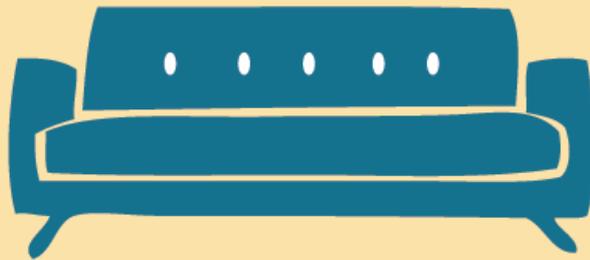


EYSI



RESULTS

[ENGLISH]



Culture

Voice
Voice On
Innovation and
Creative Music
in Europe

(((STEM)))
expertisecentrum

KU LEUVEN

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1 Foreword

Welcome to the European Young Singers Inventory!

At the same time as 'The Singing Sofa' project, the European Young Singers Inventory (EYSI) was conducted among singing children, youngsters and choir leaders across the length and breadth of Europe. The purpose of this research study was to chart the prevailing ideas, knowledge, worries and needs of youth choirs and their members throughout the continent. It was decided to use a holistic approach, which inquired about the growth and welfare of children and youngsters in relation to different aspects of development and voice awareness.

In this survey answers were sought to the following questions:

- Does choral singing have an influence on children and youngsters?
 - If so, what influence?
 - Are there differences in relation to age and gender?
- Does choral singing have an impact on the physical, cognitive, social and/or psychological development and welfare of children and youngsters?
 - Are there differences in relation to age and gender?
- Are there differences between the vision of the choir leaders and the vision of the children and youngsters?
- What are the needs of the children and youngsters?
- What are the needs of the choir leaders?
- Are there significant intercultural differences in the choral world?

The most important information resulting from the EYSI has been summarized in the information pack on this website. Whenever we refer to information derived from the EYSI, this is indicated with a clear and easily recognizable symbol. The full report of the survey results can be downloaded at the bottom of this page.

Ayla Benoy, Wivine Decoster, Hans Helsen



Why not also take a look at our interesting information pack, try 'The Singing Sofa, sit down & play' game or check out some of the other useful sources and links we recommend!

2 The respondents

2.1 Participants

In total, the survey received 308 responses from children and youngsters and 94 responses from choir leaders. Six of the respondents for the children/youngsters questionnaire had ages varying from 32 to 61 years (namely, 32, 36, 2 x 52, 53 and 61 years). These respondents fall outside the maximum age limits [3 years; 30 years] for this survey for singing children and youngsters. This reduces the total number of responses eligible for further analysis to 302.

The analysis of the box plot shows that there are also two additional outliers in the data; namely, the young man no. 301 aged 30 years and the young woman no. 171 aged 28 years. Consequently, these participants have not been taken into consideration during the statistical analyses. This further reduces the total number of participating children and youngsters to 300. The average age of the 300 young choristers is 16 years (SD = 4.67, range [4 years; 28 years]). As far as the choir leaders is concerned, the average age is 42 years (SD = .249, range [17 years; 72 years]). The children and youngsters are distributed between 76 different choirs and consist of 250 girls (83%) and 50 boys (17%). The participating choirs are represented in each case by a single choir leader, resulting in a total of 94 different choirs.

The children and youngsters speak 14 different languages and four of the children and youngsters indicated that they are bilingual. Young choristers with Dutch (n = 83, 27.7%) or German (n = 79, 26.3%) as their mother tongue were the most well represented. There were also 41 children and youngsters (13.7%) with French as their mother tongue and 40 children and youngsters (13.3%) with Croat as their mother tongue. The other mother tongues spoken by the children and youngsters are Slovenian, Portuguese, English, Italian, Catalan, Danish, Spanish and Czech.

2.2 Countries

The survey was able to count on the participation of respondents from 19 different countries. The children and youngsters came from 12 different countries. The choir leaders came from 17 different countries and there were 5 respondents for whom the country of origin was not defined. The participating countries are Belgium, Austria, Croatia, Germany, France, Slovenia, Portugal, Ireland, Spain, Italy, Denmark, Sweden, the United Kingdom, Hungary, the Czech Republic, the Netherlands and Romania.

The children and youngsters from Belgium (36%, n = 108), Austria (18.7%, n = 5) and Croatia (13.7%, n = 41) formed the largest groups. Participation levels from Germany, France and Slovenia amounted respectively to 8% (n = 24), 7.3% (n = 22) and 6.7% (n = 20). As far as choir leaders are concerned, the largest number of responses again came from

Belgium (30.9%, n = 29). This can be explained by the fact that the research centre is located in Belgium and by the fact that contacts in one's own country are strongest and most extensive. Second place was occupied by Slovenia (10.6%, n = 10), followed in equal third place by Spain, France and Germany, each with 7.4% (n = 7). For further analyses, comparisons can only be made between countries with $n \geq 30$, since the number of participants in the other countries is too small.

2.3 The numbers of choirs and the levels of their experience

For the choir leaders we were able to distinguish 94 different choirs, while for the children and youngsters 72 different choirs were registered (in the case of 11 children and youngsters the choir was not defined and, consequently, these have not been included in the total of 72).

There is only a very limited match between the choirs of the choir leaders and the choristers. This inequality works in both directions. Amongst the respondents there are leaders of choirs where none of their children or youngsters filled in the questionnaire, just as there are children and youngsters who filled in the questionnaire but their choir leader did not. For this reason, we decided to make no comparisons between the responses of the children/youngsters and their choir leaders.

The children and youngsters who replied to the survey have, on average, already been singing in a choir for four years. The most recent choristers had been in a choir for as little as one month; the most experienced for as long as 22 years (SD = 4.25; range [0 years; 22 years]).

2.4 Types of choirs

The majority of the choir leaders lead a mixed children's or youth choir. Half of the choir leaders lead a children's choir (n = 48, 51.1%) and 28 (29.8%) lead a mixed youth choir. It was notable that only 15 of the choir leaders (16%) lead a single-voice youth choir for girls and just 3 choir leaders (3.2%) lead a single-voice youth choir for boys.

3 The responses

3.1 The Physical Component



3.1.1 Children and youngsters

3.1.1.1 *CHANGES IN THE VOICE WITH AGEING*

86.3 % of the children and youngsters said that the voice changes over time. Consequently, the other 13.7% said that this was not the case or were unsure of this fact. In addition, a further 5% of the children and youngsters said that voice change only occurs in one of the genders. In light of these figures, it can be concluded that additional information about the way the voice changes could be useful for one in five of the children and youngsters.

There is a statistically significant correlation between gender and the idea of voice change with ageing (likelihood ratio $p = 0.009 < .05$). This correlation is weak (Cramer's $V = .234$, $p = 0.012$).

Noticeably more youngsters (36.2%) gave the answer 'Yes, I have already experienced that myself' than children (10.2%). This correlation is statistically significant (Likelihood ratio: $p = .000 < .05$). The strength of the correlation is weak and is also statistically significant (Cramer's $V = .333$, $p = 0.000 < .05$).

3.1.1.2 *LEVEL OF DIFFICULTY OF THE SONGS: DO YOU FIND SOME SONGS MORE DIFFICULT TO SING THAN OTHERS?*

In general, we can conclude that half of the children and youngsters ($n = 145$, 48.3%) experience differences in the level of difficulty of the songs they sing. Three-quarters to 71 % of the children have no problem with sentence length ($n = 229$, 76.3%), the melody ($n = 213$, 71%) or the degree of difficulty of the text ($n = 218$, 72.7%). One out of every three choristers thinks that they can sing every song equally well.

One-third of the choristers ($n = 81$, 27%) have difficulty with the rhythm of the songs and one in four ($n = 75$, 26%) have difficulty with the language used. But the most difficult aspect of singing is the nature of the notes they are required to sing, both high ($n = 146$, 48.7%) and low ($n = 120$, 40%). For high notes, a distinction can be made between boys and girls. 46% of the girls have difficulty with high notes, whereas for the boys this figure increases to 61%. For low notes there is no difference between boys and girls, with 40% of both genders indicating that they sometime have to sing notes that are too low for them. These differences are not statistically significant. Between 5 and 11% of the respondents were non-committal with regard to the different propositions; they neither agreed nor disagreed.

3.1.1.3 ASSESSING THE DIFFERENT PROPOSITIONS

When children and youngsters are asked to assess different propositions, the propositions in question are allocated a score of between one and five out of five. Each score equates to a particular point or meaning on a scale that runs from 'completely disagree' to 'completely agree'. For the purposes of further analysis, we regard the scores 'completely agree' and 'agree' as positive reactions to the proposition. We regard the scores 'completely disagree' and 'disagree' as negative reactions to the proposition.

SCORE	MEANING
1/5	Completely disagree
2/5	Disagree
3/5	Neutral
4/5	Agree
5/5	Completely agree

Proposition: "I sing better since I have been in the choir."

