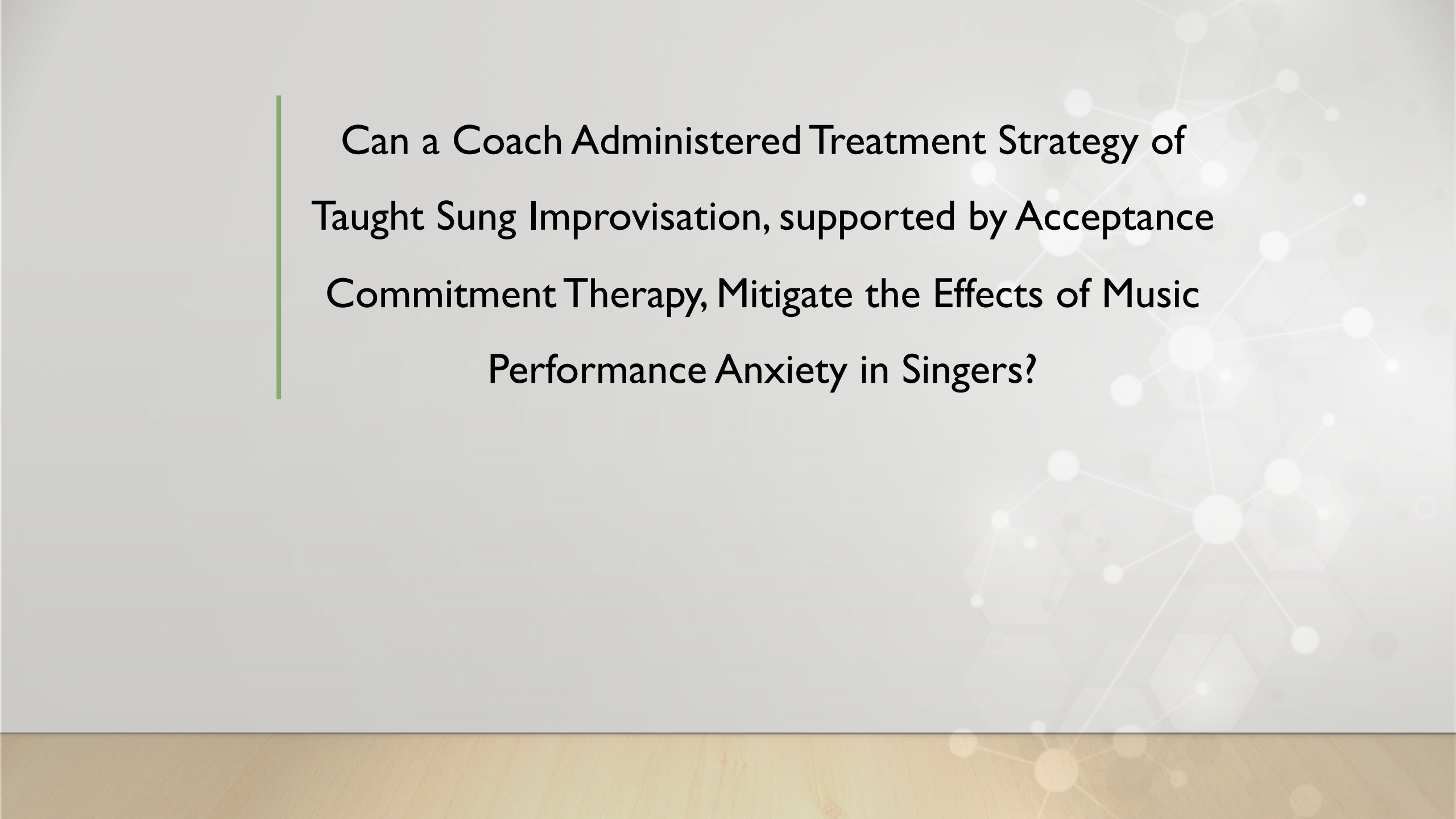




Can a Coach Administered Treatment Strategy of
Taught Sung Improvisation, supported by Acceptance
Commitment Therapy, Mitigate the Effects of Music
Performance Anxiety in Singers?

A black and white photograph featuring a close-up of a microphone and piano keys. The microphone, with a mesh grille, is positioned diagonally from the upper right towards the center. In the lower left, the white and black keys of a piano are visible. A semi-transparent dark rectangular box is overlaid on the right side of the image, containing white text. A thin vertical green line is located to the right of the text box. The background is out of focus, showing bokeh light effects.

For the purposes of this presentation, the word *musician* will refer to singers and instrumentalists.

WHO?

WHAT?

WHY?



Singers of all ages, abilities and genders can suffer with music performance anxiety (MPA).



MPA can result in lowered wellbeing, increased anxiety and even result in musicians ending their careers.



Research suggests vocal coaches want to help but are mostly excluded from traditional treatments, e.g. CBT (therapy), prescribing pharmacological intervention and alternative therapies.

AIMS and OBJECTIVES

- To provide vocal coaches with a coach administered treatment strategy (CATS) which can be used to mitigate MPA in singers of all ages and abilities.
- To ascertain whether improvisation, supported by Acceptance Commitment Therapy (ACT), can mitigate the effects of MPA and increase performance wellbeing when administered by a vocal coach.

What is Music Performance Anxiety?



Cognitive:

E.g., Rumination, catastrophising, shame and fear of mistakes/judgment.



Anxious Behaviours:

E.g., Fidgeting, nail biting, and talking louder and faster.



Physiological:

E.g., Shaking, dry mouth and increased heart rate and blood pressure.



Avoidant Behaviours (Covert/Overt):

E.g., Avoiding auditions, difficult repertoire and performances.

Why Improvisation?



Research suggests musicians respond well to music-based treatment due to their long and strong relationship with it.



Improvisation has been shown to reduce MPA symptoms in musicians and increase wellbeing and joy in music.



Improvisation utilises skills that the coach already has.



Additional benefits for singers: increased music skills and competency, creativity, musical freedom, flow, and a sense of community.

What is Improvisation?



Spontaneously composed music created within a framework of musical vocabulary.



Includes tonality, harmonic progression, meter and musical form.



Requires musician to be in flow: Individual is totally absorbed in meaningful activity. Flow increases wellbeing and flourishing.

Research on Improvisation and MPA

ALLEN (2011)

- 36 male and female pianists.
- Compared levels of MPA in pianists who received music improvisation training and those who received standard piano lessons.
- Lower levels of MPA found in improvisation group.

KIM (2008)

- 30 female pianists.
- Compared efficacy of progressive muscle relaxation (PMR) with improvisation in treating MPA.
- No difference in results.
- Participants found PMR easier than learning improvisation.

