Analysis of Compositional Techniques Used in Selected Children's Choral Literature

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Selecting repertoire is critical to the musical achievement of students who participate in choral ensembles of developing voices. If the director selects literature that is not voiced appropriately for the ensemble, or that fails to match the student's skill level, then the ensemble will have difficulty in achieving success. It seems essential for the director to choose music that includes compositional elements based on the developmental needs of the singers.

Even though music selection is fundamental to student skill development, few studies have addressed specific compositional techniques related to vocal development. Therefore, a review of the literature in three areas - choral expert advice, research related to vocal ability, and perception of musical elements - will shed light on this concern. Selecting appropriate literature is often challenging for the director of a children's choir. Bartle (1988) stated that "choosing suitable repertoire is an arduous task" (p. 86) and recommended:

a. listening to excellent recordings of children's choirs,

b. attaining publisher's lists,

c. perusing publisher's music during summers,

d. attending convention exhibits,

e. commissioning new pieces,

f. attending other children's choir concerts,

g. attaining music festival syllabi, and

h. joining choral organizations.

Bartle (1993) also suggested consideration of:

a. musical interest - harmony, form, counterpoint, melody, texture,

b. connection of text to music,

c. text value, and

d. composer's knowledge and understanding of children's vocal ability.

Children's choir experts recommended selecting literature of an appropriate range and tessitura for the child voice (Phillips, 1992; Rao, 1993). Research provided evidence of singing ranges suitable for children's choral performance and of range widens with maturation (Goetze, Cooper, & Brown, 1989). Wassum (1979), in a five-year study of voice ranges of children in grades one through six, found that the majority of students in grades four, five, and six had range ability above g (below middle c) and below g^2 (two octaves above) and that range increased with maturation. Phillips (1992) defined the tessitura of fourth, fifth, and sixth grade children as d^1 to d^2. However, Goetze, Cooper, and Brown (1989) recommended consideration of range in terms of vocal register. They concluded that registration may extend children's vocal range, which may allow selection of repertoire with wider and higher ranges.

Several investigations provided insight into children's vocal ability. Madsen, Wolfe, and Madsen (1969) found no significant difference with reference to scalar direction. Concerning intervallic differences, the review of literature by Goetze, Cooper,

and Brown (1989) concluded that teachers desiring less complex singing tasks should choose melodic material utilizing intervals of a fourth or smaller.

Investigations of melodic elements revealed specific practices for tonal organization in music perceived as "good." Radocy and Boyle (1988) determined that " Lundin's (1967) position that a melody is a function of a listener's previous musical experience and contains certain sequential characteristics seems the most viable" (pg. 139). These sequential characteristics included:

a. propindiquity - the preponderance of smaller successive intervals over larger intervals,

b. repetition - certain tones repeated with considerable frequency, and

c. finality - the tendency to conclude with certain repetitive tones or tones emphasized in the melody.

Radocy and Boyle additionally cited Temko's 1972 study investigating perception of twentieth-century avant-garde music in which Temko found that, even in atonal music, listeners responded in terms of a central or focal pitch.

Radocy and Boyle (1988) referred also to attributions of musical rhythm and cited terminology used by Creston (1964) and Gordon (1971). Creston labeled rhythmic elements as:

a. meter,

b. pace,

c. accent, and

d. pattern - subdivision of beat into units.

Gordon referred to subdivisions as duple or triple microbeats. Creston further delineated microbeats as:

a. regular - suggested by meter signature,

b. irregular - not suggested by meter signature,

c. simple - repeated patterns, and

d. compound - changing patterns.

Purpose

Although these recommendations and investigations provide some knowledge of compositional elements related to repertoire selection for developing voices, specific techniques have not been examined in the literature performed by successful children's choirs. A descriptive study of this music may provide a useful resource for directors in selecting appropriate literature. The purpose of this study is to determine compositional elements common to this repertoire

Method

Four compositions of various styles presented by children's choirs at the 1993 American Choral Directors National Convention (see Table 1) were selected for compositional analysis by the researcher, an experienced conductor and composer of children's choral music. Observed variables included elements of children's vocal ability (range, tessitura, intervals), melodic and rhythmic composition, and compositional techniques compiled from choral arranging textbooks by Ostrander and Wilson (1988) and Ades (1983). Data related to these variables were obtained by measuring:

a. number of seconds at pitch level, maximum phrase length, and unison/part singing,

b. total measures for part treatment and piano accompaniment, and

c. frequency of melodic intervals (ascending and descending), and rhythmic values in

each part of each song

Each element that was observed in the selected repertoire was calculated at least twice for

agreement. Subsequently, percentages were determined for each variable, followed by

calculation of percentages of the total voice parts of each song. Percentage means of the

total four songs were then averaged to provide combined percentage means.

