MA Voice Pedagogy: Cohort G

BMPF7010

Jon Morris 2016633

How does a collaborative approach to developing an evidence-based belt training process impact my professional practice?

Background, aim, and objectives

Background, aim, and objectives

Previous classical focus

Background, aim, and objectives

Previous classical focus

Female students

Background, aim, and objectives

Previous classical focus

Female students

Belting

Background, aim, and objectives

Previous classical focus

Female students

Belting

Continuing Professional Development needs

Background, aim, and objectives

To use a collaborative approach to improve my professional practice in the area of belting

Background, aims, and objectives

Background, aim, and objectives

To use a Design-based research methodology to guide the study

Background, aim, and objectives

To evaluate a theoretical belt training process with independent experts

Background, aim, and objectives

To engage in a literature review to assimilate relevant knowledge

Background, aim, and objectives

To refine the belt training process with the knowledge gained at each stage of the study

Background, aim, and objectives

To introduce the belt training process to participants

Background, aim, and objectives

To use the belt training process in lessons

Background, aim, and objectives

To gather qualitative data from the student participants

Background, aim, and objectives

To analyse the qualitative data

Background, aim, and objectives

To reflect on the impact of the belt training process on the learning experience

Background, aim, and objectives

To evaluate the impact of this study on my professional development

Methodology

Methodology

Evaluating and refining a previously synthesised belt training process by:

Methodology

Evaluating and refining a previously synthesised belt training process by:

- Collaborating with experts in belting

Methodology

Evaluating and refining a previously synthesised belt training process by:

- Collaborating with experts in belting
- Research

Methodology

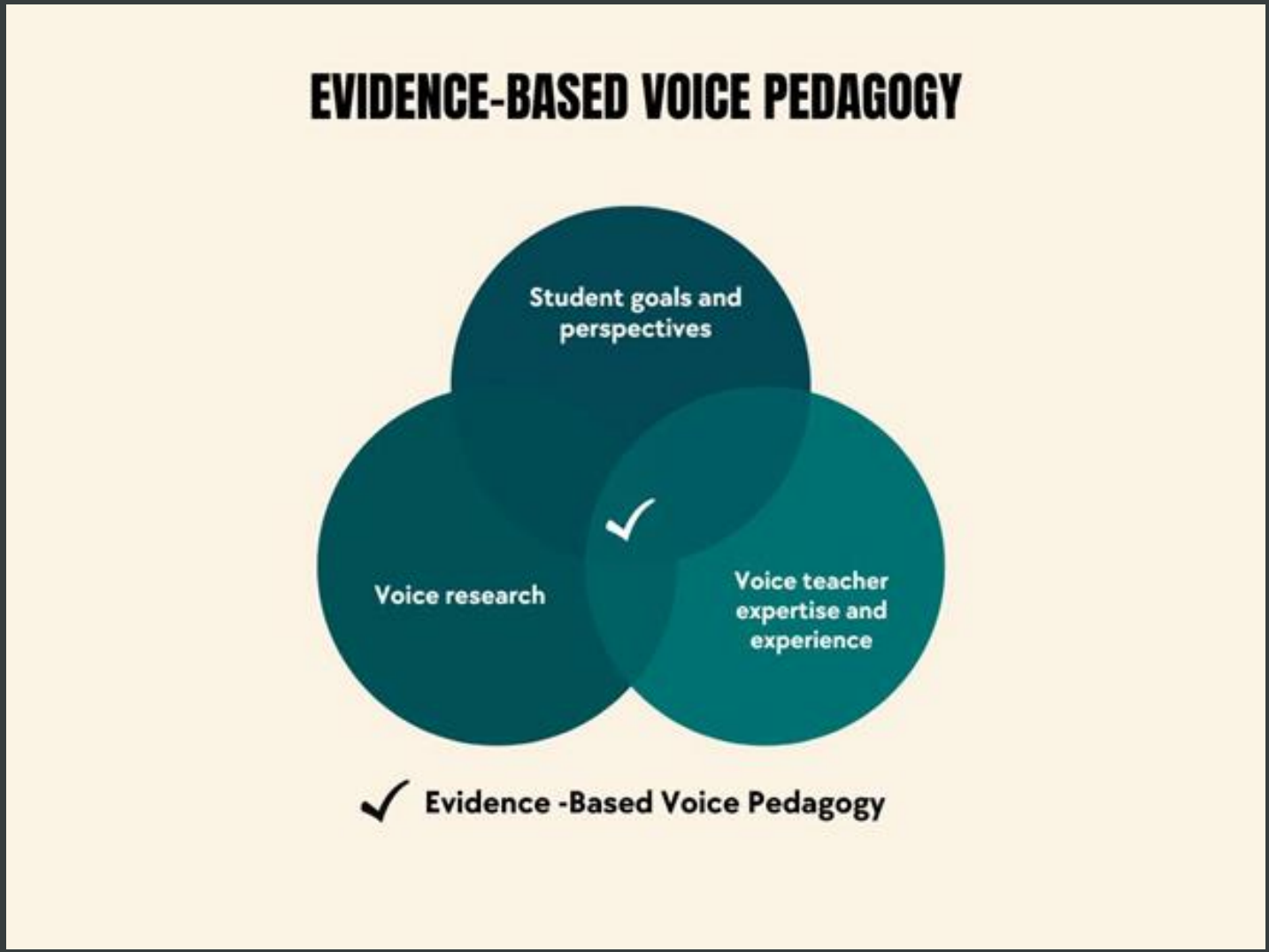
Evaluating and refining a previously synthesised belt training process by:

- Collaborating with experts in belting
- Research
- Application in singing lessons to evaluate its impact on students' learning experience

Methodology

Previously,

Evidenced-Based Voice Pedagogy (EBVP)
was the ethos used to synthesise the belt training process.