The Incompatibility Improvisation and MPA

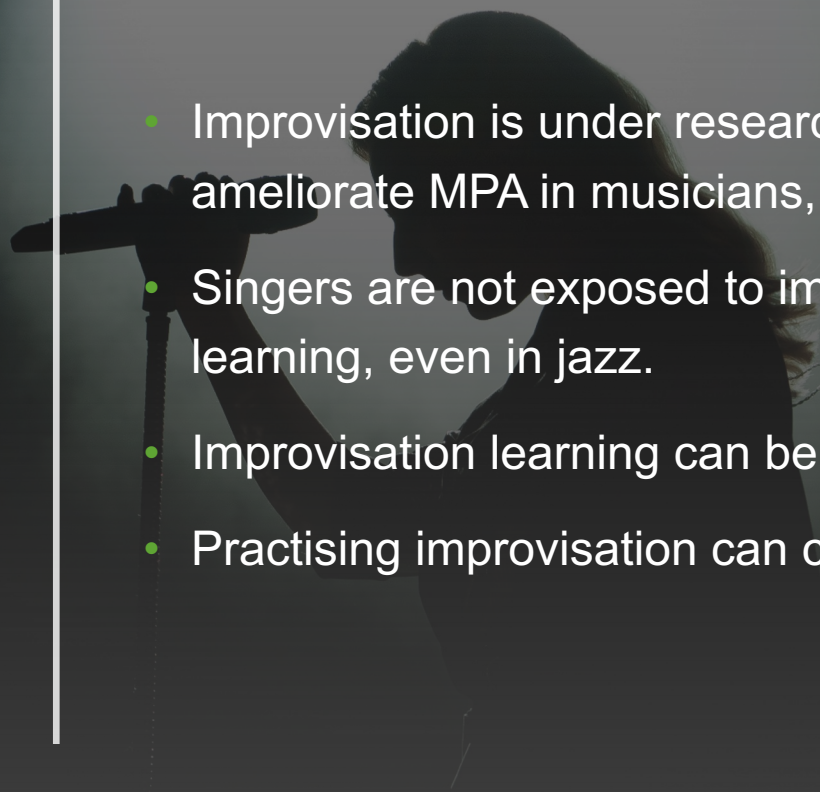
MPA

- Focus on negative cognitions and affect.
- Focus on judgement and expectation.
- Be self-conscious.
- Not be mindfully present.

IMPROVISATION

- Focus is on music and the art of improvisation.
- Lack of self-consciousness.
- Uses divergent decision making.
- Engagement in self-expression.
- Experience flow.

Issues with Improvisation as a Strategy

- 
- Improvisation is under researched as a strategy to ameliorate MPA in musicians, especially singers.
 - Singers are not exposed to improvisation in music learning, even in jazz.
 - Improvisation learning can be challenging.
 - Practising improvisation can cause MPA.

Why Acceptance Commitment Therapy (ACT)?

- Combined treatments have been shown to be more effective than single treatments.
- ACT promotes psychological flexibility: the ability to remain in committed and valued action despite experiencing unwanted discomfort.
- Act processes are compatible with improvisation.
- ACT as been shown to mitigate MPA when administered by vocal coaches.
- Can be learned within a few hours.



The Hexaflex: 6 core processes central to the ACT model.

Methodology

Mixed Methods Phenomenological Research

- Combines phenomenology with mixed methods.
- Allows for flexibility in research and the elucidation of the human experience.
- Allows researcher to use bracketing to set aside preconceived ideas.

Participants

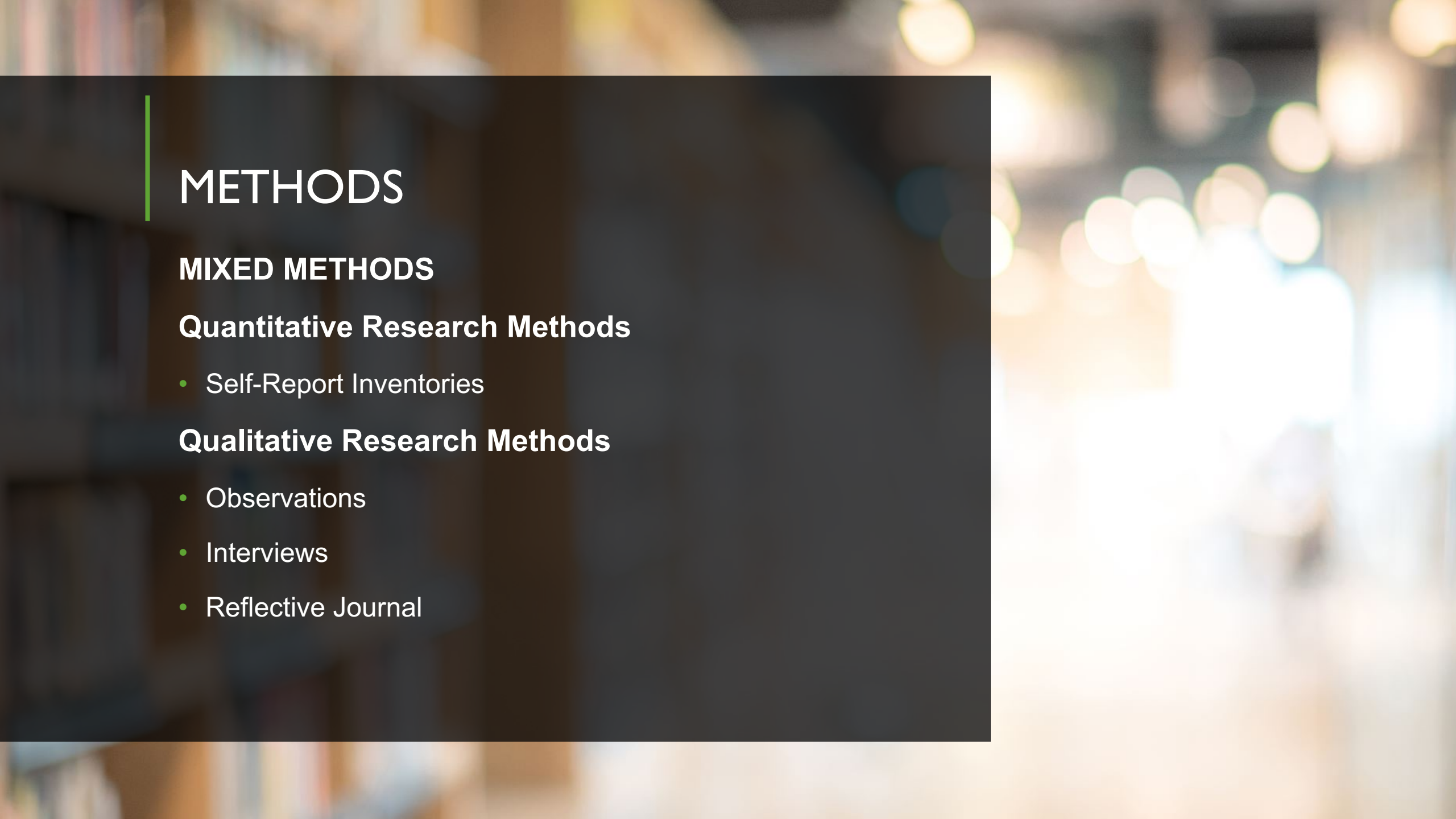
Participants were chosen to reflect all developmental stages as MPA affects all ages.