Table 1

Selected Children's Choral Literature[1]

Title	Composer/Arranger	Publisher
1 A Spider Danced a Cosy Jig	Srul Irving Gluck	Gordon V. Thompson
2 Didn't My Lord Deliver Daniel	Roger Emerson	Emersongs/Jenson
3 Mrs. Snipkin and Mrs. Wobblechin	David L. Brunner	Boosey & Hawkes
4 Who Can Sail	Carl-Bertil Agnestig	Walton Music

[1]*From the American Choral Directors Association National Convention, San Antonio, Texas, 1993.*

Results

Range and Tessitura

Pitch duration percentage means concurred with previous research findings for

upper elementary children's vocal range (Wassum, 1979) and tessitura (Phillips, 1992).

The selected repertoire required pitch vocalization from g to g^2 and minimal time away

from tessitura range of c^1 to d^2 (see Table 2)

Table 2

Mean Percentage of Seconds Per Pitch for Combined Parts
Song M%

Range	Song 1	Song 2	Song 3	Song 4	Combined M%
c#²- g²	15.0	0.0	16.0	14.5	11.1
c¹ - c²	75.1	100.1	94.1	90.7	95.4
g - b	8.8	0.0	0.0	5.8	3.6

Note. Pitch ranges from g (below middle c) to g² (two octaves above).

Melodic Elements

Melodic composition included a majority of pitches directly related to the tonal center (see Table 3) and frequent use of minor third intervals (see Table 4). All of the selected songs were composed of triads in the tonic and dominant more than 60% of the total singing time. Intervals observed in the combined percentages greater than a second ranged from .2% use of the augmented fourth interval to 44.3% use of the minor third interval. The augmented fourth was used only in Song 1, and the major seventh was used only in the Song 3 melody. Song 1 and Song 3 extended melodic intervals to include the major sixth and the octave. Pitch movement by step dominated melodic composition. In the melodic composition of these pieces, intervals greater than a second and less than or equal to a fifth included minor third (44.3%), perfect fourth (17.6%), perfect fifth (13.2%) and major third (9.6%).

Table 3

Total Mean Percentages of Seconds Per Pitch on
Tonic or Dominant Melodic Triads
Total M%

Triad	Song 1	Song 2	Song 3	Song 4
Tonal Center (tonic)[1]	34.5	76.2	62.5	43.0
Dominant[2]	26.4	0.0	17.7	17.6

[1]Tonic triad includes root, major and minor third, and perfect fifth.
[2]Dominant triad includes only major and minor third and perfect fifth above the
dominant tone.

Table 4

Mean Percentage of Melodic Interval Frequency Total
Song M%

Melodic Interval	Song 1	Song 2	Song 3	Song 4	Combined M%
Octave	2.5	0.0	20.0	0.0	5.6
Major Seventh	0.0	0.0	4.3	0.0	1.1
Minor Seventh	0.0	0.0	0.0	0.0	0.0
Major Sixth	1.0	0.0	4.4	0.0	1.4
Minor Sixth	0.0	0.0	0.0	0.0	0.0
Perfect Fifth	12.5	2.2	31.3	6.7	13.2
Augmented Fourth	1.0	0.0	0.0	0.0	0.2
Perfect Fourth	15.5	6.2	31.0	17.8	17.6
Major Third	16.0	0.0	4.4	17.8	9.6
Minor Third	54.7	91.6	6.6	24.4	44.3

Rhythmic Elements

Rhythmic placement of melodic tones included predominant use of the beat (quarter note) and duple subdivision (eighth note) (see Table 5). Use of quarter and eighth values in Song 1 comprised 83.9% of the total beats, in Song 2 81.7%, in Song 3 96%, and in Song 4 77.8%. Rarely were values greater than the dotted quarter employed, although Song 4 used dotted half-values 20.6% of the total singing time for descant declamation. Only one song used sixteenth values

Table 5

Rhythmic Elements: Mean Percentage of Seconds Per Note Value
for Combined Parts and Maximum Phrase Length
Song M%

Melodic Interval	Song 1	Song 2	Song 3	Song 4	Combined M%
Dotted whole	0.0	0.0	0.4	0.0	0.1
Whole	0.0	1.0	0.0	0.0	0.2
Dotted half	0.0	2.4	0.4	20.6	5.8
Half	0.8	4.5	3.1	16.5	6.2
Dotted quarter	2.4	10.4	0.0	3.4	4.0
Quarter	3.6	23.0	16.6	45.3	22.1
Dotted eighth	0.8	0.0	0.0	0.0	0.2
Eighth	80.2	58.7	79.4	4.6	55.7
Dotted sixteenth	0.0	0.0	0.0	0.0	0.0
Sixteenth	12.2	0.0	0.0	0.0	3.0
Phrase length	12.4"	6.9"	8.0"	10.5"	9.4"

Text declamation was syllabic for all pieces, and maximum phrase lengths ranged from 6.9 seconds in Song 2 to 12.4 seconds in Song 1. Only Song 1 varied syllabic declamation through limited use (11 occurrences) of two-note melismas during note-to-note part treatment.

