

Finding their voices

An action research project to assess the impact of specialist training and support for classroom teachers in promoting singing development in the Early Primary Years.



The Researcher

Music Education Specialist
– Early Childhood and
Primary School Vocal

Music Generation Carlow,
Ireland

Whole class teaching

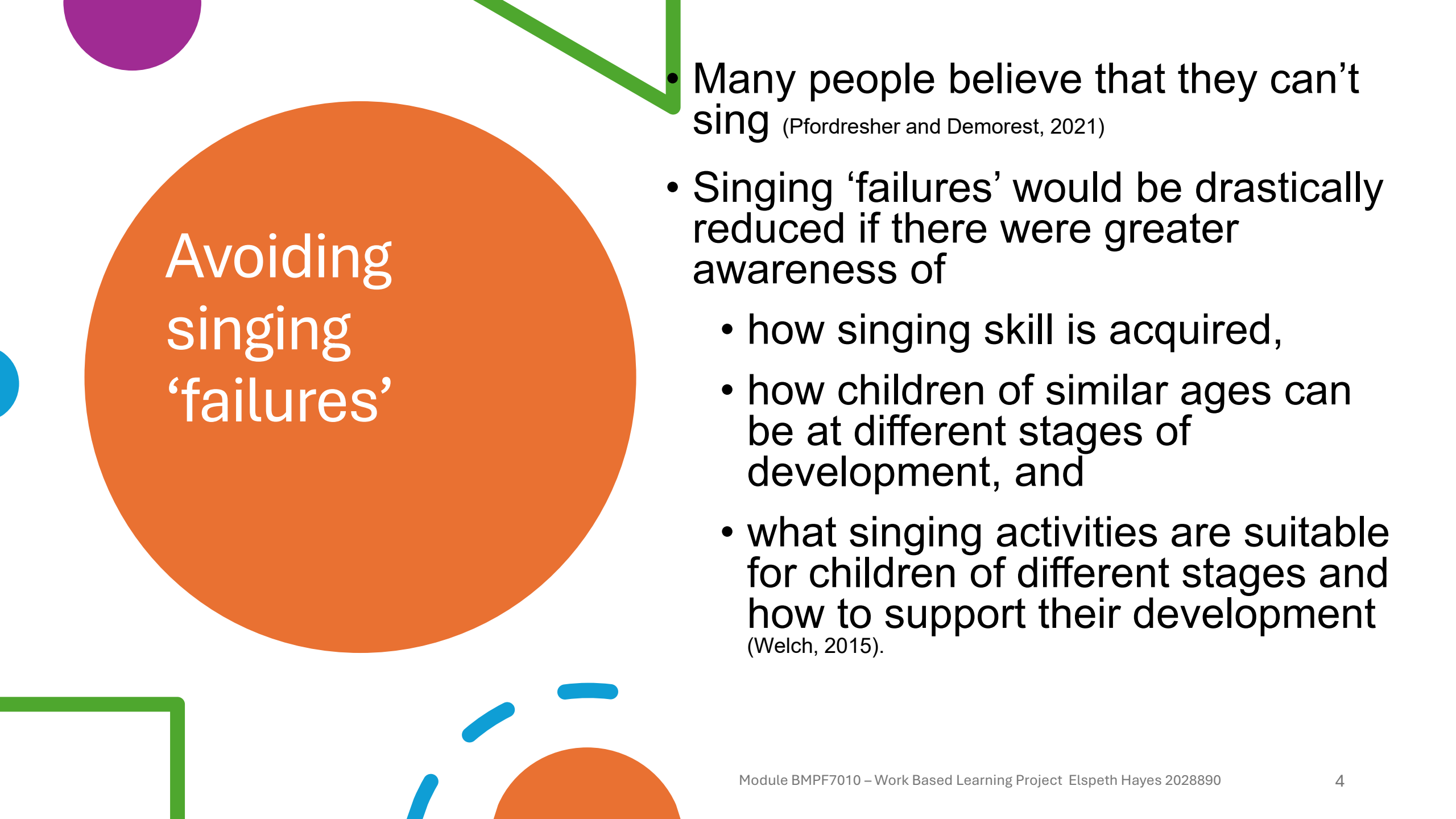
Partnership with classroom
teachers.

The Classroom Teacher

Classroom teachers teach whole curriculum including music

Issues of music specialists and classroom teacher roles much discussed in music education research.

- (O'Flynn *et al.*, 2022; McAuliffe, 2004; Russell-Bowie, 2009; Hennessy, 2000; Hogan, 2021; de Vries, 2015)



Avoiding singing 'failures'

- Many people believe that they can't sing (Pfordresher and Demorest, 2021)
- Singing 'failures' would be drastically reduced if there were greater awareness of
 - how singing skill is acquired,
 - how children of similar ages can be at different stages of development, and
 - what singing activities are suitable for children of different stages and how to support their development (Welch, 2015).



Singing skill

- Sing specific pitches
- Sing a known song
- Sing with a group at the same pitch
- Sing with a particular tone and timbre.

(Welch, 1994; Nichols, Hua and Wang, 2022)

Voice in the Irish primary classroom



MA Vocal Pedagogy research

How children's singing voices develop and how singing skill can be supported in childhood,
Presentation of childhood voice development in the Irish primary music curriculum.



