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Early flute pedagogy: The utilization of alternative types of flutes for young children

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Early Flute Pedagogy:

The Utilization of Alternative Types of Flutes

For Young Children

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Abstract

The typical practice in flute pedagogy is to start teaching the beginning flute student at approximately ten years of age. When compared to many other instrument disciplines, such as violin and piano, this is a relatively late starting age. The delay is primarily due to the large size and weight of the modern orchestral flute, as well as its lung capacity requirements. Not only do the physical limitations of the modern flute make early study difficult, but if disregarded, they also may pose health risks for the young beginner.

This paper will discuss the importance of early childhood musical study and the related learning needs of young children. The impact of a delayed starting age on musical development will be discussed, as well as how the use of smaller alternative types of flutes, such as the recorder, the Irish whistle, and the fife, can allow the student to begin flute study at an earlier age.

This document also will explore various physiological and medical reasons that restrict early study on a modern flute, such as hand span and lung capacity requirements, and the size and weight restrictions of the orchestral flute. The modern flute's physical requirements will be presented in contrast with those of proposed alternative flutes. This paper will demonstrate how these alternative instruments are easily integrated into a flute teacher's repertoire and will, therefore, allow younger beginners to commence flute study earlier.

The durability and financial accessibility of child-friendly flutes will also be discussed, including examining how these instruments are durable, relatively inexpensive, virtually maintenance-free, and realistically compatible with a young child's needs.

Using these smaller, lighter alternatives to the modern flute will provide potential educational, physical, and accessibility benefits for young flutists and flute pedagogues alike. Flute teachers will be able to easily learn and teach these flutes, and students will benefit from the opportunities associated with early instrumental study, such as an increase in the ease of learning and heightened musical absorption.

Introduction

The current practice in flute pedagogy is to initiate study when a child is around ten years of age, primarily due to the physical limitations imposed by the modern orchestral flute. In comparison with other instrumental disciplines, such as violin and piano, this is a relatively late starting age.[1] The delay in study is primarily due to the large size and weight of the modern flute, as well as the instrument's lung capacity requirements. This paper proposes the utilization of alternative flutes—the recorder, the Irish whistle, and the fife—for early flute education to avoid this delay in study.[2] With the help of these alternative flutes, flute pedagogues and flute students can benefit by beginning flute study at an earlier age. In addition to being well suited to the physical capabilities of young children and potentially facilitating earlier study, these alternative flutes also allow for an easy transition to modern flute study as the child grows older.[3]

This document will first explore the various physiological and medical reasons that explain why beginning study on instruments in the flute family, beyond the modern flute, can be beneficial. Then the specific physical limitations of the modern flute, including the effects of its weight on a child's posture, as well as hand span and arm length concerns, will be addressed. The requirements of lung capacity and lung maturity that are necessary to play the modern flute will also be discussed. Furthermore, this

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[1] Study in the disciplines of piano and violin is often begun by children as young as three years of age.

[2] The Irish whistle, tin whistle, and penny whistle refer to the same instrument and are used interchangeably throughout this document.

[3] For clarification, the terms "younger child" and "older child" will refer to age ranges in relation to the typical starting age for flute study, which is approximately age ten. For the purposes of this document, a young child will be considered to be in the approximate range of 3 through 9 years of age. The older child will be considered to be in the approximate range of 10 through 12 years of age.

paper will demonstrate how the combination of these issues impacts the late starting age for modern flute study.

Additionally, these physical limitations can negatively impact a child's musical development because the delayed starting age causes young flutists to forego a critical learning period that occurs during early childhood. In order to take advantage of this critical learning period, an alternative flute that circumvents the modern flute's limitations and satisfies the physical needs of a young child needs to be utilized.

This document proposes the use of alternatives to the modern flute in order to avoid delaying flute study. Although they are different in size, construction, and sound production, instruments such as the fife, the Irish whistle, and the recorder are all within the flute family, and are therefore related to the modern flute.[4] Because of this relationship, there is a connection between each of the flutes' performance practices. These simpler flutes' playing concepts will be relatable and transferrable to the modern flute when a child has physically developed to the point when he or she can reasonably support the modern flute.

Not only will young students find the Irish whistle, the recorder, and the fife appropriate tools for study, but flute pedagogues will also easily be able to learn these instruments themselves and incorporate them into their teaching. Various approaches for the flute teacher to acquire the appropriate level of playing skills necessary for teaching competency will be presented. The overall impact of the inclusion of alternative instruments to modern flute study will allow for many physical, learning, and accessibility benefits for flutists and flute teachers alike.

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[4] Jeremy Montagu, et al. "Flute," In *Grove Music Online, Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/grove/music/40569 (accessed January 25, 2012).

The individual research areas that will be presented—early music education, physiology of music performance, and flute pedagogy—already have a fair amount of existing research and scholarship; however, these areas of scholarship have not been linked with each other. For example, the use of the recorder as a suitable instrument for young children is not a new concept, nor is the importance of early musical study or the conditions attributed to the delay of modern flute study. However, these research areas have not been presented in conjunction with one another as a means of presenting a solution to the delay associated with beginning flute study. This paper will link the scholarship of flute pedagogy with the importance of early music education and suggest the use of alternative instruments already deemed suitable for young children. Combining these areas of research will allow for a practical approach to solving the problem of delayed flute study.

Chapter 1: Physiological Problems with Young Beginners on the Modern Flute

Various aspects of playing the modern flute can lead to physiological problems in young children; therefore, alternative flutes are more suitable instruments to begin flute study. These physiological constraints largely account for the relatively late starting age of flute study. Not only does a young child have significant difficulty holding a modern flute, but attempting to do so, even with modifications to the instrument, could cause the student physical harm.

Figure 1.1
Size Ratio Differences
Depiction of the size of a modern flute shown in relation to a three-year-old child. The flute is almost as tall as the child.

As depicted in **Figure 1.1**, the modern flute is nearly the height of a three-year-old child. Clearly, this young child would not be able to meet the significant physical demands required to hold, let alone play an instrument of this size and weight, and to do so could

lead to unhealthy strain on the body. For music educators, it is important to ensure that students engage in instrumental study in a manner that does not harm their current or future health. It has been shown that most of the physical ailments that affect instrumentalists in adulthood result from improper foundations developed in childhood.[5] Identification of these concerns can help avoid unnecessary injury in young flutists and help them to develop healthy playing habits from the beginning of study.

Unfortunately for small children, musical instruments are constructed with acoustical considerations in mind, rather than accommodating the constraints of human physiology. Also, children tend to choose an instrument based on an emotional connection or response to that instrument, rather than choosing an instrument that complements their physical attributes.[6] Therefore, it is logical to infer that physiological conflicts can arise in early instrumental study.

Historically, the physical requirements of playing the flute were not always problematic for players. Precursors to the modern flute were less strenuous on a flutist's body, and more manageable to play. For example, the Baroque-era flute, which was constructed of wood and lacked a heavy key mechanism, was more manageable for the player because it was lightweight.[7] As the flute developed into the modern instrument of today, its acoustical enhancements included the utilization of metal for its construction, which increased the instrument's weight.[8] (See **Figure 1.2**). As the physical attributes of the instrument became heavier and human physiology remained constant, the human

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[5] Valerie Trollinger, "Performing Arts Medicine and Music Education: What Do We Really Need To Know?," *Music Educators Journal*, vol. 92, no. 2 (Nov., 2005): 42.

[6] Alan H.D Watson, *The Biology of Musical Performance and Performance Related-Injury* (Toronto: Scarecrow Press, 2009), 91-92.

[7] *Ibid*. A Baroque flute weights approximately .5 lbs. This weight was obtained from the Baroque flute manufacturer, Sweetheart Flute Company.

[8] Montagu, "Flute," In *Grove Music Online, Oxford Music Online.* According to the instrument manufacturer Jupiter, a standard beginning flute weighs .9 lbs.

body was increasingly strained.[9] This resulting weight increase continues to be problematic today and is a primary factor in the modern flute's incompatibility with young children.

Figure 1.2

Baroque and Modern flutes

The lightweight construction of the Baroque flute compared to the heavy construction of the modern flute. Images from: http://www.clintgoss.com/flutopedia.com/plans.htm and http://oz.plymouth.edu/~asjacques/CSDI1200/woodwinds.html

Obviously, the weight and size of an instrument are limiting factors for certain players. These problems are particularly relevant for children because of their small physical stature, which amplifies the significant proportional differences between the small body structure of a young child and the weight and size of the flute. The modern

[9] Watson, *The Biology of Musical Performance*, 92.

flute is by no means the heaviest or largest of the woodwind instruments, but relative to a young child's physical capabilities, its weight is too much for a young child to support.

In addition, the challenges associated with the weight and size of the flute are compounded by its playing posture's inherent asymmetry. The flute is held transversely to the right side of the performer. This posture creates an asymmetrical support position, which causes the flute's weight to be unevenly distributed over the flutist's body. The asymmetrical weight distribution of the flute amplifies the negative effects on posture. In fact, according to Dr. Allen Watson, the flute is one of the instruments most detrimental to posture.[10] As seen in **Figure 1.3a** below, the asymmetry of the flute is apparent. The postural imbalance unevenly stresses the muscles of the back and neck. This type of imbalance can negatively impact posture and can leave a flutist more vulnerable to injury.[11] The asymmetrical weight distribution is exacerbated on a small child's frame.

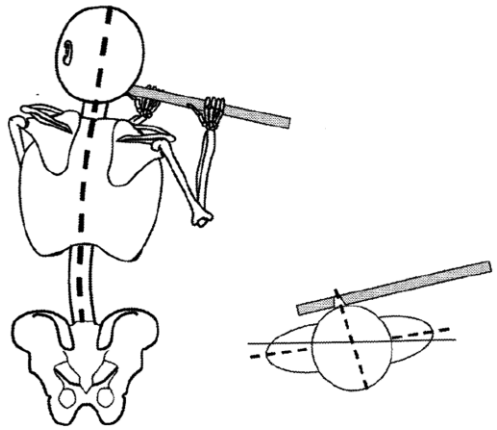

Figure 1.3a
The Asymmetrical Posture of Flute Playing
Image from Watson, Alan H.D. *The Biology of Musical Performance and Performance Related-Injury*. Toronto: Scarecrow Press, 2009.

