skill increases one's competence and autonomy (students develop the skill to learn or play music on their own). The teacher instructs their students through scaffolding, a way of teaching in which the teacher seeks to increase the students' abilities by showing them how to complete a task, so that the students can complete the task again in the future with less help, and, finally, helping them develop a measure of independence.

This requires the teacher to be evaluating the level and needs of the students constantly so that they do not attempt to teach the students something too advanced (making it too difficult for the students to understand), or something too easy (where the students do not learn anything). Each step needs to be within the students' *zone of proximal development*, so that the students progress step by step to more advanced repertoire. “Defined as the difference between what a child can do by him or herself as compared to what the child can do with the help of an adult or a more knowledgeable peer” (Küpers et al. 2014, p. 19), this zone is constantly changing, and the teacher must constantly be planning out next tasks for the students to learn. At the end of learning, the students should be able to complete the task completely independently, which fulfills the students' need for autonomy. For example, a student playing a piece in a concert would be demonstrating success at an independent activity. Since motivation can increase and decrease, the researchers also proposed that teachers can teach 'motivational scaffolding' where the student becomes more and more internally motivated, and relies less on the teacher.

Some research has been done about the sociocultural differences between Asian children and American Caucasian children because large numbers of both groups of people exist in the piano lesson community. Applying self determination theory to these two groups can identify how parental interaction can influence students differently. For Caucasian students, a parent who pressures them to play piano and practice might see this as removing autonomy from their decisions, while Asian students automatically accept their parental goals as their own, increasing their relatedness to their family (McPherson 2009).

# Chapter 4

# Real World Applications

The application of social-cognitive theories specifically to teachers of piano students requires teachers to be aware not only of the learning processes going on but also to be cognizant of the particular pitfalls that adolescents face. The causes of their behavior might be drastically different than the motives of a younger student or an adult, and careful planning and thought can guide students through this difficult period of life.

## Applying Conceptions of Motivation

Each of the four areas of conceptions of motivation contain a different perspective towards teaching. Connecting teacher actions with cognitive research, the following points strive to illustrate actions that educators can incorporate into their piano teaching.

### Expectancy Value

Expectancy value theory argues that motivation is regulated by a hope to succeed and a fear of failure. The more that a student believes they can accomplish a stated goal, along with holding the goal in high value, the stronger the motivation they will have. The goal for a teacher is to make a student value and desire an end goal and minimize their fear of failure. As suggested by McPherson and McCormick (1999, 2000), task value can change a student's engagement and success. Teachers cannot assume that a student will remain motivated without a clear sense of achievement.

**Application:** Give students customized short- and long-term goals of performing. This requires teachers to provide plenty of opportunities for the student to feel like they have accomplished something, and are not always in a state of working. This can include giving students shorter pieces that are quick-to-learn, and then having the students perform them in an informal setting. It can also be a performance at a recital, participation in a festival, or participation in a master class.

**Possible obstacles and solutions:** A shy student might refuse to play in a public or semi-public event. Adjust the goals so that their end objective could be the mastery of a particular piece at a lesson or playing for their parent. If the student values the end result of playing a piece, they are more likely to complete the task of learning how to play it.

**Application:** Increase task value by allowing the student to have influence on repertoire selection. This influences the perceived value that the student sees in the end result. Additionally, it is essential for teachers to heighten the value of the end task. Students must see the task in front of them as being worth the work.

**Possible obstacles and solutions:** Students might not view the end result as having as high a value as the teacher does. If a teacher does not emphasize the value of the final product, their students will not view it as something worth pursuing. Technical drills can frequently be introduced as being dry and uninteresting. Teachers must frame any exercises so as to make their utility value higher. If scales are taught as a simple necessity without a convincing reason to the student, they will not be as motivated as much to practice them or learn them as if they understand that increased scale speed and evenness translate to performing similar passages within a piece. Always connect technical drills with their application in music that a student is

working on, or as preparation for a piece that they will soon be working on.

An additional solution to students not valuing the end result of theory concepts is to make the end result higher in value by applying them to related concepts, such as composing. By connecting the need to understand theory (e.g. chord progressions, scales, key signatures) to the ability to compose music that they find inherently interesting and rewarding, a teacher can increase task value.

**Application:** Encourage daily practice, participation in musical events, and other music training that puts students in a situation to feel more capable of completing future musical tasks. Expectancy value looks at a general feeling of competence, and teachers need to build up their student's musical education so they feel able to conquer future tasks.