Primary music curriculum: singing fundamental but assumes development of competency



Insufficient information and guidance to teachers



Principal research findings

Child voice development

- Different paces and stages
- Task dependent
- Most development ages 5-8

(Chen-Hafteck, 1997; Welch, 2015; Rutkowski, 2015; Svec 2018; Demorest, Nichols and Pfordresher, 2018)



Principal research findings - support

- “It is likely that singing competency will be nurtured through exposure to frequent opportunities for vocal play within an environment that encourages vocal exploration and accurate imitation” (Welch, 2015 p.448)

(Chen-Hafteck, 1997; Welch, 2015; Rutkowski, 2015; Svec 2018; Demorest, Nichols and Pfordresher, 2018)

Project goals



Empower teachers



Knowledge and experiential practice to build confidence
(Kenny, 2017)



Action research project

Training and support to classroom teachers

Background knowledge and practical experience

Evaluation to provide research data on effectiveness and success.

Project aims

For the teachers:

- Greater understanding of Singing Development
- Confidence using methods
- More confidence in own singing voices
- Awareness of vocal development of students
- Awareness of benefit of activity

For the classroom:

- More ways to incorporate vocal activity
- Successful and confident use of approach.
- Increased singing and vocal exploration activity.

Research questions

Was the training and guidance effective?



What were the barriers?



How could this be developed?

Research methodology

Action research, mixed methods approach (Cohen, Manion and Morrison, 2003; Morgan, 2007)

Collaboration between researcher and teachers

Quantitative and Qualitative data, building case studies.

Ethics

Not working with children or other vulnerable people

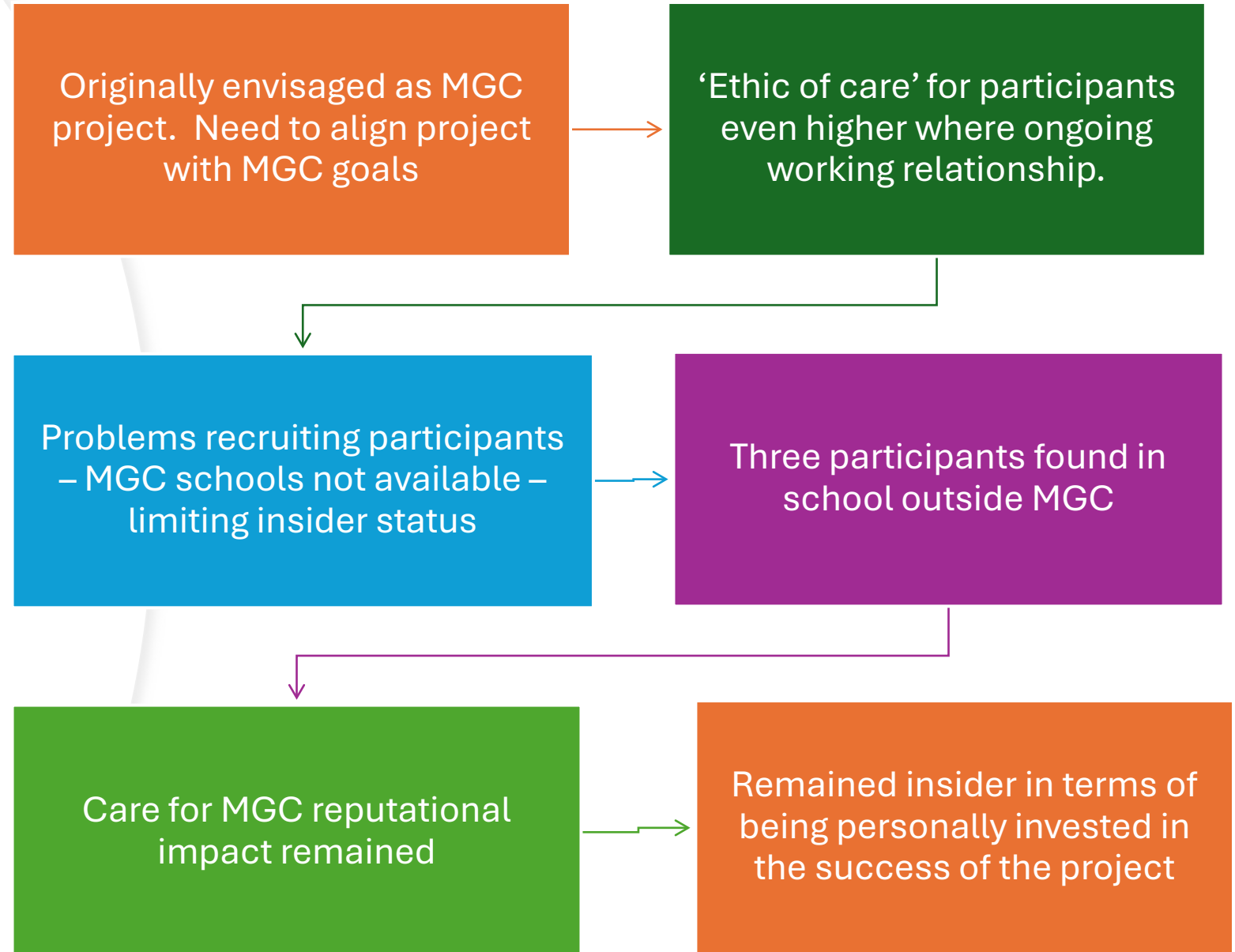
‘Ethic of care’ for participants. (Costley, Elliott and Gibbs, 2010 p.43)

