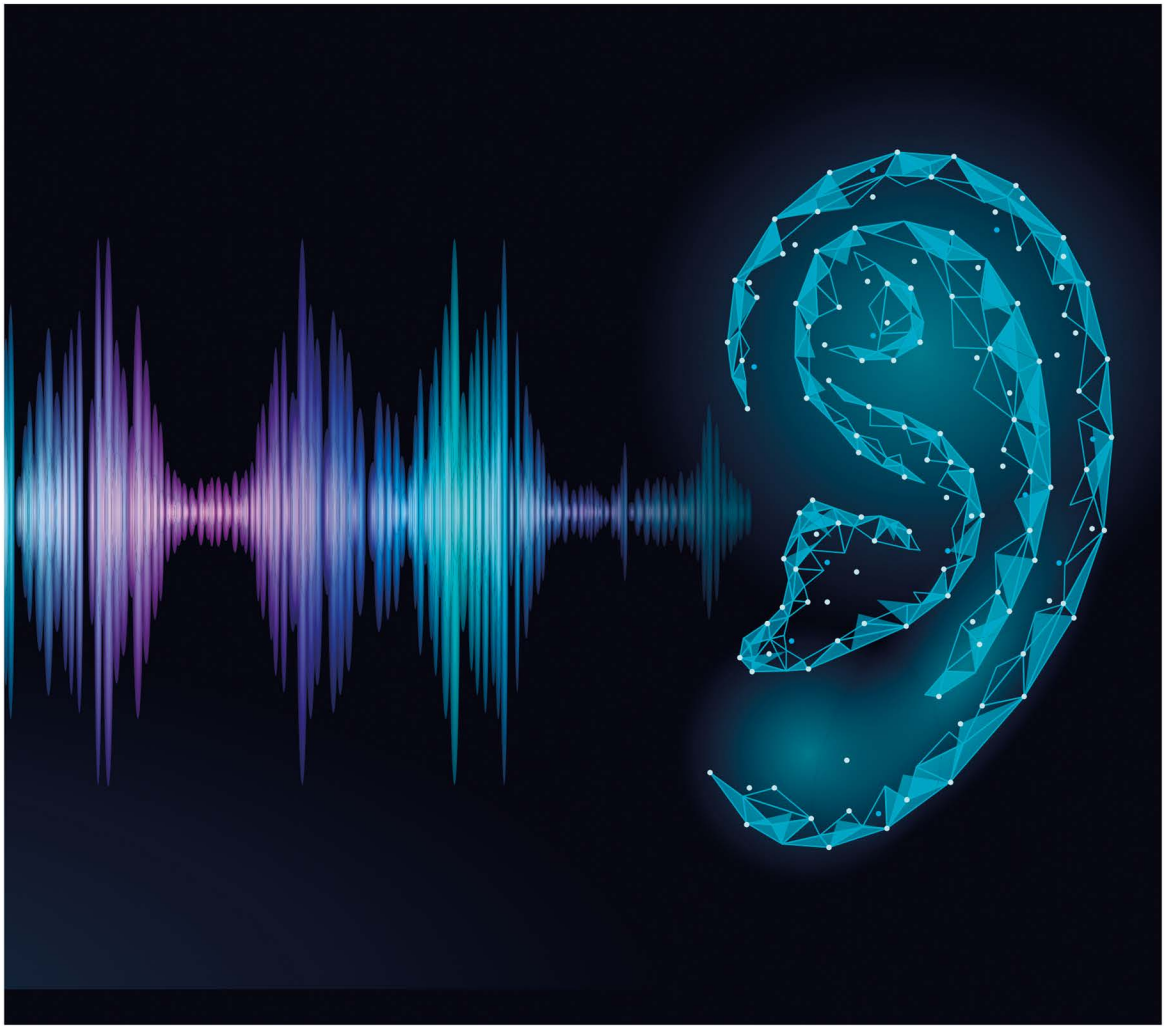
The Routledge Companion to Aural Skills Pedagogy