**Possible obstacles and solutions:** Daily practice is a cornerstone of piano lesson progress, yet many students struggle with this. Teachers need to understand the cost that students pay to take piano lessons, which goes beyond a mere financial burden. By choosing to take piano lessons and practice, the students will have to sacrifice participation in other activities. This could mean choosing between a sports team and piano lessons, or even between daily practicing and afternoon free time. Students' most valuable currency is their time, and they will spend it where they perceive the most value. Teachers who are aware of this should not give tasks for the sake of being busy and avoid tasks that are wasteful of time.

### Self-Efficacy

Self-efficacy theory looks at a person's beliefs about completing a specific task and connects their beliefs to the actual completion of the task. One of the largest x-factors in student

achievement is the belief by the student in their own abilities. The role of internal beliefs is so strong that it can carry students through times of doubt and adversity which, when studying piano for multiple years, will happen numerous times. Teachers must keep an open dialogue with their students to work constantly on building up their beliefs in themselves.

**Application:** Give students clear, identifiable, attainable weekly goals at the lesson. Besides the fact that this helps clear up any debate from either student or teacher as to what is expected for the following lesson, it also allows for a dialogue between student and teacher about the student's feelings regarding their ability to meet the stated goals. The job of the teacher is to match the difficulty of the goals to the abilities of the student. Since adolescents are old enough to clearly state their feelings about their assignments, teachers can ask if the students feel capable of completing the goal.

**Possible obstacles and solutions:** Students might have a large workload from school or other family commitments during the week. Solving this problem requires the teacher to have conversations with their student to balance piano homework with other obligations. By adjusting piano assignments to fit the student's available time and energy, the teacher can aim to give the student the feeling that they can meet their given piano goals for the week.

**Application:** Plan out the lessons so that, over the course of a few months, the student has the chance to be successful at a variety of assignments. Self-efficacy can be improved by the student accomplishing tasks that match their ability level. Giving them events to work towards gives them stepping stones of achievement towards a higher musical goal.

**Possible obstacles and solutions:** Students working towards a large event can feel like they have not accomplished any goals recently. They can feel “stuck” in the middle of a long

process without having improved. To combat this issue, make sure that a student has the ability to track or see their own progress. If preparing for a competition, make sure there are other, smaller activities that give the student a feeling of success such as learning short technical exercises or playing in a small group class to perform pieces that are almost ready for performance. Pieces could be at different stages of learning, so that while they are learning the notes to one piece and feeling like they have made minimal progress, they could also be polishing up another piece and feeling accomplished.

**Attribution Theory**

This theory looks at what attributions people make regarding their successes and failures to on both an internal/external continuum, as well as assigning it a stable or unstable variable. These four attributions are ability, effort, task difficulty, and luck. Belief that an event's success or failure is based on an internal, unstable variable (ability) puts the locus of control on the individual, giving them more motivation for future events. Students who believe that the event's results are due to external, stable variables (luck) have decreased motivation.

**Application:** Discuss performances that the student has, and analyze the event in terms of success and not so successful occurrences. The teacher has to be cognizant how they frame those events in these discussions. Talking to students after the event can give the students a frame of reference to process what happened. It is important to ask the student why they feel they had the result they did, and if they are not happy with their result, to ask what they could have done to have changed the result. What plans could they lay out now to make the next event better? Discuss performances afterwards in a way that emphasizes the student's efforts and work ethic,

not their innate musical talents.

**Possible obstacles and solutions:** The student might not be receptive to the idea that they have control over their chance for success. Teens are at a point in their life where they more often view other's successes as a result of innate abilities and can avoid practicing if they think that they themselves do not possess the innate talent of playing the piano. Attribution theory emphasizes how students are more likely to persist when they feel that they have control over the results. If students are aware that their own efforts are variable and that they can become more successful by changing the amount they practice, they should respond by increasing their effort. Unfortunately, teachers must work harder with this age group than others to emphasize how someone can improve their playing and knowledge through hard work.

**Application:** Avoid comparing students. Many of the studies within this theory suggest that comparisons between students could be causing them to over-attribute ability and under-attribute effort to their success. Piano lessons are typically individual lessons, and this allows the teacher to isolate a student and prevent negative comparisons that the student might make between themselves and others.