The response of the choristers to this proposition was consistently positive. A large majority (n = 263, 87.7%) agree with the proposition, but they did not specify in which way they now sing better (keeping in tone, following rhythm, etc.).

3.1.1.4 AS I CONTINUE TO GROW, I THINK MY VOICE IS LIKELY TO CHANGE, AND WILL BECOME...

One in three of the children and youngsters (n = 91, 31%) think that their voice will get lower. 86 children and youngsters (28.7%) think that their voice will get higher. 69.7% think that their voice will become more powerful. One in five of the children and youngsters (n = 57, 19%) think that their voice will become softer and one in three (n = 103, 34.3%) think that their voice will become louder.

One in three (n = 104, 34.7%) also think that their voice will become warmer, while 96.7% (n = 290) are convinced that their voice will not become colder. 42.3 % (n = 127) are of the opinion that their voice will become purer.

Half of the children and youngsters (n = 160, 53.3%) believe that their voice will become more stable. 5% think that their voice will get huskier as they get older.

There is a statistically significant difference between boys and girls with regard to their opinion about their voice becoming lower as they get older. 76% of the girls (n =

190) do not think that their voice will get lower, whereas 66% (n = 33) of the boys think that their voice will ($\alpha : p = .000 < .05$).

More girls (n = 53, 21.2%) than boys (n = 4, 8%) think that their voice will become softer as they grow. This difference is also statistically significant ($\alpha : p = .030 < .05$).

The strength of both correlations is weak and statistically significant (Cramer's V = 0.338, p = 0.000 < 0.05; Cramer's V = 0.125, p = 0.030 < 0.05).

Relatively more youngsters (40.5%) than children (19.3%) think that their voice will become warmer as they grow. This correlation is statistically significant ($\alpha : p = .000 < .05$). The strength of the correlation is weak and statistically significant (Cramer's V = 0.205, p = 0.000 < 0.05).

Similarly, relatively more youngsters (59.9%) than children (36.4%) think that their voice will become more stable as they grow. This correlation is statistically significant ($\alpha : p = .000 < .05$). The strength of the correlation is weak and statistically significant (Cramer's V = 0.216, p = 0.000 < 0.05).

3.1.1.5 *PERHAPS I CAN...*

Half of the children and youngsters (n = 159, 53%) think or hope that they will be able to sing for longer. 63% (n = 189) hope that they will be able to sing more correctly and 67 children and youngsters (22.3%) dream of becoming famous.

There is no statistical significant correlation between either gender or age and the responses to the above propositions.

3.1.1.6 *OR PERHAPS MY VOICE WILL STAY THE SAME AS IT IS NOW...*

61.7% of the children and youngsters (n = 185) think that their voice will change. This means that 38.3% (n = 115) think that their voice will not change. There is no statistically significant correlation in relation to gender or age.

3.1.2 **Choir leaders**

3.1.2.1 *IF THE VOICE OF ONE OF YOUR CHOIR MEMBERS CHANGES, SO THAT HE/SHE CAN NO LONGER SING PROPERLY IN YOUR CHOIR...*

Half of the choir leaders (n = 46, 48.9%) replied that children/youngsters could continue to sing in the choir after their voice changed and one in three (n = 27, 28.7%) thought that the question was not applicable. One in five (n = 18, 19.1%) refer the children/youngsters to other choirs and three choir leaders (n = 3, 3%) ask the children/youngsters to leave their choir without referring them to another choir.

3.1.2.2 I INFORM MY CHOIR MEMBERS ABOUT LIKELY CHANGES IN THEIR VOICES.

The majority of choir leaders (n = 79, 84%) inform their choristers about likely changes in their voices.

3.1.2.3 THE VOICE CHANGES OF MY SINGERS AFFECTS...

Almost 60% of the choir leaders (n = 56) are of the opinion that voice change affects both boys and girls. Almost one in three (n = 29, 30.9%) thinks that voice change only affects the voice of boys and nine choir leaders (9.6%) believe that voice change only affects the voice of girls.

3.1.2.4 TO WHAT EXTENT DO YOU TAKE ACCOUNT OF THE FREQUENCY RANGE OF YOUR SINGERS?

Half of the choir leaders (n = 49, 52.1%) choose a repertoire that is in a comfortable, medium range, and their singers do not have to take a voice test. 34% of the choir leaders (n = 32) do ask their singers to take a voice test. 13.8% of the choir leaders take no account of the individual frequency ranges of the singers when choosing a repertoire.

3.1.2.5 WHAT QUALITIES DO THE MORE EXPERIENCED CHORAL SINGERS USUALLY ACQUIRE?

All the choir leaders are convinced that the qualities acquired by more experienced singers can be specified.

The large majority of choir leaders find that more experienced children and youngsters can learn more complex melodies more quickly (n = 86, 91.5%). Three out of every four choir leaders find that their vocal range increases (n = 74, 78.7%), that their voice is more flexible (n = 73, 77.7%) and that they can adapt more easily to different tones (n = 71, 75.5%).

68 choir leaders think that their more experienced choristers can sing for longer (n = 68, 72.3%) and two out of every three choir leaders (n = 62, 66%) believe them to be rhythmically stronger. Half of the choir leaders (n = 51, 54.3%) find that their more experienced singers tire less quickly. Answers to the opposite questions show that most choir leaders refute the propositions that their singers tire more quickly ('No': n = 92, 97.9%) and that their vocal range decreases ('No': n = 93, 98.9%).

3.1.3 Comparison between Children/youngsters and Choir leaders

3.1.3.1 CHANGES IN THE VOICE WITH AGEING

There is a relative correlation between the percentage of choir leaders that give information about voice change and the percentage of children and youngsters who are of the opinion that their voice will change as they get older. 86.3% of the children and youngsters think that their voice will change as they get older. 84% of choir leaders give information to their choristers about voice change.

Who will experience these changes and in what way remains unclear for a number of choir leaders (40%) and a smaller number of children and youngsters (19%).

3.1.3.2 WHAT THE CHILDREN AND YOUNGSTERS FIND MOST DIFFICULT ABOUT SOME SONGS AND THE QUALITIES ACQUIRED BY THE MORE EXPERIENCED CHORISTERS.

The children and youngsters have most difficulty in singing the high and low notes in the more vocally challenging songs (48% and 40%). According to most choir leaders, the most common quality (of those suggested in the survey) that their choristers acquire as they grow older is an increase in their vocal range (78.7%).

A second difficulty for children and youngsters is rhythm (27%). Of the qualities acquired by more experienced singers (as suggested in the survey), the choir leaders put 'they are rhythmically stronger' in third place (66%).

The children/youngsters and the choir leaders were both asked about the difficulty of singing long phrases. The children and youngsters reported this as their third most serious difficulty (23.7%). The choir leaders are of the opinion that the ability to sing longer phrases is the second most important quality that their choristers acquire as they get older.

3.2 The Cognitive Component



3.2.1 Children and youngsters

3.2.1.1 THE INFLUENCE OF SINGING IN A CHOIR

"I have discovered other musical styles since joining the choir."

"I am spending more time on music away from the choir."

The majority of children and youngsters (n = 204, 68%) are of the opinion that they have discovered other musical styles since joining a choir. 64.7% (n = 194) also say that they now spend more time on music away from the choir.

The answers of youngster to the question about 'discovering other musical styles' is significantly more positive amongst the youngsters than amongst the children. There is a statistically significant correlation between age and 'I have discovered other musical styles since joining the choir' (α : p = .002 > .05). The strength of this correlation is weak and also statistically significant (Cramer's V = 0.208, p = 0.002 < 0.05). There is no statistically significant correlation between age and 'I am spending more time on music away from the choir' (α : p = .386 > .05)

"Singing in the choir has not changed me."

Two out of every three children/youngsters (n = 203, 67.7%) do not agree with this proposition. More girls are aware of a change than boys. This correlation is statistically significant (α : p = .032 < .05). The strength of the correlation is weak and is also statistically significant (Cramer's V = 0.152; p = .032 < .05). There is no statistically significant correlation between age and 'Singing in the choir has not changed me' (α : p = .101 < .05).

3.2.1.2 CAN YOU READ MUSIC NOTES?

Three-quarters of the children and youngsters (n = 230, 76.7 %) could already read music notes before they joined a choir. More than one in four (n = 82, 27.34 %) indicated that they have become even better at reading notes since they joined the choir.

There is no statistically significant correlation between gender and the respondents' answers to the question about their ability to read music notes (α : p = .453 > .05).

There is no statistically significant correlation between age (divided into two categories, 'children' and 'youngsters') and the respondents' answers to the question about their ability to read music notes (α : p = .066 > .05).

3.2.1.3 *DID YOU LEARN NEW WORDS IN YOUR OWN LANGUAGE THROUGH SINGING WITH THE CHOIR?*

Although the response to this question was more mixed, a majority of the respondents (n = 187, 62.3%) still gave a positive answer.

