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Effect of Music Selection on Contest Ratings: Year Three of a Continuing Study

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The present study is a third-year report of a continuing study designed to examine characteristics of performing choral groups using contest ratings as the dependent measure. The demographic characteristics that distinguish a highly rated from a less highly rated choir have been closely examined across the three years of the study. The areas of interest have included choir size, school size, the age of the singer, choir configuration (mixed, treble, tenor-bass), and relative number of male and female singers as related to contest ratings received. Of particular interest has been the influence of music repertoire on ratings. Repertoire issues have included the effect of specific voicings (Unison, SA, SSA, SAB, Three-Part Mixed or SATB voicings) as well as the effect of selecting contest repertoire from published lists such as the Texas University Interscholastic League (UIL) Prescribed Music List (1999).

Several characteristics have remained stable across the first two years of the study. In both previous studies (Killian 1998; Killian 1999), superior ratings were awarded more frequently to larger choirs and to treble (rather than mixed or tenor-bass) choirs. The relative number of male singers has remained fairly constant (choirs in 1998 had 21.5% males, and those in 1999 had 24.9% males). Choice of UIL vs. non-UIL repertoire did not appear to significantly affect contest ratings.

There have been several aspects of the study that were different between the first two years of the study. In 1998 larger schools earned more superiors; in 1999 they did not. In 1998 larger schools did not necessarily have larger choirs; in 1999 the reverse was true.

The effect of repertoire selection on contest ratings has remained inconsistent, particularly involving mixed groups of an age that might be expected to involve changing male voices. Cooksey (1977) developed a reliable way of categorizing the stages of male voice change. His data indicated at the time that boys' voices, despite wide individual variability, were changing typically in grades seven and eight. More recent research (Killian, in press; Moore, 1995) indicates that boys' voices may be changing earlier. In fact, according to Killian (in press), most boys' voices have entered the voice change in sixth grade.
In the first study in this series of studies examining performing choral groups (Killian, 1998), there were clear results consistent with an earlier voice change. Significantly more superior ratings were achieved among sixth grade mixed choirs (the age at which boys' voices might be expected to be changing) that performed Three-Part Mixed music (music explicitly arranged for changing voice ranges). In addition, seventh and eighth grade choirs, which previously might have been expected to succeed with changing voice Three-Part Mixed music, did not succeed with Three-Part Mixed arrangements. Instead, significantly more superior ratings were achieved among seventh and eighth grade mixed choirs performing SATB music (music arranged for changed voices). See Killian, 1998, for specifics.

In 1999, these results were not replicated. No sixth grade choirs sang Three-Part Mixed arrangements; thus comparison was impossible. The sixth grade mixed choirs did, however, yield a result that might support the speculation regarding earlier voice change. Killian (1999) determined that the sixth grade groups with the fewest male singers received the highest ratings; conversely the sixth grade groups with the most male singers earned the fewest superior ratings. This finding was true only for sixth grade groups, the groups which one might speculate would have the most difficulty negotiating pitches due to the presence of boys with changing voices.

One could conclude that further study is necessary and use the inconsistencies of the two studies as an example of why replication of research is so vital to the profession. Thus the present study was designed to replicate the findings of the previous studies in hope of resolving some of the inconsistent findings exhibited in the first two studies.

**Method**

Throughout the present research the author followed identical procedures established in the previous studies (Killian, 1998; 1999). Subjects were intact choirs \( N = 167 \) participating in the 1999 Sandy Lake Choir Funfest in Carrollton, Texas. Directors selecting repertoire from the UIL Prescribed Music List (1998) could perform one selection or they could perform two selections from any other source. Consistent with previous procedures, each school was counted as performing 2 selections; any UIL selections were simply counted twice. Thus analysis was made on 167 choirs performing 334 songs.

The groups included 6,849 singers, 1,743 of whom were boys (25.45%). Choirs contained singers from grades 1-12, including 176 elementary choirs (grades 1-6), 68 sixth grade-only choirs, 44 middle school choirs (grades 6-8) and 46 high school choirs (grades 9-12).