- 1 female child (P1).
- 1 female adolescent (P2).
- 1 male adult (P3).

Participant Requirements

Eligibility:

- Have been engaged in vocal coaching for at least 6 months.
- Intermediate level in singing and music.
- Experiences MPA.
- Available and willing to engage in all stages of the project.



METHODS

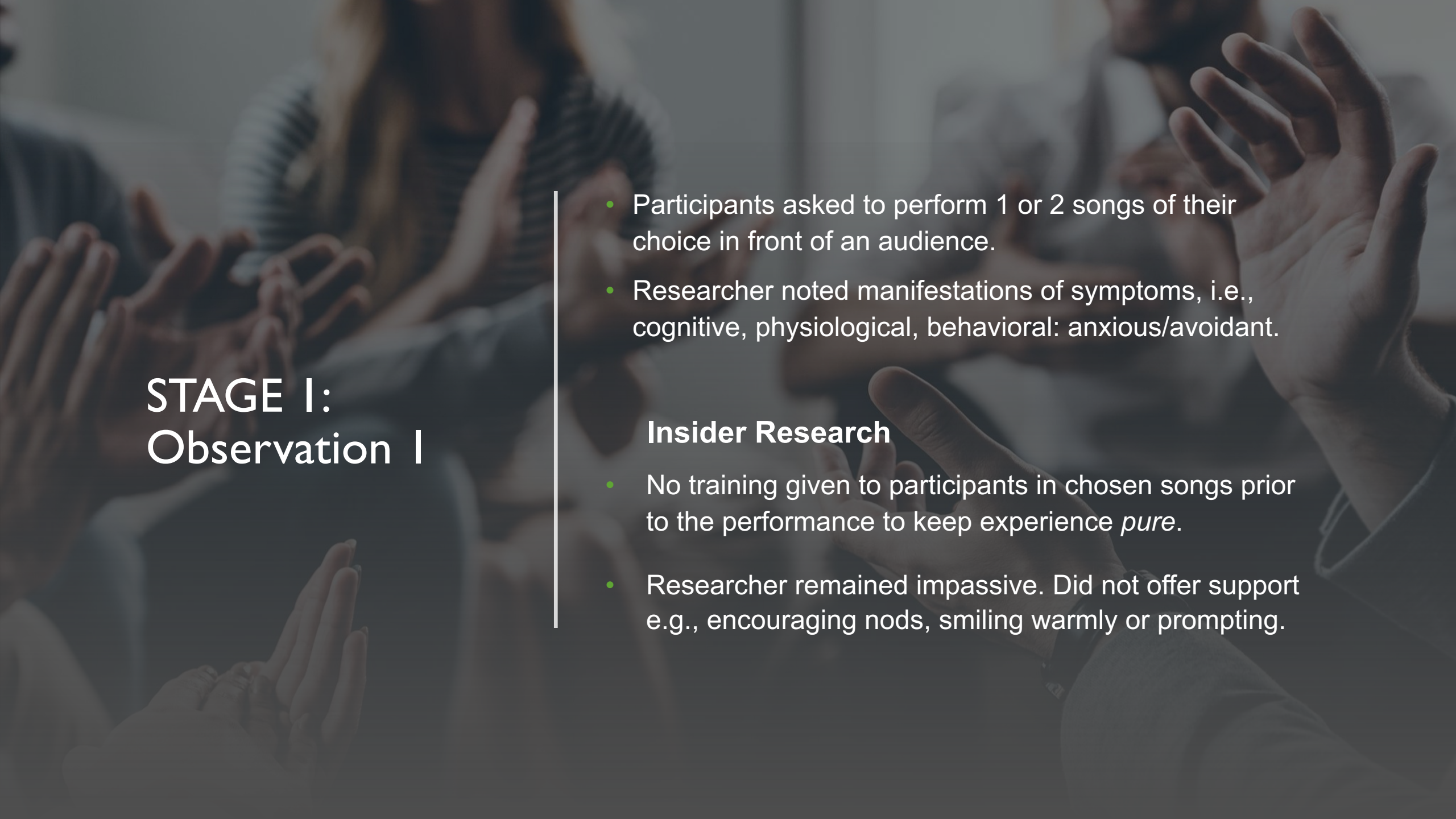
MIXED METHODS

Quantitative Research Methods

- Self-Report Inventories

Qualitative Research Methods

- Observations
- Interviews
- Reflective Journal

The background of the slide is a blurred photograph of an audience. Many hands are visible, raised and clapping, suggesting a supportive or celebratory atmosphere. The image is dimmed to allow the text to be the primary focus.

STAGE I: Observation I

- Participants asked to perform 1 or 2 songs of their choice in front of an audience.
- Researcher noted manifestations of symptoms, i.e., cognitive, physiological, behavioral: anxious/avoidant.

Insider Research

- No training given to participants in chosen songs prior to the performance to keep experience *pure*.
- Researcher remained impassive. Did not offer support e.g., encouraging nods, smiling warmly or prompting.

Questionnaires

MPA Measures

- P1 and P2: The Music Performance Anxiety Inventory for Adolescents (MPAI-A).
- P3: The Kenny Music Performance Anxiety Inventory (K-MPAI).

Psychological Flexibility Measures

- P1 and P2: The Children's Psychological Flexibility Questionnaire (CPFQ).
- P3: The Musician's Action and Acceptance Questionnaire (MAAQ).

STAGE 2: Taught Improvisation Programme



6 x 30-minutes coaching sessions.



Face to face or on Zoom video conferencing software.



Improvisation teaching plan: based on 7-stage sequential teaching model and pedagogical framework.



Learned sung improvisation, including music theory pertaining to a framework of musical grammar.



Participants introduced to more complex music grammar and creative activities as competency grew.

Acceptance Commitment Therapy (ACT)

COACH TRAINING

- Online 3-hour workshop.
- 1-hour online workshop in ACT for MPA.

Supplemented by books on:

- ACT
- ACT and MPA

PARTICIPANT COACHING

- Participants received coaching using the ACT model.
- Exercises were given to engender: defusion, acceptance and committed action.
- ACT was useful in overcoming MPA in improvisation learning.

Reflective Journal

Researcher could examine what was and was not working.

Participants' challenges and successes were recorded.

Provided details of the lived experience of the participants.

E.g., "I notice that she doesn't push herself too much and doesn't seem compelled to practice or do well".



STAGE 3

OBSERVATIONS/QUESTIONNAIRES

- Observation 2.
- Self-Report Measures @ 1-week post Observation 2.
- Self-Report Measures @ 1-month post Observation 2.

INTERVIEWS

- Unstructured interviews provided rich data.

Ethical Considerations

- Engaging participants in performance and improvisation can cause MPA.
- Intrusion into participants lives for 2 months.
- Helplines were provided.
- Participants could withdraw at any time.
- Informed Consent.
- Anonymity.
- Protected DATA.

Insider Research

Researcher is also coach providing warm and supportive relations.

Researcher was careful not to assume understanding based on prior knowledge.

Researcher positionality.

Use of bracketing (Husserl).

Coaching is not therapy. Refer on.