(Bozeman and Ragan, 2021; Ragan and Maxfield, 2021; Helding and Ragan, 2022; Morris, 2023)

Figure 2: EBVP theoretical belt training flow chart (overall process)

Prerequisites

Breathing training (i.e. support and subglottal pressure)
(Sundberg, Gramming and LoVetri, 1993; Deleo Leborgne *et al.*, 2010; Sundberg and Thalén, 2015)

Familiarisation with belt sounds
(Moss Erickson, 2021, 2023)

Familiarisation with twang sounds
(Bestebreurtje and Schutte, 2000; Deleo Leborgne *et al.*, 2010; Lebowitz and Baken, 2011; Sundberg and Thalén, 2015; Bourne and Kenny, 2016; Roll, 2016; Moss Erickson, 2021, 2023)

The vocal arc: ability to sing in a variety of styles
(Roll, 2014, 2016; Teacher 1, 2023; Teacher 6, 2023; Teacher 7, 2023)

Look for comfort
(Roll, 2014, 2016; Teacher 1, 2023; Teacher 2, 2023; Teacher 3, 2023; Teacher 4, 2023; Teacher 5, 2023; Teacher 6, 2023; Teacher 7, 2023)

Work progressively
(Roll, 2014, 2016; Teacher 1, 2023; Teacher 2, 2023; Teacher 3, 2023; Teacher 4, 2023; Teacher 5, 2023; Teacher 6, 2023; Teacher 7, 2023)

Developing twang

Training the vocal tract

Developing high belt

Developing traditional belt

(Morris, 2023)

Methodology

This study, aimed to work in harmony with the ethos of EBVP. combined with the compatible methodology of Design-Based Research (DBR):

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- To research the complexities of an educational environment
- To discover the factors which most impact learning

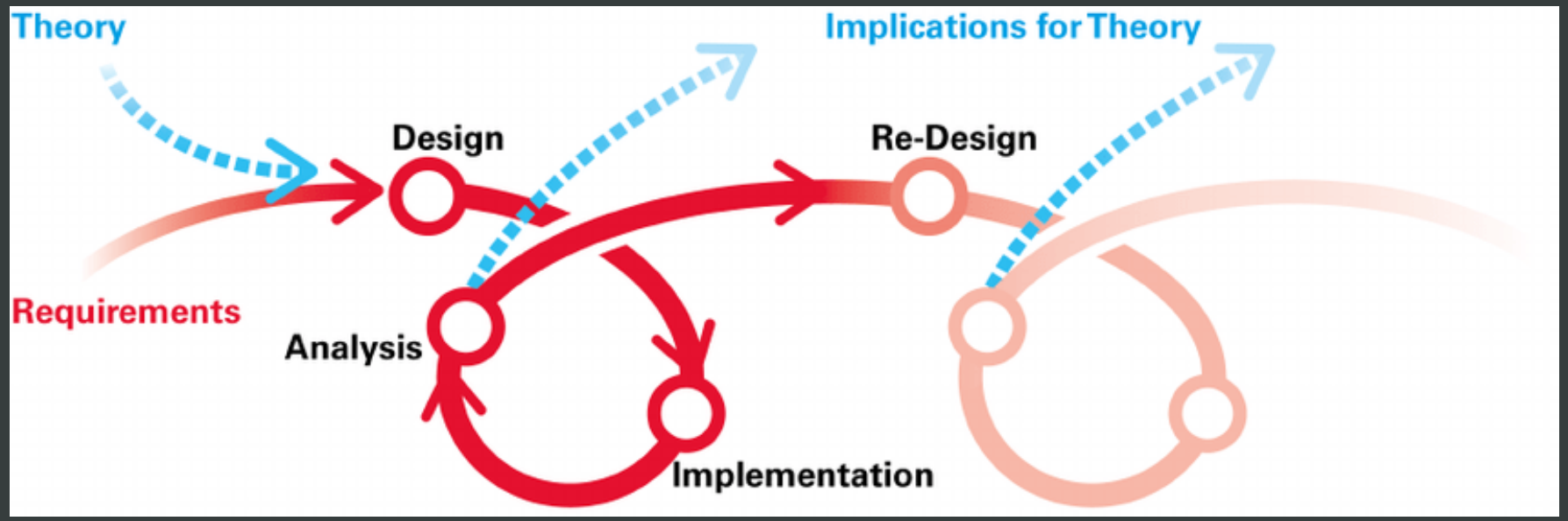
Methodology

This study, aimed to work in harmony with the ethos of EBVP. combined with the compatible methodology of Design-Based Research (DBR):

- To research the complexities of an educational environment
- To discover the factors which most impact learning
- To create usable knowledge.