Three experienced choral educators individually rated each choir, and the three scores were then averaged into a single rating. Ratings consisted of One (highest) to Three (lowest); pluses and minuses were possible at each rating. Judges were provided with copies of all music performed. Following previous procedures, contest ratings were collapsed into two categories. “Superior” choirs consisted of those receiving three I or I-plus ratings with no more than a single I-minus rating. “Not Superior” ratings were assigned to all other choirs. Using this stringent standard, overall results averaged 37.13% Superior ratings.

As in the previous studies, independent measures consisted of the following categories noted during the performance: (a) song title(s); (b) voicings (SA, SSA, Three-Part Mixed, SAB, or SATB) as evident from the judges' copies of the music; (c) UIL or non-UIL selection (as listed on the entry form); (d) grade level(s) of singers (as listed on each entry); (e) entry type (mixed, treble, tenor-bass); (f) size of choir (based on actual count at time of performance); and (g) number of boys in each choir (based on actual count at time of performance). The only difference in data collection between this study and the previous ones involved school size.
School size was based on UIL class, a classification only available for secondary schools. Since 73% of the choirs at this particular contest were elementary, size of school information was not collected.

Subsequently, data were expanded to include the ratio of boys to the total number of singers. The ratio of boys was collapsed into categories for ease of analysis (0-19%, 20-39%, etc.), and likewise, choir sizes were collapsed into 15 person segments, ranging from 0-15 to 106-120.

As was true for the previous studies, the single dependent measure consisted of judges' ratings collapsed into Superior and Not-Superior as explained above.

Results

All data were analyzed using the chi-squared statistic due to the nominal nature of the dependent measure (frequency of superior ratings). All possible combinations were computed; statistically significant findings are reported below.

**Choir Size**

Larger choirs had significantly more superior ratings ($X^2 = 24.06 \ [6, 334] p < 0.0005$). Specifically, 45.5% of the choirs with memberships less than 30 earned superiors while only 25.0% of those with fewer than 30 members earned superiors. Size varied by age. Sixty-nine percent of elementary choirs comprised more than 30 members; 62% of the middle school choirs had more than 30; and only 20% of high school groups had a membership larger than 30. This tendency remained consistent in mixed, treble, and tenor-bass choirs.

**Choir Type**

Consistent with both previous studies, treble choirs received significantly more superiors than did mixed or tenor-bass choirs ($X^2 = 8.437 \ [2, 334] p < 0.0147$). Specifically, 60% of treble choirs, 35.1% of mixed choirs and no tenor-bass choirs received superiors. Note that there were only two tenor-bass choirs entered in the contest so these data should be regarded with caution.

**Age of singer**

Unlike previous research, overall there were no significant differences in ratings between elementary, middle school, and high school performers ($X^2 = < 1$). Neither mixed choirs' ratings nor tenor-bass choirs' ratings exhibited a significant difference by age of singer ($X^2 = <1$). Treble choirs' ratings, however, were significantly different ($X^2 = 7.708 \ [2, 30] p < 0.0212$) with higher ratings earned by elementary than by high school groups. Note that only 30 treble choirs entered treble groups (18%) as compared with 35% in 1998 and 38% in 1999.

**UIL repertoire selection**

Consistent with previous research, there was no significant rating difference among those choirs who performed music from the UIL Prescribed Music List and those who did not ($X^2 = 1.229 \ [1, 334] p < 0.2677$). Relatively few chose from the list (11.4%).

**Ratio of male to total singers**

Unlike previous research, there was no significant difference between the number of male singers in mixed choirs and the frequency of superior ratings ($X^2 = 4.506 \ [3, 302] p < 0.2118$). Specifics are discussed below in reference to sixth grade choirs.

**Grade 6 in mixed choirs**

Because previous research indicated a drop in superior ratings in sixth grade mixed choirs, mixed choirs were divided into sixth grade mixed groups, older than sixth grade, and younger than sixth grade groups. Results indicated no significant difference among the three groups ($X^2=2.848 \ [2, 302] p <.2408$).

Previous research indicated that below sixth grade, the number of boys in a group had relatively little effect on ratings. Results of this study were consistent (38%, 42%, and 43%
superiors were achieved across the various ratios of boys to total singers). Likewise, previous research indicated that, in groups older than sixth grade, the more male singers, the higher the rating. Such was the case in this study with 20% superiors earned by older than sixth grade groups with less than 20% males and 38% superiors awarded to groups with 40% males.