FINDINGS

QUANTITATIVE DATA

MPA Self-Report Measures:

MPAI-A: PI

Clinical Mean (10yrs) = 44.2

SD = 15.02

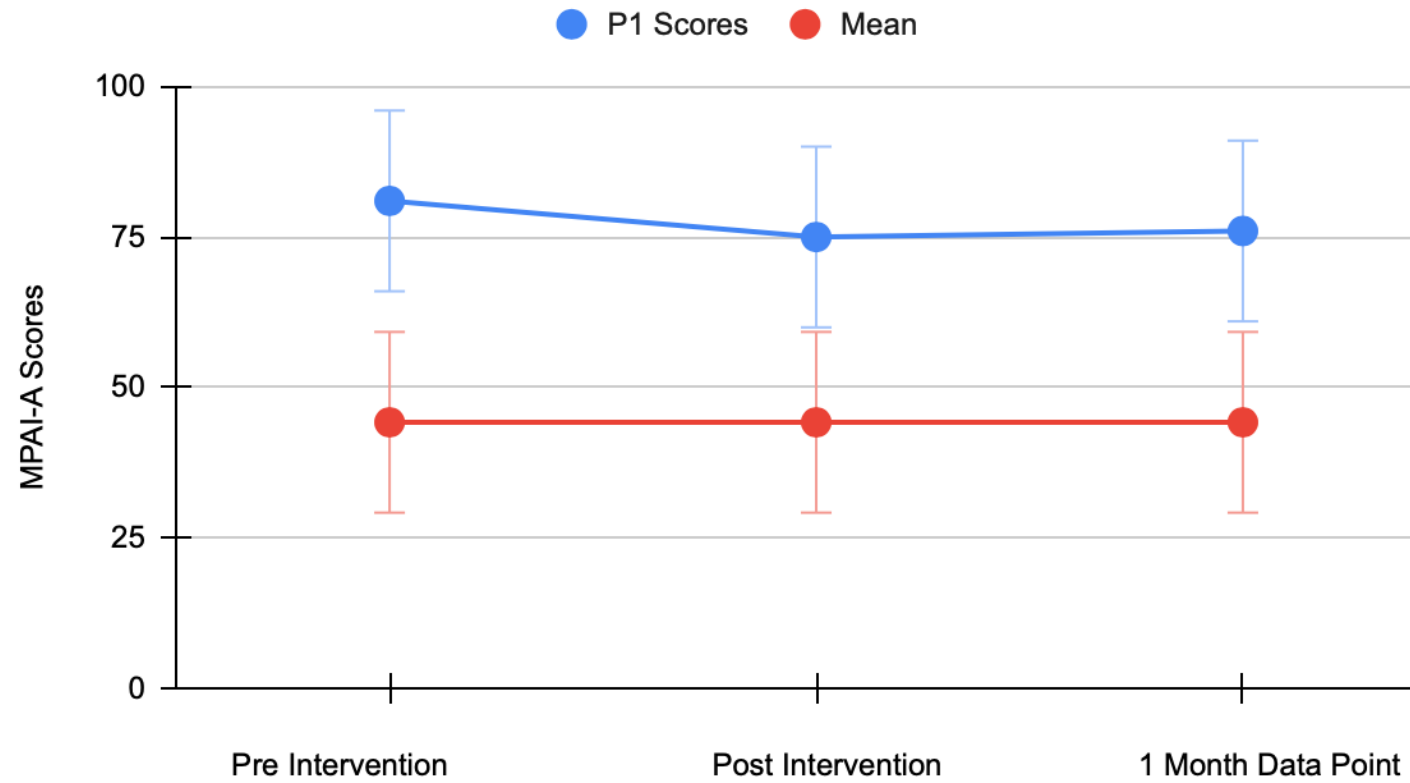
Pre-CATS
Score: 81

1-Week Post
CATS Score: 75

1-Month Post
CATS Score: 76

NO SIGNIFICANT OR RELIABLE CHANGE.

P1 MPAI-A Scores



MPA Self-Report Measures:

MPAI-A: P2

Clinical Mean (16yrs) = 46.13

SD = 21.10

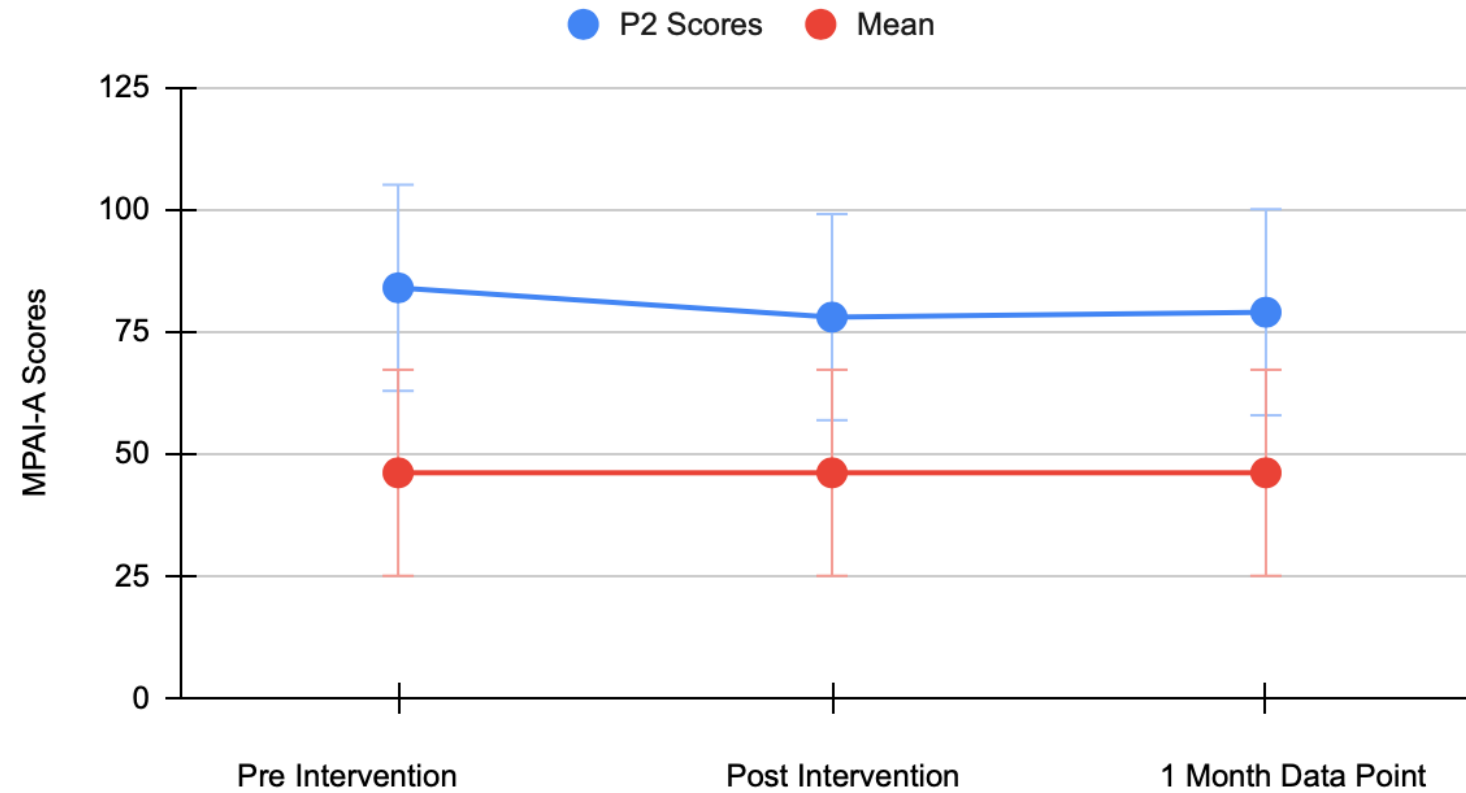
Pre-CATS
Score: 84

1-Week Post
CATS Score: 78

1-Month Post
CATS Score: 79

NO SIGNIFICANT OR RELIABLE CHANGE.