Before, In, and Beyond Higher Education



Edited by Kent D. Cleland and Paul Fleet

THE ROUTLEDGE COMPANION TO AURAL SKILLS PEDAGOGY

The Routledge Companion to Aural Skills Pedagogy offers a comprehensive survey of issues, practice, and current developments in the teaching of aural skills. The volume regards aural training as a lifelong skill that is engaged with before, during, and after university or conservatoire studies in music, central to the holistic training of the contemporary musician. With an international array of contributors, the volume captures diverse perspectives on aural skills pedagogy, and enables conversation between different regions. It addresses key new developments such as the use of technology for aural training and the use of popular music. This book will be an essential resource and reference for all university and conservatoire instructors in aural skills, as well as students preparing for teaching careers in music.

Kent D. Cleland is Professor of Music Theory at the Baldwin Wallace University Conservatory of Music in Berea, Ohio (US).

Paul Fleet is Senior Lecturer at Newcastle University (UK) with research expertise in music theory, analysis, and practice.

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Simon Parkin is Deputy Head of Academic Studies at the Royal Northern College of Music (UK). He went to the Yehudi Menuhin School at the age of ten, where he trained as a pianist. At 17, he entered Manchester University and the RNCM as a composition student. Upon graduation he was invited onto the staff at RNCM, where he has taught a range of practically based subjects, including aural skills, improvisation, composition, and arranging. He is now overall coordinator for theory and musicianship at the RNCM and has also taught improvisation and composition at both the Menuhin and the Purcell music schools. He has developed his career as a duo pianist, has worked regularly with artists such as Ralph Kirshbaum, and has performed with a range of international artists at festivals and in recital. He is arranger-in-residence for the Manchester Camerata, and his work has featured in the commercial recordings of a number of international artists and ensembles, including Sheku Kanneh-Mason and Jess Gillam. His arrangements are published by Faber Music. He is currently Director of Concerts for the Manchester Midday Concerts Society.

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Gary S. Karpinski is Professor of Music at the University of Massachusetts Amherst (US). He has published articles on aural skills, music theory pedagogy, early twentieth-century music, and computer-assisted instruction in *Music Theory Spectrum*, *Music Theory Online*, *The International Journal of Musicology*, and *The Journal of Music Theory Pedagogy*. His book *Aural Skills Acquisition* is published by Oxford University Press. His textbooks are published by W. W. Norton: *Manual for Ear Training and Sight Singing* and *Anthology for Sight Singing*, which also include an extensive *Instructor's Dictation Manual*, online student recordings, and an Instructor's Anthology Search website. He was editor of the *Festschrift for George Perle*, published by Peter Lang. Karpinski is the founding director of the triennial Workshops in Music Theory Pedagogy and has served as President of the New England Conference of Music Theorists, as President of the Association for Technology in Music Instruction, and as Board Member for Music Theory in the College Music Society. He was Chair of the Society for Music Theory Pedagogy Interest Group and Chair of the SMT Mentoring Program. He also served on the editorial board for *Music Theory Online* and as reviews editor for the *Journal of Music Theory Pedagogy*.

Timothy Chenette – Chapter 4: Attentional Control: A Perceptual Fundamental

Timothy Chenette is an assistant professor of music theory at Utah State University (US) where he teaches aural skills and music theory. His aural skills pedagogy research explores cognitive foundations and innovative methods, particularly how to teach the elusive skill of identifying chords within a progression. In addition to simply improving instruction, this research is inspired in part by a desire to make music teaching more inclusive, accessible, and creative. His pedagogy and early music research have been published in *Journal of Music Theory Pedagogy*, *Music Theory Online*, *Early Music*, *College Music Symposium*, and *Engaging Students: Essays in Music Pedagogy*.