Participants comfort with activities. Support to their musical self-image (Demorest, Kelley and Pfordresher, 2017)

Voluntary participation

Complete anonymity

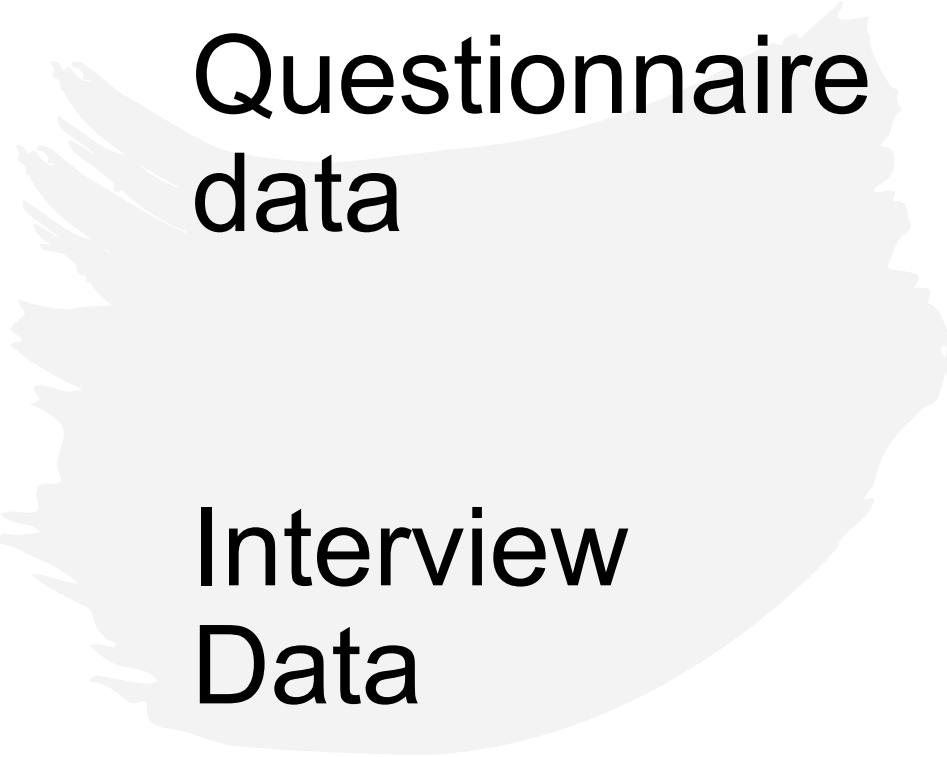
Insider Research





Project stages and methods

Pre-Workshop questionnaire	Quantitative Likert-style scale and multiple choice questions, qualitative narrative questions. Baseline data and background
Training Workshop	1.5 hours Research-based information on children's vocal development Practical activities to incorporate singing throughout the school day Resources provided to support implementation
Post-workshop questionnaire	Effectiveness of workshop delivery How ready did they feel to implement approach?
Implementation period	3 months
Post-implementation questionnaire	Mirroring pre-workshop questionnaire
Group interview	Researcher and Participants 30 minutes Guided by prompt questions



**Questionnaire
data**

Illustrative tables for quantitative data
Narrative responses expand and feed
into case studies

**Interview
Data**

Recording transcribed and coded for
qualitative analysis



Case Studies: The Participants' Stories

Build a picture of the experience of the individual participants and what we can learn from this.

Teacher 1	Teacher 2	Teacher 3
Most success with project Clear positive outcomes for class	Not implemented	Not implemented
Class in target age range (6-7 years) (Svec, 2018)	Class older than target age range (11 years) Class already enjoy singing and good level of skill to be expected at this age (Welch, 2015)	Class at upper end of target age range (8 years)

Musical background and self-image

Pre-workshop questionnaire			
What is your own musical background?			
Sing in a choir or other vocal group			
Can read music			
Used to sing in a choir or other vocal group			
Used to play an instrument			
Sing in the car / at home / in the shower			
	Teacher 1	Teacher 2	Teacher 3

Pre-workshop questionnaire				
How musical do you consider yourself to be?				
1 Not at all musical	2	3	4	5 Very Musical
				4
	3			4
	3			4
	3	1		4
Teacher 1	Teacher 2		Teacher 3	

How do you feel about singing..									
1. Not at all confident		2		3		4		5. Very confident	
With adults	5	4	2	4	5	5			
In front of adults	4	3	1	3	4	3			
With children	5	5	4	5	5	5			
In front of children	4	4	3	4	5	4			
	Pre	Post	Pre	Post	Pre	Post			
	Teacher 1		Teacher 2		Teacher 3				

Post-implementation questionnaire		
Has your confidence in your own musical ability changed as a result of this project?		
1 Disimproved	2 The same	3 Improved
3	2	3
Teacher 1	Teacher 2	Teacher 3

Voices in the classroom

How much singing or vocal exploration do you do with your class on a day-to-day basis?									
1 Rarely sing		2 Sing less than once a week		3 Sing around once a week		4 Sing some days of the week		5 Sing something every day	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Teacher 1		Teacher 2		Teacher 3					
Senior Infants / 1st class (6-7yrs)		5th Class (11 yrs)		2nd class (8 yrs)					