Considerably more girls than boys say that they have learnt new words in their own language as a result of singing in a choir. The respective figures are 155.8 (65.2%) and 32.2 (45%) ($\alpha : p = .022 < .05$). The strength of this correlation is weak and also statistically significant (Cramer's V = 0.132, $p = 0.022 < 0.05$).

Relatively more children (74%) than youngsters (60%) indicated that they had learnt new words in their own language through singing in a choir. This correlation is statistically significant ($\alpha : p = .048 < .05$). The strength of the correlation is weak and also significant (Cramer's V = 0.115, $p = 0.048 < 0.05$).

3.2.1.4 *IF I SING IN A FOREIGN LANGUAGE, I KNOW WHAT I AM SINGING ABOUT.*

The majority of the children and youngsters (n = 247, 82.3%) know what they are singing about when they sing in a foreign language. This means that one in five (n = 53, 17.7%) do not understand what they are singing.

There is no statistically significant difference between boys and girls ($\alpha : p = .196 > .05$).

It is, however, noticeable that more youngsters (87%) understand what they are singing in a foreign language than children (71.5%). There is also a statistically significant correlation between age and respondents' answers to the proposition 'If I sing in a foreign language, I know what I am singing about' ($\alpha : p = .002 < .05$). The strength of this correlation is weak and also statistically significant (Cramer's V = 0.184, $p = 0.002 < 0.05$).

3.2.1.5 *SINCE I HAVE BEEN SINGING IN A CHOIR, I FIND IT EASIER TO REMEMBER THINGS.*

127 children and youngsters indicated that they find it easier to remember things since they have been singing in a choir (n = 127, 42.3%).

There is no statistically significant correlation in terms of either gender ($\alpha : p = .053 > .05$) or age ($\alpha : p = .608 > .05$) in relation to the respondents' ability to remember things more easily since singing in a choir.

3.2.1.6 *SINCE I HAVE BEEN SINGING IN A CHOIR, I DEVOTE MORE ATTENTION TO THE THINGS AROUND ME.*

One out of every three respondents gave a positive answer to this proposition (n = 96, 32%).

There is no statistically significant correlation in terms of gender in relation to the devoting of increased attention to other things since singing in a choir ($\alpha : p = 1.000 > .05$).

It is, however, noticeable that relatively more youngsters (32%) respond positively to this proposition than children (19%).

Age does, therefore, have a significant effect on the choristers' ability to devote increased attention to other things since singing in a choir ($\alpha : p = .002 < .05$). The strength of this correlation is weak and also significant (Cramer's $V = 0.180$, $p = 0.002 < 0.05$).

3.2.1.7 DO YOU NEED EXTRA PRACTICE TIME IN ADDITION TO THE REHEARSALS?

147 children and youngsters (49.8%) chose the answers 'Everything is clear to me during the rehearsals' and 'I could use some extra practice, but I never do this outside the rehearsals'.

Nevertheless, 56.3% of the children and youngsters ($n = 169$) admitted that they need extra practice. 150 choristers (50%) actually do extra practice at home for rhythm, notes and text. They require most extra practice for the text. The musical aspects (rhythm and notes) only come in second place.

63.6% of the children only practice during the rehearsals, while just 43.4% of the youngsters feel that the rehearsals alone offer them sufficient practice time. In other words, youngsters practice more away from the choir than the children do.

There is a significant correlation between age and the respondents' answers to the question about their need for additional practice away from choir rehearsals ($\alpha : p = .018 < .05$). The strength of this correlation is weak and also significant (Cramer's $V = 0.215$, $p = 0.018 < 0.05$).

3.2.2 Choir leaders

3.2.2.1 DO YOUR CHOIR MEMBERS HAVE ANY SAY ABOUT WHAT THEY SING?

Three out of every four choir leaders ($n = 69$, 73.4%) claim that the children and youngsters are able to influence which songs are sung by the choir.

3.2.2.2 MY SINGERS JOINED THE CHOIR FOR THE FOLLOWING REASONS...

Nearly all the choir leaders ($n = 88$, 93.6%) think that children and youngsters join a choir because they like to sing. The second most important reason given by the choir leaders is the influence of friends ($n = 64$, 68.1%), followed by a more general interest in music ($n = 61$, 64.9%). 29 choir leaders ($n = 29$, 30.9%) think that their choristers join a choir because of the concerts and 24 choir leaders ($n = 24$, 25.5%) believe that having other family members in the choir plays an important role. Only five choir leaders felt that some of their singers were obliged or compelled to join their choir ($n = 5$, 5.3%). Almost one in five of

the choir leaders (n = 17, 18.1%) thought that some other reason might be involved, although they were not asked to comment on what these reasons might be.

3.2.2.3 *DO YOU EXPECT ALL THE SINGERS TO UNDERSTAND THE TEXTS THEY ARE SINGING?*

A total of 79 choir leaders (84%) responded affirmatively to this question. 74 choir leaders (78.7%) are also prepared to devote extra rehearsal time to textual analysis, where necessary. 15% of the choir leaders (n = 14, 14.9%) think that it is sufficient if their choristers can sing the texts with feeling. The choir leaders were not asked to give reasons why they think textual comprehension is important.

3.2.2.4 *DO YOU CONSIDER TEXTUAL COMPREHENSION TO BE AS IMPORTANT IN A FOREIGN LANGUAGE AS IN THE MOTHER LANGUAGE OF THE SINGERS?*

80 choir leaders (85%) replied affirmatively to this question. Half of the choir leaders (n = 50, 53.2%) spend as much time on texts in a foreign language as on texts in the mother language, while 30 choir leaders (n = 30, 31.9%) spend even more time on texts in a foreign language.

3.2.2.5 *DO YOU EXPECT YOUR SINGERS TO BE ABLE TO SING THE SONGS FROM MEMORY?*

In most choirs the choir leader expects the children/youngsters to be able to sing from memory (n = 80, 85.1%). The choristers are always able to make use of their song books in just 14 (14.9%) of the choirs surveyed.

3.2.2.6 *MUST THE SINGERS IN YOUR CHOIR BE ABLE TO READ MUSICAL NOTES?*

Although opinion was clearly divided, a small majority of choir leaders (n = 53, 56.4 %) said that it was not necessary for their choristers to be able to sing musical notes. 35 choir leaders (n = 35, 37.2%) said that in their choirs everything was based on demonstration and repetition. One is five (n = 18, 19.1%) said that the singers who cannot read notes simply follow the others who can.

In 41 choirs (43.6%) it is necessary for the children and youngsters to be able to read notes. In seven choirs (7.4%) it is even a condition for being allowed to join. In 34 choirs (36.2%) it is acceptable for the singers to learn how to read notes after they have joined.

3.2.2.7 *IN MY DREAM REHEARSAL, I WOULD BE ABLE TO DEVOTE MORE ATTENTION TO...*

Three out of every four choir leaders dreams of being able to devote more time to singing in harmony (n = 72, 76.6%) and correct breathing (n = 71, 75.5%). Roughly two-thirds of the choir leaders would like to give more attention to posture (n = 63, 67%), voice warm-up (n = 62, 66%), voice care (n = 61, 64.9%), articulation (n = 60, 63.8%), the training of internal hearing (n = 60, 63.8%) and stage presence (n = 58, 61.7%).

Slightly more than half the choir leaders would like to spend more time on bodily movement (n = 56, 59.6%), the separate training of different voices (n = 56, 59.6%) and singing exercises (n = 54, 57.4%).

For several of the rehearsal elements listed in the survey opinions amongst the choir leaders are divided (+/- 50/50). Half of them would include the following elements in their dream rehearsal: physical expression (n = 50, 53.2%), textual experience (n = 48, 51.1%), the correction of errors (n = 48, 51.1%), tonality (n = 46, 48.9%), discipline (n = 46, 48.9%) and textual memorization (n = 43, 45.7%).

The following elements come at the bottom of the list: social activities (n = 38, 40.4%), the discussion of experiences (n = 35, 37.2%), dealing with stress (n = 23, 24.5%), voice warm-down (n = 19, 20.2%) and activity planning (n = 18, 19.1%).

3.2.2.8 DURING REHEARSALS I ACTUALLY DEVOTE MY ATTENTION TO...

Approximately two out of every three (or sometimes more) choir leaders devote their actual time during rehearsals to the correction of errors (n = 74, 78.7%), voice warm-up (n = 71, 75.5%), singing in harmony (n = 67, 71.3%), correct breathing (n = 66, 70.2%), posture (n = 64, 68.1%), articulation (n = 64, 68.1%) and singing exercises (n = 58, 64.7%).

In half the choirs the choir leader also give considerable attention to tonality (n = 53, 56.4%), discipline (n = 53, 56.4%), textual memorization (n = 46, 48.9%), voice care (n = 45, 47.9%), textual experience (n = 43, 45.7%), bodily movement (n = 42, 44.7%) and stage presence (n = 41, 43.6%).

Between a quarter and 40% of the choir leaders spend time on physical expression (n = 38, 40.4%), the separate training of different voices (n = 36, 38.3%), social activities (n = 26, 27.7%) and the training of internal hearing (n = 25, 26.6%).