Martin Scheuregger – Chapter 5: Teaching Musical Analysis as an Aural Skill

Martin Scheuregger is a senior lecturer in music in the School of Fine and Performing Arts at the University of Lincoln (UK) where he leads the BA (Hons) Music program. He takes an interdisciplinary approach to research, combining musical analysis and composition as he explores notions of time and brevity in music. His current research is expanding on areas of his PhD thesis with an extensive study of the music of George Benjamin. His research into issues of temporality continue to develop, with current work focusing on approaches to musical stasis in analysis and composition. He completed a PhD at the University of York in 2015, funded by the Arts and Humanities Research Council (AHRC) and supervised by Professor Tim Howell and Professor Thomas Simaku. In addition to work in music analysis, he is currently researching the role of composers in academia, focusing on methodologies of composition-based practice research and the role of verbal texts. In this he is investigating the interplay between autoethnographic, analytical, and other approaches, and more broadly examining the impact of neoliberal research cultures on research involving creative practice. He works in areas of public engagement, bringing together his expertise as a scholar and ensemble director to investigate new ways of effectively presenting contemporary music, in concerts, events, online, and in recordings. The AHRC-funded 'Score to Sound' project introduced audiences to contemporary British music through presentations, performances, and interviews, and with

written and recorded material. His music has been performed in the UK, Australia, Hong Kong, Germany, and Holland, and in 2015 a new work was premiered at the Huddersfield Contemporary Music Festival, supported by Sound and Music. His music has been recorded by Dark Inventions and Percussing, and published by University of York Music Press.

Jeffrey Lovell – Chapter 6: Rethinking Integration in the Music Theory Curriculum

Jeffrey Lovell is an associate professor of music at Lebanon Valley College (US), where he teaches courses in music theory and aural skills and is co-director of the college's jazz ensembles. He holds degrees in music from Brigham Young University, Rutgers University, and the University of Oregon. His areas of specialization include music theory pedagogy and jazz analysis, and his research has been published in the *Journal of Jazz Studies, Journal of Music Theory Pedagogy*, and *The New Grove Dictionary of American Music*. From 2016 to 2019, he was the chair of the Pedagogy Interest Group, affiliated with the Society of Music Theory. Since 2018, he has served on the editorial board for the *Journal of Music Theory Pedagogy*. He is also active as a jazz pianist, saxophonist, and composer. His first album as a leader, *Artifactual*, was released by Vale Records in 2020 and can be heard on all major streaming services.

Samantha M. Inman – Chapter 7: The Sing-and-Play

Samantha M. Inman is an assistant professor and the Coordinator of Music Theory at Stephen F. Austin State University in Nacogdoches, Texas (US). She formerly taught at the University of North Texas, and she holds a PhD in music theory from the Eastman School of Music. Her research interests include form, Schenkerian analysis, and music theory pedagogy. She is particularly interested in eighteenth-century music, literature for wind ensemble, and contemporary worship music. She has presented at national and regional conferences, including the Society for Music Theory, Pedagogy into Practice, the Society for Christian Scholarship in Music, and the Texas Society for Music Theory. Her publications appear in *Theory and Practice*, the *Journal of Music Theory Pedagogy*, *BACH: Journal of the Riemenschneider Bach Institute*, and *Haydn: The Online Journal of the Haydn Society of North America*.

Christopher Atkinson – Chapter 8: Performing With Meaning: A Case Study in Aural Skills Curriculum Design Aimed at Improving Undergraduate-Performer Understanding of Pitch Function in Tonal Music

Christopher Atkinson is a lecturer and serves as the Aural Skills Coordinator at the Royal Academy of Music, London (UK). He graduated in music from King's College, Cambridge, in 1988 and then progressed to postgraduate clarinet performance studies at the Royal Northern College of Music in Manchester and the Hochschule für Musik und Theater Hannover, with scholarships from the Countess of Munster Musical Trust and the *Deutscher Akademischer Austauschdienst*. In Hannover, he studied for two years with renowned clarinet pedagogue Hans Deinzer. He then embarked on an international career as a freelance clarinetist, performing, recording, and broadcasting with ensembles such as the Royal Liverpool Philharmonic Orchestra and the London Festival Opera as a chamber musician and soloist, and also taught clarinet at Trinity College of Music Junior Department. He joined the Royal Academy of Music in 2006 as a lecturer in academic studies and gained his PhD in Musical Composition at Royal Holloway University of London in 2008. He took over the role of Aural Skills Coordinator at the Royal Academy in 2011 and co-hosted the Aural Skills Symposium

there in 2017, which provided the inspiration for the present volume. He also teaches musical analysis and compositional techniques of the eighteenth- and nineteenth-century European classical tradition, including fugue.