**Possible obstacles and solutions:** Students will be aware of other's progress, and, if given performance opportunities in recitals, festivals, or competitions, they will inevitably compare themselves to their peers. Framing discussions of performances to emphasize other's work ethic or years of hard work could minimize a student's feelings of inadequacies when hearing peers play better than they. It is the attitude of the teacher that can guide the student to gain a healthier approach to the piano based on their current skill level.

**Achievement Goal Theory**

Applying this theory, the goal for the piano teacher is to get their students to be generally mastery oriented; these students want to learn for the sake of learning. Students who are intrinsically motivated to increase their knowledge are easier to teach. Performance oriented students are motivated by how others perceive their competence, and this form of motivation is weaker and can be inconsistent and unrewarding.

**Application:** Emphasize the importance of learning by making risks and failure okay. Teach students to look at experiences as events to improve their skills and as long-term improvement possibilities. If a student fails at a skill one week, continue to give them opportunities to show their mastery of that skill or steps to acquiring that skill over the following lessons. For example, learning to play a complicated rhythm such as 4-against-3 between two hands can take significant time and effort to master. By breaking down the steps and giving them repeated opportunities to practice this skill, you will show that it is not a skill that is needed for just one performance, but a skill needed for many, and one that can be mastered over many iterations.

**Possible obstacles and solutions:** Failures in public can be an extremely negative experience. Do not put the students in situations where they are likely to fail in front of others. Intermediate students are likely to view the failure as highly shameful and hold a very strong, negative emotion towards playing after a failed event. Allowing students to try new activities and risk failure emphasizes student mastery orientation over performance orientation. The main point to keep in mind for young teenagers is to know that they view failure much more negatively than do older or younger people. If a student is preparing for a recital, festival, or competition, do not

hesitate to pull them out of performing if they do not seem prepared so that they do not have a strong negative experience.

**Application:** Model mastery behavior. Teachers can inspire students simply by showing their own mastery-orientated behavior. Teachers who want their students to play the piano, enjoy music, and incorporate music in their lives need to show how they do this themselves.

**Possible obstacles and solutions:** Time is a limited commodity, and teachers often view playing or performing to be a low priority when faced with weekly preparation for a large studio of students. Teachers should manage their time so that practicing remains in a daily or weekly schedule.

**Applying Intrinsic Motivational Theories:**

Since the other three motivational constructs are all intrinsically motivational devices, the teacher can set up an environment where these events might flourish but cannot actively influence their emergence.

**Flow**

Since entering into a state of flow requires a high level of skill, this concept is more applicable to students who have studied piano for many years, instead of late beginners just entering into the musical world. Flow is entering into a state of being that is highly focused on an activity and lets the person forget about the passage of time or space. Students who experience flow are more likely to practice longer. Since increased practice results in higher achievement, the teacher's job is to find ways to get the student to experience flow. The easiest way is to make

sure students have a piece that they enjoy playing or have a previously learned piece that they still enjoy playing. High achievers can also experience this on the concert stage, and setting up advanced students in situations where they can experience flow can help, such as enrolling them in music festivals, competitions, or a master class.

**Interest**

This theory emphasizes the idea that people's motivation can change from a situational interest to a personal interest, given the correct circumstances. Sometimes, giving unusual pieces can spark a student's situational interest. This could be done by finding pieces that have unusual sounds or actions in them (e.g. glissandos, cluster chords, etc.). The goal is to move the student into a level of personal interest, where they are self-motivated, driven learners.

**Self-determination**

Since this theory argues that students are seeking autonomy, relatedness, and competence, be aware of actions that can increase these feelings instead of decreasing them. Autonomy is increased when a student knows how to learn a piece by themselves, without external help. Emphasize practicing skills. Some students stall in their progress when they hit adolescence because they have reached repertoire that requires more advanced practice strategies. Students who have not yet acquired these practice strategies will not progress and instead become frustrated when their superficial practicing strategies, which had worked on easier pieces, no longer work for them. More advanced students tend to have more advanced practicing strategies (McPherson 1997), and it is essential that teachers give students the knowledge to practice

effectively.

Meeting a student's need for relatedness can be met in various ways, depending on the student. For some, the personal relationship between student and teacher can be enough. Be aware that some will respond better within a larger social network. If a student feels isolated at the piano, unable to connect with others, you are decreasing this variable. The use of duets, group classes, or even participation in music festivals, showing the larger musical social network to the student, can help.