(Hoadley et al., 2002; Plomp and Nieveen, 2010)

Methodology



(Cortez and Warr, 2021)

Methodology

Iterative stages include:

Methodology

Iterative stages include:

Inquiry

Methodology

Iterative stages include:

Inquiry

Analysis

Methodology

Iterative stages include:

Inquiry

Analysis

Methodology

Iterative stages include:

Inquiry

Development

Analysis

Methodology

Iterative stages include:

Testing

Inquiry

Development

Analysis

Methodology

Iterative stages include:

Testing

Inquiry

Development

Analysis

Evaluation

The stages of the study

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Design-based research stage 1: *expert consultations*

The stages of the study

Design-based research stage 1: *expert consultations*

Design-based research stage 2: *the literature review*

The stages of the study

Design-based research stage 1: *expert consultations*

Design-based research stage 2: *the literature review*

Design-based research stage 3: *assessing practical application*

Data gathering methods:

Data gathering methods:

- Semi-structured interviews (with experts)

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- A literature review

Data gathering methods:

- Semi-structured interviews (with experts)
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- Pre- and post-study surveys (students)

Data gathering methods:

- Semi-structured interviews (with experts)
- A literature review
- Pre- and post-study surveys (students)
- Practice logs (students)

Data analysis:

Thematic Analysis (TA) was used to explore themes in all the data.

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Systematic approach

(Lincoln, Lynham and Guba, 2011; Merriam and Tisdell, 2016; Braun and Clarke, 2019).

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Systematic approach

Rigour

(Lincoln, Lynham and Guba, 2011; Merriam and Tisdell, 2016; Braun and Clarke, 2019).

Data analysis:

Thematic Analysis (TA) was used to explore themes in all the data.

Systematic approach

Rigour

Reflexivity

(Lincoln, Lynham and Guba, 2011; Merriam and Tisdell, 2016; Braun and Clarke, 2019).

Ethical considerations:

Ethical considerations:

Vocal health

Ethical considerations:

Professional network

Vocal health

Ethical considerations:

Professional network

Vocal health

Informed consent

Ethical considerations:

Professional network

Vocal health

Informed consent

Conflicts of interest

Ethical considerations:

Professional network

Vocal health

Informed consent

Conflicts of interest

Privacy

Ethical considerations:

Professional network

Vocal health

Informed consent

Conflicts of interest

Privacy

Option to withdraw

(University of Wales Trinity Saint David, 2015)

Findings

Design-based research stage 1:

Expert consultations

Design-based research stage 1:

- Written introduction to the belt training process

Design-based research stage 1:

- Written introduction to the belt training process
- Written interviews

Design-based research stage 1:

- Written introduction to the belt training process
- Written interviews
- Follow-up interview (online)

Figure 2: EBVP theoretical belt training flow chart (overall process)

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Developing twang

Training the vocal tract

Developing high belt

Developing traditional belt

(Morris, 2023)

Design-based research stage 1:

- Developing traditional belt (up to ~D5)

Design-based research stage 1:

- Developing traditional belt (up to ~D5)
- Developing high belt (above ~D5) (Roll, 2014)

Design-based research stage 1:

- Developing traditional belt (up to ~D5)
- Developing high belt (above ~D5) (Roll, 2014)

Including…
vocal exercises

Design-based research stage 1:

- Developing traditional belt (up to ~D5)
- Developing high belt (above ~D5) (Roll, 2014)

Including…

vocal exercises

Teaching approaches

Design-based research stage 1:

- Developing traditional belt (up to ~D5)
- Developing high belt (above ~D5) (Roll, 2014)

Including…

vocal exercises

Teaching approaches

References

Design-based research stage 1:

Outcomes… *Experts agreed with the basis of the belt training process*

Design-based research stage 1:

Outcomes… *Experts agreed with the basis of the belt training process*

Breathing training

(Expert 1, 2023)

Design-based research stage 1:

Outcomes… *Experts agreed with the basis of the belt training process*

Breathing training

'Vocabulary jungle'

(Expert 1, 2023; Expert 2 2023)

Design-based research stage 1:

Outcomes… *Experts agreed with the basis of the belt training process*

Being too specific

Breathing training

'Vocabulary jungle'

(Expert 1, 2023; Expert 2 2023)

Design-based research stage 1:

Outcomes… *Experts agreed with the basis of the belt training process*

Being too specific

Breathing training

Psycho-social factors

'Vocabulary jungle'

(Expert 1, 2023; Expert 2 2023)

Design-based research stage 1:

Outcomes… *Experts agreed with the basis of the belt training process*

Being too specific

Breathing training

Psycho-social factors

'Vocabulary jungle'

Randomised practice structure

(Expert 1, 2023; Expert 2 2023)

Design-based research stage 1:

Outcomes… *Experts agreed with the basis of the belt training process*

Being too specific

Breathing training

Psycho-social factors

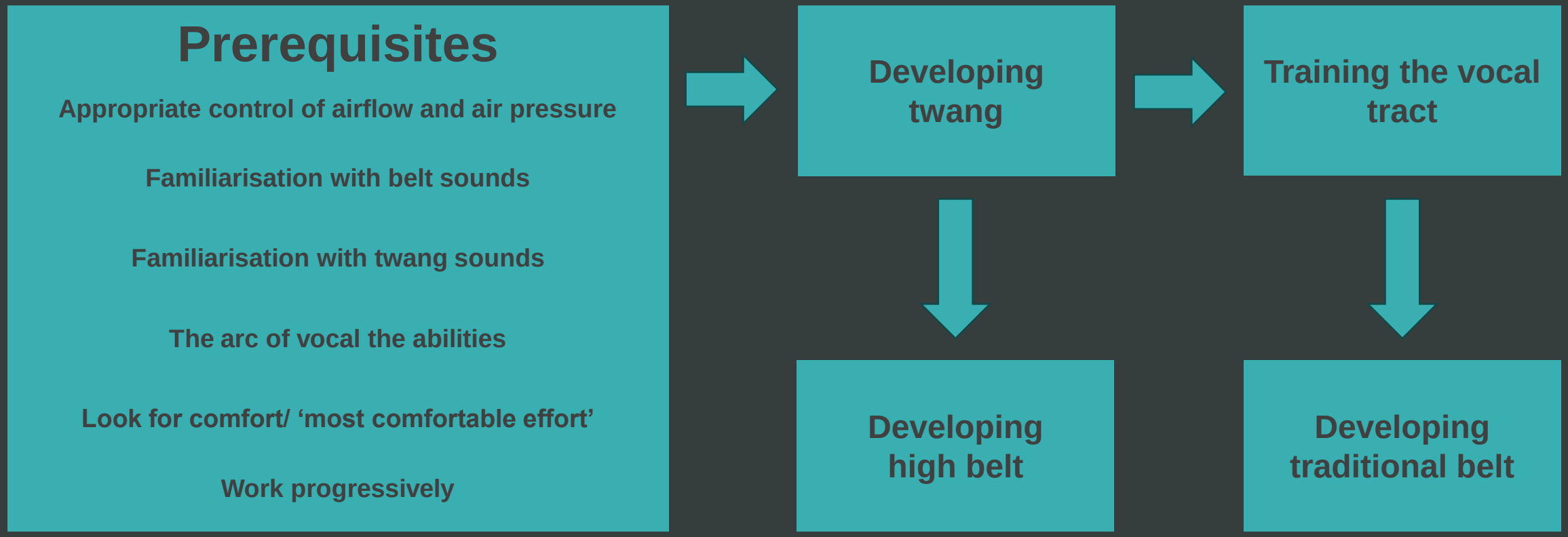
'Vocabulary jungle'

Habituation and proprioception

Randomised practice structure

(Expert 1, 2023; Expert 2 2023)

Figure 3: Revised belt training flow chart (overall process)



(Morris, 2023)

Design-based research stage 2:

Literature review

Design-based research stage 2:

Literature review

Increase understanding

Design-based research stage 2:

Literature review

Increase understanding

Bolster evidence base

Design-based research stage 2:

Literature review

Increase understanding

Bolster evidence base

Supporting individualisation

Design-based research stage 2:

Design-based research stage 2:

Associations with being loud

(Fouché, 2006; Welzer-Lang, 2008; Trahar, 2009; Redmond, 2015; Wehr, 2016; Caraballo, 2019; Niebudek-Bogusz and Pietruszewska, 2022).
(Creech and Hallam, 2015; Stephenson, 2018; Hogle, 2021; Lewis and Hendricks, 2022).

Design-based research stage 2:

Associations with being loud

Body Activation

(Tomlinson and Archer, 2015; McHenry and Evans, 2016)

Design-based research stage 2:

Associations with being loud

Body Activation

Physiological description of twang

(Bestebreurtje and Schutte, 2000; Echternach et al., 2014).

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Physiological description of twang

(Hodges and Franks, 2002; Moss Erickson, 2019, 2023)

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Physiological description of twang

Vocal Mimicry

Audiation

(Verdolini, 1998; Hodges and Franks, 2002; Roll, 2014; Moss Erickson, 2019, 2023; Titze, 2022)

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Physiological description of twang

Vocal Mimicry

Audiation

Motor Learning Theory

(Maxfield, 2011, 2013; Nix, 2017; Steinhauer and Eichhorn, 2023)

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Physiological description of twang

Vocal Mimicry

Audiation

Motor Learning Theory

‘Arc of vocal abilities’

(Roll, 2014; Wilson, 2021)
(Nix, 2017; Steinhauer and Eichhorn, 2023)

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Physiological description of twang

Vocal Mimicry

Audiation

Motor Learning Theory

‘Arc of vocal abilities’

Biofeedback and reflection

(Creech and Hallam, 2015; Wulf and Lewthwaite, 2016; Maxfield, 2019; Graf et al., 2020; Saulius and Malinauskas, 2021)

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Physiological description of twang

Vocal Mimicry

Audiation

Motor Learning Theory

'Arc of vocal abilities'