Justin Mariner and Peter Schubert – Chapter 9: The Keyboard, a Constant Companion

Justin Mariner is an associate professor at McGill University's Schulich School of Music (Canada), where he teaches undergraduate aural skills, theory, and keyboard. His work with Peter Schubert on the use of technology and improvisation in aural skills instruction is described in their article 'New Frontiers in SmartMusicianship' (*Engaging Students 5*, 2017) and their chapter 'Speaking Music' in *The Routledge Companion to Music Theory Pedagogy* (ed. Leigh VanHandel, 2020). His compositions have been performed in Canada, the United States, and Europe, and have been included in the Gaudeamus International Music Week, the Winnipeg New Music Festival, Cluster Festival, the Victoria Symphony Orchestra's Reel Music project, and the Toronto International Film Festival. He has been commissioned to write pieces for the Via Salzburg Chamber Orchestra, the Ensemble contemporain de Montréal, the Société de musique contemporaine du Québec, Quatuor Bozzini, and Brigitte Poulin.

Peter Schubert is a professor of music theory at McGill University's Schulich School of Music (Canada). He studied with Nadia Boulanger and received his degrees from Columbia University. He taught at Barnard College for 20 years before moving to McGill's Schulich School of Music in 1990. He has published two textbooks on counterpoint, *Modal Counterpoint, Renaissance Style* and *Baroque Counterpoint* (the latter with colleague Christoph Neidhöfer), and many articles on Renaissance music. He has also published several articles on music pedagogy (most recently a chapter called 'Teaching Historical Counterpoint' in the *Norton Guide to Teaching Music Theory*), and in 2019 he received The Gail Boyd de Stwolinski Prize for Lifetime Achievement in Music Theory Teaching and Scholarship. He conducts the Orpheus Singers of Montreal and recorded six CDs with VivaVoce, a professional vocal ensemble that he founded in 1998. He has recently posted instructional videos to YouTube: three on 'contrapuntal thinking' and 14 on Renaissance improvisation. In 2015 the *Fourth Leipziger Improvisation Festival* said '*Peter Schubert gilt als großer Improvisations-Guru Nordamerikas*.'

Jennifer Beavers and Susan Olson – Chapter 10: Pitch Matching Issues in the Aural Skills Classroom

Jennifer Beavers is an associate professor of music theory at the University of Texas at San Antonio (US). Her primary research centers on the music of Maurice Ravel, in which she brings together modes of formal and harmonic analysis with timbre analysis, orchestration theory, neurology, and disability studies. Her secondary research is in music theory pedagogy, which combines her passion for teaching and research. She conducts empirical and qualitative research that has a direct impact on classroom experiences and how students create relevance between music theory and their professional musical lives. Her research appears in *Music Theory Online*, *Journal of Music Theory Pedagogy*, *Journal of Music Teacher Education*, *Indiana Theory Review*, and *The Oxford Handbook of Public Music Theory*.

Susan Olson is an associate professor of voice at the University of Texas at San Antonio (US). She received her bachelor of music in vocal performance from Capital University Conservatory of Music and her master of arts in vocal pedagogy and doctor of musical arts in vocal performance from the Ohio State University. She has performed as soloist with the Passion of Italy Festival Choir, San Antonio Symphony Orchestra, Symphony of the Hills, Starlight Symphony, Monroe Symphony Orchestra, the Westerville Symphony Orchestra, and with many professional choral ensembles in her home state of Ohio.