[10] Watson, *The Biology of Music Performance*, 93.
[11] *Ibid.*, 17, 33.

Developing and maintaining good playing posture is a crucial skill to be implemented from the beginning of instrumental study. Most adverse habits are difficult to break the longer they are in existence, so it becomes especially important to instill good postural habits in early study. Not only can poor posture affect flute playing, but postural problems often manifest themselves in daily living.[12] Likewise, not only can the weight of the modern flute lead to postural problems, but the combination of exaggerated weight and asymmetry factors compound the negative postural effects in a developing child.[13] The two images in **Figure 1.3b** illustrate these negative postural implications as a child attempts to support the proportionally-too-large modern flute. In these photographs, a six-year-old child struggles to hold the instrument, and his posture suffers as a result of his effort to compensate for the excessive weight of the flute. His neck and torso are clearly leaning to the left of center, and the child resorts to resting the instrument on his shoulder.

Figure 1.3b
Posture Strain
A six-year-old child's poor posture resulting from his effort to support the weight and size of the modern flute. This child has assumed a leaning posture to compensate for the excessive weight and size of the flute.

[12] *Ibid.*, 17.
[13] *Ibid.*, 93.

One approach to managing the awkward size and weight of the modern flute for a young child is to utilize a curved headjoint (See **Figure 1.4**). This type of headjoint is marketed by a number of instrument manufacturers with the claim that it will help facilitate flute performance for students that are too small for a standard flute.[14] However, this claim is not entirely true. With this modified headjoint, the child can reach the keys and embouchure plate; however, the weight of the flute remains the same. Because the weight concerns are not completely resolved by using a curved beginner headjoint, the previously mentioned postural problems are still present. A child is still not able to accommodate the substantial weight of the instrument in a healthy, balanced manner, which may lead to bad habits or physical injury.[15]

Figure 1.4
Curved Beginner Headjoint

[14]Claims such as these can be viewed on various instrument manufacturers' and retailers' websites, such as http://www.wwbw.com/Yamaha-Curved-Headjoint-for-Student-Model-Flute-581322-i1442686.wwbw (accessed April 16, 2012); http://www.childrensmusicworkshop.com/instruments/flute/curvedhead.html (accessed June 23, 2012); and http://gemeinhardt.com/catalogpage.asp?mode=PRODUCT&productid=46 (accessed July 10, 2012).

[15]The initial discussion about the curved headjoint concerns weight and postural problems. Later in the chapter the utilization of the curved headjoint for hand span and arm length challenges will be presented. The feasibility of using the curved headjoint will be further discussed in Chapter 9.

In addition to postural concerns, it is important to eliminate any unnecessary muscular strain when playing in order to develop healthy technique and to avoid physical injury.[16] To avoid potential physical injury, the body needs to function in a healthy, balanced, and efficient manner. This practice of developing ergonomically-appropriate posture is supported by several body awareness methodologies, such as Body Mapping, the Feldenkrais Method, and the Alexander Technique.[17] In recent years there has been a trend in music pedagogy towards injury prevention through the use of these body awareness methods and techniques.[18] These methods demonstrate in different ways that excessive weight can pull the body out of balance and alignment. In playing the flute, the unbalanced body is forced to counter poor alignment with muscle tension. According to author and pedagogue Lea Pearson, when the body is unbalanced, it cannot function as it is designed to move naturally.[19] As a result, optimal body function is compromised and can lead to injury.[20] If poor playing technique is established early in study, these habits become harder to correct over time. The reason for this difficulty can be due to the hardening of muscles with age.[21] The hardened muscle will be less flexible and more difficult to reshape. As a result, poor technique will be more difficult to correct.[22]

However, if a lighter weight instrument is introduced, the small physique of a child would have an increased likelihood of maintaining bodily balance, resulting in healthy posture. As can be seen in **Figures 1.5a and 1.5b**, a young child is able to

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[16] Watson, *The Biology of Music Performance*, 89.

[17] Lea Pearson, *Body Mapping For Flutists: What Every Flute Teacher Needs to Know About the Body* (Columbus, OH: Flutibia, 2006), xi.

[18] The trend towards injury prevention via body awareness is exemplified by viewing the numerous related classes, presentations, and seminars listed in the National Flute Association Convention programs. The National Flute Association's website can be found at http://www.nfaonline.org/.

[19] *Ibid*., 17.

[20] *Ibid*.

[21] Trollinger, "Performing Arts Medicine and Music Education," 45.

[22] *Ibid*.

support the size and weight of smaller, alternative flutes relatively easily and with a healthy, balanced posture.

Figure 1.5a

Correct Posture with the Fife

The healthy posture of a young child playing the fife, a smaller alternative to the modern flute.

Figure 1.5b

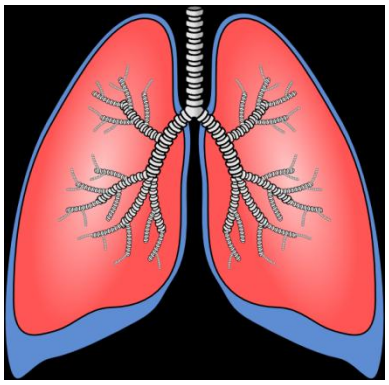
Correct Posture with the Recorder

The healthy posture of a young child playing the recorder, another small alternative to the modern flute.

This healthy posture can be compared to the previously demonstrated incorrect posture shown in **Figure 1.3b**. With the use of a smaller instrument, the child's optimally functioning body has a better chance of establishing good playing technique at an early age.

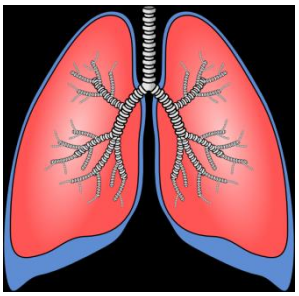
The modern flute's lung capacity requirements are another concern for young children. Lung capacity, called "vital lung capacity" in medical terminology (hereafter referred to in this document as V.L.C.), is defined as the total volume of air that is exhaled after a person fully fills the lungs.[23] V.L.C. is directly related to the size of the person. For example, a man who is six feet, two inches tall has an estimated lung capacity of seven liters. In comparison, a woman who is five feet, two inches tall only has a V.L.C. of 3.5 liters.[24] According to this principle, the V.L.C. of a small child who is three feet, two inches tall is proportionally much less (See **Figure 1.6a**).

6'2" Man



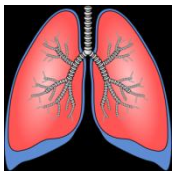
Vital Lung Capacity=
7 liters

5'2" Woman



Vital Lung Capacity=
3.5 liters

3'2" Child



Vital Lung Capacity=
approximately 1 liter

[23] Watson, *The Biology of Music Performance*, 104.
[24] *Ibid.*, 104.

Figure 1.6a
Varying Vital Lung Capacities
Vital lung capacity is directly related to a person's height.

V.L.C. is an important factor in determining the starting age for modern flute study. If flute teachers are to guide students for success and musical enjoyment, it is best that the students' lungs are able to accommodate the air volume demands of the instrument. The flute requires a significant amount of air, and thus requires a large V.L.C. [25] Although the flute is one of the smallest wind instruments, its size does not reflect the amount of air volume it requires. In fact, the flute uses a similar amount of air to that of the much larger tuba (See **Figure 1.6b**).[26]

Figure 1.6b
Size Comparison of the Modern Flute and Tuba
Size relation of the modern flute in comparison to the much larger tuba

[25] Watson, *The Biology of Music Performance*, 127. While it may be argued that efficiency and regulation of air can help to make the best use of the air in the lungs, this skill is developed with significant practice and remains challenging, even for advanced flutists with an appropriate V.L.C for flute playing. Air efficiency and regulation is a very difficult skill for a beginner, who is already facing the disadvantage of having a small V.L.C.

[26] *Ibid.*, 126.

Image from http://www.reedmusic.com/wp-content/uploads/Tuba-Flute.jpg, accessed February 10, 2012.

The modern flute demands a large air volume because the flute does not have a mouthpiece that is either inserted into, or pressed against the mouth. Therefore, as can be seen in **Figure 1.6c**, there is nothing covering the opening of the lips to provide air resistance or efficiently contain air flow.

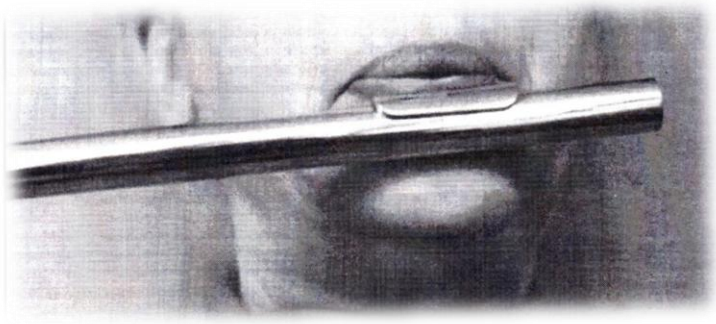


Figure 1.6c
The Unstopped Embouchure of the Flute
Image from Mizzy McCaskill, and Dona Gilliam, *Fun with the Fife*. Pacific (MO: Mel Bay, 1992), 6.

In other words, the flute is considered to be an "unstopped" instrument.[27] Because there is no stopper against which to blow the airstream, there is very little resistance, and the air escapes freely from the mouth. Since the flute's headjoint aperture alone does not provide air stream resistance similar to that of other wind instruments, the flutist inefficiently loses much of the air expired from the lungs. Considering that a young child's V.L.C. is a fraction of an adult's, the child has a more difficult time supplying the needed air flow required to play the modern flute. The child's attempt to supply the appropriate amount of air would likely result in frantic breathing and debilitating

[27] Watson, *The Biology of Music Performance*, 127.

dizziness. The dizziness caused by this type of rapid breathing results from too much carbon dioxide being depleted from plasma, consequently constricting blood vessels in the brain and creating an increased heart rate.[28] An older, larger student with a greater V.L.C. is able to overcome the dizziness with a better breathing strategy, such as abstaining from breathing after every note or every measure. This more efficient method of breathing helps the player to avoid taking unnecessary breaths, and consequently, developing dizziness. However, a small child with an inadequate V.L.C. has difficulty overcoming this condition. Even if the best possible breathing approach were to be utilized, the child's small lungs would not be able to meet the modern flute's large air volume requirements.[29] Because of these demands, it may be advisable to delay modern flute study until the lungs are more fully developed and have a larger V.L.C., rather than continue to struggle with an instrument that is incompatible to the physiological needs of the child. However, this delay in study and struggle with instrument incompatibility can be avoided by choosing an instrument that requires a smaller air volume. The fife, the recorder, and the Irish whistle each require less air volume, and can be successfully implemented during early childhood to accommodate the small lungs of a child.