The following elements are dealt with regularly in the rehearsals of less than one in five of the choirs surveyed: the discussion of experiences (n = 15, 16%), activity planning (n = 14, 14.9%), dealing with stress (n = 12, 12.8%) and voice warm-down (n = 11, 11.7%).

3.2.3 Comparison between Children/youngsters and Choir leaders

3.2.3.1 READING MUSICAL NOTES

In 43.6% of the surveyed choirs it is necessary for the choristers to be able to read musical notes. 87.3% of the respondent choristers are actually able to read notes, which they may or may not have learned since joining a choir. This means that when the right singers sing in the right choirs, their musical knowledge is sufficient for the tasks expected of them.

3.2.3.2 TEXTUAL COMPREHENSION

84% of choir leaders expect their singers to understand what they are singing. 85% of choir leaders regard textual comprehension in a foreign language as being just as important as textual comprehension of songs in the mother tongue.

However, 17.7% of the choristers questioned said that they did not always know what they were singing in a foreign language.

This shows that in order to meet the expectation of choir leaders it will be necessary to devote more attention during rehearsals to the understanding of songs in a foreign language.

3.3 The Social Component



3.3.1 Children and youngsters

3.3.1.1 THE ASSESSMENT OF DIFFERENT PROPOSITIONS

Proposition: "I speak more easily to people since I have been in the choir."

Proposition: "I make friends more easily since I have been in the choir."

One in three young choristers claim that they find it easier to talk to people and make new friends since they have been in the choir. The relevant figures are 31% (n = 93) and 33% (n = 99). 43.3% (n = 130) and 38.7% (n = 116) gave a neutral response to these propositions. No negative response was requested of the participants.

3.3.1.2 THE INFLUENCE OF SINGING IN A CHOIR

"I make contact with other people more easily."

43% (n = 129) of the children and youngsters agreed with this proposition. Girls (n = 114, 45.6%) were more in agreement than boys (n = 15, 30%). This correlation is statistically significant ($\alpha : p = .033 < .05$). The strength of the correlation is weak (Cramer's V = 0.151) and also statistically significant ($\alpha : p = .033 < .05$).

"I can better understand what other people think and feel."

Opinion on this proposition is divided. 40% say that they don't know. One in three (n = 99, 33%) disagree and slightly fewer (n = 80, 26.7%) agree. Apparently, this is a difficult question for children and youngsters to answer.

3.3.1.3 HOW MANY FRIENDS DO YOU HAVE IN THE CHOIR?

The average number of friends is 13 (range [0; 80]; SD = 11.31). The majority of the participants in the survey (63%) indicated that they have between none and ten friends in the choir. 14% said that they have more than 20 friends in the choir.

3.3.1.4 WHERE DO YOU MAKE FRIENDS MOST EASILY?

School is the most popular place for making friends. This was the first choice response of 41.3% (n = 124) of those surveyed. The choir comes in second position with 26% (n = 78), followed by making friends via others (n = 52, 17.3%) and during other hobbies (n = 46, 15.3%).

Gender has no effect on the place where the respondents make friends ($\alpha : p = .97 > .05$).

3.3.1.5 UNDESIRABLE BEHAVIOUR IN THE CHOIR

1) Bullying

The large majority of children and youngsters (n = 279, 93%) claim that no bullying takes place in their choir. Only 6.3 % of the choristers (n = 19) claim that they have seen others exhibit bullying behaviour in their choir. Two honest souls (0.7%) admit to have bullied others in their choir.

Gender does not have a significant effect on bullying behaviour ($\alpha : p = .97 > .05$).

2) Not doing what you said you would.

The majority of the children and youngsters (n = 183, 63%) claim that they keep the agreements they have made with others. However, one in three of the respondents (n = 98.33%) also say that they have problems with others who do not keep agreements. Only 6.3% (n= 19) are willing to admit that they do not always do what they said they would do.

Gender does not have a significant effect on the keeping of agreements ($\alpha : p = .196 > .05$).

3) Talking

Talking is much more common than the previous two types of behaviour. Half of the choristers (n = 160, 53%) admit to talking in the choir. 38% of the children and youngsters (n = 115) attribute this behaviour to others and only 8.3% (n = 25) say that it never happens.

Gender does not have a significant effect on talking ($\alpha : p = .761 > .05$).

4) Shouting

According to 229 of the children and youngsters (76.3%), shouting is something that never happens in their choir. Just 2.3% of the choristers (n = 7) admit that they have ever shouted and one in five (21.3%) attribute this behaviour to others.

Gender has no significant effect on shouting ($\alpha : p = .076 > .05$).

5) Teasing others

Three-quarters of the choristers surveyed (n = 229, 76.3%) claim that this never happens in their choir. However, 53 children and youngsters (17.7%) say that they have seen other choir members behaving in this manner. Only 18 respondents (6%) admit that they have teased others.

Gender has no significant effect on teasing ($\alpha : p = .149 > .05$).

6) Not concentrating

Opinion on this matter is divided. 31.7% (n = 95) say that it does not happen. 42% (n = 126) attribute a lack of concentration to others. One in four (n = 79, 26.3%) say that they sometimes have trouble in concentrating themselves.

Gender has no significant effect on concentration ($\alpha : p = .053 > .05$).

3.3.1.6 MAKING FRIENDS

Most of the children and youngsters find it easy to make friends (n = 185, 61.6%). The most popular reason for this is that they feel comfortable with others (n = 175, 58.3%). Only 31 children and youngsters (10.3%) admit that they find it hard to make friends. They attribute this to the fact that they are not really sociable (n = 27, 9%). 84 choristers (28%) were undecided on this matter and were not sure whether they found it easy to make friends or not.

Gender does not have a significant statistical effect on the ability to make friends (Likelihood Ratio: $p = .580 > .05$).

3.3.1.7 SINCE I HAVE BEEN SINGING IN A CHOIR, I AM MORE READY TO TAKE THE INITIATIVE IN LARGER GROUPS.

About 40% of the children and youngsters claim that they are now more willing to take the initiative in larger groups since they have been singing in a choir.

Gender does not have a significant statistical effect on this increased willingness to take the initiative in larger groups ($\alpha : p = 0.562 > .05$).

3.3.1.8 SINCE I HAVE BEEN SINGING IN A CHOIR, I HAVE BECOME SHYER.

The vast majority of young choristers (n = 292, 97.3%) gave a negative response to this proposition. Just eight children and youngsters said they had become shyer since joining a choir.

Gender does not have a significant statistical effect on a child or youngster becoming shyer after joining a choir ($\alpha : p = 0.200 > .05$).

3.3.1.9 SINCE I HAVE BEEN SINGING IN A CHOIR, I DARE TO EXPRESS MY IDEAS MORE OPENLY.

One in three of the young choristers (n = 100, 33.3%) claim that they are now more willing to express their own ideas since they have been singing in a choir.

Gender does not have a significant statistical effect on this increased willingness to express their own ideas ($\alpha : p = 0.381 > .05$).

3.3.1.10 SINCE I HAVE BEEN SINGING IN A CHOIR, I AM BETTER ABLE TO STAND UP FOR MYSELF.

92 of the children and youngsters surveyed (30.7%) say that they are better able to stand up for themselves since they have been singing in a choir. Relatively more girls (34%) gave an affirmative response to this proposition than boys (14%). Gender therefore has a statistically significant effect on the ability to stand up for one's self after joining a choir ($\alpha : p = 0.005$).

< .05). The strength of this correlation is weak and also statistically significant (Cramer's V = .0162, $p = 0.005 < .05$).

3.3.1.11 *SINCE I HAVE BEEN SINGING IN A CHOIR, I AM LESS OCCUPIED WITH MYSELF.*

In general, the children and youngsters say that they are neither more nor less occupied with themselves since they have been singing in a choir. 277 of the young choristers (92.3%) indicated that they were no less occupied with themselves than before joining a choir. Gender has no statistically significant effect on this matter (Likelihood Ratio: $p = .617 > .05$).

3.3.1.12 *SINCE I HAVE BEEN SINGING IN A CHOIR, I HAVE BECOME MORE OCCUPIED WITH MYSELF*

In general, the children and youngsters say that they are neither more nor less occupied with themselves since they have been singing in a choir. 262 of the young choristers (87.3%) indicated that they are no more occupied with themselves than before joining a choir. Gender has no statistically significant effect on this matter ($\chi^2 : p = .877 > .05$).

3.3.2 Choir leaders

3.3.2.1 *ARE THERE DIFFERENT GROUPS OF FRIENDS WITHIN YOUR CHOIR?*

In 93 (98.9%) of the choirs surveyed the choir leader said that there were different groups of friends of one type or another. According to seven of the choir leaders (7.4%), their choir forms a single large group of friends. The majority of choir leaders ($n = 67, 71.3%$) are of the opinion that some of these groups of friends existed before the children and youngsters joined the choir, but they also concede that some groups of friends developed after the choir was joined. Thirteen choir leaders (13.8%) said that most of the children and youngsters in their choir become friends. Only six choir leaders (6.4%) claim that the majority of their choristers were already friends before they began singing together in the choir.