P2 MPAI-A Scores



MPA Self-Report Measures:

K-MPAI: P3

Clinical cut off score = 105

SD = 32.38

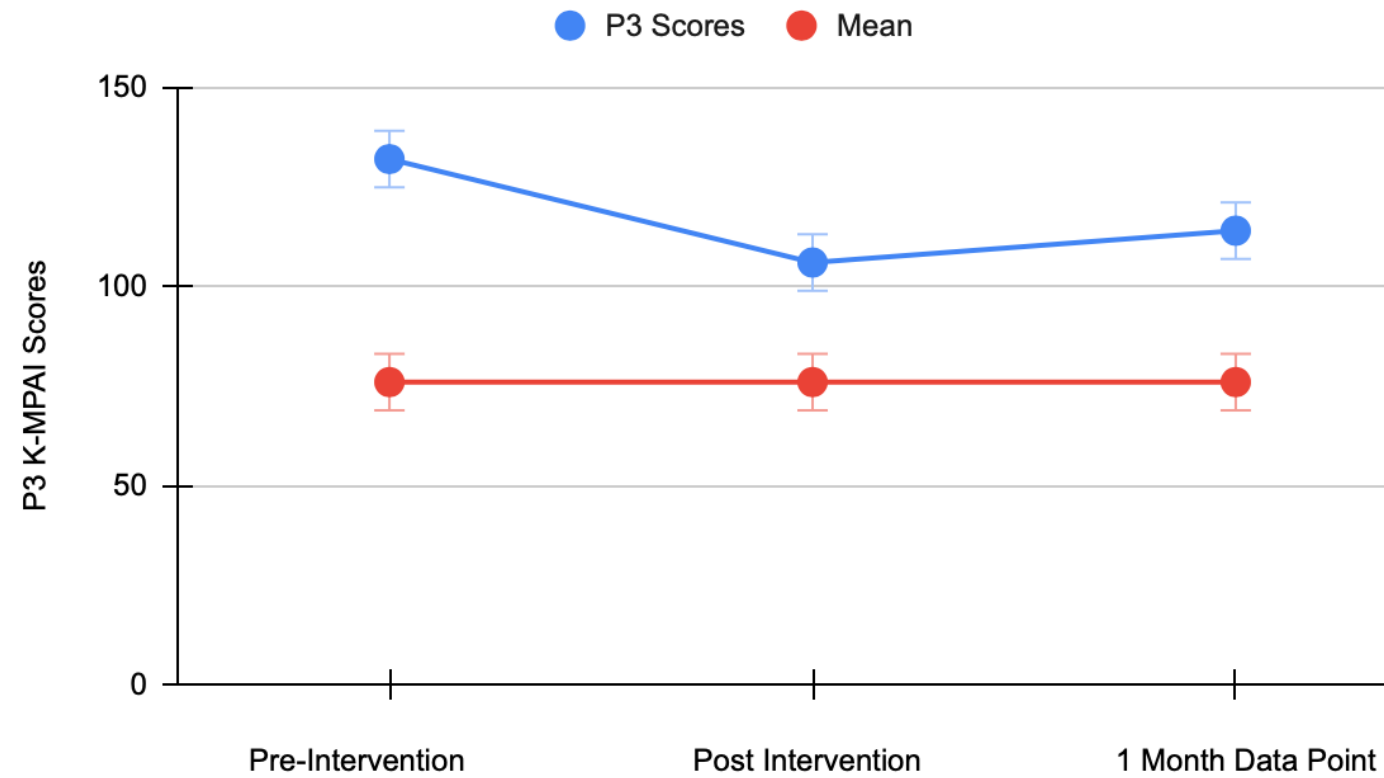
Pre-CATS
Score: 136

1-Week Post
CATS Score: 106

1-Month Post
CATS Score: 114

RELIABLE CHANGE.

P3 K-MPAI Scores



Psychological
Flexibility Self-
Report Measures:

CPFQ: PI

Mean Score = 56.28

SD = 8.67

Pre-CATS Score: 66

1-Week Post CATS Score: 65

1-Month Post CATS Score: 65

NO SIGNIFICANT OR RELIABLE CHANGE

Psychological Flexibility Self- Report Measures:

CPFQ: P2

Mean Score = 56.28

SD = 8.67

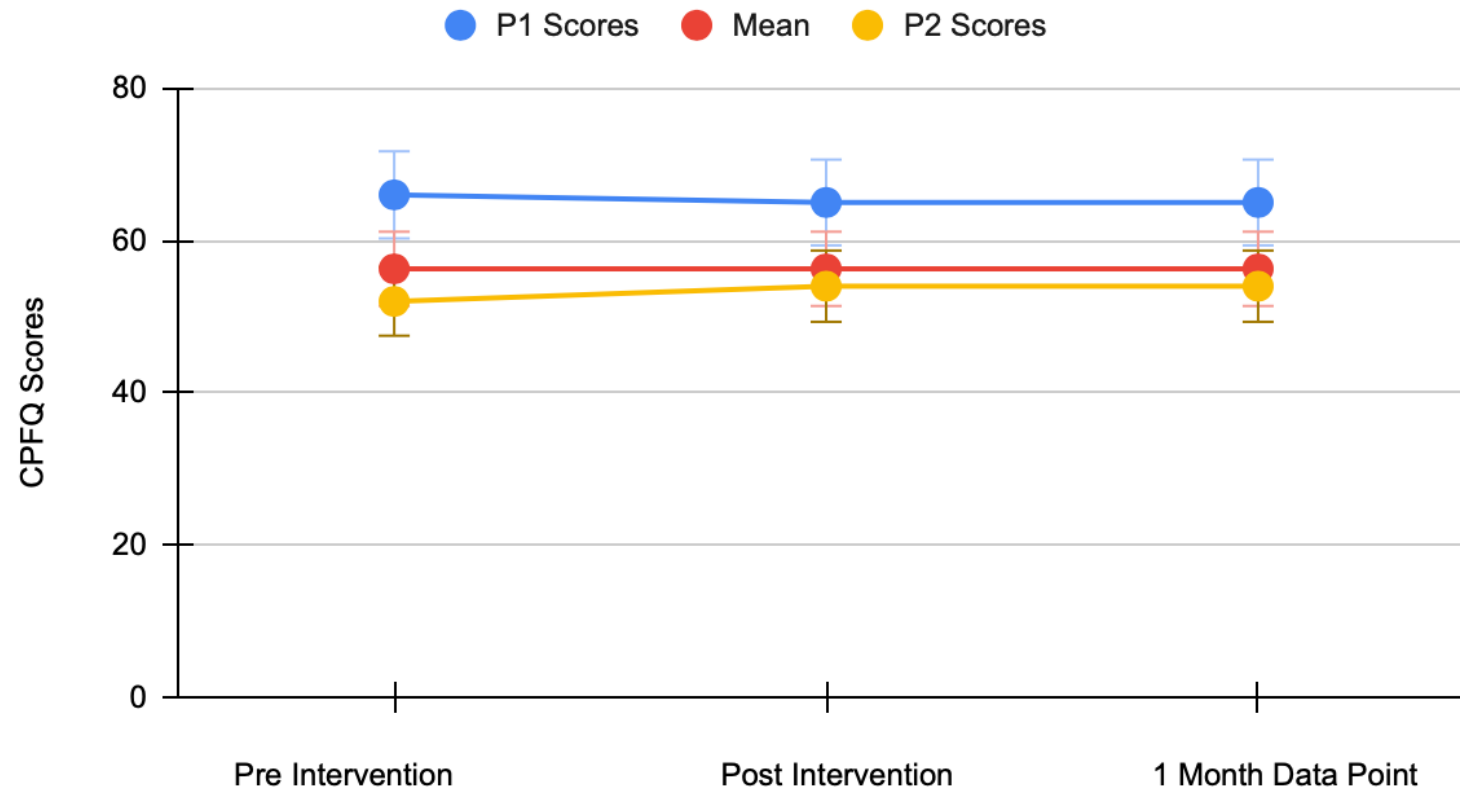
Pre-CATS Score: 52

1-Week Post CATS Score: 54

1-Month Post CATS Score: 54

NO SIGNIFICANT OR RELIABLE CHANGE

P1 and P2 CPFQ Scores



Psychological Flexibility Self- Report Measures:

MAAQ: P3

Mean MAAQ score = 34.83

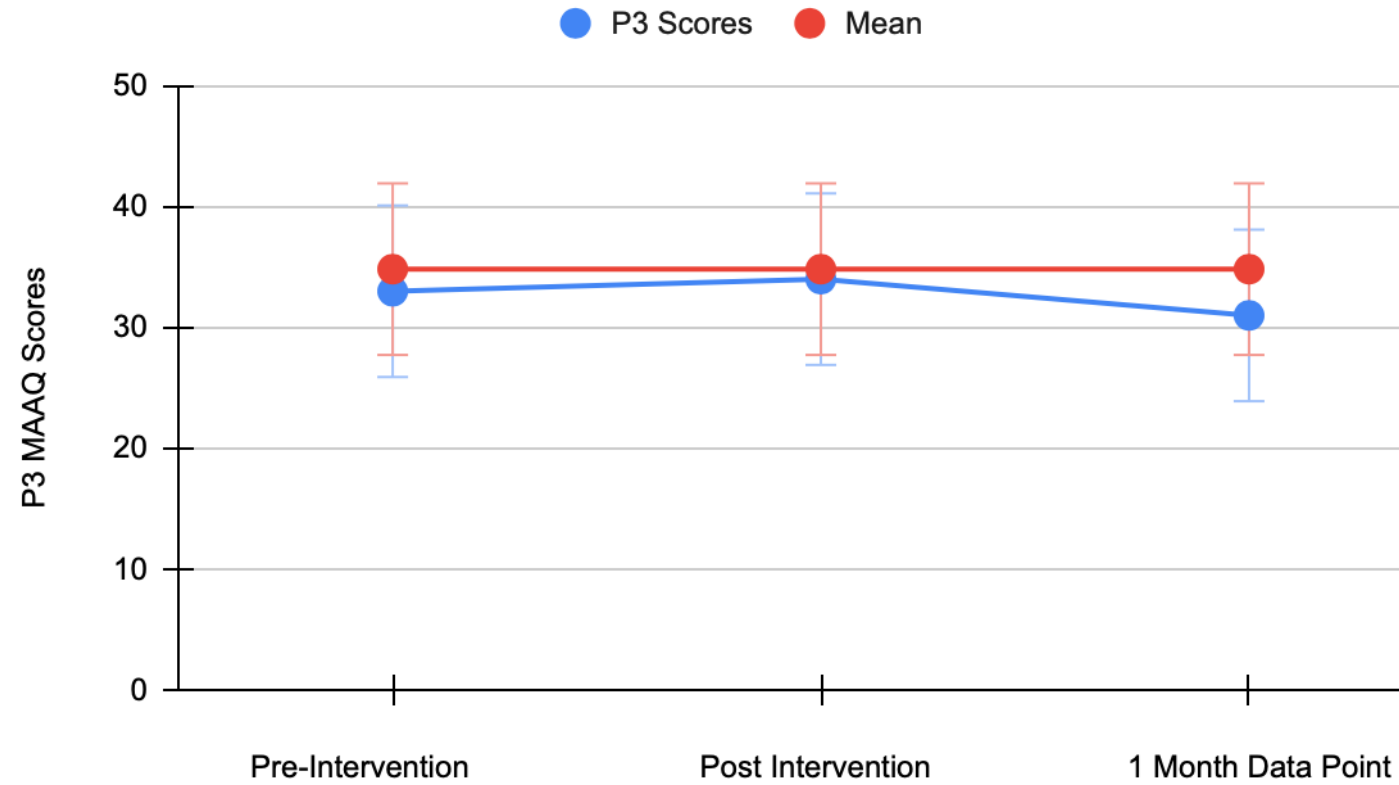
Pre-CATS Score: 33

1-Week Post CATS Score: 34

1-Month Post CATS Score: 31

NO SIGNIFICANT OR RELIABLE CHANGE

P3 MAAQ Scores





QUALITATIVE DATA

MPA to Wellbeing

Manifestation of MPA Symptoms	The Role of Improvisation in Increasing Performance Wellbeing	MPA to Wellbeing....and Back to MPA!
Participants displayed fewer symptoms of MPA in Observation 2 than Observation 1.	- Participants expressed increased performance wellbeing when improvising and when not improvising. - Participants P1 and P2 provided social validation of increased performance wellbeing.	- Increasing performance wellbeing is not linear. It can decrease and increase. - P3 experienced increased wellbeing in first song of Observation 2 but MPA returned in second song.

Enhanced Performance

Music Skills	Flow State	Addressing Challenges
• Participants experienced increase in music skills/competency and self-efficacy as expressed in interviews and reflective journal. • Increased competency can contribute to increased wellbeing.	• Improvising necessitates flow state (improvisation is fluent and fluid). • Reduced MPA symptoms in Observation 2 likely due to flow (social validation).	• ACT coaching was used to address challenges experienced by the participants. • However, psychological flexibility scores remained similar.