What proportion of the children in your class do you feel are confident singers?									
1 Few confident		2 Some		3 Most		4 All		5 All very confident	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Teacher 1		Teacher 2		Teacher 3					
Senior Infants / 1st class (6-7yrs)		5th Class (11 yrs)		2nd class (8 yrs)					

What proportion of children in your class do you feel can use their singing voices and sing in-tune?									
1 None		2 Around 1/4		3 Around 1/2		4 Around 3/4		5 All of them	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Teacher 1		Teacher 2		Teacher 3					
Senior Infants / 1st class (6-7yrs)		5th Class (11 yrs)		2nd class (8 yrs)					

How much.....									
1 Least		2		3		4		5 Most	
... do the children in your class enjoy singing?		4	4	5	5	4	4		
....do you enjoy singing with your class?		5	5	5	5	4	5		
.....do you feel that singing and vocal exploration is beneficial to children?		4	4	5	5	4	5		
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
	Teacher 1		Teacher 2		Teacher 3				
	Sen. Inf./1st class (6-7yrs)		5th Class (11 yrs)		2nd class (8 yrs)				

Training expectations and experience

How valuable do you think the various aspects of this training will be to you / in the future					
1 Not very valuable	2	3	4	5	Very Valuable
Learning about childhood vocal development	4	3	5	4	5
	4	4	5	4	5
Learning about vocal exploration activities	4	4	5	4	5
Learning about using singing and vocal exploration for task based and classroom management activities	5	5	5	5	4
Improving your own vocal confidence	4	4	5	4	5
	Pre	Post	Pre	Post	Pre
	Teacher 1		Teacher 2		Teacher 3

Pre-workshop				
Section 4: What is your level of knowledge about childhood vocal development?				
1. No knowledge	2	3	4	5. Good understanding
				3
	2	2		3
	2	2		3
Teacher 1	Teacher 2	Teacher 3		

Post-implementation			
Section 4 How do you feel your knowledge of this area has changed through the project?			
1. Disimproved	2 Stayed the same	3. Improved somewhat	4. Improved a lot
3	3	3	3
3	3	3	3
3	3	3	3
Teacher 1	Teacher 2	Teacher 3	

Coding methodology – interview data

Developed own methodology in response to needs of study

Each analytical approach used for qualitative data will be unique, because each study is unique (Patton 2015)

“..develop not only your own coding methods as needed, but even your own data analytic processes” (Saldaña, 2016 p.117)”

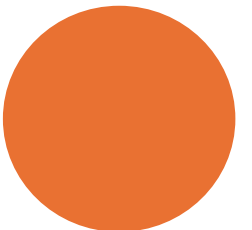
Two sets of codes simultaneously

Deductive evaluation codes from Project Aims

Understanding of Singing Development
Confidence using methods
More ways to incorporate vocal activity
Confidence using own singing voice
Successful and confident use
Increased singing and vocal exploration
Increased awareness of vocal development
Awareness of benefit of activity
Indication of effectiveness of training and guidance