Limited hand span and arm length are other concerns regarding a young child's ability to play the flute. For comparison, one could consider the typical methodology for beginning a young violin student. A full-size violin is too large for a young child to play, and therefore it would be atypical for a five-year-old child to begin study on a full-sized

[28] *Ibid.*, 104.

[29] An example of a better breathing approach would be to minimize excessive breathing by taking breaths after several measures instead of after every note.

violin.[30] Likewise, a full-sized modern flute is also unsuitable. The keys of the modern flute are widely spaced in a manner that makes it difficult for a small child to hold the instrument correctly.[31] The resulting strain on the child's small hands could be detrimental to future psychomotor ability and could damage musculoskeletal structures.[32]

There are a few adaptations that can be made to the modern flute to make the flute's keys more easily reachable for individuals with small fingers. For example, offset G keys can alleviate the strain on the left hand, as can key extensions.[33] Offset G keys allow for a closer reach of the left hand middle and ring fingers. The option to have inline or offset G keys can be determined at the time of purchase, and key extensions can be added to an open-holed flute later if needed. **Figure 1.7a** illustrates a flute with inline G keys that are straight across the body of the flute. **Figure 1.7b** shows a flute with offset G keys that allow for a closer reach of the left hand ring finger. **Figure 1.7c** demonstrates a flute with offset G keys and key extensions, which further facilitate ease of reach. It should also be noted that key extensions can be attached to an open-holed flute with inline G keys as well.

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[30]Trollinger, "Performing Arts Medicine and Music Education," 42. Instead of a full-size violin, smaller players can opt for a smaller version of the violin, such as a 1/4- or 1/8 -size violin.

[31] Trollinger, "Performing Arts Medicine and Music Education," 42.

[32] *Ibid*.; B. Mackenzie, "Skill, Technique and Ability," 2001, http://www.brianmac.co.uk/skills.htm (Accessed May 3, 2012). Psychomotor ability is defined as the ability to execute intricate movement patterns which utilize perceptual and motor skills.

[33] Robert Thayer Sataloff, Alice Brandfonbrener, and Richard J., Lederman, *Textbook of Performing Arts Medicine* (New York: Raven Press, 1991) 57; Watson, *The Biology of Music Performance*, 93.

Figure 1.7a

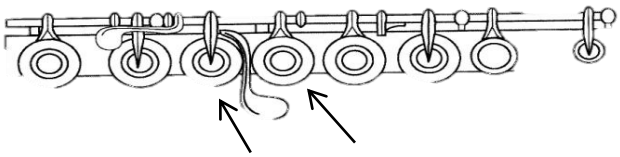


Figure 1.7b

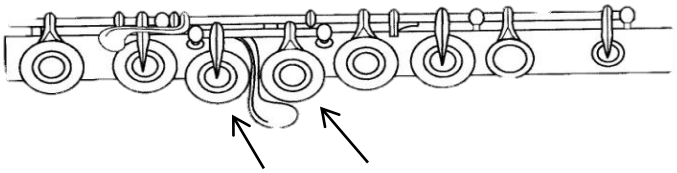
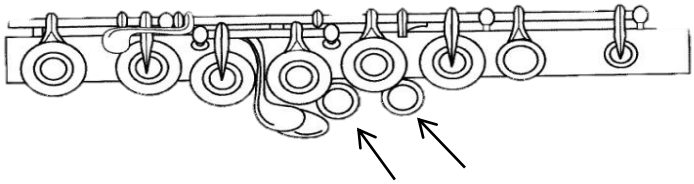


Figure 1.7c



Various Adaptations to the Modern Flute
These adaptations help to assist flutists in reaching the keys more easily.
Images from Watson, Alan H.D. *The Biology of Musical Performance and Performance Related-Injury*. Toronto: Scarecrow Press, 2009.

In addition to key modifications, as previously stated, curved beginner headjoints are also used to help students reach the keys more easily. Instead of a straight headjoint, which is most typically used on the modern flute, the tube of a curved headjoint is curved around towards the flutist. This modification decreases the length between the embouchure plate and the keys, bringing the arms and hands closer to the torso, as shown in **Figure 1.8**.

Figure 1.8
Headjoint Length Variances
This image illustrates the length differences between the standard and beginner headjoints by juxtaposing them against each other. The length of a straight headjoint from the center of the embouchure hole to the center of the left-hand, first-finger key is approximately 9 inches. The corresponding length utilizing the curved headjoint is approximately 3.5 inches.

The arrows in **Figure 1.8** depict the distance between the embouchure hole and the first finger of the left hand. The distance is substantially smaller—approximately 6.5 inches less—with the use of a curved headjoint. This modification allows the young flutist with shorter arms and smaller hands to more easily hold the flute.

While the aim of these finger and headjoint adaptations is to allow smaller players to reach the keys, weight strain and lung capacity requirements are still concerns that must be addressed. The young flutist's lungs still have not developed to produce enough air for the large V.L.C. demands, and the instrument is still too heavy. In fact, the negative postural effects of the excessive weight of the instrument can even impact the young child's ability to breathe effectively, since correct posture is important to uninhibited breathing.[34] Therefore, the various adaptations to the modern flute still overlook important concerns, and the young flutist still faces several physical obstacles. Understandably, if a student begins study before he or she is physically capable, it could be a very discouraging experience, potentially deterring the young child from further study. To encourage a positive early experience, the flute teacher can utilize a different member of the flute family, such as the Irish whistle, the fife, and/or the recorder, each of which is more compatible with the physiology of a young child.

There are other smaller versions of the modern flute that are sometimes proposed in an effort to solve some of the physical problems encountered by the modern flute. Two of these smaller flutes are the piccolo and the Jupiter Prodigy flute. The Jupiter Prodigy flute offers an approach to solving some the weight and hand span problems that a curved headjoint alone cannot resolve. The Prodigy flute not only has a curved headjoint and therefore features easier-to-reach keys, but it is lighter and shorter in length because it lacks a footjoint.[35] This model flute is .15 pounds lighter than a standard

[34] Pearson, *Body Mapping For Flutists*, 93; Watson, *The Biology of Music Performance*, 31.

[35] The Prodigy flute can be found at http://www.jupitermusic.com/jbi_instrumentDetails.aspx?cId=18&lId=2&sId=1&pId=50 (accessed June, 23, 2012).

beginner flute.[36] However, the flute manufacturer does not claim that the Prodigy flute requires less air to play compared to other standard beginner models.[37] The Prodigy flute is sometimes utilized by Suzuki flute instructors for students that are too small to hold and play a standard beginner flute.[38] While this lighter version of the modern flute could possibly allow for ease of hand reach and reduction of some of the weight problems, it is unlikely to fully address all of these issues, nor does it address the V.L.C. shortcomings. Instead of struggling with an instrument that falls short of physiological compatibility, an alternative flute that is completely compatible can be utilized. In addition, as will be addressed in Chapters 5 and 8, the feasibility of the utilization of this flute is questionable, and in most cases an alternative flute would be a more appropriate and accessible option.

The modern flute's relative, the piccolo, may appear simply as a small version of the modern flute and possibly a solution to the limitations of the modern flute; however, using the piccolo is not an effective solution. While the piccolo requires less V.L.C., is lighter weight than its flute counterpart, and has minimal hand span requirements, it is not an appropriate instrument for a young beginner because it requires advanced modern flute skills. The piccolo requires a developed embouchure with a compact opening between the lips.[39] This advanced skill would be very difficult for a young beginner to accomplish without any prior flute skills. In addition, although the volume of air that passes through

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[36] According to the manufacturer, the Jupiter Prodigy flute weighs .75 lbs. This is .15 lbs. lighter than this manufacturer's standard beginning flute, which weighs .9 lbs.

[37] As addressed earlier in this chapter, the large amount of air required to play the flute is mostly attributed to the flute's unstopped embouchure . While the Prodigy might be slightly shorter in length, the unaltered, unstopped nature of the instrument will continue to contribute to its large V.L.C. demands. Reduction of length is unlikely to significantly reduce the V.L.C. demands.

[38] Suzuki Flute will be discussed further in Chapter 5.

[39] Trevor Wye and Patricia Norris, *Practice Book for the Piccolo* (London: Novello Publishing Limited, 1988), 5.

the lips is less than the modern flute, the piccolo requires greater air speed and more breath support. In fact, the difficulty of the piccolo makes it advisable to warm up on the modern flute prior to attempting piccolo practice.[40] Because of these factors, the piccolo is not a suitable substitute to enable early flute study.

The Irish whistle, the recorder, and the fife are each compatible with the physiology of a young beginner and offer a solution to the problem of delayed modern flute study. The student can commence early study on these alternative flutes, and then change to the modern flute when it is physically appropriate. This process would allow for an earlier start to flute study, and the benefits associated with early music study would be more readily realized.

[40] *Ibid.*

Chapter 2: The Benefits of Early Flute Education

Beginning musical study during early childhood is beneficial for numerous reasons, including heightened performance academically, increased spatial intelligence, creative problem solving, and higher test scores. The limited scope of this paper will focus on the benefits of early music education as they apply to flute study.[41] According to Gene M. Simons, there are five comprehensive reasons for beginning music training at a very young age:

> (1) Under the proper conditions, children learn well during the earlier years of their lives; (2) children respond to music very early and perform musically spontaneously; (3) young children can and do acquire musical skill and knowledge through environmental experiences and training; (4) early childhood is the most critical period for learning music; and (5) identification and training of musically gifted children must take place when they are very young.[42]

With these considerations in mind, one may suggest that a delayed starting age can negatively impact long-term musical development because it causes young flutists to miss out on a critical learning period during earlier childhood. According to this research, most children reach 50% of their intellectual ability for their whole lives by age four, with the highest peak of optimal learning occurring around age five or six. By age eight, most have acquired 80% of their intellectual ability.[43] It is this brief window of learning opportunity that contributes to the critical nature of this time frame and is aptly referred to as the critical learning period. After age eight or nine, musical aptitude

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[41]There are numerous benefits to early music education beyond those listed in this document. For a more thorough list, see http://www.childrensmusicworkshop.com/advocacy/12benefits.html.