3.3.2.2 *UNDESIRABLE BEHAVIOUR SOMETIMES OCCURS IN MY CHOIR...*

Talking ('never': $n = 1, 1.1%$) is the most frequent form of undesirable behaviour according to the overwhelming majority of choir leaders. Nine choir leaders (9.6%) say that this type of behaviour always occurs, while a further 55 choir leaders (58.5%) say that it occurs regularly. A lack of concentration is also a problem in 38 choirs (40.4%), where it occurs either frequently or always ('never': $n = 5, 5.3%$). According to 69 choir leaders (73.4%), the failure of their choristers to keep agreements sometimes happens ('never': $n = 18, 19.1%$). Teasing occurs in 65 choirs (69.1%), with a frequency ranging from 'sometimes' to 'often' ('never': $n = 29, 30.9%$). Shouting happens to a greater or lesser extent in half of the choirs surveyed ('never': $n = 50, 53.2%$). Bullying is much less common. Only 15 choir leaders (16%) said that they had witnessed this type of behaviour amongst their young choristers ('never': $n = 79, 84%$).

3.3.3 Comparison between Children/youngsters and Choir leaders

3.3.3.1 THE NUMBER OF FRIENDS IN THE CHOIR

The young choristers questioned have on average 13 friends in their choir. There are just four choristers (1.4%) who claim that they have no friends among their fellow singers, whereas some others claim that they have as many as 80 friends. In other words, for some choristers the choir is a lonely place, while for others it is a large and happy family.

98.9% of the choir leaders think that their choristers have friends among the other choir members. A very small number of choir leaders described their choir as consisting solely of individuals. Since not all of the children/youngsters in these choirs took part in the survey, it is not possible to check this contention.

7.4% of the choir leaders said that their choir is one large circle of friends. We do not know the group size within the different choirs, but 67 of the children and youngsters (22.3%) indicated that they had more than 20 friends in their own choir.

Consequently, we can conclude in general that the choir is a meeting place for friends, which probably has a positive effect on social development.

3.3.3.2 UNDESIRABLE BEHAVIOUR

The order of frequency for the different forms of undesirable behaviour is the same for both the choir leaders and the children and youngsters. The only difference is that the percentages for the choir leaders are systematically higher: usually double and in one case almost three times as high (teasing).

BEHAVIOUR	CHORISTERS	CHOIR LEADERS
TALKING	91%	98.1%
NOT CONCENTRATING	68.3%	94.7%
NOT KEEPING AGREEMENTS	39.3%	80.9%
TEASING	23.9%	69.1%
SHOUTING	23.7%	46.8%
BULLYING	7%	16%

3.4 The Psychological Component



3.4.1 Children and youngsters

3.4.1.1 SINGING SOLO

62.3% (n = 187) of the choristers surveyed had already sung solo. Three out of four (n = 141, 75.4%) would like to sing solo again and only 5.8% (n = 11) stated explicitly that they would be unwilling to repeat the experience. One is four (n = 70, 23.3%) has never sung solo, but has no desire to do so. Another 14.3% (n = 43) has never sung solo, but would like to be given the opportunity. Gender has no significant statistical effect on this matter (Likelihood Ratio: $p = 0.179 > 0.05$).

3.4.1.2 THE ASSESSMENT OF THE DIFFERENT PROPOSITIONS

Proposition: "By performing in the choir, I feel more confident in other situations."

Two out of three of the choristers surveyed (n = 169, 56.3%) said that they now feel more self-secure in other situations because of their performance in a choir

Proposition: "In general, I am happy with myself."

The majority of the children and youngsters (n = 231, 77%) indicated that they were happy with their own self.

3.4.1.3 THE INFLUENCE OF SINGING IN A CHOIR

"I have more self-confidence."

Slightly more than half of the children and youngsters surveyed (n = 172, 57.3%) agree with this proposition. 85 of their fellow singers (28.3%) were uncertain on this matter.

"I feel more relaxed."

In answer to an explicit question about the influence of their signing in a choir on their feeling of relaxation, 65.3% of the choristers (n = 196) said that their singing had helped to make them more relaxed. One in five (n = 57, 19%) were uncertain on this matter.

"I am more positive about things."

Half of the children and youngsters (n = 154, 51.3%) said that they viewed life more positively since they had been singing in a choir. However, it is noticeable that relatively more girls agree with this proposition than boys. This correlation is statistically significant ($\alpha : p = .025 < .05$). The strength of the correlation is weak (Cramer's V = 0.156) and also statistically significant ($\alpha : p = .025 < .05$).

3.4.1.4 REASONS FOR JOINING A CHOIR: "WHY DID YOU FIRST START SINGING IN A CHOIR?"

The most important reason why the children and youngsters in the survey initially wanted to join a choir is intrinsic motivation. Half of them (n = 165, 55%) said that they like to sing and that this was the main reason for their wanting to join a choir. The second most important reason focuses more on the social context: 14.3% (n = 43) joined a choir because one of their friends or someone from their family was already singing there. The third most important reason is cognitive in nature: 11.3% (n = 34) joined a choir because they wanted to learn to sing better. For 6.3% (n = 19) more negative social factors were involved: they were obliged to join a choir, either by their parents or their school.

3.4.1.5 REASONS FOR STAYING IN THE CHOIR: "WHY DO YOU STILL SING IN A CHOIR NOW?"

Once again, intrinsic motivation - the pleasure of singing - remains the most important reason (n = 188, 62.7%). The second most important reasons are more personal: they enjoy the rehearsals, they like performing, or singing helps them to relax. This trio of reasons were cited by 15.3% of the children and youngsters (n = 56). The third most important reason is external motivation: 25 of the choristers (8.3%) reported that they carry on singing because they like the choir leader, while a further 12 of their fellow singers (4%) said that they stay because they enjoy the other activities associated with the choir.

The social factors for staying are less important than the social factors for initially joining the choir. Continuing in the choir because family and/or friends are doing the same is a reason for only 12 children and youngsters (4%). Another 12 (4%) stay because they still want to learn to sing even better.

3.4.1.6 WHAT EMOTIONS DO YOU EXPERIENCE WHEN SINGING IN THE CHOIR?

The young choristers gave their opinions about a number of positive and negative emotions: sadness, despair, nervousness, anger, fear, love, joy, relief, happiness and self-confidence.

According to the children and youngsters, singing in a choir has a positive effect on their emotions. The large majority of them experience predominantly positive emotions when they sing; most notably joy (n = 256, 85.3%), happiness (n = 235, 78.3%) and self-confidence (n = 194, 64.7%). Most of them also say that they do not experience the negative emotions of despair (n = 298, 96.3%), anger (n = 287, 95.7%), fear (n = 282, 94%), sadness (n = 259, 86.3%) or nervousness (n = 238, 79.3%) when they are singing in the choir. Opinions about the emotions of love and relief are divided. 110 choristers (36.7%) experience love when they are singing and 122 (40.7%) feel a sense of relief.

In general, girls have more positive emotions about their singing than boys. This is particularly the case for the emotions of love (40.8% v. 16%), happiness (80.8% v. 66%), joy (87.6% v. 74%) and self-confidence (67.6% v. 50%). This correlation between gender and the

experiencing of emotions is statistically significant. The strength of the correlation is weak and also statistically significant.

3.4.1.7 WHAT MAKES YOU FEEL THESE EMOTIONS?

The children and youngsters attribute the experiencing of these emotions first and foremost to the melody of the song (n = 230, 76.7%) and the atmosphere within the group (n = 212, 70.7%).

There are statistically significant differences in the way that boys and girls evaluate the influence of the content of the song texts on their experiencing of emotions while they are singing. 40.8% of the girls regard this as a factor contributing to their emotional experience, but only 22% of the boys feel the same. The influence of the melody on the emotions also differs in a statistically significant manner according to gender. Girls (n = 200, 80%) more frequently give melody as a reason for experiencing emotions than boys (n = 38.3, 60%). The strength of these correlations is weak and also statistically significant.

3.4.1.8 DOES SINGING HAVE AN INFLUENCE ON THE WAY YOU DEAL WITH THESE FEELINGS?

42% of the respondents gave a positive answer to this question. In addition, a further 18.7% of the children and youngsters said that they now deal with their feelings in a more aware (n = 43, 14.3%) or a different manner (n = 13, 4.3%), even though 'no' was also one of the answer options.

Girls undergo a greater emotional development as a result of their singing than boys. More boys (46.9%) than girls (36.1%) said that they had noticed no emotional change. Girls responded more affirmatively to the propositions 'I try to express my feelings more clearly' (13.1% v. 4.1%), 'I talk more about my feelings' (5.7% v. 0%) and 'I can better recognize my feelings and give them a name' (5.3% v. 0%). There is also a significant correlation between gender and the answers given to the question 'Has singing had an influence on the way you deal with your feelings?' (Likelihood Ratio: $p = .016 < .05$). The strength of this correlation is weak, but not statistically significant (Cramer's $V = 0.190$, $p = 0.104 > 0.05$).