Biofeedback and reflection

Vocal folds and effort versus tension

(Dargin and Searl, 2015; Titze, 2015; Manternach, Clark and Daugherty, 2017; Manternach, Maxfield and Manternach, 2021)

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Physiological description of twang

Vocal Mimicry

Audiation

Motor Learning Theory

‘Arc of vocal abilities’

Biofeedback and reflection

Vocal folds and effort versus tension

‘Most Comfortable effort’

(Steinhauer and McDonald Klimek, 2019; 1, 2023)

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Physiological description of twang

Vocal Mimicry

Audiation

Motor Learning Theory

'Arc of vocal abilities'

Biofeedback and reflection

Vocal folds and effort versus tension

'Most Comfortable effort'

Vocal health

(Morawska, Niebudek-Bogusz and Pietruszewska, 2022)

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

(Bozeman, 2013; Herbst, Story and Meyer, 2023).
(Bestebreurtje and Schutte, 2000)

Vocal acoustics

Physiological description of twang

Vocal Mimicry

Audiation

Motor Learning Theory

'Arc of vocal abilities'

Biofeedback and reflection

Vocal folds and effort versus tension

'Most Comfortable effort'

Vocal health

Design-based research stage 2:

Associations with being loud

Body Activation

Familiarisation

Student

Vocal acoustics

Physiological description of twang

Voice research

Vocal Mimicry

Audiation

Motor Learning Theory

Teaching and learning

'Arc of vocal abilities'

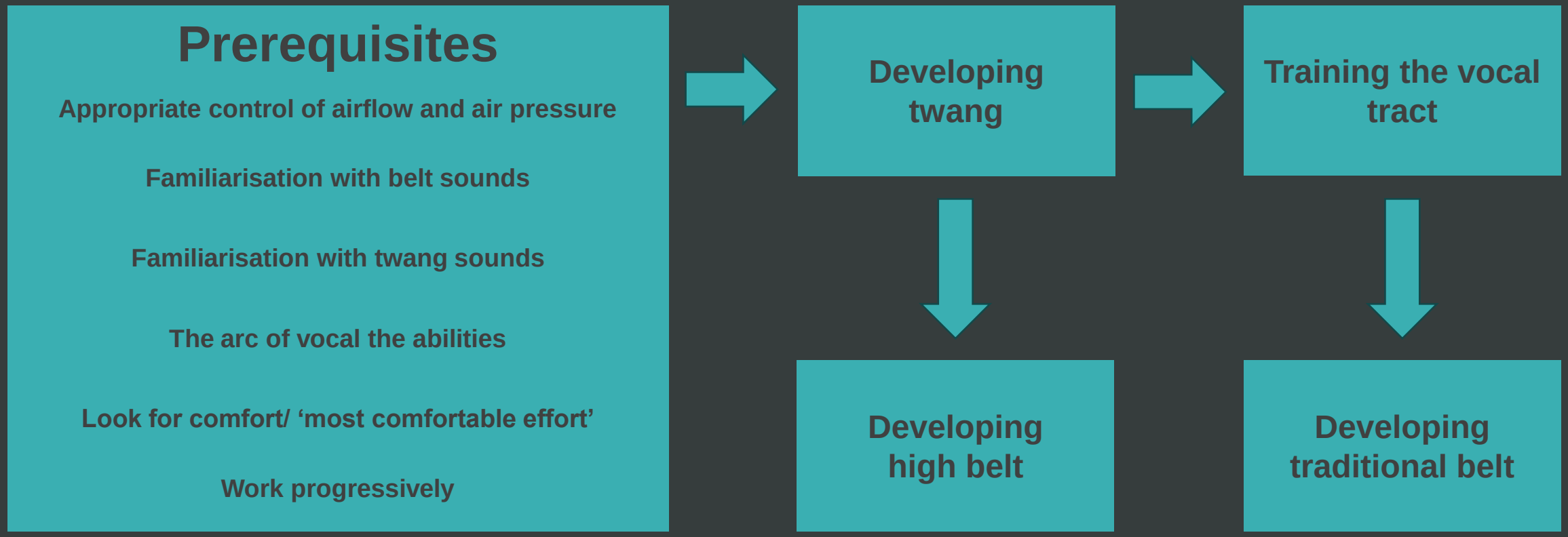
Biofeedback and reflection

Vocal folds and effort versus tension

'Most Comfortable effort'

Vocal health

Figure 3: Revised belt training flow chart (overall process)



(Morris, 2023)

Design-based research stage 3:

Assessing practical application

Design-based research stage 3:

Practical application included:

- An introduction to the belt training process

Design-based research stage 3:

Practical application included:

- An introduction to the belt training process
- Pre- and post-study surveys

Design-based research stage 3:

Practical application included:

- An introduction to the belt training process
- Pre- and post-study surveys
- Student practice logs

Discussion:

New themes…

Discussion:

New themes…

- Communication

Discussion:

New themes…

- Communication
- Vocal health and abilities

Discussion:

New themes…

- Communication
- Vocal health and abilities
- Practice approaches

Discussion:

New themes…

- Communication
- Vocal health and abilities
- Practice approaches
- Student experiences

Discussion:

Communication

(Warwick, 2007; Blackhurst, 2021; Lewis and Hendricks, 2022)

'I need to take care I don't practice too much or too long… Afterwards my throat was tight and uncomfortable.'
(B, 2024, practice log 3)

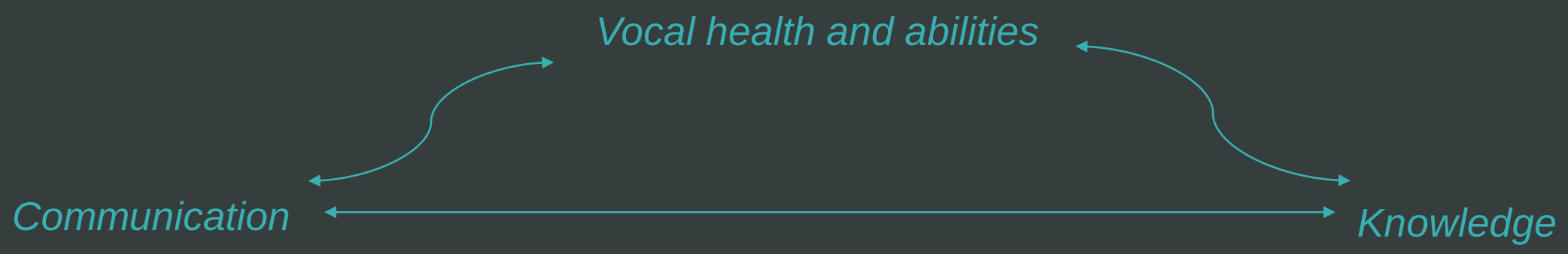
Discussion:

Vocal health and abilities

(Maxfield, 2011, 2019; 1, 2023)

Communication

Discussion:

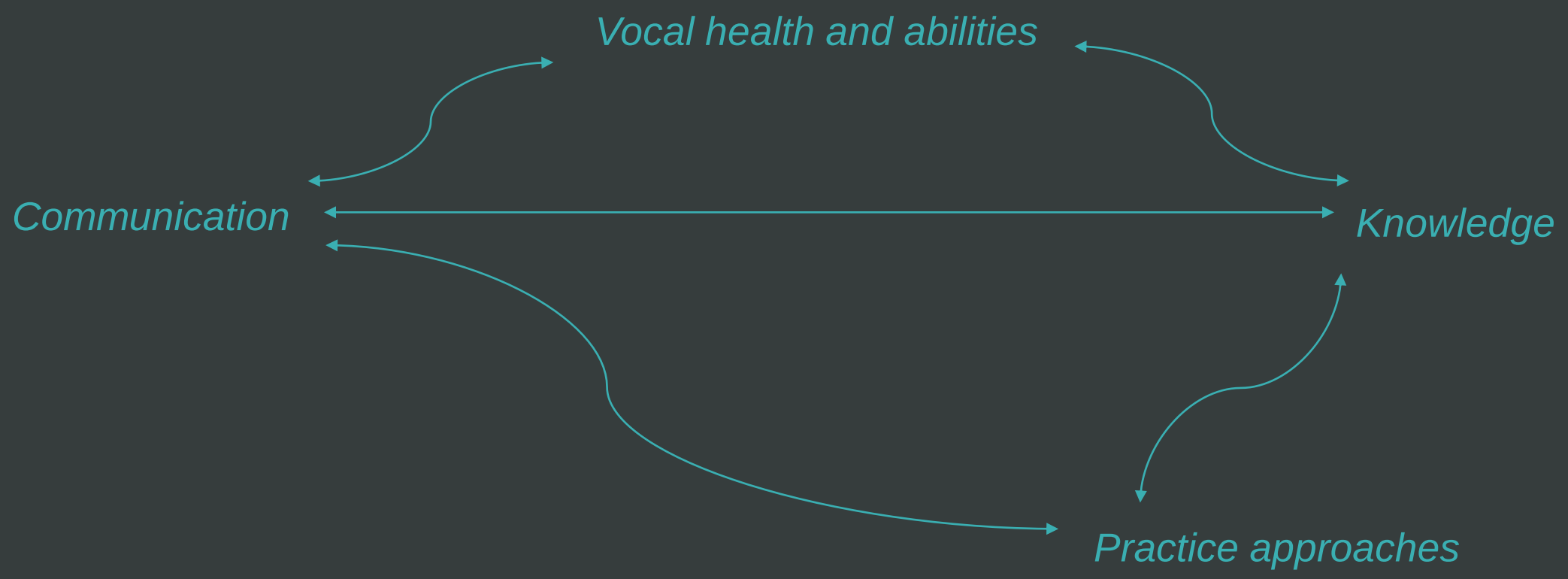


(Nix, 2017; Maxfield, 2019; Steinhauer and Eichhorn, 2023)