[42] Gene M. Simons, "A Rationale for Early Training in Music," *Education* 99, no. 3 (Spring79 1979): 259.

[43] *Ibid.*, 259, 261.

plateaus, making the preceding years vital for musical development.[44] Considering that most flute students do not begin study until after these prime learning years, a significant opportunity for learning is lost. If flutists are to reach their fullest potential, the crucial early years of musical development need to be considered for a thorough musical education.

According to author Larissa K. Scott, the first four years of a child's life are the period when the greatest potential for learning occurs. During this time of rapid brain development, the child goes through a stage of heightened absorption.[45] After the first four years, the child then progresses into a stage of, as Scott describes, "wiring," in which the brain eliminates associations that are not utilized.[46] Language acquisition and development are significant events that occur during this time. In addition to language acquisition, the development and acquisition of musical aptitude and understanding have been shown to occur during this period of childhood development.[47] It would be undeniably detrimental to the development of a child's language skills to delay the study of language until age ten. Similarly, musical development parallels that of language, and it is equally detrimental to delay music study until age ten. Flute pedagogues can take advantage of this period of learning by utilizing child-friendly flutes in their teaching regimen.

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[44] Cherie K. Stellaccio and Marie McCarthy, "Research in Early Childhood Music and Movement Education," in *The Early Childhood Curriculum: Current Findings in Theory and Practice*, ed. Carol Seefeldt (New York: Teachers College Press, 1999), 28.

[45] Larissa K. Scott, "Early Childhood Brain Development and Elementary Music Curricula: Are They in Tune?," *General Music Today* 18, no. 1 (September 1, 2004): 20.

[46] *Ibid.*, 20-21.

[47] *Ibid.*, 20.

As a person ages, learning new skills and concepts can become more difficult due to the brain's declining ability to correct learning deficiencies.[48] By utilizing the critical years of early learning, learning difficulties attributed to a delayed start can be avoided. Teachers often encounter challenging situations in which older children have a difficult time acquiring essential performance skills and understanding musical concepts.[49] This learning challenge can be avoided by commencing study earlier, which will allow the student to learn more easily with less frustration throughout the process.

In addition to possibly creating unnecessary frustration, beginning study at age ten presents other challenges. These difficulties arise not only due to previously missed learning opportunities, but also due to what they are about to encounter as adolescents. Ages ten to fourteen are filled with the emotional and social challenges associated with adolescence, which can cause difficulties for the learning process. In fact, pedagogical disciplines that typically teach students preschool-aged through adult, often consider early adolescence as the most challenging age group to teach.[50] If one considers that students of this age are immersed in a world of peer approval and emotional changes, it is easy to assume that less focus will be allotted to flute study.[51] To begin study during this tumultuous time would be much less advantageous than starting study at a younger age. Early study would allow for strong musical foundations to be well established prior to the potentially difficult pre-teen and teenage years.

Another mitigating factor to the later starting age of musical education is the typical starting age in school band programs. In the United States, a common context in

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[48] Simons, "A Rationale for Early Training in Music," 259.
[49] *Ibid*., 261.
[50] Martha Baker-Jordan, *Practical Piano Pedagogy: The Definitive Text for Piano Teachers and Pedagogy Students* (Miami, Fl.: Warner Bros., 2003), 4.
[51] *Ibid.*, 4.

which to begin flute study is through the school systems' band programs, which typically occurs between the fifth and seventh grades, when students are between the ages of ten and twelve. As previously addressed, this is far from the ideal age to begin musical study. Perhaps the physical limitations imposed by the instruments, paired with the typical school band program model have made this delay common. However, with the use of alternative flutes, and thus, elimination of the modern flute's physical constraints, the traditional delay to begin instrument study may be avoided. The flute teacher can collaborate with local school music teachers to help promote earlier study via private instruction. Not only will young children reap the musical and intellectual benefits associated with early study, but school band programs will benefit by having its students' musical foundations laid prior to the beginning of their formal programs.

Ultimately, optimum musical development is directly related to quality music instruction during early childhood.[52] Including the early critical years of study can help make the learning process more enjoyable and efficient for both the teacher and student. The use of alternative flutes, which are compatible with a young child's needs, allows flute pedagogues to experience the benefits associated with early musical study.

[52] Simons, "A Rationale for Early Training in Music," 263.

Chapter 3: Teaching Philosophies

For the flute teacher, understanding different teaching philosophies and his or her role are important considerations when teaching young students. The concept that the early years are a sensitive time for a child's musical learning is further supported by several teaching philosophies, such as those of Kodaly, Orff-Schulwerk, Suzuki, and others.[53] Some of these teaching strategies encourage students to read music from an early age. Others use an aural approach, such as the Suzuki and Orff-Schulwerk Methods, which focus on learning music by ear first, and learning to read music later in study.[54] The flute pedagogue who aspires to teach younger beginners should research these different teaching approaches, as he or she will need to decide which method, or combination of methods, will work best for his or her students. Despite their differences, all of these philosophies deeply acknowledge the great benefits associated with early study.[55] These philosophies are effectively and extensively employed in the areas of piano and violin study, in which study is commonly introduced during the preschool years. These methods also apply to flute study, and while the Suzuki Method has been adapted to the flute, the use of the Suzuki Method and other early childhood approaches is not yet as widespread in flute pedagogy as it is in piano and violin pedagogy. In addition, the utilization of the Suzuki flute method is contingent upon finding a modern flute that is compatible with the student's physiological needs. As Chapter 1 addressed,

[53] Scott, "Early Childhood Brain Development and Elementary Music Curricula," 20, 23.
[54] http://www.aosa.org/orff.html (accessed June 24, 2012).
[55] *Ibid.*, 20, 23.

this is a difficult task for which to accommodate in a small child.[56] In this case, the Suzuki Method could still be utilized, but with a more compatible alternative flute.

The Suzuki Method advocates for the starting of music education as early as possible, ideally from birth.[57] This method has a very strong aural component and purports that this early aural exposure will help the child to learn very quickly.[58] The Montessori approach, which is an encompassing learning philosophy, not solely for music, but all areas of early childhood education, also acknowledges there are sensitive periods in children's lives when they are more receptive to certain types of learning.[59] Music is one of the areas in which the Montessori philosophy supports that a young child has a heightened ability to learn. [60]

Several philosophies are supportive of early music education and recognize the link between language acquisition and music acquisition. The Suzuki Method, in addition to Orff-Schulwerk, both acknowledge this link. These methods maintain that, since young children are able to learn dialects in addition to languages, they are sensitive to sound and music.[61] These philosophies recognize that children are able to understand and speak complex languages at the early age of three, and if they can engage in such a complex task, they must also have the ability to learn music at an early age.[62] In its approach to learning music, these methods aim to include strategies similar to language

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[56] The topic of the instrument compatibility issues associated with Suzuki flute will be discussed more thoroughly in Chapters 5 and 9.

[57] Shin'ichi Suzuki, Elizabeth Mills, and Therese Cecile Murphy, *The Suzuki Concept: An Introduction to a Successful Method for Early Music Education* (Berkeley: Diablo Press, 1973), 15.

[58] *Ibid.*, 21.

[59] http://www.montessori.org/index.php?option=com_content&view=article&id=282:brief-answers-to-questions-parents-often-ask&catid=7:faqs&Itemid=25#WhyDoMostMontessoriSchoolsWantChildrentoEnteratAgeThree (accessed June 23, 2012).

[60] Suzuki, *The Suzuki Concept*, 112; Scott, "Early Childhood Brain Development and Elementary Music Curricula," 22.

[61] Suzuki, *The Suzuki Concept*, 112; http://www.aosa.org/orff.html (accessed June 24, 2012).

[62] Suzuki, *The Suzuki Concept*, 1.

acquisition, by mimicking the parents.[63] Parents learn the instrument with the child. Because of the strong presence of the parent, the child is able to emulate the parent's playing, just as he or she would learn to speak.[64]

One of the most significant differences between methods is the concept of reading music. Some methods advocate learning to read music from the beginning of study. In contrast, aural-based methods purport that reading music is not as important in early music study. One premise behind the exclusion of reading during early learning stages is based on the relationship between language acquisition and musical development. Since a child first learns language aurally for several years before being expected to read, reading music can therefore be introduced later in music study, once the foundations in music language have been solidified in an aural manner. This approach aims to avoid overwhelming the child with too much information during early study. [65] In addition to the language acquisition principle, the Orff-Schulwerk philosophy recommends the avoidance of musical notation in early music study so that children do not incorrectly believe that musical sounds come solely from musical notation symbols.[66] In contrast, students are encouraged to listen and observe how music is created naturally from their environments.[67]

Contrasting the aural-based methods, some teaching methods incorporate music reading from the beginning, even with preschool children. These teaching approaches propose that early music reading is necessary for reading fluency, and to delay reading

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[63] *Ibid.*, 2.
[64] *Ibid.*, 4, 18.
[65] Suzuki, *The Suzuki Concept*, 138-141; Scott, "Early Childhood Brain Development and Elementary Music Curricula," 25.
[66] Beryl Peters, "The Orff Approach and Canadian Music Education Curriculum for the 21st Century," *Canadian Music Educator* (Fall 2011): 30-1.
[67] *Ibid.*

music may cause weakness in this area.[68] Even though music can be created and enjoyed without the participant ever learning to read musical notation, these methods consider reading to be important because it gives musicians a pathway to communicate with other musicians, facilitates ensemble performance, and stimulates neural networking.[69]

Understandably, the beginning stages of instrumental study are filled with complex stimuli for a young child. Not only is the child apt to become distracted by all of the sensory information, but a child's eyes do not reach physiological maturity until approximately age seven.[70] The combination of these issues can make intensive music-notation reading difficult, and possibly even counterproductive.