3.4.1.9 WHEN I SING, SOMETHING HAPPENS TO ME...

The large majority of the children and youngsters indicated that they are not uncertain (n = 291, 97%), do not doubt that they sing well (n = 243, 81%), do not get tired quickly (n = 286, 95.3%), do not have a problem to sing for a long time (n = 299, 99.7%), are not sad (n = 292, 97.3%), and do not feel they are being pushed beyond their limits (n = 283, 94.3%).

One in four of the respondents indicated that they are more daring (n = 75, 25%) and do things that they would not dare to do alone (n = 73, 24.3%). One in three (n = 104, 34.7%) said that they make friends while they are singing.

Opinion on some of the other propositions is more divided. About half of the children and youngsters say that they have a feeling of wanting to do better ('yes': n = 140, 46.7%). There was a similar response to the proposition that singing allows them to concentrate better (n = 129, 43%). 139 of the young choristers (46.3%) reported that they feel proud when they are singing. 52.7% (n = 158) indicated that they listen to the other singers. 55% (n = 165) said that singing gives them the feeling that they can really do something and 60.7% claim that singing helps them to forget their worries.

Almost three-quarters of the children and youngsters (n = 210, 70%) say that they always do their best when they are singing. 76% of the choristers (n = 228) feel happy when they are singing and 79.7% feel good.

In relative terms, girls respond more positively than boys for the following matters: the feeling that they can really do something (58% v. 40%), feeling happy (79.6% v. 58%) and feeling good (83.6% v. 60%). Gender therefore has a statistically significant effect on the feeling that they can really do something ($\alpha : p = .020 < .05$), on the feeling of happiness when singing ($\alpha : p = .001 < .05$) and on feeling good when singing ($\alpha : p = .000 < .05$). The strength of these three correlations is weak and all three are also statistically significant (Cramer's V = 0.135, $p = 0.020 < 0.05$; Cramer's V = 0.188, $p = 0.001 < 0.05$; Cramer's V = 0.219, $p = 0.000 < 0.05$).

3.4.2 Choir leaders

3.4.2.1 WHICH OF THE FOLLOWING INFLUENCES DOES SINGING IN YOUR CHOIR HAVE ON YOUR SINGERS?

All the choir leaders were unanimously in agreement that singing in a choir does have an influence on their young singers.

The majority of the choir leaders reported the following influences as being the most common: the children and youngsters have more self-confidence (n = 84, 89.4%), give the impression of being surer of themselves (n = 67, 71.3%) and are more positive about life (n = 66, 70.2%).

Opinion is more divided about other possible influences, such as the ability of the choristers to empathize better with others (n = 46, 48.9%), the fact that they are less afraid of failing (n = 43, 45.7%), and their display of more spontaneous/extrovert behaviour (n = 35, 37.2%).

Finally, most of the choir leaders reject the influences that can be considered as less positive for their choristers, such as a desire to take the lead in conversations or make themselves the centre of attention (n = 14, 14.9%), an increased fear of doing something wrong (n = 6, 6.4%), greater introversion or shyness ('no': n = 94, 100%) and a more negative outlook on life ('no': n = 94, 100%).

3.4.2.2 DO YOU THINK THAT SINGING HAS AN INFLUENCE ON THE EMOTIONAL DEVELOPMENT OF THE CHILDREN AND YOUNGSTERS IN YOUR CHOIR?

With just two exceptions, all the choir leaders expressed the opinion that singing in a choir positively influences the emotional development of children and youngsters. Half of the choir leaders (n = 44, 46.8%) think that young choristers learn how to better understand and express their emotions through contact with other choir members. 17 choir leaders (18.1%) think that their choristers develop deeper insights into certain emotions. 15 choir leaders claim that the children and youngsters are more easily able to recognize the emotional atmosphere within the group. Finally, 11 choir leaders (11.7%) say that singing gives young people a better understanding of their fellow man.

3.4.2.3 HOW IMPORTANT ARE THE EMOTIONS OF THE SINGER IN TERMS OF THEIR EXPRESSION DURING SINGING?

94 of the choir leaders (92.6%) work consciously with emotions during rehearsals. 75 choir leaders (79.7%) believe that emotions are very important. 80% of these choir leaders (n = 61, 81.3%) explicitly discuss with the children and youngsters the emotions occurring in the songs they sing and one in five of them (n = 14, 18.7%) further discuss these emotions during textual analysis of the chosen songs.

3.4.2.4 HOW IMPORTANT ARE THE FOLLOWING ELEMENTS: FACIAL EXPRESSION DURING SINGING, BODILY MOVEMENT DURING SINGING, THE PERSONAL ENVIRONMENT OF THE SINGERS AND THE FANTASY WORLD OF THE SINGERS?

All four elements are regarded by the majority of the choir leaders (68% or higher) as being important, to a greater or lesser degree. Facial expression during singing is regarded as being the most important of the four (n = 83, 88.3%). Two out of every three choir leaders think that this element is very important and one in four think that it is important. The personal environment of the young singers (n = 67, 71.3%), their fantasy world (n = 67, 71.3%) and bodily movement during singing (n = 64, 68%) are considered by 40% of the choir leaders to be important and by 30% to be very important.

3.4.3 Comparison between Children/youngsters and Choir leaders

3.4.3.1 THE INFLUENCE OF SINGING IN A CHOIR

Of the influences that were measured for both groups, the increase in self-confidence scored highest both with the children/youngsters (57.3%) and with the choir leaders (89.4%). Both groups also indicated a greater impression of sureness as the second most important influence (children/youngsters 56.3%, choir leaders 71.3%). Third place was reserved for a more positive approach to life (children/youngsters 51.3%, choir leaders 70%). Finally, 26.7% of the young choristers expressed the opinion that they have a better understanding of what people think and feel because of their singing. Similarly, 48.9% of choir

leaders say that their choristers are better able to empathize with other people as a result of being in a choir.

3.4.3.2 THE REASONS FOR JOINING A CHOIR

The top three reasons amongst the children and youngsters are intrinsic motivation (they like to sing: 55%), cognitive motivation (they want to learn to sing better: 11.3%) and social motivation (family and/or friends are already singing in the choir: 14.3%).

The choir leaders indicate the same reasons, but they are more extreme in their preferences and tend to overestimate the importance of social reasons. Their top three also consists of intrinsic motivation (they like to sing: 93.6%), social motivation (family and/or friends are already singing in the choir: 68.8%) and cognitive motivation (interest and a desire to learn: 64.9%).

3.4.3.3 EMOTIONAL DEVELOPMENT

42% of the children and youngsters claim that they can better deal with their own emotions as a result of their singing. One in five say that they deal more consciously with their emotions. They also experience a number of different emotions when singing. Positive emotions are widespread and 'popular'; negative emotions are encountered far less or not at all.

97.8% of choir leaders are of the opinion that singing in a choir has a positive influence on the emotional development of their young choristers.

In other words, in both groups there is a clear belief that singing in a choir is good for the emotional development of the singers.

3.5 Voice awareness



3.5.1 Children and youngsters

3.5.1.1 *IF MY VOICE IS NOT IN FORM, I NOTICE THAT...*

The biggest problems that children and youngsters experience if their voice is not working properly are the singing of high notes (n = 171, 57%), a sore throat (n = 157, 52.3%), a loss of vocal warmth and a noticeable change in voice quality (n = 164, 45.3%).

Almost 40% of the children and youngsters (n = 114, 38%) say that it is difficult to sing loudly in these circumstances and the same percentage (n = 114, 38%) report that they sometimes lose their voice entirely. 36% of the young choristers (n = 108) say that they have a crack in their voice when it is not working well, 98 of them (32.7%) say that they have difficulty in talking or singing for a long time and one in three (n = 101, 33.7%) experience a shortage of breath. 27.7% (n = 83) indicated that they find it hard to sing in tone, one in five (n = 62, 20.7%) tire quickly when talking or singing and a similar percentage (n = 57, 19%) report that it requires a real effort for them to talk or sing. A comparable number of young singers (n = 56, 18.7%) say that they find it hard to sing softly with a malfunctioning voice and a further one in five (n = 54, 18%) have difficulty to sing low notes.

It is noticeable that all the problems in the answer options were reported by a least one in five of the children and youngsters who were surveyed, with the exception of the proposition that other people find it more difficult to understand what they are saying ('yes': n = 26, 8.7%).

Gender does not have a statistically significant effect on responses to the question "If my voice is not in form, I notice that..."

Relatively more youngsters (50.7%) than children (31.8%) notice that their voice is not working properly because it loses its usual warmth and sounds strange. This correlation is statistically significant (α : p = 0.003 < .05). The strength of the correlation is weak and also statistically significant (Cramer's V = .174, p = 0.003 < 0.05).