Increasing competence can be done through performances, whether large or small. Whatever size of performance, try to meet the student's needs to feel accomplished. Some students will meet this need by playing in a small studio class. Others will feel competent after performing in a large music festival or competition. Seek feedback and keep an open dialogue with the student to best gauge this piece of the puzzle.

Be cautious in the use of external motivators for students. Young teachers sometimes rely on using external motivation to get their students to achieve goals. For long term success, use other ways to motivate students. If students do not feel like their behavior is being controlled by the reward, it is acceptable to use it. Contrarily, students at home who are rewarded for playing the piano by earning money and only play piano for the money will lose interest in the piano as soon as the reward is removed. Many teachers use a reward system for motivating their young students. In a meta-study of external rewards, Deci, Koestner, & Ryan (1999) found that rewarding students decreased internal motivation. In particular, younger students were negatively influenced more strongly by these external rewards, while college students were less so. Only unexpected rewards, which are given very infrequently, were seen not to negatively influence

internal motivation. Be careful giving out rewards so that students who do not receive rewards do not view it as feedback that they are doing poorly.

> Although rewards can control people's behavior...the primary negative effect of rewards is that they tend to forestall self-regulation. In other words, reward contingencies undermine people's taking responsibility for motivating or regulating themselves. (Deci, Koestner, & Ryan 1999, p. 659)

**Other Considerations**

Since teaching piano is difficult to separate into distinct parts, the associated concepts below are additional real-world applications.

**Age-Related Applications**

Teach students in group lessons to encourage participation. Use the fact that teens are highly social and enjoy listening to music. They are most likely to be listening to music at the highest frequency in their entire lives. Create an environment for them where they see their peers also playing music. Make sure that the students they see really are their peers—not just prodigies their same age. This can mean group lessons, ensemble playing, or even encouraging the student to switch teachers to be around others who are more like them.

**Parental Involvement**

Know that the ability to modify this variable in the student's life is minimal, at best. You can encourage a parent to be involved in such a way to encourage student autonomy. Parents should be cognitively involved in their student's musical education by going to concerts, listening to music, and creating a supportive environment at home, as well as by encouraging

high standards. However, by the time the students become teenagers, they cannot try to extrinsically motivate their child to practice more without decreasing the child's autonomy and risking decreased motivation. Emphasize the importance of a more hands-on parental involvement for younger students, so that younger students learn the ability to self-regulate their learning under the assistance of an adult. Young students do not yet have the skills to practice, and even parents without any musical knowledge themselves can assist with basic skill acquisition. By working with young student/parent dyads, you can try to prevent future struggles where the parent pressures a teenager to practice.

**Identity**

Related to students remaining involved in music lessons is the concept of identity, which has been increasingly researched by McPherson. In an effort to look at other factors besides cognitive constructs, a student's feeling of identity has become yet another factor that can predict a their drop-out likelihood. Since learning a musical instrument requires such long-term commitment that is rarely required from students, researchers try to isolate the reasons why some students remain in lessons, while others stop. Evans & McPherson (2014) looked at the identities of a group of children over a 10-year period and tried to find factors that would predict the student's likelihood of remaining involved in music. It turned out that students were more likely to express a long-term musical identity if they had prior experience playing a musical instrument before the study and also if they had any type of social environmental exposure to music. Those who viewed music as something that they were likely to continue in for the long-term practiced more, had higher test scores, and persisted with music longer than those who did not. In addition,

students were influenced when they were in a school environment with a highly visible music program. Implications for teaching that Evans & McPherson list include the necessity of having a highly visible music program that is well integrated into the school curriculum. They also discuss the importance of working with students to create individual goals and identities of their future self, which can guide actions and help with student perseverance to a difficult skill.

Piano teachers who are not involved in the public schools can still influence their environment by being an active community member in music and the arts. American culture places a generally low value on music as an academic subject (McPherson & Hendricks 2010), and researchers have concluded that arts advocates could possibly work with local and national educational objectives to align music study with those goals to increase the value given to music as a subject in school.

**Teaching the Unmotivated Student**

Piano teachers have the benefit of teaching a common, high demand instrument, which means that if they take on a large studio, not every student will be highly motivated. Teachers must accept that not every student will remain in their studio or even continue to participate in musical activities. Some studies have looked at the different behaviors that teachers had with "successful" students versus those students who dropped out (Costa-Giomi 2004, Williams 2002). It is relatively easy to list off activities or behaviors that a piano teacher does or does not do during a lesson, which these studies did. Much of the motivational research that exists is based within the educational system, not private piano instruction. In general education, teachers have to deal with a group of students that they cannot change. Consequently, research for these

situations discuss both motivational methods, as well as dealing with unmotivated students (Hidi & Harackiewicz 2000). Prime strategies can include using situational interest, extrinsic rewards, and gamification to increase short term student motivation.