Some approaches take a middle-ground approach and recognize the importance of early reading, but also try to avoid overwhelming the young child. The concept of pre-reading is often used as a way to help the child gain exposure to music notation, but in a less demanding way. Pre-reading, shown in **Figure 3.1**, presents note shapes with the note names displayed inside the note heads. Staff lines are not included, but instead, the notes are placed in a melodic contour to portray the rise and fall of melodic pitches. With this information the child can begin to read note values, read directionally, and begin to recognize patterns. These skills facilitate the ability to make mental connections between musical notation and performance.[71] The aim of this approach is to gently introduce the child to music reading, without detracting from the child's enjoyment of producing music.[72]

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[68] Nancy Faber and Randall Faber, *Teaching Piano Adventures* (Ann Arbor, MI: Hal Leonard, 2011), 6.

[69] *Ibid.*

[70] ~~*Ibid.*~~

[71] *Ibid.*, 7.

[72] *Ibid.*

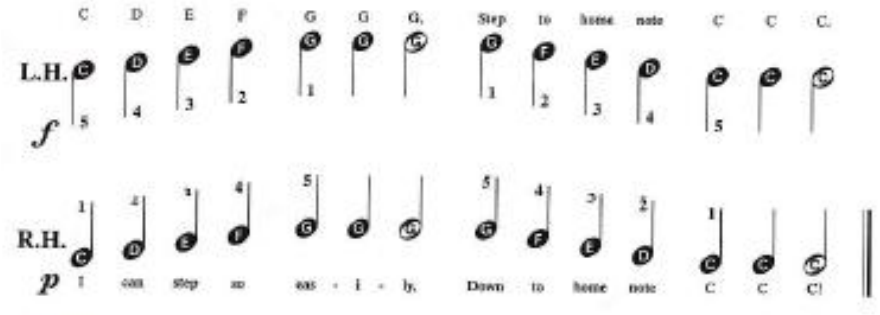

Figure 3.1
An Example of Pre-Reading
Image from Nancy and Randall Faber, *Teaching Piano Adventures*, Hal Leonard, 2011.

The purpose here is not to declare the supremacy of one particular method or approach, but to make the flute pedagogue aware of the options available to him or her. With a strong knowledge of a variety of approaches, flute teachers can then decide which method or methods work best for their young students, and then incorporate them into their teaching practices.

Chapter 4: How to Teach a Younger Student and Implement Age-Appropriate Teaching Philosophies

Much of flute pedagogy centers on the teaching of flutists in the preteen years. Because of this, current flute pedagogical material does not address the learning needs of children younger than age ten. Recognizing that younger students should be included in early study, the pedagogical techniques need to be adapted towards this demographic. This consideration is important because younger children, especially preschoolers, have shorter attention spans and grasp concepts differently than older children. Creating an appropriate learning environment is essential for the development of musical abilities in young children.[73] Although there will be differences as applied to flute study, much can be borrowed from other instrument disciplines that are already familiar with early music education, such as piano and violin. The previously mentioned teaching philosophies, such as aural-based methods, reading-based methods, pre-reading, and the like, are often the approaches that piano and violin pedagogues employ in addressing the learning needs of their young beginners, and are also applicable for flute study.

Flute pedagogues can benefit from the approaches utilized by piano and violin teachers. These instrumental disciplines commonly teach students as young as three years of age, and research in these areas supports a wealth of pedagogical information and experience concerning this age group. In the areas of piano and violin pedagogy, there is a wealth of existing pedagogical material that addresses several issues relevant to early flute study. Cross-disciplinary interaction could be especially useful when problems or difficulties arise for the flute teacher. A beneficial approach for flute

[73] Shin'ichi Suzuki, *Nurtured by Love: A New Approach to Education*, Waltraud Suzuki, Trans. (New York: Exposition Press, Inc., 1969), 22-24.

teachers is to consult with pedagogues in these other disciplines and gain from their experience working with young children. With this knowledge, flute pedagogues will be better prepared to address the learning needs of young students that differ from the typical pre-adolescent flute beginner.

One of the areas with which flute pedagogues may be less familiar is speaking style during lessons with the young beginner. The way a teacher speaks to a very young student should be different than to which they may be accustomed with a typical ten-year-old beginner. The type of speech a teacher uses with a young child cannot only affect his comprehension, but it can also have an emotional effect on the child. A three- to five-year-old student has different emotional needs than an older student. Since the flute community is generally less familiar with teaching these younger students, it will be beneficial to consult other pedagogical areas in which this age range is often encountered.

In addition to consideration of speaking style, terminology used with a young student should be precise and consistent. This approach prevents confusion for the very young student who has a limited musical background.[74] For example, if the instructor uses numbers to represent the fingers for fingering purposes on the instrument, he or she should avoid switching to ring finger, pinky finger, etc.[75] The repetitive terminology will enhance the student's ability to remember and will also help avoid confusion. Alternate terminology can be introduced at a later point in study.

The way a child interprets the parents' and teacher's involvement and approval is also an important consideration. Since the Suzuki and Orff-Schulwerk Methods are teaching areas familiar with this younger age group, their methodologies can be used as

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[74] Baker-Jordan, *Practical Piano Pedagogy,* 79.
[75] *Ibid.,* 102.

an effective example.[76] For example, parents and teachers are instructed to avoid forcing or bribing young children to practice and to not give treats or gifts at the end of practice sessions or lessons.[77] The reason behind this approach is so the child does not wrongly interpret this gesture as conditional upon whether he or she is a good musician.[78] A child should not be made to feel that affection will be withheld if he or she does not perform well, and even though it is not the parents' or teacher's intention, a young child's emotional sensitivity may interpret the action as a gesture of conditional love. Therefore, it is recommended that if a child is given a reward, it should be done at the beginning of a lesson or practice session.[79]

The young child's propensity for frustration and how the teacher approaches correction are also important teaching adaptations for pedagogues working with this age group. Frustration amongst preschool and early elementary children, ages three to five, is highly apparent to most individuals who have observed a child of this age attempt to learn a relatively complicated, new skill. Because these children are highly prone to frustration, it is important that support be given, rather than criticism.[80] In addition to causing frustration, Orff-Schulwerk suggests that criticism and over-direction can detract from learning because of a child's needs for individual exploration and discovery.[81] Understandably, a ten-year-old beginning flutist can process criticism in a much more constructive way than a four-year-old, so it is important that flute teachers do not automatically transfer their usual beginner teaching tactics to the beginning four-year-old.

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[76] Suzuki, *The Suzuki Concept*, 20.
[77] *Ibid*.
[78] *Ibid*.
[79] *Ibid.*
[80] *Ibid*.
[81] Beryl Peters, "The Orff Approach and Canadian Music Education Curriculum for the 21st Century," 30.

It is advised that verbal corrections be kept to a minimum when possible, in order to allow the student to discover the correct way on his or her own.[82] The teacher can help by modeling and creating a situation in which the child is more likely to discover the correct hand position, fingerings, and the like independently. For example, instead of a vocabulary of "no's," the teacher should suggest to the student, "What do you think about holding the recorder this way?"[83] Allowing a student to make mistakes without correction helps him or her through an important stage of imitation and exploration. As a result, this freedom helps the young child to make discoveries that facilitate learning.[84]

In addition, the expectations for practice and the lesson should also be different for the very young student; specifically, the durations are shorter, and lessons may occur in a group setting. One of the guidelines for lesson lengths and strategies suggested by the Suzuki Method is as follows: after an introduction course, first graders take two weekly fifteen-minute lessons with one other student. Then, in the second-grade level, three students are in attendance, and the duration of the lesson is 20 minutes. Finally, the third- through fifth-grade levels have two 30-minute lessons per week with three to six students in attendance.[85] In addition to the Suzuki Method, music reading-based methods also recommend a group setting for the young four- to six-year-old age group, in which young students can have peer interaction in a semi-structured learning environment.[86] Regardless of whether the environment is a one-on-one lesson or a group setting, it is important that the pacing is appropriate for the developmental needs of the child.[87] Flute

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[82] *Ibid*.
[83] *Ibid.*, 22.
[84] Scott, "Early Childhood Brain Development and Elementary Music Curricula," 24-5.
[85] Suzuki, *The Suzuki Concept*, 132-3.
[86] Baker-Jordan, *Practical Piano Pedagogy*, 3.
[87] *Ibid.*, 3.

pedagogues are often most familiar with teaching older students, but the lesson lengths and pacing for younger groups is often new territory for the flute teacher. Therefore, the lesson recommendations from the violin and piano pedagogy disciplines may benefit the flute teacher desiring to include younger students.

Repertoire progression is another consideration when teaching young children, especially preschoolers. A recommended approach is to avoid the over-accumulation of new pieces, and instead, focus on fewer pieces, aiming toward mastery. The Suzuki Method recommends that a very young student begins by learning one piece of music. When the student is able to play the first piece with consistent quality, then the teacher should add a second piece. The teacher and student should work on the second piece while continuing to revisit the first piece during their lesson time. Once the second piece has been mastered, a third piece can be added. After the addition of the third piece, the focus on the first piece during lessons should be less. The student will then have a stronger accumulation of skills which will serve as an "an ever-increasing reservoir of greater ability, making possible further advances."[88]

Many instrumental studios include an element of competition amongst studio members in an effort to enhance student performance. While this may be appropriate for certain age groups, a teacher's competition policy is something that needs to be adapted to fit the emotional needs of a young child. Often, a certain amount of competition seems appropriate for the pre-teen, teen, and older student. However, for a preschool child, this could be detrimental to the learning process. Orff-Schulwerk and Montessori discourage

[88] Suzuki, *The Suzuki Concept*, 14; http://www.aosa.org/orff.html (accessed June 24, 2012); http://www.montessori.org/index.php?option=com_content&view=article&id=282:brief-answers-to-questions-parents-often-ask&catid=7:faqs&Itemid=25#WhyDoMostMontessoriSchoolsWantChildrentoEnteratAgeThree (accessed June 23, 2012).

the use of competition as a tool for learning, and the Suzuki Method encourages children to cooperate with each other rather than compete.[89] These ideas are addressed by the musical developmental psychology community by acknowledging that the student's emotional sensitivity needs a warm, loving, and relaxed environment.[90] Both the Suzuki Method and the standard practices of musical developmental psychology affirm the sensitivity of a very young child and his or her need for approval.[91] Because of the importance of a child's need to please, it is recommended that a teacher not encourage a competitive environment, as it may inhibit the child's ultimate enjoyment of music.[92] Therefore, while older beginners may be more psychologically suited to a mildly competitive atmosphere, the addition of younger beginners would necessitate a varied approach by the flute teacher.