Magnitude codes

Very Positive
Somewhat Positive
Neutral
Somewhat Negative
Very Negative



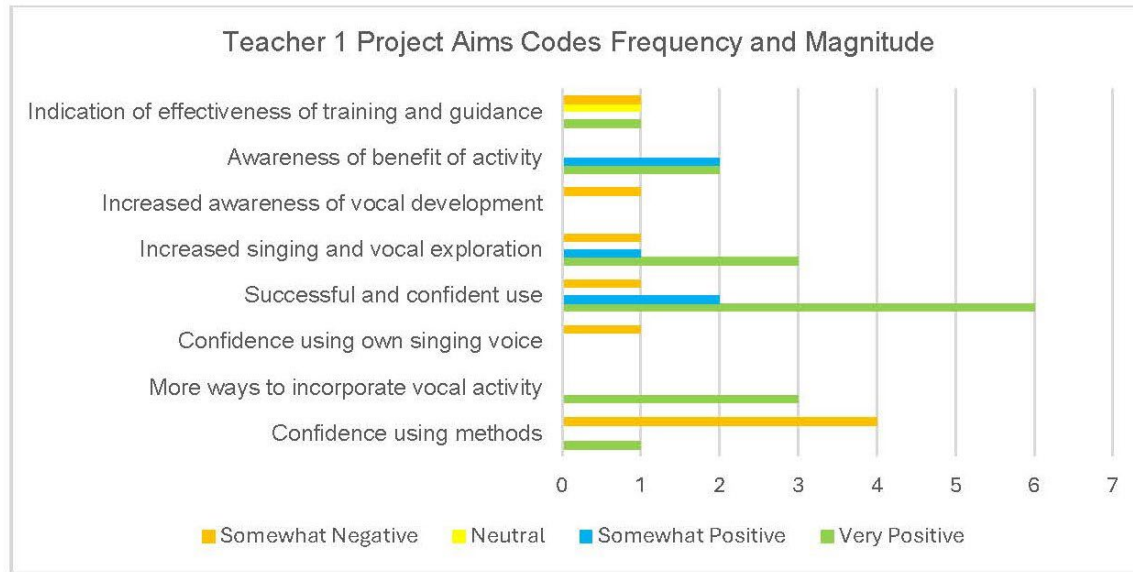
Inductive concept codes

Integration into classroom activities	Suggestions for more successful strategies
Student engagement and ownership	Age of students
Improvement in confidence of children	Gendered differences in student approach
Ease of adoption by class	Confidence of teacher
Indication of change of approach	Difficulty in keeping up
Improvement in singing ability of children	Barrier of children's confidence
Cross-curricular integration	Timing of exercise
Regular use	Recollection of own experience Students not used to approach
Classroom management	
Vocal exploration not as much used	
Classroom singing culture	
Wish to implement	New Arts Curriculum
Plans for future implementation	
Need for further training / experience / resources	
Benefit of integrated approach	Pressures on ability to adequately do music and arts in curriculum
Expectation of long term effects	Need for teacher experience

Combined into four categories

A Indicators of success of project implementation
B Indicators of future impact of project
C Indicators of barriers and issues in implementation
D Wider music curriculum issues

Teacher 1 Interview



“I find they really have responded well. I’ve used it mainly with...classroom management everyday activities...I actually couldn’t believe how well when I sang to them how they would sing back to me...that they just absorbed it..”

“I suppose maybe I’m not as comfortable with it [vocal exploration] or I didn’t know as much...when you were doing it, it seemed it was so natural”

“...and more and more of them are singing in tune, which I think is amazing”

“It’s just the culture of the classroom now, that we sing”

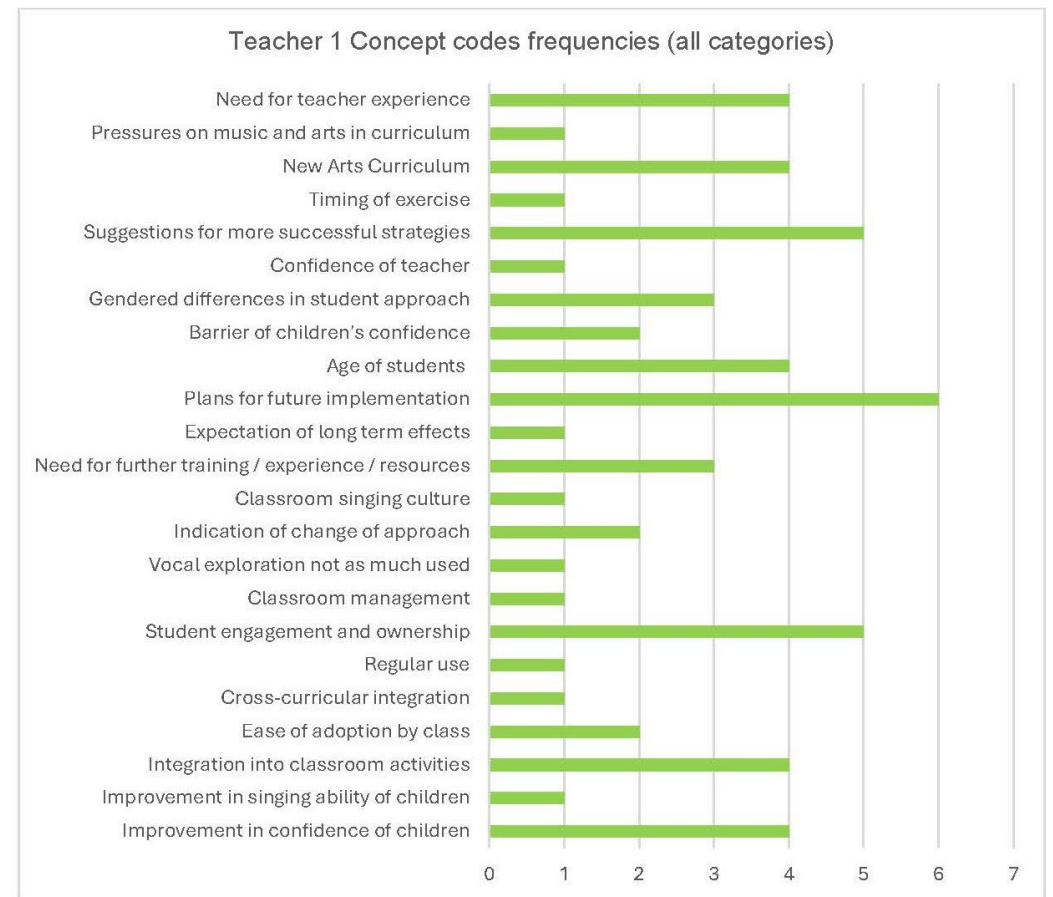
“I’ve gotten really used to using it”

“My reluctant boys are starting to like their bit of singing in fairness”