Suitability of Improvisation as a CATS for Singers

The Coachee

- Raises competency, flow, music wellbeing and possibly self-efficacy.
- Improv can be fun, creative and meaningful.
- Improvisation can be engaged in away from the teaching studio.

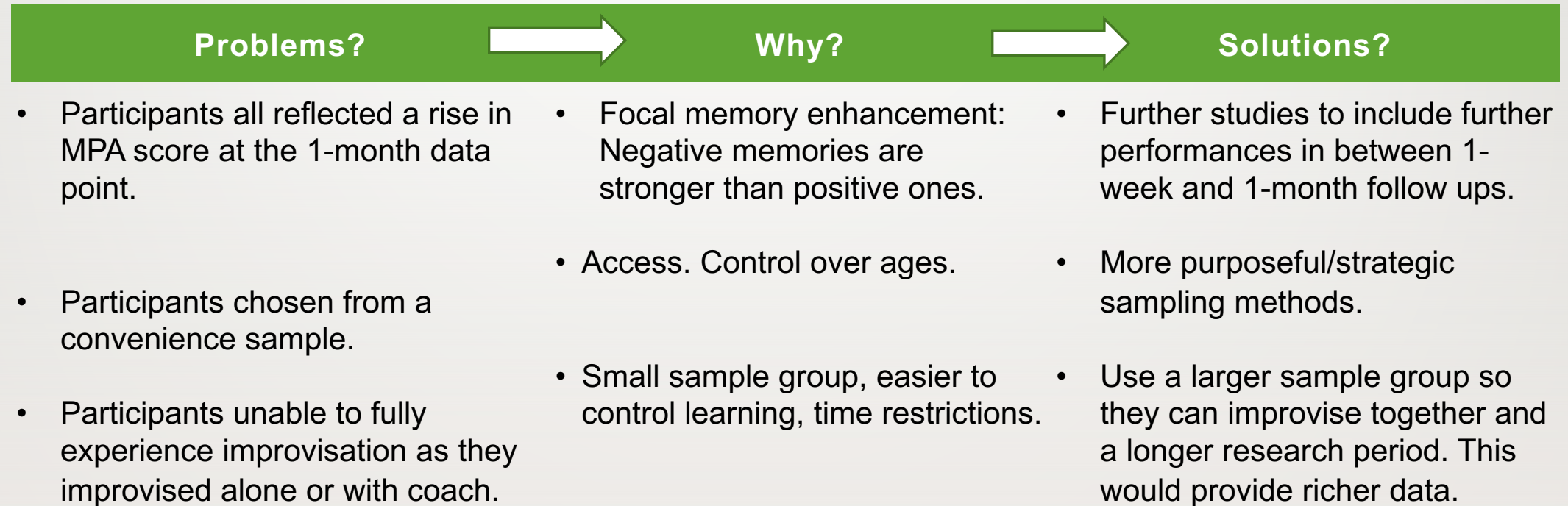
BUT...

- Improvisation learning can manifest MPA.
- Additional coaching (ACT) may be needed to overcome challenges.

The Coach

- Singers rarely improvise, do singing coaches?.
- Coaches need to be able to improvise and be fluent in music grammar. May require time and money.
- Ask musician friends for help! Save money!
- Challenges in learning may require coach to be skilled in coaching method such as ACT.
- Identifiable evidence-based skills of improvisation means teaching plan is straightforward and valid.
- **Increase in competency and skill enhances service offered!!**

Project Issues



Conclusions

Improvisation, supported by ACT, as a CATS can ameliorate the symptoms of MPA in singers.

P3 presented reliable change.

Participants presented social validation.

Subjective evaluation of researcher: The CATS lowered MPA and raised performance wellbeing.

Additional benefits: Increased competency, creativity and ability to reach mindful flow state.

ACT coaching helped to overcome challenges and MPA in improvisation learning.

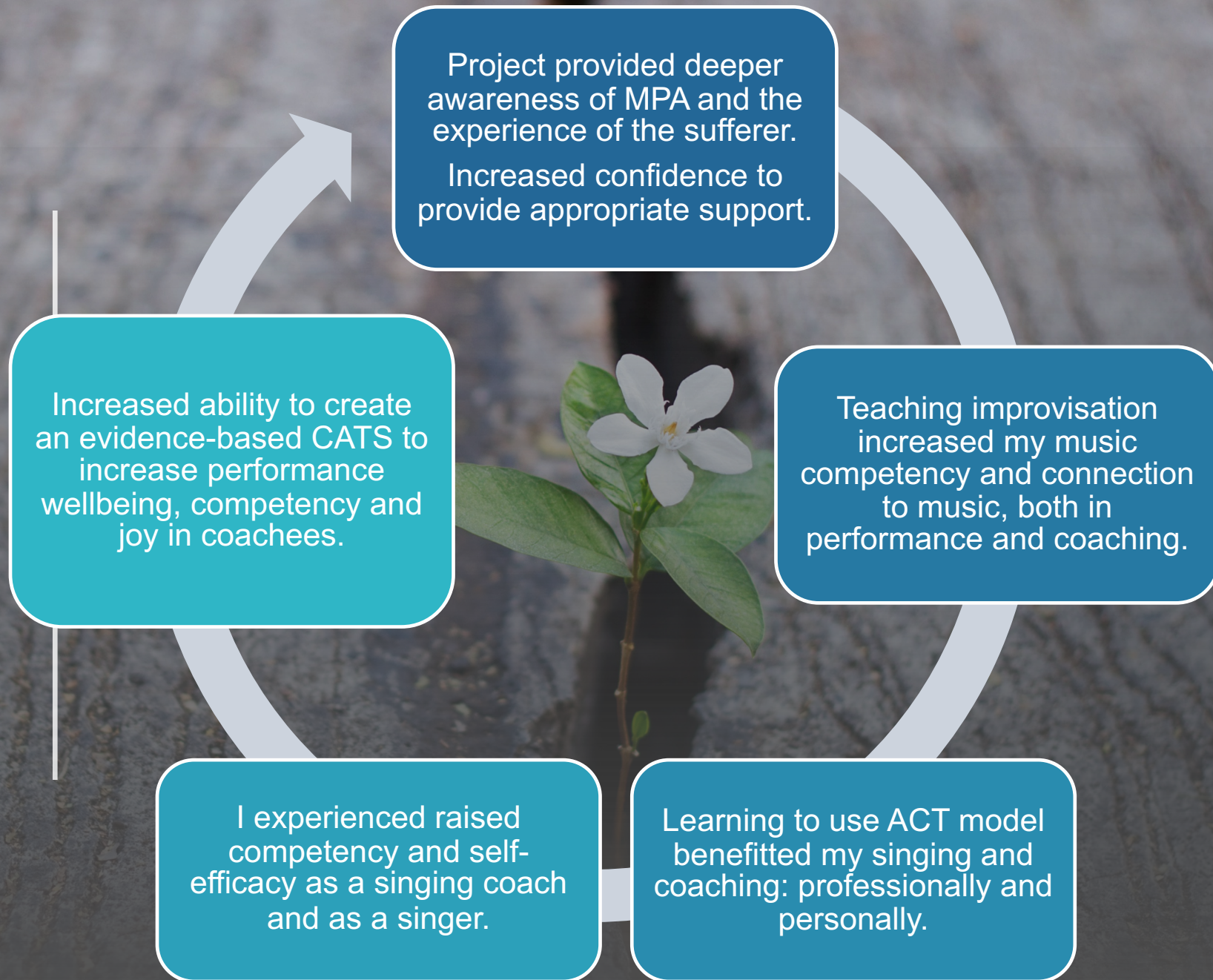
Improvisation and ACT can be beneficial to coach and coachee in several ways.