Unison and Part Singing

Although the four pieces analyzed in this study were scored for two-, three-, four-, and five-part chorus, a large portion of total singing time was spent in unison singing (see Table 6). Time spent in two-part singing ranged from 17% in Song 3 to 43% in Song 2. Song 1 divided the voices into five-parts only 2.8% of the total singing time.

Table 6

Mean Percentage of Seconds in Unison/Part Singing and
Mean Percentage of Measures in Parts Treatment
Song M%

	Song 1	Song 2	Song 3	Song 4	Combined M%
Unison	32.4	57.0	83.0	15.3	46.9
2-part	33.1	43.0	17.0	38.5	32.9
3-part	0.0	0.0	0.0	46.2	11.6
4-part	31.7	0.0	0.0	0.0	7.9
5-part	2.8	0.0	0.0	0.0	0.7

Treatment of voices during part singing was primarily note-against-note placement (see Table 7). For the 17% of total singing time in two-part singing for Song 2, canon was used for 12.9% of the total measures. Song 4 consisted of a descant in 66.7% of all measures. Harmonic treatment of the voices during part singing included close harmony (major and minor second intervals) infrequently, occurring in Song 1 (19% of measures) and Song 4 (6% of measures).

Table 7

Mean Percentage of Part Treatments in Total Measures

Melodic Interval	Song 1	Song 2	Song 3	Song 4	Combined M%
Note against note	84.0	31.9	3.2	18.8	40.0
Animated Homophony	5.0	0.0	0.0	37.5	10.6
Figuration	0.0	2.9	0.0	0.0	0.7
Imitation	0.0	8.7	0.0	12.5	11.8
Canon	0.0	0.0	12.9	0.0	3.2
Descant	0.0	0.0	0.0	66.7	16.7
CloseVoicing[1]	19.0	0.0	0.0	6.0.	6.2

[1]*Harmonic voicing of major and minor second intervals.*

Piano Use

Piano was the only instrument combined with children's voices in the selected compositions (see Table 8). Voice parts scored *a cappella* occurred only in Song 3 for 13.3% of the total measures.

Table 8

Percentage of Total Measures with Piano
Song M%

Melodic Interval	Song 1	Song 2	Song 3	Song 4	Combined M%
Piano With Voice	66.1	89.6	55.6	100.0	77.8
Piano Only	33.9	10.4	31.1	0.0	18.9
A cappella	0.0	0.0	13.3	0.0	3.3

Discussion

The purpose of this study was to provide an initial investigation of compositional techniques used in successful children's choral literature. Although only four selections of quality repertoire were analyzed, some prevailing compositional techniques emerged from the percentages obtained.

Pitch Organization

Pitches tend to be sequenced by step with intervals of a fifth or less occurring more frequently than sixths, sevenths, and octaves, and are placed most often on the beat or duple subdivision of the beat. Melodies are centered predominantly around a tonal center and use deviation from the tonic/dominant triad tones and from the rhythmic beat for intermittent melodic/rhythmic variation. Phrase lengths are reasonably accessible, and range/tessitura for all parts are within suggested child voice ability.

Parts Organization

Voices are arranged in unison or two parts for a majority of the singing time in these compositions for children's voices. When parts are added, there tends to be a greater occurrence toward the latter part of the composition or a part may appear as a descant to the melody. Most often, vocal parts are structured as note-against-note which results in simultaneous movement of the voices. Use of occasional animated homophony, figuration, imitation, canon, and descant provides variation from repetition. Selective use of close harmony is also an attainable method to provide additional texture to a composition for children.

Scoring

Each of the selected compositions was scored for piano and children's voices. Most often the piano has a brief introduction to establish the tonal center and melodic or harmonic elements of the composition, and also functions to bridge verses of the text. The limited use of *a cappella* may reflect preference for the extended melodic, harmonic, and textural interest provided by the combination of piano and children's voices.

Conclusion

This study, while limited, provides insight regarding common compositional techniques in the repertoire of children's choir repertoire. If the observed traits as detailed in this study are present in a substantial numvber of compositions performed by similar ensembles, then some specific practices for choral selection and choral composition can be identified. Additionally, as students become more proficient in performance, less frequently used and more complex techniques could be included in the repertoire selected to further skill development.

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