Chi Ying Lam – Chapter 11: Teaching Aural Awareness in Hong Kong Primary Schools: Use of Drama Exercises

Chi Ying Lam is a musician-educator whose professional portfolio includes performance, composition, teaching, organizational development, event management, and research. She has performed across London, Rotterdam, and Hong Kong as a theatre musician and songwriter. She is the co-founder of The Listeners, an acoustic improvising contemporary music ensemble. The group explores the interaction between real-time collective improvisational artifacts and the sonic environment. She was an arts administrator and primary school music teacher before she started her doctoral study at Royal College of Music. Her primary research interest is community music practice development in school music education and the transferability of the practice to other professional domains, especially in NCS (non-Chinese speaking) language learning contexts.

Bryden Stillie and Zack Moir – Chapter 12: A Good Pair of Ears: Conceiving of and Developing Aural Skills in Popular Music Education

Bryden Stillie is an associate professor in music and is the Head of Learning and Teaching in the School of Arts and Creative Industries at Edinburgh Napier University, Scotland. He graduated from the prestigious BA Applied Music program at the University of Strathclyde, Glasgow, in 1999, and has subsequently completed two PGCert qualifications – in Learning and Teaching in Higher Education (2008) and Blended and Online Education (2017). He has worked as an external advisor and as an external examiner for a range of further, and higher, education providers and institutions in the UK, and as the Higher Education Specialist on the Scottish Qualifications Authority's Qualification Design Team for Advanced Higher Music Technology. His teaching specialisms are in drum kit performance, music technology, music education, and musicianship skills. His research fields include developing new pedagogic approaches to teaching electronic and hybrid drum kit performance, exploring music student transitions from school, college, and industry into Higher Education, Popular Music Education, and using learning technologies to enhance the student learning experience.

Zack Moir is an associate professor of music and the Director of the Applied Music Research Centre at Edinburgh Napier University, UK. His research interests are in popular music in higher education, popular music composition pedagogy, the links between music education and social justice, and real-time interactive networked music performance. Zack has published on the topics of popular music pedagogy, music in higher education, popular music making and leisure, popular music songwriting/composition, and long-distance real-time music performance. Zack is the lead editor of the *Bloomsbury Handbook of Popular Music Education: Perspectives and Practices*, and a co-editor of the *Routledge Research Companion to Popular Music Education*. Zack is also an active composer and musician performing as a soloist and in ensembles internationally. Recent composition works include pieces for saxophone and tape, solo cello, and a reactive generative sound art installation at the Edinburgh International Science Festival.

Anri Herbst – Chapter 13: The Tortoise and the Magic Tree: Strategies to Develop Comprehensive and Holistic Music Analytical Listening Skills Through the Use of 'Ghost Scores'

Anri Herbst is an associate professor at the South African College of Music, University of Cape Town, and head of music education. As a DAAD scholarship holder, she researched aural perception for her PhD (1993). She has not only led several projects sponsored by the National Research Foundation in South Africa and the Harry Oppenheimer Memorial Trust but also founded the ISI-accredited *Journal of the Musical Arts in Africa* as Editor-in-Chief.

Miranda Francis – Chapter 14: New Aural Pedagogy for the Twenty-First Century: Introducing a Course for Undergraduate Students at the Royal College of Music, London

Miranda Francis is Head of Junior Programs and Area Leader for Aural Training at the Royal College of Music in London, where she teaches many undergraduate and postgraduate aural classes. She studied the double bass with Robin McGee and Organ with John Scott at the Royal Academy of Music, winning several academic prizes, including the May Turtle Prize for Outstanding Aural Perception. An experienced and enthusiastic music educator, Miranda has led music departments in several specialist music schools, including the Purcell School, where she founded the Jazz Department. She was also Principal Examiner of Music Performance at Advanced level for over 15 years, training examiners and leading teacher training courses. Miranda's current research interests include performance assessment methods and comparative pedagogical approaches to aural training. A passionate advocate for music education for all, Miranda was awarded an ARAM in 2014 and an HonRCM in 2015 in recognition of her contribution to music education.