In addition to an age-appropriate, non-competitive learning climate, young children also need practice expectations that match their developmental capabilities. Practice expectations for young beginners need to be compatible with their short attention spans. While the reality of short attention spans in three- to six-year-olds might deter a flute pedagogue from teaching younger students, it should be considered that this age range of students can learn substantially in just a few moments of concentration.[93] Many teaching methods for this age group recommend a practice strategy that incorporates play time into music practice.[94] The play element can be facilitated by presenting games that

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[89] Suzuki, *The Suzuki Concept*, 14.

[90] David J. Hargreaves, *The Developmental Psychology of Music* (Cambridge: Cambridge University Press, 1986), 171; Suzuki, *The Suzuki Concept*, 14, 40.

[91] *Ibid*.

[92] *Ibid.*

[93] Suzuki, *The Suzuki Concept*, 20.

[94] *Ibid.*, 188. An example of play in a music lesson setting can be found in Suzuki, *Nurtured by Love: A New Approach to Education*, 110-11.

are understandable for younger students.[95] Children are motivated by fun, and contrary to what might be perceived as inefficiency, play actually engages the young student.[96] In fact, observation of the young student's movements and reactions to music can be a source for creative teaching ideas.[97] Flute pedagogues can look to the violin and piano preschool teaching approaches for ideas on ways to incorporate play into the learning process.

Furthermore, since very young students can only be expected to focus for a few moments at a time, the instructor and parent should learn to be satisfied with only two minutes of concentration.[98] In addition, practice schedules should be worked around optimum times of concentration for each individual child, not for the parent.[99] Children in this age group are also more prone to distraction. Background noise, such as animals, televisions, other children, and the like, should be eliminated as much as possible.[100] Considering these factors, if the child is more distracted by his or her home environment, perhaps it is best if lessons take place at the teacher's studio.

For younger students, parental involvement should also vary from that of the typical ten-year-old beginning flutist. The Suzuki Method, for example, advocates the beginning of musical study from birth, where the mother has a very present role in the child's musical education and is expected to learn the instrument herself. The child then observes the mother's musical efforts and learns by listening to and mimicking her playing.[101] This concept is different from that to which flute teachers are typically

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[95] *Ibid*.
[96] Faber, *Teaching Piano Adventures*, 4.
[97] Scott, "Early Childhood Brain Development and Elementary Music Curricula," 25.
[98] Suzuki, *The Suzuki Concept*, 20.
[99] *Ibid*.
[100] *Ibid.*, 37.
[101] *Ibid.*, 21.

accustomed, and the flute teacher should consider the necessary amount of parental involvement when teaching a young child.

Heightened parental involvement is not isolated to aural-based methods, but it is also a necessary element with other early music education methods, such as music reading-based approaches. In general, many flute pedagogues are accustomed to the ten-year-old age group that is developmentally able to manage most tasks on their own, usually without reminders. Ten-year-olds can read, brush their teeth, get dressed, and comprehend practice assignments on their own. The younger age range of three- to six-year-olds would struggle to do most of these things on their own. Just as in everyday life, in music younger children need a greater level of parental involvement. This parental participation may not necessarily be a requirement in all teaching methods, but there is definitely a high level of communication needed between the parent and teacher, in order to ensure effective learning. The parent will need to be instructed as to the nature of the child's proposed practice regimen more in depth than would be needed for an older beginner. Also, although the young child might be able to comprehend some written words, the child's reading level most likely will not be advanced enough for the child to practice alone and properly follow the instructions.[102] Parental involvement will be a necessity for practice sessions, and the flute pedagogue will need to adequately prepare the parent for this type of participation.

[102] Baker-Jordan, *Practical Piano Pedagogy*, 3.

Chapter 5: Suzuki Flute

The various philosophies and teaching approaches of the Suzuki Method have also been applied to the flute. The Suzuki Method for flute aims to apply the age-appropriate Suzuki Method principles, which have been successful in the well-established areas of violin and piano pedagogy, to the modern flute. While this may sound feasible in theory, it is important to consider that the physiological limitations of the modern flute impede on the desired early starting age that is paramount to the Suzuki Method. Ultimately, the application of the Suzuki Method to the modern flute is contingent upon finding a physiologically compatible instrument. While there are smaller versions of the modern flute that may allow some students to start slightly earlier, such as age eight or nine, the critical years of learning will already have passed. Therefore, the modern flute and its slightly smaller versions are not fully suited to the physiological needs of a young child. If students and teachers wish to utilize the Suzuki Method due to its heightened compatibility with the needs of young children, then logically it would be counterproductive to use an instrument that is incompatible with a young child's needs. Students need both a philosophy and an instrument that are compatible with their needs. Anything besides this approach is counterproductive to learning.[103]

[103] The Suzuki Method's literature for flute and its application for alternative flutes will be discussed in Chapter 8.

Chapter 6: Utilization of Alternative Flutes in Teaching

Now that the physiological and learning needs of a young student have been discussed, flute pedagogues need a practical way to learn and ultimately include alternative flutes, such as the Irish whistle, the fife, and the recorder into their pedagogical practice. At first, learning additional instruments may seem daunting to the teacher. However, the mastery of these instruments is fairly easy for advanced flutists. Advanced flutists will find that the fife and the Irish whistle fingerings are almost identical to the modern flute. **Figure 5.1** illustrates a fingering chart for the fife and Irish whistle.

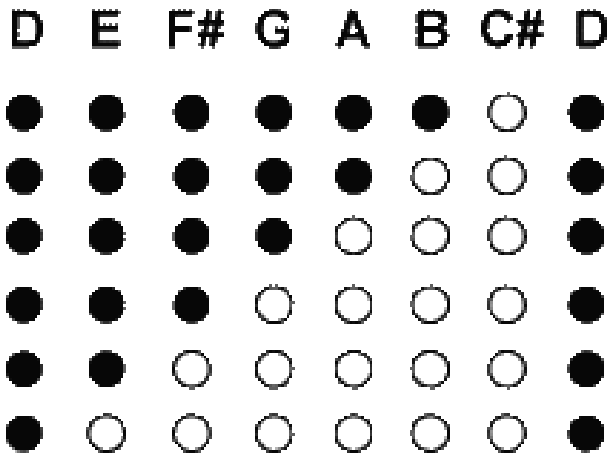

Figure 5.1
Fingering Chart for the Fife and Irish Whistle
Image is from http://www.sweetheartflute.com/Articles/charts.html.

This particular chart shows the fingerings for a D major scale. When these fingerings are compared to those of the modern flute, the only significant difference is the F-sharp fingering. In this case, the F-sharp on the fife and the Irish whistle is fingered almost identically to that of an F-natural on the modern flute. The only other significantly different fingering, although not pictured in **Figure 5.1**, is that of a C-natural, which is fingered with only the second and third fingers of the left hand. Overall, because the fingerings of the fife and the Irish whistle are so similar to those of the modern flute, these alternative instruments are compatible for study.

The fingerings for the recorder are similar to those of the modern flute, but less so than the fife and the Irish whistle. These fingerings are less similar to the recorder is due to the additional tone holes for the left-hand thumb and right-hand pinky finger. Because of these additional tone holes, the fingerings are more varied and stray slightly further from the fingerings of the modern flute. (See **Figure 5.2**)

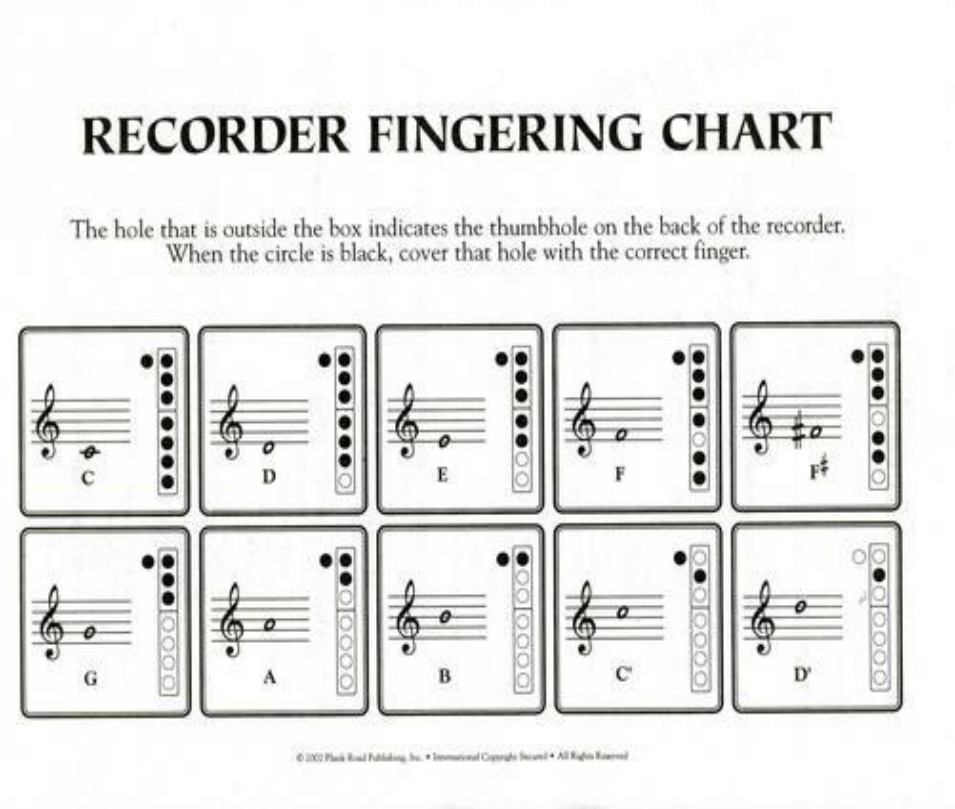

Figure 5.2
Recorder Fingering Chart
Image from Philipak, Barb. *Recorder Karate.* Brookfield, WI: Plank Road Publishing, 2002.

In **Figure 5.2**, the fingering differences include the F-natural, F-sharp, C-natural, and D-natural. While these fingerings are slightly different, they are still fairly similar to those of the modern flute. The recorder fingerings can be learned relatively easily by a flute teacher with advanced flute skills.