Future Research

- Future research could include a longer time frame and additional performances between data collection points to address focal memory enhancement.
- Research into the benefits of improvisation for coaching in general.
- Research into how learning and engaging in improvisation can increase music competency and self-efficacy in music performance.

Personal and Professional Learning



References

Allen, R.G., Jr. (2010), "Free Improvisation and Performance Anxiety Among Piano Students", *Psychology of Music*, Vol. 41, (1), pp. 75-88.

Beaty, R.E. (2015), "The Neuroscience of Musical Improvisation", *Neuroscience and Behavioural Reviews*, Vol. 51, pp. 108-117.

Biasutti, M. and Frezza, L. (2009), "Dimensions of Music Improvisation", *Creativity Research Journal*, Vol. 21, (2-3), pp. 232-242.

Biasutti, M. (2015), "Pedagogical application of cognitive research on musical improvisation", *Frontiers in Psychology*, Vol. 6:614, pp. 1-12. Doi: 10.3389/fpsyg.2015.00614.

Finlay, L. (2008), "Reflecting on 'Reflective practice'", *PBPL Paper*, The Open University, Paper 52.

Forbes, M. (2021), "Giving voice to jazz singers' experiences of flow in improvisation", *Psychology of Music*, Vol. 49, (4), pp. 789-803.

References

Gray, D.E., (2018), *Doing Research in the Real World*, SAGE Publications, London.

Hayes, S.C., Levin, M.E., Plumb-Villardarga, J., Villatte, J.L., and Pistorello, J., (2013), "Acceptance and Commitment Therapy and Contextual Behavioural Science: Examining the Progress of a Distinctive Model of Behavioural and Cognitive Therapy", *Behavioural Therapy*, Vol. 44, (2), pp. 180-198. Doi:10.1016/j.beth.2009.08.002

Hill, J. and Oliver, J. (2019), *Acceptance and Commitment Coaching: Distinctive Features*, Routledge, Oxon.

Holmes, A.G.D, (2020), "Researcher Positionality - A Consideration of Its Influence and Place in Qualitative Research - A New Researcher Guide", *International Journal of Education*, Vol. 8, No. 4, pp. 1-10.

Ignjatovic C., Kern, M. L. and Oades, L.G. (2023), "Values-Flow in Contextual Psychotherapy: The 'What', 'Why', and 'How' of Sustainable Values-Based Behaviour", in Irtelli, F. and Gabrielli, F. (eds.), *Happiness and Wellness - Biopsychosocial and Anthropological Perspectives*, IntechOpen, doi: 10.5772/intechopen.106594.

Jane, M., (2022), *Creating Improvised Theatre: Tools, Techniques, and Theories for Short Form and Narrative Improvisation*, Routledge, New York

References

Juncos, D.G., Heinrichs, G.A., Towle, P., Duffy, K., Grand, S.M., Morgan, M.C., Smith, J.D., and Kalkus, E., (2017), "Acceptance and Commitment Therapy for the Treatment of Music Performance Anxiety: A Pilot Study with Student Vocalists", *Frontiers in Psychology*, 8:986, doi: 10.3389/fpsyg.2017.00986.

Juncos, D.G. and Paiva e Pona, E., (2022), *ACT for Musicians: A Guide for Using Acceptance and Commitment Training to Enhance Performance, Overcome Performance Anxiety, and Improve Well-Being*, Universal Publishers, Inc., Boca Raton.

Kenny, D.T. (2011), *The Psychology of Music Performance Anxiety*, Oxford University Press, Oxford.

Kenny, D.T. (2016), *Kenny Music Performance Anxiety Inventory (K-MPAI) and Scoring Form*. Available at: <http://www.researchgate.net/publications/299461895>. (Accessed on 01/10/22).

Kim, Y., (2005), "Combined treatment of improvisation and desensitization to alleviate music performance anxiety in female college pianists: a pilot study", *Medical Problems of Performing Artists*, Vol. 20, (1), pp. 17-24.

References

- Kim, Y., (2008), "The Effect of Improvisation-Assisted Desensitization, and Muscle-Assisted Progressive Muscle Relaxation and Imagery on Reducing Pianists' Music Performance Anxiety", *Journal of Music Therapy*, Vol XLV (2), pp. 165-191.
- Kratus, J. (1996), "A Developmental Approach to Teaching Music Improvisation", *International Journal of Music Education*, Vol. 26, pp. 27-38.
- Ladano, K., (2016), "Free Improvisation and Performance Anxiety in Musicians", in Heble, A., and Laver, M. (eds), *Improvisation and Music Education*, Routledge, Oxfordshire.
- Limb, C.J., and Braun, A.R. (2008), "Neural Substrates of Spontaneous Musical Performance: An fMRI Study of Jazz Improvisation", *PLoS ONE*, Vol. 3, (2), e1679, doi:10.1371/journal.pone.0001679. (Accessed: 04/09/22).
- Mahony, S.E., Juncos, D.G., and Winter, D. (2022), "Acceptance and Commitment Coaching for Music Performance Anxiety: Piloting a 6-Week Group Course With Undergraduate Dance and Musical Theatre Students", *Frontiers in Psychology*, Vol. 13, Article 830230, doi: 10.3389/fpsyg.2022.830230.

References

Osborne, M.S., and Kenny, D.T. (2005), "Development and validation of a music performance anxiety inventory for gifted adolescent musicians", *Journal of Anxiety Disorders*, Vol. 19, pp.725-751.

Passmore, J. (2009), "Coaching Ethics: Making ethical decisions – novices and experts", *The Coaching Psychologist*, Vol. 5, (1), pp.6-10.

Shaw, T.A., Juncos, D.G., and Winter, D. (2020), "Piloting a New Model for Treating Music Performance Anxiety: Training a Singing Teacher to use Acceptance and Commitment Coaching with a Student", *Front. Psychol.*, 11:882., doi:10.3389/fpsyg.2020.00882.

Solis, G. (2016), "From jazz Pedagogy to Improvisation Pedagogy", in Heble, A., and Laver, M. (eds), *Improvisation and Music Education*, Routledge, Oxfordshire.

Stewart, J. (2016), "Improvisation Pedagogy in Theory and Practice", in Heble, A., and Laver, M. (eds), *Improvisation and Music Education*, Routledge, Oxfordshire.



THANK YOU FOR
LISTENING!