Since piano teachers usually interact with their students over a much longer period than a nine-month academic year (the duration over which general education teachers must struggle to motivate their students), it is important to watch out for students who consistently seek out teacher approval. Students who do this are more likely to be in search of external motivators and lack the internal motivation to continue. They tend to be at a higher risk of quitting music lessons (Costa-Giomi, Flowers, & Sasaki 2005). They can also be looking to increase their feelings of relatedness to a teacher, and depending on the teacher's personality, there might be a mismatch of personalities. If a teacher cannot develop the personal connection that a student needs, it might be better for that student to find a different teacher.

None of the literature researched discusses how to dismiss a student who is lagging in progress. In the private sector, teachers ask their network for advice on how to drop a student from their studio professionally. This can include asking personal contacts or people on a social network site like Facebook for ways to word a dismissal email. Instead of viewing this as a failure, dropping a student needs to be seen as a way of protecting the energy and efforts of the teacher. Students who are involved in many activities will not necessarily prioritize piano, and teachers must decide what their goal is for students who do not make progress. Is it enough to provide weekly musical exposure to the student? If the student does not practice due to an over-scheduled life, would removing piano give the student more time to recover from other activities and generally improve the quality of their life? Each teacher has to define their purpose of

teaching for themselves: to have students win competitions and participate in the larger musical community? To give students a basic knowledge of piano and music so that they have the skills to continue playing the piano for the rest of their lives? Or to expose them to different ideas, musical concepts, a variety of sounds, and give them a block of time each week where they can try something completely different from the rest of their lives? Not every teacher will be able to teach every kind of student, and knowing when the student's needs and the teacher's abilities are no longer compatible can allow for ending the relationship on a positive note.

More difficult to measure is the quality of relationship the student and teacher have or how much energy a particular student requires from their teacher. Academics cannot overlook the practical side of teaching and need to note the immense amounts of energy that it can take to motivate a student. Teachers are required to motivate many students over the course of a day and still have enough energy to take care of themselves once they are finished teaching at the end of the day. For students who are struggling, a teacher's lack of the correct type of praise or activity might be a better reflection of a teacher attempting to conserve precious energy for other activities or students instead of a failure as a teacher.

**The Unmotivated Teacher**

One major limit to the numerous pedagogy texts and motivational research is the lack of focus on the teachers. Most of the focus is on motivating the student, since the teacher can only control the classroom environment to motivate the student or not. Schunk (1991) applied his research on self-efficacy to the teacher, commenting:

> "Teachers whose self-efficacy is low might avoid planning activities they believe exceed their capabilities, be unlikely to persist with students who are having difficulties, expend little effort to find materials, and not reteach content in ways students might understand better. In contrast, teachers whose self-efficacy is higher might develop challenging activities, help students succeed, and persevere with students who are having trouble learning." (Schunk 1991, p. 224)

Teachers should be aware of their own limitations and be aware that struggling with a number of students who are not meeting the teacher's expectations can lower the teacher's own self-efficacy. Just like adjusting a student's experiences to better increase their self-efficacy, teachers can adjust their teaching so that accomplishing small tasks can build mutual feelings of self-efficacy in both student and teacher.

Teachers who educate with a goal of student performance instead of student mastery can experience problems when students fail to meet performance results. Such teachers can then struggle with maladaptive teaching strategies to get their students to the level of performance that they have set as a goal. For instance, for teachers who are faced with a student who fails to read notes quickly or efficiently, a short-term performance strategy could be to write in letter names, instead of brainstorming different ways to reinforce staff reading.

Teachers faced with a number of students who progress slowly can either view that as being unlucky to have gotten such students or to view their studio as filled with students who have the potential to make great gains with the correct teaching style. Attributing their studio's success to external controls can demotivate a teacher, while focusing on internal controls can provide a teacher with the motivation to continue on when dealing with a number of low achievers.