Relatively more youngsters (41.1%) than children (26.1%) notice that their voice is not working properly because there is a crack in the way it sounds. This correlation is statistically significant (α : p = 0.015 < .05). The strength of the correlation is weak and also statistically significant (Cramer's V = .142, p = 0.015 < 0.05).

Relatively more youngsters (57%) than children (40.9%) notice that their voice is not working properly because they have a sore throat. This correlation is statistically significant (α : p = 0.011 < .05). The strength of the correlation is weak and also statistically significant (Cramer's V = .147, p = 0.011 < 0.05).

Relatively more children (14.7%) than youngsters (5.7%) notice that their voice is not working properly because people find it more difficult to understand what they are saying or singing. This correlation is statistically significant ($\alpha : p = 0.011 < .05$). The strength of the correlation is weak and also statistically significant (Cramer's V = .147, $p = 0.011 < 0.05$).

3.5.1.2 MY VOICE DOES NOT WORK WELL WHEN...

The first important result to note is that 282 of the children and youngsters report that their voice does not always work well.

When asked to say when their voice does not work well, being sick ($n = 233, 77.7\%$) or having a cold ($n = 242, 80.7\%$) were cited as the most common reasons. Half of the children and youngsters ($n = 148, 49.3\%$) say that their voice does not function properly if they shout a lot. One in three ($n = 100, 33.3\%$) indicated that their voice problems occur when the air is too dry or when they are nervous ($n = 84, 28\%$). All the other answer options were chosen by less than 15% of the respondents.

There are relatively more boys than girls who say that they are unaware when their voice is not working properly. This correlation is statistically significant (Likelihood Ratio: $p = 0.027 < .05$). The strength of the correlation is weak and also statistically significant (Cramer's V = .144, $p = 0.013 < 0.05$).

Relatively more youngsters than children say that their voice does not work well when the air is too dry. This correlation is statistically significant ($\alpha : p = 0.026 < .05$). The strength of the correlation is weak and also statistically significant (Cramer's V = .130, $p = 0.026 < 0.05$).

In response to the proposition that their voice works less well when they have just had a rehearsal, more children (9.1%) than youngsters (2.4%) answered in the affirmative. This correlation is statistically significant (Likelihood Ratio: $p = 0.015 < .05$). The strength of the correlation is weak and also statistically significant (Cramer's V = .149, $p = 0.011 < 0.05$).

In response to the proposition that their voice works less well when they have just had more frequent rehearsals than usual, more youngsters (14%) than children (5.7%) answered in the affirmative. This correlation is statistically significant ($\alpha : p = 0.040 < .05$). The strength of the correlation is weak and also statistically significant (Cramer's V = .119, $p = 0.040 < 0.05$).

3.5.1.3 WHEN MY VOICE IS NOT WORKING WELL...

In general, it can be said that the negative behaviour options are not adopted by most of the children and youngsters and that relatively more of them adopt the positive behaviour options. 41 of the young choristers (13.7%) report that they do nothing special when their voice is not working well.

As far as the negative behaviour options are concerned, the majority of the young singers (n = 248, 82.7%) say that they talk or sing less than normal. They also report that they do not whisper (n = 269, 89.7%). 283 children and youngsters (94.3%) say that they do not force their voice when they want to talk loudly and 86.7 % (n = 260) stop drinking soft (fizzy) drinks.

Negative behaviours that are slightly more common include coughing (n = 83, 27.7%) and sucking on a throat tablet (n = 150, 50%). However, these behaviours also have a positive note: these children and youngsters are at least taking action to try and improve their voice, even though the actions themselves actually do more harm than good.

As far as the positive behaviour options are concerned, almost one in three of the young singers (n = 85, 28.3%) claim that they pay more attention to their breathing and 127 of them (42.3%) say that they shout less. 41% (n = 123) try to use their voice less or not at all. More than half (n = 181, 60.3%) drink more plain (non-fizzy) water than normal. Asking advice from the choir leader ('yes': n = 37, 12.3 %), parents ('yes': n = 55, 18.3 %) or friends ('yes': n = 20, 6.7 %) is less popular amongst those surveyed.

For two of the answer options - sucking on a throat tablet and the drinking of soft (fizzy) drinks - there were relatively more positive responses from girls than boys. In both cases, the correlation is statistically significant; respectively $\alpha : p = 0.030 < .05$ and $\alpha : p = 0.033 < .05$. The strength of the correlation is weak in both cases and also statistically significant (Cramer's V = .125, p = 0.030 < 0.05; Cramer's V = .123, p = 0.033 < 0.05).

Youngsters (55.6%) reported more frequently than children (37.5%) that they suck on a throat tablet when their voice is not working well. This correlation is statistically significant ($\alpha : p = 0.005 < .05$). The strength of the correlation is weak and also statistically significant (Cramer's V = .165, p = 0.005 < 0.05).

Children (26.1%) reported more frequently than youngsters (15%) that they ask the advice of their parents when their voice is not working well. This correlation is statistically significant ($\alpha : p = 0.023 < .05$). The strength of the correlation is weak and also statistically significant (Cramer's V = .132, p = 0.023 < 0.05).

Children (20.5%) reported more frequently than youngsters (10.6%) that they do nothing special when their voice is not working well. This correlation is statistically significant ($\alpha : p = 0.024 < .05$). The strength of the correlation is weak and also statistically significant (Cramer's V = .131, p = 0.024 < 0.05).

3.5.2 Choir leaders

3.5.2.1 *WE REHEARSE IN A ROOM WITH THE FOLLOWING CHARACTERISTICS:*

In general, the assessment of their rehearsal rooms by the choir leaders was positive. The characteristics of the room that are the most important for good voice care were scored more negatively by the choir leaders than other characteristics that are less relevant for good voice care. 62.3% (n = 60) of the choir leaders find the temperature in their rehearsal rooms to be good to very good. 56.4% of them (n = 53) are satisfied with the acoustics and half (n = 47, 50%) are more than happy with the level of background noise. 37 choir leaders (39.4%) assess the humidity level in the rooms as being good to very good, but on this matter 43 of their colleagues (45.7%) remain neutral. This is possibly a difficult characteristic to assess without the necessary measuring equipment. Opinions about light and cleanliness are more uniform: three-quarters of the choir leaders are satisfied.

3.5.2.2 *TO HELP TRAIN THE DEVELOPING VOICES OF MY CHOIR MEMBERS, I MAKE USE FIRST AND FOREMOST OF...*

In general, the choir leaders make use of different sources, although training and experience remain the most popular. Three out of every four choir leaders make use of information drawn from their own experience (n = 76, 80.1%) or their own training (n = 69, 73.4%). 61.7% of them (n = 58) make use of information from additional courses they have followed. Slightly more than one in three consult with fellow choir leaders (n = 35, 37.5%) or make use of other external sources of information (n = 41, 43.6%). Only one in ten seeks advice from the overarching choral federation.

It is particularly noticeable how few choir leaders collaborate with other specialist disciplines in their field. Only one in five works with a song coach or a voice coach. Just three choir leaders in total consult a doctor or a speech therapist. It is to be hoped that this phenomenon reflects a low number of voice problems and not a lack of awareness on the part of the choir leaders.

3.5.2.3 *I RECOGNIZE THE VOCAL DEVELOPMENT OF MY CHOIR MEMBERS DURING PUBERTY BY...*

In general, two in every three choir leaders (or more) recognize the vocal development of their choir members by changes in the following characteristics: tonal reach (n = 84, 89.3%), voice quality (n = 79, 84%), voice stability (n = 77, 81.9%), speaking tone, (n = 75, 79.8%), voice timbre (n = 72, 76.6%), voice volume (n = 70, 74.4%), tonality (n = 68, 72.3%) and voice strength (n = 65, 69.14%).

Just 4.2% of the choir leaders (n = 4) fail to recognize any of these change characteristics during the vocal development of their young choristers in puberty. 19 choir leaders (20.2%) recognize all the change characteristics.

Dependent on the nature of the characteristic, a third to a half of the choir leaders are of the opinion that they recognize these signs of vocal development in puberty in both their male and female singers. Half recognize vocal development through a change in tonal reach (n = 53, 56.4%), voice quality (n = 51, 54.3%), voice volume (n = 49, 52.1%) and voice timbre (n = 44, 46.8%).

The majority of choir leaders think that breathing type (n = 58, 61.7%) and aural comprehension (n = 52, 55.3%) are not important characteristics of voice development.

About 10% of the choir leaders indicated that they recognize the voice development of girls in puberty by noticing changes in all the characteristics listed, with voice volume as the most prominent of these characteristics (n = 17, 18.1%). For boys, the opinions of the choir leaders were more divided, with speaking tone (n = 33, 35.1%) and voice stability (n = 29, 30.9%) being cited as the most important identifying characteristics.