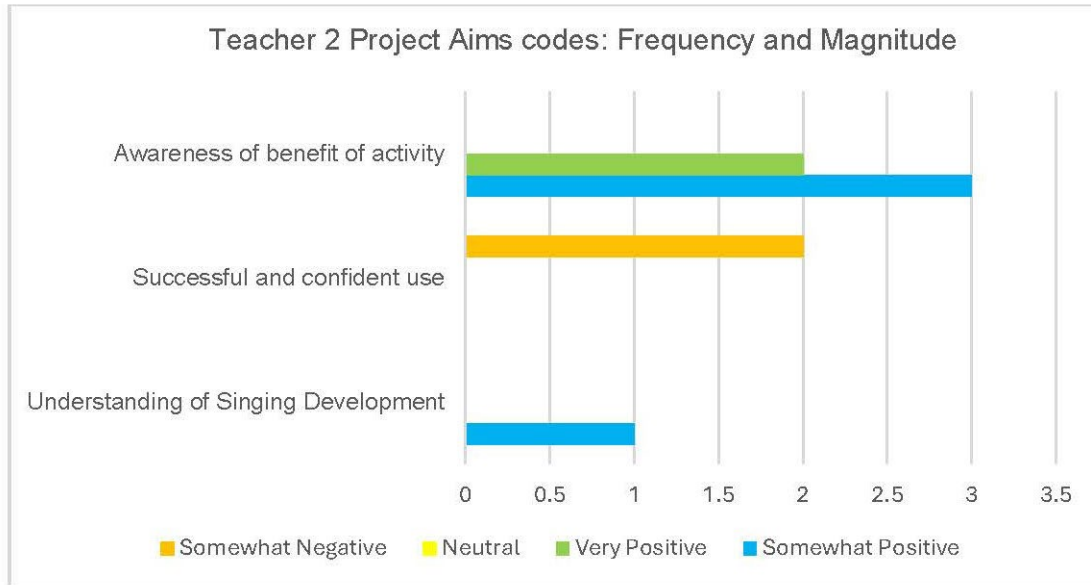
“four months in, I would say 95% of them were singing...at some point during the day”

“if you even had a video that you could watch yourself or show to them...then you can work together to explore it”

“I will definitely keep a lot of it going, you know and I will try to do more of the vocal exercises.”



Teacher 2 Interview



“we’re such creatures of habit....I didn’t get into the habit of doing it often enough”

“they just kind of fell away, and they’ve been singing songs that...we’re learning in Irish or English”

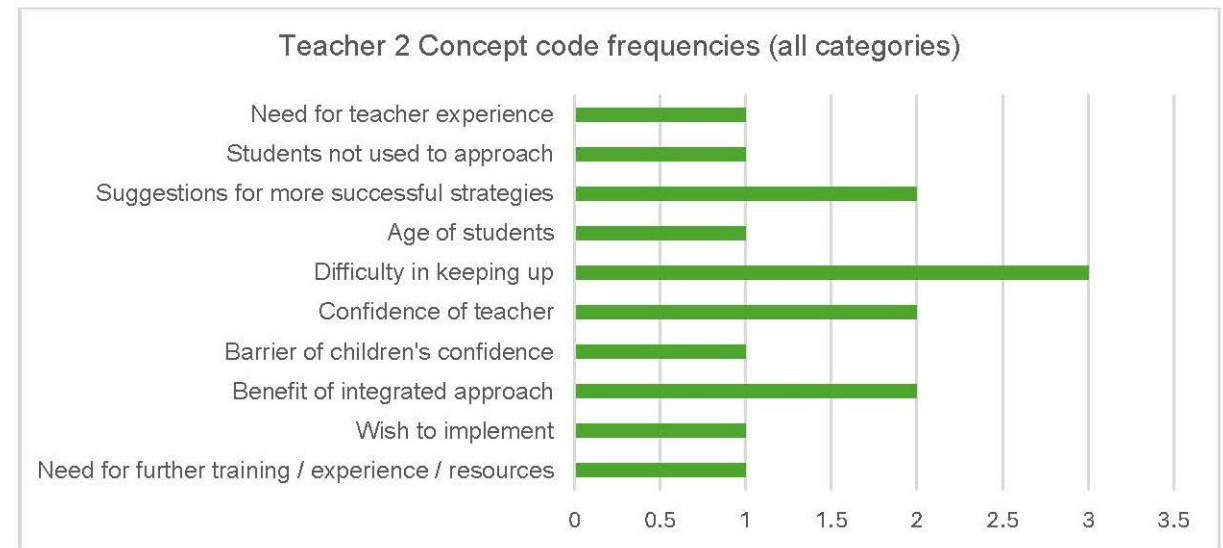
“Confidence would be a barrier with mine as well”

“I absolutely do see the benefit of it”

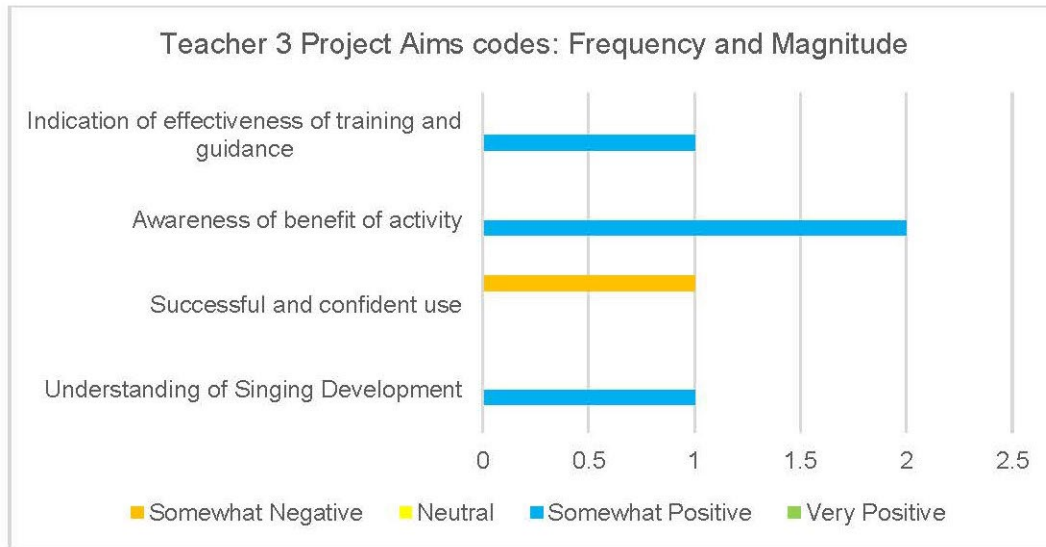
“I did have intentions. I and they do love singing.”