Teachers who have an incremental view of the world (Dweck & Molden 2005) can work to improve their skills. Since high achievers are at risk for having a entity view of the world

(belief that their skills and knowledge are set and not susceptible to growth), piano teachers must work to maintain the effort to continue to learn and improve as teachers. For teachers who have many successful students, it is possible to fall into the mindset that their teaching abilities are set and that they cannot improve teaching a particular style or age of student. Just as applying these theories to students can help improve their musical education, applying these strategies to the teachers themselves can keep a teacher from feeling burned out or helpless in the face of students dropping out when they reach a certain age.

# Chapter 5

# Conclusion

## Summary

As piano students have changed over the centuries from nobility to virtuosos to the middle class, teaching has adopted new strategies to match the needs of the students. If the current American piano students are average, middle class children, pedagogues should question what the goal of teaching piano should be and what the goal of their personal studio should be. Does it center around teaching only the best students in the community? Does it center around working with lower income students who don't have access to musical instruments at home? Does it involve students who will work hard but never be high achievers? These different groups of students who pay pianists to teach them will all react to different types of exposure to activities, interactions, and attitudes during lessons. Most teachers in the community will be faced with a studio that is primarily average in nature and need to be trained to teach that level of student. As pedagogy has changed, teachers need to be willing to learn from social science research so that we can effectively communicate with today's youth. Research that has unearthed the relationships teachers need to cultivate with their students needs to be adapted to piano teaching as well.

High-performing students will always be trained like potential virtuosos, but it is with the average student—the one who is involved in many different activities, the one who enjoys various styles of music (possibly kinds that the teacher has never listened to before), or the one that only has a small keyboard at home—for whom piano teachers need to evaluate their reasons for teaching. Since the industrial age and the rise of the middle class, music and the arts have

fallen in value because this type of education does not prepare people for a world of industry, a world of profit. American piano teachers need to be the vanguard for music education, not only for their own students' exposure but also to highlight it in the larger community. By being visible activists for the arts, they can continue to raise awareness for music education and raise standards for music teachers.

**Suggestions for Future Studies or Research**

Teachers freely share struggles they face with students, including their efforts to keep teenage piano students, as current culture encourages students to be increasingly active in numerous activities outside of school hours. The most beneficial action for music teachers is to continue to network and connect with others in order to learn how to best deal with these issues. Maintaining a feeling of relatedness to others can boost the morale of a teacher, as self-determination theory proposes. Sharing tips on repertoire selection, lesson activities, or studio structure can all assist a piano teacher who is trying to avoid a studio that constantly deals with drop-outs once they reach middle school or high school. Professional organizations can bring these people together in a supportive environment where it is safe to share these tips. By hearing new ideas and discussing ways to approach problems, teachers can evaluate if they themselves are mastery oriented teachers instead of performance oriented ones.

College students in the music field who plan on working within the music field after graduation should seek out teacher training opportunities. Many times, this will include a series of courses, potentially with a corresponding student teaching opportunity. Opportunities like this can be invaluable to college students due to the ability to immediately discuss and analyze

problems that arise during lessons. Classes for college students that allow them to create lesson plans, brainstorm music games, and get hands-on experience can build up these future teachers' self-efficacy.

Universities that teach piano students need to understand that the majority of piano students will be using teaching as their financial means of support in the future and provide ample training. The presence of a community music school that is partnered with the university can provide training for student teachers, a valuable resource for young children in the area, and visible arts support for the community. Its presence can build up almost every concept of motivation for both student and teacher.

Future studies should investigate ways to increase self-efficacy in beginning teachers. Those who receive teacher training should increase in self-efficacy, resulting in using more effective teaching strategies, avoiding superficial teaching strategies, persisting in their careers when faced with difficult situations or students, and ending up with less burnout. In addition, since piano teachers are typically used to being successful pianists, the awareness of remaining in a increment-value mindset is essential, where not only the students can improve their skill through practice, but teachers can, as well.

**Conclusion**

Piano pedagogy texts over the last two centuries have mainly concerned themselves with, firstly, the introduction of note systems, and secondly, the production of sound. Modern texts still shy away from the biggest variable in teaching: the student-teacher interaction. While many texts analyze different ways to think about exposure to musical concepts in a logical sequence, few

discuss the person who is at the piano, despite advances in psychology, neurological understanding, and learning theories. Using resources from social-cognitive research that have entered into the field over the last few decades, piano teachers can analyze their actions and manners to provide more motivating lessons to students. The relationship between teacher and student is the one that we have the most control over as piano teachers and needs to be viewed more critically.

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