Chris Price – Chapter 15: The Watchmaker's Screwdriver: Aural Competence

Chris Price is Director of Music at Canterbury Christ Church University (UK) and a Tenor Lay Clerk in the Cathedral Choir at Canterbury. His specialist teaching areas include history and analysis of music of the tonal period; aural skills; conducting; the history, practice, and principles of church music; and the critical and analytical study of contemporary performing arts practitioners. Work with the cathedral choir has included recordings, BBC radio and TV broadcasts, and international tours, notably to the US, Holland, Italy, and Norway. He completed his PhD at Durham University on the Canterbury Catch Club, a musical society which met throughout the long nineteenth century in the city, which was published as a book by Cambridge Scholars Publishing, *The Canterbury Catch Club: Music in the Frame*, in 2019. He and some fellow Lay Clerks from the Cathedral Choir have given several performances of some of the repertoire at various venues, including local hostelries under authentic conditions and the more refined surroundings of the Cathedral Archives Reading Room. He is co-Director of the Snowdown Colliery Welfare Male Voice Choir.

Colin Wright – Chapter 16: The Nature of Aural Ability and Issues Related to Its Assessment

Colin Wright is a freelance musician with a well-established reputation in the East Yorkshire (UK) area as an active practicing musician, particularly as organ recitalist. He was Assistant Organist at Beverley Minster from 1996 until 2010, where he recorded two CDs. He is currently Musical Director of the East Riding County Choir, and his book *Aural Skills and the University Music Undergraduate* was published in 2016.

James Cuskelly – Chapter 17: The Kodály Philosophy: Contemporary Interpretations and Practices

James Cuskelly, OAM, is Music Teacher at St Joseph's School, Stanthorpe, Queensland. He is Immediate Past President of the International Kodály Society, Director of the Summer School Music Program, and Director of the Cuskelly College of Music. James completed undergraduate studies and a Diploma of Education at the University of Queensland. The Kodály Certificate from Holy Names College (California) was awarded in 1991 and the master's of music studies (The University

of Queensland) in 1997. He gained PhD (The University of Queensland) in Music Education in 2007. He has taught in music education contexts: pre-school, primary, and secondary classrooms as well as in tertiary institutions. He was Head of Music Education and the Aural Musicianship Program at the University of Queensland from 2000 to 2010 and during that time received two awards for Excellence in Teaching. He is committed to teacher training in music education, and consequently, is frequently asked to lead workshops and in-service teacher training programs, including the Summer School Music Program (Brisbane) and programs in Malaysia, Hungary, Scotland, England, the USA, New Zealand, Indonesia, Thailand, and South Africa. James is well known as a global leader in terms of the Kodály philosophy of music education. He is also a highly regarded choral conductor and clinician: he is founding Director of the Queensland Kodály Choir and conductor of Valency Ensemble. He embodies Zoltan Kodály's vision of allowing people of all abilities, ages, and backgrounds to access the best quality music. He has been involved in the Australian Kodály Summer Training Programs since their inception. He was awarded the Medal of the Order of Australia (OAM) for service to music education in The Queen's Birthday 2018 Honors List.

Robin Harrison – Chapter 18: An Introduction to the Kodály Method: Credited by UNESCO as an Intangible Cultural Heritage

Dr. Robin Harrison currently works as a director of music at an independent school in the North East of the United Kingdom and teaches for the Royal College of Organists Academy and privately. He initially developed as an organist in the UK, studying at the Royal Northern College of Music, later gaining diplomas in organ, piano, composition, and singing. He then studied to become a teacher for children aged 11–18 as well as completing a PhD at the University of Wales Bangor in 'The Late Style of Frank Bridge.' He discovered the Kodály concept of teaching on returning to the UK after teaching for four years at the New Cairo British International School in Egypt. He immediately pursued courses via the British Kodály Academy and the National Youth Choir of Scotland. Robin used Kodály's influence to create a structured, progressive approach to aural and musicianship training and developed a strong belief that there is no such thing as 'can' or 'cannot' when it comes to aural, but merely that different people are at different stages of their journey and that all can continuously further evolve their skills with a carefully crafted scheme of work. Robin teaches pupils from the age of four through to post-graduate with these principles in mind. His musical experience is broad, having been classically trained at a conservatoire, lived with tribes in Gambia and South Africa, performed as a jazz improviser and achieved highly in a global chart ranking, directed a high-achieving Gospel-Rock-Pop choir, performed and coached in theatres for shows such as *We Will Rock You* and been a church musician all of his life. His composition commissions have taken him from the UK to the US.