Previous research indicated that sixth grade choirs containing a greater number of male singers received fewer superiors. These data were not confirmed by this study. Mixed choirs with sixth graders received 35% superiors (with < 20% male singers), 37% superiors (with < 40% male singers) and 22% superiors (with < 60% male singers). The findings simply are not predictable; they did not replicate the previous studies.

The original research (Killian, 1998) indicated that sixth grade mixed choirs who performed Three-Part Mixed arrangements earned significantly more superior ratings. The second study (Killian, 1999) did not confirm this, but instead found that the more sixth grade boys in the choir, the lower the frequency of superiors.

The present study found no significant difference between frequency of superiors and voicings selected ($\chi^2 = 11.93$ [6, 334] $p < 0.0636$). The possible voicings included Unison, SA, SSA, Three-Part Mixed, SAB and SATB. Further analysis indicated that mixed elementary choirs earned higher ratings with SA (42%, $n = 128$), then SSA (33%, $n = 3$), followed by Unison (22% $n = 41$). Middle school mixed groups earned higher ratings with SSA (50%, $n = 6$), followed by SAB (43%, $n = 7$), SA (34%, $n = 70$), SATB (33%, $n = 3$), Three Part Mixed (14%, $n = 7$) and finally Unison (00%, $n = 5$). High school mixed groups were most successful with SATB (43%, $n = 14$) followed by SAB (27%, $n = 11$) and Three-Part Mixed (14%, $n = 7$).

Among treble choirs, elementary choirs received 100% superiors. SA ($n = 2$) and Unison ($n = 2$) middle school treble choirs received more superiors, with SA (83%, $n = 6$) and SSA (75%, $n = 4$). High school treble choirs were more successful with SSA (50%, $n = 8$) than SA (25%, $n = 8$). Note the very high percentages of superior ratings for treble choirs.

There were too few tenor-bass choirs ($n = 2$) to allow meaningful analysis.

Discussion

There appear to be few consistent substantive results when comparing the three studies. Consistencies include the fact that larger choirs and treble choirs receive superior ratings significantly more frequently than smaller choirs and other voicings. One might question whether this is the result of judges liking a larger sound, or whether larger choirs really do sound better, or whether larger programs are more likely to have qualified directors who have well-established choral programs.

The fact that treble choirs receive more superiors might be because they sing better, or because their voices are more manageable at this age, or because there is a judges’ bias in favor of treble choirs, or because there is some other factor affecting exactly which choirs perform at the Sandy Lake Funfest. Note that all three studies have been conducted at the same contest that conceivably would attract the same population each year. Perhaps a selection process happens prior to the contest with more qualified mixed groups performing elsewhere.

Consistent with previous research, ratings were not dependent on whether the director selected music from the Prescribed UIL List or from his/her own judgment.

The most intriguing aspect of this series of studies appears to be the inconsistencies noted. I believe this series makes a strong case for the necessity for replication. At the end of the first study I was confident in saying that sixth graders in mixed choirs would be wise to sing Three-Part Mixed music. At the end of the second study, I could no longer hold that conclusion, but I
could say that the choirs that did well did not have many sixth grade boys in them. And I could lament that fact and search for answers as to why that might be occurring. At the end of this present study, I cannot make either statement with any degree of certainty. In fact, the only sure statement I can make is the fact that data need to be repeated again and again before conclusions are drawn. Replication is particularly important for descriptive data in which the researcher is not in control of the variables but must simply observe what happens. The most vital component in this series of studies could not be evaluated because sixth grade choirs did not choose to perform Three-Part Mixed music. Therefore, no further conclusions can be drawn about the appropriateness of that voicing for sixth graders other than to note that further examination of the relationship between voice change and repertoire is warranted.

It might be wise to use descriptive studies to guide our thoughts regarding what experimental studies need to be conducted next rather than trying to find answers from descriptive data. Obviously, further research is warranted.
References


University Interscholastic League (1999). *Prescribed Music List.* Austin, TX: The University of Texas at Austin Board