“..it really is just keeping that going each year and and then by the time they’re in 5th or 6th, they’re like, this is normal”

“It’s like not an additional chore.”



Teacher 3 Interview



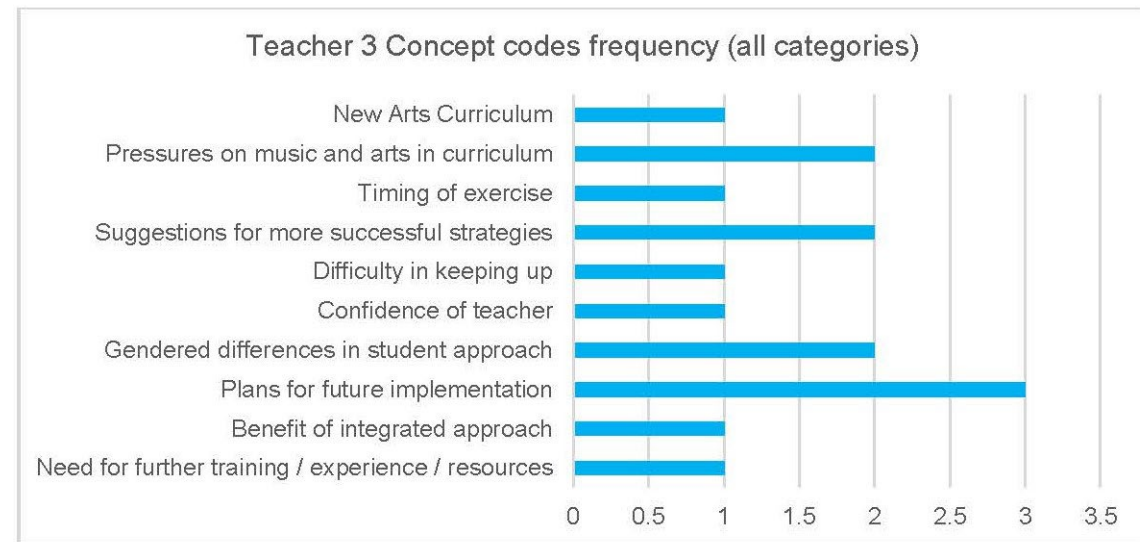
“I’m going into [SEN class] in September. And a lot of them are going to be very young. So I think that will suit there too”

“You are after giving us a bit more structure to the whole thing”

“I think I ...got caught up with all my courses and that kind of thing ...no time”

“when we were young...it was always a children’s choir singing...or a child soloist...so it suited our voices”

“have you got them next year?...So you can continue that?”



Achievement of project aims

Gain greater understanding of Singing Development in the early Primary Years (Junior Infants to 2 nd Class).	Partially achieved
Feel confident using methods explored in the training to support singing development in the classroom.	Partially achieved Teacher 1
Discover more ways to incorporate vocal activity throughout the school day which also benefit classroom management, wellbeing, and holistic learning.	Achieved Teacher 1
Build confidence in using their singing voices with their classes.	Not achieved
Report successful and confident use of some of the approaches in their classrooms.	Achieved Teacher 1
Report increased singing and vocal exploration activity with their classes.	Partially achieved Teacher 1
Report increased awareness of the vocal development of their students.	Partially achieved
Report an awareness that this activity is of benefit and importance to their students.	Achieved

Study limitations

Small sample size

Mixed role of researcher
– insider status

Bias towards singing
activity

Timing of project

Conclusions

Singing activity can be successfully integrated into classroom

Training and support vital, especially for unfamiliar activities

Classroom teachers see benefits of approach

Information on voice development beneficial but not essential

Approach more readily adopted by younger classes

Timing of training and implementation is important

Barriers of confidence and teacher workload

Reflection

Experience in making research into childhood vocal development relevant and comprehensible to the classroom teacher



```
graph TD; A[Experience in making research into childhood vocal development relevant and comprehensible to the classroom teacher] --> B[Reflect on more ways to help generalist classroom teachers gain confidence in their singing and musical abilities.]; B --> C[Confident that the approach is valuable]; C --> D[Foundations to develop the project – approach Sing Ireland, Music Generation, Teacher Training centres.];
```

Reflect on more ways to help generalist classroom teachers gain confidence in their singing and musical abilities.

Confident that the approach is valuable

Foundations to develop the project – approach Sing Ireland, Music Generation, Teacher Training centres.