3.5.2.4 AS CHOIR LEADER, I AM HAPPY IF ... (TOP 3)

The combined top three of all the choir leaders is as follows:

1. The children/youngsters enjoy their singing (n = 77, 81.9%)
2. The level of singing performance systematically improves (n = 51, 54.3%)
3. We make progress together (n = 37, 39.4%)

Pareto analysis (20-80 rule): this rule postulates that 20% of the elements (in casu two to three) chosen by 80% of the choir leaders (226) will be the most important. However, in this case it was noticeable that five or six of the 12 available options (in other words, 50% instead of 20%) were chosen by 80% of the choir leaders. This means that there is only limited agreement amongst the choir leaders about the important factors for being satisfied. As a result, three-quarters say that they are happy if the children and youngsters enjoy singing and half say that they are happy if they make progress with their young choristers.

3.5.2.5 MY TOP 3 DO'S ...

The combined top three of all the choir leaders is as follows:

1. Voice warm-up (n = 70, 74.5%)
2. Articulating clearly (n = 50, 53.2%)
3. Yawn away tension (relaxation exercise) (n = 31, 33%)

Pareto analysis (20-80 rule): this rule postulates that 20% of the elements (in casu two) chosen by 80% of the choir leaders (226) will be the most important. However, in this case it was noticeable that five or six of the 11 available options (in other words, 50% instead of 20%) were chosen by 80% of the choir leaders. This means that there is only limited agreement amongst the choir leaders about the most important do's.

3.5.2.6 MY TOP 3 DON'TS ...

The combined top three of all the choir leaders is as follows:

1. Smoking (n = 61, 64.9%)
2. Shouting (n = 60, 63.8%)
3. Arguing (n = 36, 38.1%)

Forced whispering (n = 33, 35.1%) and talking too much (n = 30, 31.9%) were also cited by more than one in three of the choir leaders as being in their top three don'ts.

Pareto analysis (20-80 rule): this rule postulates that 20% of the elements (in casu two to three) chosen by 80% of the choir leaders (226) will be the most important. However, in this case it was noticeable that five or six of the 11 available options (in other words, 50% instead of 20%) were chosen by 80% of the choir leaders. This means that there is only limited agreement amongst the choir leaders about the most important don'ts.

3.5.2.7 I COULD ALWAYS USE ADDITIONAL TRAINING OR INFORMATION ABOUT THE FOLLOWING MATTERS...

In the first instance, the choir leaders (n = 60, 63.8%) would like additional training or information about the range of repertoire. More than half of them (n = 53, 56.4%) would also like more information or training about vocal techniques. More than one in three would like to know more about growth-related voice change (n = 41, 43.6%), voice care (n = 39, 41.5%), practical tools (n = 39, 41.5%), singing in harmony (n = 38, 40.4%), voice quality (n = 36, 38.3%), and attention and concentration (n = 36, 38.3%).

One in four of the choir leaders would like additional training and information about motivation (n = 28, 29.8%), different types of teaching (n = 28, 29.8%), creating a cohesive group (n = 27, 28.7%), tonality (n = 24, 25.5%) and textual memorization (n = 22, 23.4%).

4 Conclusions –questionnaire children/youngsters

4.1 It is necessary to provide information

A/ For young choristers

Voice education: Children and youngsters need to receive information about the changes their voice can undergo, but also about voice hygiene and voice welfare.

Answers to questions like:

Who experiences voice change? What exactly does this involve? When does it happen and how? What can we do to prevent voice problems? How should we deal with voice problems if they do arise?

B/ For choir leaders

More attention should be explicitly devoted to the following matters:

- More practice during rehearsals in singing high notes and low notes.
- More attention during rehearsals to tonality and melodies.
- More attention during rehearsals to textual analysis.
- More solos with different soloists.
- More regular performances.
- More attention of the melody of the songs when choosing the repertoire.
- Organization of more group activities.
- Providing more information about healthy voice use and good voice hygiene (no shouting, the influence of stress, the influence of other environmental factors, etc.).
- Selecting a good rehearsal room.

There must be greater awareness that choral singing requires the investment of a considerable amount of time and effort, also away from rehearsals.

4.2 Policy changes

Stimulate choral singing, because it has many positive effects!

- Cognitive development: Young choristers learn more about music, their memory and concentration improves, their knowledge of their own mother tongue increases and they have a greater awareness of their surroundings.
- Social development: Young choristers exhibit more proactive behaviour, make contact more easily with others, are more prepared to take the initiative and dare more to stand up for their own ideas.
- Psychological development: Young choristers are more relaxed, have more self-confidence and a more positive outlook on life. They experience positive emotions, such as joy, happiness and self-assuredness, but seldom experience their more negative

counterparts. They are also able to deal more consciously with emotions and come regularly into contact with more personal feelings, such as ambition, pride, cheerfulness, ability and feeling good.

- Greater voice awareness.

Provide information about healthy voice use.

5 Conclusions – questionnaire choir leaders

5.1 It is necessary to provide information

The choir leaders reported that they want and need more information on a variety of subjects. It is important to inform choir leaders about:

- Voice development in puberty, specific growth-related voice mutation and voice changes.
- The influence of stress on the voice and its performance.
- The importance of emotions in singing.
- The best way to optimize the rehearsal room and the reasons why this is necessary.
- Positive and negative factors that influence the voice (previously referred to as do's en don'ts), including the importance of emphasizing voice warm-down exercises.

5.2 Recommendations for choir leaders

- Spend more time during rehearsals to stimulate textual comprehension of songs in foreign languages.
- Take steps to optimize conditions in the rehearsal room.
- Be aware of the importance of good vocal health and the need to show due respect to all singers.
- Learn skills that will allow the recognition of voice development in singers during the puberty.

5.3 Policy changes

Stimulate choral singing, because the choir leaders are convinced it has many positive effects!

- Physical development: Choristers develop a greater vocal reach and a more flexible voice, are better able to keep in tone and can learn more complex melodies.
- Cognitive development: Textual comprehension is improved by spending (more) time on textual analysis. This helps to train the memory (85% of choirs sing their songs from memory). Choral singers learn to read musical notes in the choir (83% of choirs).
- Social development: The choir provides its members with opportunities to establish contacts and make friends.
- Psychological development: Choral singing has an effect on the self-confidence of the singers. They give the impression of being surer of themselves and have a more positive approach to life. Half the choir leaders think that their young singers learn to empathize better with others and have a reduced fear of failure. At the same time, the choir leaders reject the negative propositions that choral singing can also encourage self-centredness and stimulate timidity. 98% of choir leaders believe that choral singing has a positive influence on the emotional development of their choir members.

Promote multi-discipline collaboration for the optimal training of young voices: choir leaders seldom work with other experts in the field, such as voice coaches, singing coaches, speech therapists and doctors.

Improve the dissemination of information via choral federations.

The Singing Sofa is part of “VOICE - Vision On Innovation for Choral music in Europe”, a project coordinated by European Choral Association – Europa Cantat (Germany) in cooperation with Chorverband Österreich (Austria), Expertisecentrum Stem (Belgium), Koor&Stem (Belgium), Epilogi (Cyprus), UCPS (Czech Republic), A Coeur Joie (France), Polyfolia (France), Moviment Coral Català and Mediterranean Office for Choral Singing (Spain), KÓTA and Central-Eastern European Centre (Hungary), Zsolnay Heritage Management Nonprofit Ltd – ZSÖK (Hungary), FENIARCO (Italy), IFAC (France), Länsmusiken with the Swedish International Choral Centre Örebro (Sweden, 2012 to 2013) and the University of York (UK), as well as many other associate partners. This project has been selected under the European Union programme “Culture

VOICE – Vision On Innovation for Choral music in Europe is a European project for the sustainable development and innovation of choral singing, a first-time major cooperation between choral operators, music educators and researchers. The aims of VOICE are to encourage new events and methods and the creation of innovative repertoire, promote the voice as universal instrument, improve the quality of vocal music, enable transnational mobility and circulation of (young) musicians and choral works, enhance the dialogue between cultures and generations as well as the exchange of expertise and develop new tools for the promotion of singing in music education. VOICE will invest in research on the voice in partnership with universities and collect data on choral life in Europe. The 14 partners will spread the results to develop a new vision on choral singing in Europe.

Activities of VOICE from 2012 to 2015 through which these aims shall be reached include a major choral festival in Italy, an urban youth choir festival in Sweden, singing as a tool for reconciliation in Cyprus, three sessions of the Eurochoir for young singers in Czech Republic, Hungary and France, training courses and seminars for conductors and managers in Austria, France, Italy and Sweden, a conference on Mediterranean Music in Spain, a symposium on singing and music education in Hungary, a conductor symposium in France, a vocal training programme for teachers and a cooperation programme with the world of education in Belgium, research programmes on the growth of young people in relation to their singing voice and on vocal health of amateur singers, done from Belgium and United Kingdom, an international collection of lullabies and databases on choral life, voice-training and conductors’ training in Europe. More information will be published on www.thevoiceproject.eu