Given the simplicity of the fingerings for the fife, the Irish whistle, and the recorder, flute teachers will find minimal differences and will be able to easily master these proposed flute alternatives. The flute teacher could practice the fingerings for the fife and Irish whistle through D major and G major scales and then apply them to the

corresponding instrument's literature.[104] Once the instructor feels comfortable with the new fingerings, then the alternative flutes can be incorporated into their teaching practice.

[104] The Irish whistle and fife have limited key signature capabilities, so these two scales will cover all of the fingerings for the instruments. Since the recorder has more key signature capabilities, more scales would need to be added for the flute teacher to become familiar with the fingerings.

Chapter 7
Choosing an Alternative Flute and Teaching Strategies

With the understanding that any of these alternative flutes are realistic options, the flute instructor can choose the alternative flute or flutes which will work best for his or her students. The three alternative flutes discussed here exhibit many similar qualities, but they also have physical differences which contribute to individual strengths, weaknesses, and limitations. This chapter will discuss the specifications of each of the alternative flutes and lend insight concerning the advantages and disadvantages associated with each of the alternative flutes. This chapter will also provide recommendations for teaching strategies associated with each of the alternative flutes.

Key signature limitations may be a consideration when choosing an alternative flute. The recorder has more key signature options because it has more tone holes than the fife and the Irish whistle.[105] Because of this broader capability, the fife and the Irish whistle are relatively limited to key signatures with one to three sharps. In contrast, the recorder can venture beyond the limited key signature restrictions of the Irish whistle and the fife and explore flat-key signatures. Utilizing the recorder would allow the beginner to gain early exposure to the music theory associated with recognizing flat-key signatures. This may be desirable, considering the tendency of band methods to begin in flat-key signatures, such as the *Yamaha Band Student* band method book.[106] While there is value in exploring a wide variety of key signatures, a teacher may be concerned with

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[105] The recorder has a thumb hole and a right-hand pinky hole. These tone holes are not present on the fife and the Irish whistle.

[106] Sally Feldstein and John O'Reilly, *Yamaha Band Student*, Book 1: Flute, (Los Angeles: Alfred Publishing, 1998), 14.

whether the recorder fingerings associated with these key signatures are relatable to the modern flute. When the recorder ventures into a wide range of key signatures, half-holing and cross-fingering become necessary, skills that are fairly advanced to execute. While the ability to half-hole and cross-finger can result in improved finger coordination, the ability to half-hole and cross-finger is not commonly utilized for the modern flute until advanced studies, and the fingerings are not identical between the two instruments.[107] The flute teacher will need to decide if learning additional key signatures with non-transferable fingerings is worth the difficulty during early flute study.

Another consideration is repertoire adaptability. Flute teachers will most likely have an existing, preferred teaching repertoire for the modern flute. A flute teacher may choose an alternative flute that is compatible with some of his or her modern flute repertoire, in order to make good use of existing resources and ease the transition between the alternative flute and the modern flute. Some modern flute method books start beginning flutists in flat-key signatures, while other methods begin in sharp-key signatures. This factor will be important in determining which alternative flute will be a suitable companion for modern flute repertoire and which will not. For example, the *Rubank Elementary Method* for flute begins students in C major and the flat-key signatures, such as F major.[108] In this case, the recorder is the most capable alternative flute for transference of repertoire because it can play the notes B-flat and F-natural. The fife and the Irish whistle, however, would not be the best choices for this repertoire since they are not built to perform in flat-key signatures. Another popular beginning method

[107] The use of half-holing and cross-fingering with the flute is mostly used for upper register intonation purposes. The oboe and bassoon occasionally half-hole, but the half-hole fingerings of the recorder do not match those of the bassoon or oboe.

[108] A.C. Peterson, *Rubank Elementary Method for Flute* (Chicago, IL: Rubank Inc., 1990), 1.

book is Trevor Wye's *Beginner's Book for Flute*. In contrast to the previous method book, Trevor Wye's method book begins students in sharp-key signatures.[109] Because of this approach, the fife and the Irish whistle are fairly compatible with any of this repertoire that has one to three sharps. The Suzuki Method's literature for flute, *Suzuki Flute School Flute Part, Vol. 1*, starts in C major and flat-key signatures, with plenty of F-naturals.[110] Because of this, the Irish whistle and the fife will not be compatible with all of the pieces of this repertoire. The recorder would be capable of playing this repertoire, but already has its own Suzuki literature geared specifically for the recorder.[111]

While some repertoire may be able to be shared between alternative flutes and the modern flute, the flute instructor will need to gain access to repertoire specific to the alternative flute or flutes of his or her choosing. Chapter 8 will discuss repertoire in more detail, but a flute teacher aspiring to use alternative flutes may want to consider the amount of repertoire available for each of the corresponding flutes. By far, the largest body of repertoire belongs to the recorder because it is commonly used as a beginning instrument for young children and is therefore already widespread in music education. If a flute instructor is timid about having limited child-appropriate repertoire for an alternative flute, the recorder may be a good solution.

Another consideration flute teachers may have is which alternative flutes will allow for the best teaching progression and smooth transition to the modern flute. In this case, the Irish whistle and the fife make a good pairing for teaching progression and transference to the modern flute. The young student can begin on the Irish whistle and

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[109] Trevor Wye, *Beginner's Book for the Flute*, Part 1. (London: Novello Publishing Limited, 2003), 6.

[110] Toshio Takahashi, *The Suzuki Flute School Flute Part*, Vol. 1. (Los Angeles: Alfred Publishing Company, 1996), 12.

[111] The Suzuki Method for Recorder has numerous volumes of books specifically for the recorder.

will be able to produce a tone easily, while working to master its fingerings. Since the Irish whistle and fife have the same fingerings, the flutist can transfer all of the fingerings learned on the Irish whistle when he or she is ready to transition to the more difficult transverse embouchure of the fife. In fact, the Irish whistle is basically a fife with a different headjoint, and it is possible to purchase a fife/Irish whistle body with interchangeable heads. Once all of the fingerings have been learned, the more difficult transversely blown headjoint of the fife can be introduced gradually. This process can help alleviate the common frustrations associated with learning to blow across the embouchure hole of a transverse flute. The student will have the satisfaction of being able to produce a tone from the beginning and master fingerings on the Irish whistle before being bombarded with the added task of a transverse flute embouchure. The fife embouchure, which is similar to that of the modern flute, allows the student to learn the basics of a transverse flute embouchure but without the added lung capacity and hand span requirements, and the weight and size challenges of the modern flute. When the flute student has physically developed to the point where he or she can meet the modern flute's physical requirements, then the modern flute can be gradually introduced. The student will be comfortable in the low and middle register of the modern flute with fairly easy adaptations, since the fife's fingerings are fairly similar in this range. The student's attention can then turn to modifying the hand position for the modern flute, since it requires the fingers to be spread out more widely than on the fife. The student will also need to become accustomed to the additional air support requirements of the modern flute versus the fife. However, since the student has already learned the importance of correct breathing and phrasing, many of the common breathing challenges for new beginners will

already have been addressed. The gradual incorporation of the modern flute during fife study will lead to a smooth teaching progression and a more comfortable and successful transition.

As previously discussed, the weight of the modern flute is much heavier than that of the fife, which makes a gradual introduction of the modern flute very important. When transitioning from a lighter instrument to a heavier instrument, even a small increment of weight difference can cause injury. For example, when more advanced flutists decide to transition from a C-footjoint to a slightly longer B-footjoint, although they differ only slightly in their weights, it is still medically advisable to make the change gradually in order to prevent injury.[112] In order to accomplish this gradual transition, the performer can introduce the use of the heavier B-footjoint for a few minutes each day and gradually increase the amount of time spent on this footjoint over a period of several weeks. For young students, considering the magnified weight difference between the lightweight fife and the heavy modern flute, the transition between these instruments should be done especially gradually.

As previously mentioned in this chapter, repertoire is one of the many tools at the teacher's disposal to help bridge the gap from a child-friendly flute to a modern flute. The student can revisit the previously learned alternative flute repertoire on the modern flute, and likewise, the modern flute repertoire can be introduced earlier in alternative flute study. The previously learned pieces on the fife can help to provide the student with a familiar frame of reference, as well as help to avoid overwhelming the student with too many new components. Since most of the fingerings will be the same between the instruments, the transitioning flutist can focus on the new facets of the modern flute while

[112] Watson, *The Biology of Music Performance,* 87.

still playing previously mastered repertoire. After exploring the repertoire that correlates to both fife and modern flute, students can then begin to expand their knowledge by learning additional key signatures on a modern flute. The modern flute has a complex mechanism to help flutists venture outside the key signature limitations of the mechanically simple fife. Considering that a ten-year-old typically would have none of this knowledge upon starting the flute, the beginner who has commenced study on an alternative flute has a significant advantage.

Chapter 8: Repertoire and Method Books for Alternative Flutes

Regardless of which alternative flute or flutes the instructor chooses to utilize, a fairly comprehensive assortment of resources and method books exists. As discussed in Chapter 6, some alternative flutes have more existing repertoire than the others, but each instrument has representative repertoire with which the flute instructor can become familiar.

While the Irish whistle is most commonly associated with the traditional Irish music genre, the instrument can also be played in other types of easy music for children.[113] There are several different methods, but some are not necessarily geared towards young children. Mel Bay's *Tin Whistle Method for Children* by Dona Gilliam and Mizzy McCaskill is an exception. It is not Irish-based repertoire, which may be an important factor if the instructor is not familiar with the style and performance practice of Irish music. If the instructor is comfortable teaching Irish music, it will most likely be done aurally, as is the basis for traditional Irish music. Even so, a few written music references exist. A reliable source of this music is in the collection *Ceol rince na hE'ireann* by Breandan Breathnach. This resource consists of several volumes of authentic traditional Irish tunes, transcribed and notated in written form from live traditional performances. Some of the characteristic ornaments are also notated, which is a helpful addition, since they are usually not included in written Irish music. Another valuable resource is Grey Larsen's *Essential Guide to Irish Flute and Tin Whistle*, published by Mel Bay.

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[113] Dona Gilliam and Mizzy McCaskill, *Fun with the Fife*, (Pacific, MO: Mel Bay, 1994), 4.