Recommendations for project development

Start as early as possible in academic year to facilitate integration

Training done in stages, with follow-up during the project and possible session with music specialist and whole class

More practical activities in training

References

- Chen-Hafteck, L. (1997) 'Music and Language Development in Early Childhood: Integrating Past Research in the Two Domains', *Early child development and care*, 130(1), pp. 85–97 Available at: <https://doi.org/10.1080/0300443971300109>.
- Cohen, L., Manion, L. and Morrison, K. (2003) *Research Methods in Education* London: Routledge.
- Costley, C., Elliott, G. and Gibbs, P. (2010) *Doing work-based research approaches to enquiry for insider-researchers* Los Angeles: Sage.
- de Vries, P.A. (2015) 'Music without a music specialist: A primary school story', *International journal of music education*, 33(2), pp. 210–221 Available at: <https://doi.org/10.1177/0255761413515818>.
- Demorest, S., Kelley, J. and Pfordresher, P. (2017) 'Singing Ability, Musical Self-Concept, and Future Music Participation', *Journal of research in music education*, 64(4), pp. 405–420 Available at: <https://doi.org/10.1177/0022429416680096>.
- Demorest, S., Nichols, B. and Pfordresher, P. (2018) 'The effect of focused instruction on young children's singing accuracy', *Psychology of music*, 46(4), pp. 488–499 Available at: <https://doi.org/10.1177/0305735617713120>.
- Hennessy, S. (2000) 'Overcoming the red-feeling: the development of confidence to teach music in primary school amongst student teachers', *British Journal of Music Education*, 17(2), pp. 183–196 Available at: <https://doi.org/10.1017/S0265051700000243>.
- Hogan, G. (2021) *Teachers' perspectives of the role of music and creativity in music teaching and learning in the Irish primary level classroom: exploring policy, curriculum and practice*. MRes. University College Cork.
- Kenny, A. (2017) 'Beginning a journey with music education: Voices from pre-service primary teachers', *Music Education Research*, 19(2), pp. 111–122 Available at: <https://doi.org/10.1080/14613808.2015.1077801>.
- McAuliffe, M.C. (2004) *Historical and contemporary aspects of primary music in-service education in Ireland*. PhD. Leeds University.
- Morgan, D.L. (2007) 'Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods', *Journal of mixed methods research*, 1(1), pp. 48–76 Available at: <https://doi.org/10.1177/2345678906292462>.
- Nichols, B., Hua, A. and Wang, Z. (2022) 'Defining “happy” in happy birthday: Singing accuracy a construct based on range and intervals', *Psychology of music*, , pp. 30573562211379 Available at: <https://doi.org/10.1177/03057356221137932>.
- O'Flynn, J., Moore, G., Burgess, F. and Moore, J. (2022) 'Comparative music education in partnership: examining policy and provision of music in initial teacher education in Ireland and Northern Ireland', *Music Education Research*, 24(3), pp. 364–376 Available at: <https://doi.org/10.1080/14613808.2022.2069234>.

References cont..

- Patton, M.Q. (2015) *Qualitative research and evaluation methods*. 4th edn. Los Angeles: SAGE.
- Pfordresher, P. and Demorest, S. (2021) 'The Prevalence and Correlates of Accurate Singing', *Journal of research in music education*, 69(1), pp. 5–23 Available at: <https://doi.org/10.1177/0022429420951630>.
- Russell-Bowie, D. (2009) 'What me? Teach music to my primary class? Challenges to teaching music in primary schools in five countries', *Music Education Research*, 11(1), pp. 23–36 Available at: <https://doi.org/10.1080/14613800802699549>.
- 22, pp. 3–19.
- Rutkowski, J. (2015) 'The Relationship Between Children's Use of Singing Voice and Singing Accuracy', *Music Perception*, 32(3), pp. 283 Available at: <https://www.proquest.com/scholarly-journals/relationship-between-childrens-use-singing-voice/docview/1658871238/se-2?accountid=130472>
https://librarysearch.uwtsd.ac.uk/openurl/44WHELF_UWTSD/44WHELF_UWTSD:44WHELF_UWTSD_VU1?rft.atitle=The+Relationship+Between+Children%2527s+Use+of+Singing+Voice+and+Singing+Accuracy&rft.au=Rutkowski%252C+Joanne&rft.jtitle=Music+Perception&rft.date=2015-02-01&rft.volume=32&rft.issue=3&rft.spage=283&rft.issn=07307829.
- Rutkowski, J. and Snell Miller, M. (2002) 'A Longitudinal Study of Elementary Children's Acquisition of Their Singing Voices', *Update : applications of research in music education*, 22(1), pp. 1–10 Available at: <https://doi.org/10.1177/87551233020220010401>.
- Saldaña, J. (2016) *The coding manual for qualitative researchers*.
- Svec, C.L. (2018) 'The effects of instruction on the singing ability of children ages 5 to 11: A meta-analysis', *Psychology of music*, 46(3), pp. 326–339 Available at: <https://doi.org/10.1177/0305735617709920>.
- Welch, G. (2017) *The Benefits of Singing for Children The physical, psychological, social, musical and educational benefits of singing*.
- Welch, G. (2015) 'Singing and vocal development', in McPherson, G.E. (ed.) *The Child as Musician: A handbook of musical development*. Oxford University Press, pp. 441–461.
- Welch, G. (1994) 'The Assessment of Singing', *Psychology of music (Online)*,