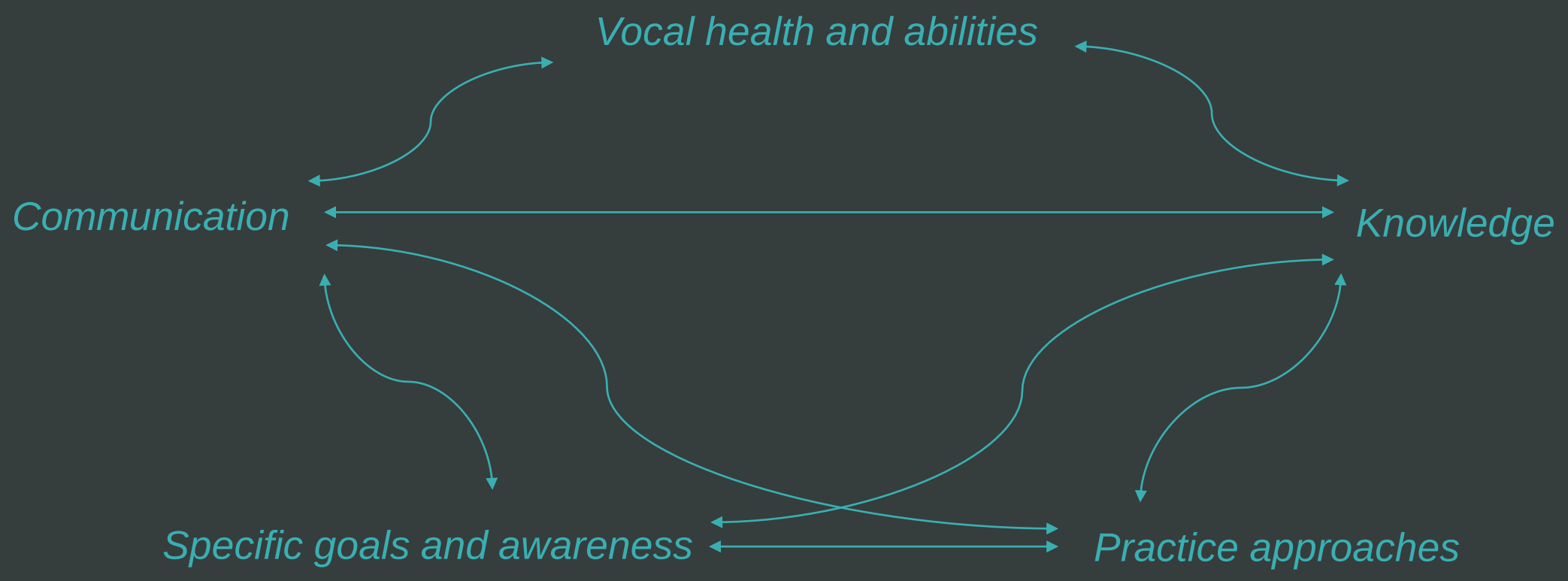
'This session pulled together much of the learning of the previous sessions and helped me internalise the feeling of belting.'

(B, 2024, practice log 6)

Discussion:


Vocal health and abilities
Communication
Knowledge
Practice approaches

Discussion:



(Creech and Hallam, 2015; Wulf and Lewthwaite, 2016; Nix, 2017; Stephenson, 2018; Hogle, 2021; Helding and Ragan, 2022; Lewis and Hendricks, 2022)
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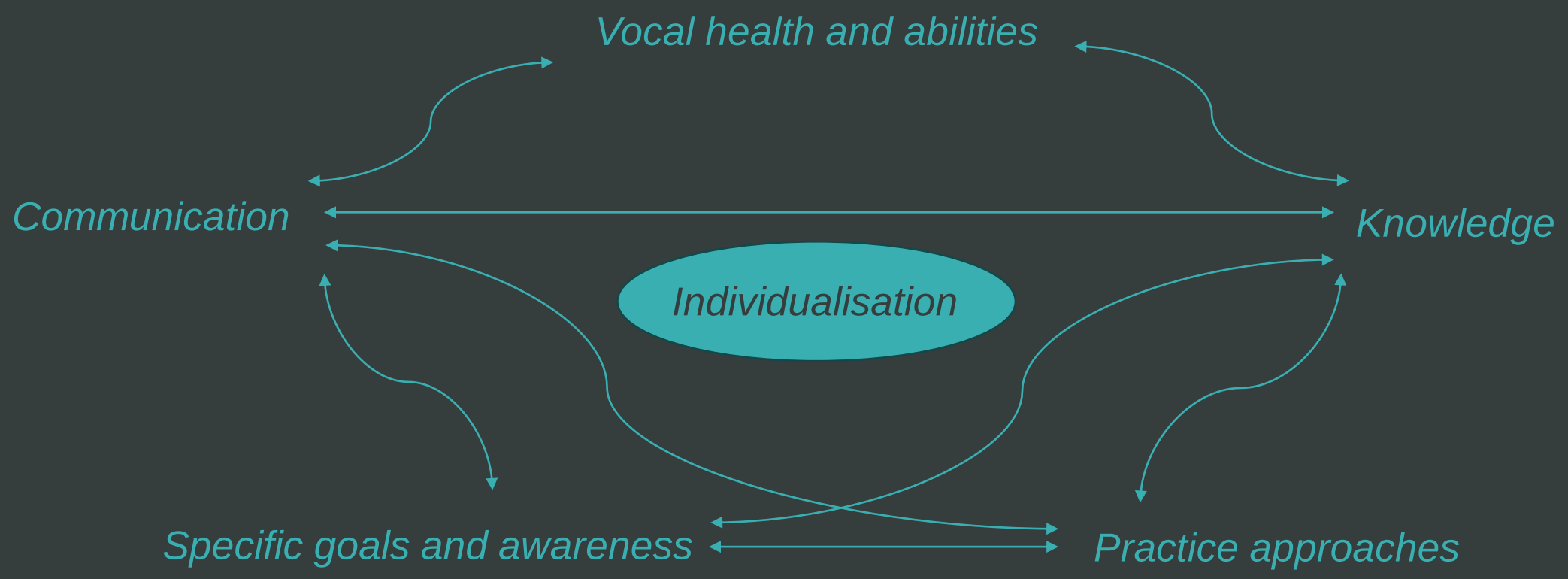
Discussion:



'No pressure to reach certain levels of progress week by week'
(A, 2024, post-study survey)

Future considerations

Broader development of the belt training process

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- More experts

Future considerations

Broader development of the belt training process

- More experts
- More participant singers

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Aiding generalisability of outcomes (Little, 2013; Denscombe, 2014; Merriam and Tisdell, 2016)

Future considerations

Broader development of the belt training process

- More experts
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Aiding generalisability of outcomes (Little, 2013; Denscombe, 2014; Merriam and Tisdell, 2016)

Quantitative measurements of:

Vocal acoustics and physiological changes (technique)

(Feilzer, 2010; Guzman et al., 2013; Little, 2013; Echternach et al., 2014; Zuim, Stewart and Titze, 2021)

Future considerations

Broader development of the belt training process

- More experts
- More participant singers

Aiding generalisability of outcomes (Little, 2013; Denscombe, 2014; Merriam and Tisdell, 2016)

Quantitative measurements of:

Vocal acoustics and physiological changes (technique)

(Feilzer, 2010; Guzman et al., 2013; Little, 2013; Echternach et al., 2014; Zuim, Stewart and Titze, 2021)

Teacher training programme for belting

Conclusion

Conclusion

My journey echoed the singers' journeys:

(MacLeod, 2011); Downe *et al.*, 2019; Skains, 2018)

Conclusion

My journey echoed the singers' journeys:

Familiarisation with sounds

(Maxfield, 2019; Moss Erickson, 2019, 2023)

(MacLeod, 2011); Downe *et al.*, 2019; Skains, 2018)

Conclusion

My journey echoed the singers' journeys:

Familiarisation with sounds → Audiation

(Maxfield, 2019; Moss Erickson, 2019, 2023)

(MacLeod, 2011); Downe *et al.*, 2019; Skains, 2018)

Conclusion

My journey echoed the singers' journeys:

Familiarisation with sounds → Audiation → Practice

(Maxfield, 2019; Moss Erickson, 2019, 2023)

(MacLeod, 2011); Downe *et al.*, 2019; Skains, 2018)

Conclusion

My journey echoed the singers' journeys:

Familiarisation with sounds → Audiation → Practice → Ability to demonstrate

(Maxfield, 2019; Moss Erickson, 2019, 2023)

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Mentor guidance supports teachers to:

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Mentor guidance supports teachers to:

Make good demonstrations

(Lindqvist et al., 2023)

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Literature review:

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Discern good examples

Discern good attempts by students

(Lindqvist et al., 2023)

Literature review:

- Assimilation of knowledge
- CPD opportunity for novice teachers
- Supports teachers to identify their CPD needs
- Supports teachers to synthesise resources

(MacLeod, 2011); Downe *et al.*, 2019; Skains, 2018)

Conclusion

Importance of collaboration

Conclusion

Importance of collaboration

- Vital component of CPD (Mccoy and Macdonald, 2019; Lindqvist et al., 2023)

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- Efficient teacher training and knowledge building (Goker, 2006; Warwick, 2007)

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- Vital component of CPD (Mccoy and Macdonald, 2019; Lindqvist et al., 2023)
- Efficient teacher training and knowledge building (Goker, 2006; Warwick, 2007)
- Student feedback as collaboration feeding into individualisation and CPD (Plomp and Nieveen, 2010; Valentine and Kopcha, 2013)

Conclusion

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Student feedback and self-efficacy

Conclusion

Importance of collaboration

- Vital component of CPD (Mccoy and Macdonald, 2019; Lindqvist et al., 2023)
- Efficient teacher training and knowledge building (Goker, 2006; Warwick, 2007)
- Student feedback as collaboration feeding into individualisation and CPD (Plomp and Nieveen, 2010; Valentine and Kopcha, 2013)

Student feedback and self-efficacy

A positive learning environment

Conclusion

Importance of collaboration

- Vital component of CPD (Mccoy and Macdonald, 2019; Lindqvist et al., 2023)
- Efficient teacher training and knowledge building (Goker, 2006; Warwick, 2007)
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Student feedback and self-efficacy

A positive learning environment

Attitude

Conclusion

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