As previously discussed, the fife has the same range as the Irish whistle; therefore, much of the repertoire can be interchanged. Just as with the Irish whistle, it is appropriate for fife study to go beyond the typical martial fife genre, which mostly includes marches. The fife, after all, has been a folk instrument for generations, and repertoire appropriate for a young child's skill level can easily be adapted for fife study.[114] Mel Bay's *Fun with the Fife*, by Dona Gilliam and Mizzy McCaskill, uses this approach and presents its material in a manner that a young child can comprehend. The book has numerous fingering diagrams and photographs to help explain various concepts to a young beginner.

The recorder offers a wide range of repertoire, and a large amount of it is geared towards young children, since the instrument is commonly taught to young beginners. See **Appendix A** for a listing of recorder method books. In addition, a large amount of Renaissance-era repertoire exists for the recorder, and this literature is compatible with a beginner's skill level. The flute teacher can investigate which recorder resources will work best for his or her students.

In previous chapters, the Suzuki Method has been discussed, not only for the violin and piano, but also the recorder and flute. Although the flute and recorder Suzuki repertoire books may not be completely compatible to an alternative flute's key-signature limitations, the flute instructor could select pieces within the books that are compatible with the corresponding alternative flute(s) of choice.[115] The remaining pieces in the book can be studied when the student transitions to the modern flute.

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[114] Gilliam, *Fun with the Fife*, 4.

[115] Shin'ichi Suzuki, *The Twinkler* (Boulder, CO: The Suzuki Association of the Americas, Inc., 1989); http://suzukiassociation.org/teachers/twinkler/ (accessed May 3, 2012); Heather Moger, "Surprised by Suzuki," *The Recorder Magazine* 30, no. 1 (March 1, 2010): 21-24. The Suzuki

Association of the Americas' flute website is: http://suzukiassociation.org/flute/, which has a listing of Suzuki flute resources.

Chapter 9: Accessibility of Child-Friendly Flutes and Additional Advantages

Not only does the flute instructor need repertoire resources that are appropriate for a young child, but he or she also needs instruments appropriate for a young child. Children are not accustomed to handling delicate, expensive equipment. For a parent, it would be much less troublesome to have a child drop an inexpensive Irish whistle, which probably would not incur damage in the process, than a more expensive instrument. Most parents would probably find it distressing for their five-year-old child to drop and potentially damage a $600 beginner modern flute. Of course, regardless of price, the child needs to be educated about proper instrument care. But realistically, proper instrument stewardship will be an ongoing learning process for the child. The process of learning to handle an instrument will be easier if the child is not bewildered by an adult's hysterical reaction to a three-year-old dropping a musical instrument.[116] This emotional reaction can be detrimental to a young child's future enjoyment of music study. This scenario can be avoided by providing age-appropriate instruments and by having realistic expectations on the part of both teachers and parents.

Compared to modern flutes, these alternative flutes are considerably less expensive, require virtually no maintenance, and are very durable. A tin whistle, for example, can be purchased for as little as $10 and is widely available. Tin whistles require no maintenance, and if a young child accidentally destroys it, then the financial impact will be relatively low, comparable to the cost of about three cups of coffee. Higher-end fifes and Irish whistles are available and may be more desirable because of their more sophisticated tuning, better tone quality, and higher quality construction

[116] Suzuki, *The Suzuki Concept*, 21.

materials. While these instruments cost more than a typical, beginner plastic recorder, these instruments are still hundreds of dollars less expensive than modern flutes, and are maintenance-free and durable.

In contrast, a beginner modern flute is easily damaged, especially in the hands of a young child. The cost of annual maintenance alone can easily be more than $100. Also, the mechanism and pads are easily damaged, potentially incurring additional repair costs. Purchasing an inexpensive, durable, and maintenance-free instrument for a five-year-old appears to be a more attractive and accessible option for parents with aspiring young flutists.

Curved beginner headjoints fall short in more ways than just failing to address the physiological limitations of young flutists. The curved headjoint can be costly, and once it is quickly outgrown, it will be of no further use to the student. In contrast to purchasing expensive beginning headjoints that will have limited use, the suggested alternative flutes will never be outgrown and will require a considerably smaller investment. If the student desires, he or she may play the Irish whistle, the fife, or the recorder for many years to come in a variety of different contexts.

The previously mentioned Jupiter Prodigy flute succumbs to the same accessibility issues of the curved headjoint. The high investment costs are similar to that of buying a standard beginner C flute, but unlike the standard flute, the Prodigy flute will be quickly outgrown. After this small version of the flute is outgrown, like the curved headjoint, it will be of no further use to the student. In addition, these flutes are subject to the same annual maintenance costs as a standard flute and susceptible to damage in the hands of a young child. In order for a small child to study the Suzuki flute method, the

child would need to have access to a flute that is physiologically compatible, such as the Jupiter Prodigy. Ideally, the student could rent the Prodigy flute in order to avoid purchasing a flute with limited use, but finding a music store that rents this specialized type of flute can be difficult, even in large metropolitan areas. In most cases, the only option would be to purchase the specialized flute. Because of the high purchase costs, durability issues, and maintenance costs, this smaller version of the flute may not be a feasible or accessible option for most young flutists. Again, purchasing an inexpensive, durable, and maintenance-free instrument for a five-year-old appears to be a more appropriate and accessible option.

In addition to resolving accessibility issues, these alternative flutes might also benefit young players wishing to begin study of other woodwind instrument. The problems associated with instrument weight and size are not exclusive to the modern flute. Other instruments such as the clarinet, saxophone, oboe, and bassoon share in the physical constraints presented by their respective instruments' sizes and weights. As a result, these instrument disciplines also fail to benefit from the critical learning periods present during early childhood. While the note fingerings of alternative flutes may be less closely related to the clarinet, saxophone, or the double reed instruments, students will still gain an advantage in various musical concepts that transfer to any musical instrument. Furthermore, fingering patterns amongst woodwind instruments are fairly universal. For example, the clarinet has a fingering pattern that requires the performer to consecutively add fingers one by one.[117] The same basic fingering patterns are present in

[117] The pattern of fingering on the clarinet by adding the first finger of the left hand, followed by the addition of the second and third fingers, results in the notes F-E-D. The same fingering pattern on the Irish whistle would result in the notes B-A-G. While the note names are different, the student still benefits by learning the fingering patterns which are transferable to other woodwind instruments. Online resources

all of the alternative flutes, and young beginners can transfer the fingering patterns to any woodwind instrument. Proper breathing techniques, phrasing, basic articulation styles, musical expression, and music reading are also skills that can be learned on an alternative flute and transferred to any woodwind instrument.

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of fingering charts for numerous woodwind instruments, including all of the alternative flutes discussed in this paper, can be found at http://www.wfg.woodwind.org/.

Conclusion

This paper proposes the utilization of alternative flutes to facilitate flute study during the most optimal times for a young child's learning potential. Because of the physical limitations imposed by the size and weight of the modern orchestral flute, flute study is commonly delayed until a child reaches approximately ten years of age. This delay of musical study is problematic because it impedes the facilitation of flute study during the most optimal times for learning potential in early childhood. To enable an effective and earlier flute study process, a different type of flute needs to be utilized. The Irish whistle, the fife, and the recorder are inexpensive and physically compatible choices for the young child desiring to begin flute study. With the inclusion of these alternative flutes, the young beginner is able to commence flute study earlier and therefore take advantage of the critical early years of learning. Aspiring flutists will not have to delay flute study until they are able to meet the physical demands of a modern flute. Instead, the flutist will be able to begin study on an alternative flute of choice at a younger age. Flute teachers will easily be able to learn these alternative flutes and teach them to their young beginners, since the fingerings are similar to that of the modern flute. Because of this similarity, flute students will find the skills learned on the fife, the Irish whistle, and the recorder directly transferable to the modern flute. In addition, flute teachers can enjoy a larger student base due to the expanded age demographic, as well as the benefit of learning efficiency associated with early music study. Overall, the use of alternatives to the modern flute allows for numerous potential physiological, educational, and accessibility benefits for flutists and flute pedagogues alike. With this information, the

future direction of flute pedagogy can be enhanced by learning from the vast research and tradition in the areas of violin and piano pedagogy.

Appendices

Appendix A:
Literature and Method Books

Recorder:

d'Auberge, Alfred and Morton, Manus. *It's Recorder Time*. Los Angeles: Alfred Publishing Company, 1968.

Feldstein, Sally. *Yamaha Recorder Student.* Los Angeles: Alfred Publishing Company, 1988.

Philipak, Barb. *Recorder Karate.* Brookfield, WI: Plank Road Publishing, 2002.

Fife:

Gilliam, Dona and McCaskill, Mizzy. *Fun with the Fife.* Pacific, MO: Mel Bay, 1992.

Mattson, Donald E. and Walz, Louis D. *Old Fort Snelling Instruction Book for Fife.* St. Paul, MN: Minnesota Historical Society Press, 1974.

The National Association of Civil War Musicians. *The American Veteran Fifer,* Cincinnati: Fillmore Music House, 1927.

Irish Whistle:

Breathnach, Breandan. *Ceol rince na hE'ireann,* Dublin: An Gum, 1999.

Gilliam, Dona and McCaskill, Mizzy. *Children's Tin Whistle Method*. Pacific, MO: Mel Bay, 1994.

Larsen, Grey. *Essential Guide to Irish Flute and Tin Whistle.* Pacific, MO: Mel Bay, 2003.

Appendix B:
Selected Instrument Manufacturers

Recorder:
Yamaha
http://usa.yamaha.com/products/musical-instruments/winds/recorders/

Angel
http://www.peripolebergerault.com/

Suzuki Recorder:
http://www.suzukimusic.com/education/recorder/

Fife:
Cooperman Fife:
http://www.cooperman.com/?page_id=25

Sweetheart Flute Company[118]
http://www.sweetheartflute.com/

Irish Whistle:
Feadóg:
http://www.feadog.ie/

The Whistle Shop:
http://www.thewhistleshop.com/

Abell Flutes:
http://abellflute.com/whistle.html

Sweetheart Flute Company:
http://www.sweetheartflute.com/

[118] This manufacturer offers interchangeable fife and Irish whistle headjoints with one instrument body.

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Suzuki, Shin'ichi, Elizabeth Mills, and Therese Cecile Murphy. *The Suzuki Concept: An Introduction to a Successful Method for Early Music Education*. Berkeley: Diablo Press, 1973.

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