John Robert Stevenson – Chapter 19: The Solfège of Émile Jaques-Dalcroze

John R. Stevenson (Jack) holds the *Diplôme Superior* and *License Jaques-Dalcroze* from the *Institut Jaques-Dalcroze* in Geneva, Switzerland, and a BM in piano performance from Duquesne University (US). He has taught and certified teachers in the Jaques-Dalcroze Method for over 45 years. He founded and for 12 years directed the Dalcroze Studies Institute at Ithaca College, School of Music, where he founded and directed the ensemble *Plastique Animé*, which toured throughout Europe and the Americas. He has also taught on Jaques-Dalcroze at the Laval University in Quebec and St. Laurence College in Montreal, and chaired the Department of Performing Arts at The Spence School in New York City. In addition, he has served and continues to serve as guest faculty in eurhythmics, music education, piano improvisation, solfége, and choreography at colleges and universities, including the Institut Jaques-Dalcroze, Geneva, Switzerland; Oberlin Conservatory of Music; The

Royal Conservatory of Toronto; Carnegie-Mellon University; and Bien Music Conservatory, Bien, Switzerland. He is the founder and now retired director of The Bethlehem Music Settlement in Bethlehem, PA, offering private and group piano, voice, theory, Dalcroze Eurhythmics, Solfège, and Improvisation programs. Jack is currently co-directing the Institute for Jaques-Dalcroze Education, LLC in Bethlehem, PA, where he trains Jaques-Dalcroze teachers. He has authored several articles and co-authored the text *Rhythm and Pitch: An Integrated Approach to Sightsinging*, published by Prentice-Hall. His most recent publication is the ebook *Pursuing A Jaques-Dalcroze Education – Solfège, Volume I*, available on iBooks in the iTunes store. His awards include the Premiere Prix en Pedagogy from the Institut Jaques-Dalcroze; the Zuckerman Foundation Award for teaching excellence at the Spence School; and the Dana Teaching Fellowship from Ithaca College for his 'outstanding contribution to higher education'.

Crystal Peebles – Chapter 20: Harmonic Schemas in Aural Skills Classes

Crystal Peebles is an associate professor of music theory at Ithaca College (US). Her teaching interests include music courses for non-majors, service-learning experiences in the Music Theory classroom, and introductory courses in Aural Skills and Music Theory. She has published her work in *Music Theory Online*, *Engaging Students*, and *The Proceedings of Bridges*, a conference that explores the intersection of mathematics and the arts.

Daniel B. Stevens, Philip Duker, and Jennifer Shafer – Chapter 21: Bending to Real Music: Harmonic Hearing in the Aural Skills Classroom

Daniel B. Stevens is Associate Professor of Music at the University of Delaware (US). He has published numerous articles and resources on music pedagogy and assessment in the *Journal of Music Theory Pedagogy, Engaging Students: Essays in Music Pedagogy*, and the *Journal of Performing Arts Leadership in Higher Education*. These publications provide new approaches to aural skills and analysis that fuse student-centered pedagogy and assessment with creative thinking and listening. Stevens performs regularly as a pianist and chamber musician. His essay, 'Rhythm and the Performer's Body,' appears in *The Oxford Handbook of Music and the Body*.

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Jorge Alexandre Costa – Chapter 22: Musical Analysis and the (Re)Construction of a *Habitus* of Listening

Jorge Alexandre Costa is a professor of music at the School of Higher Education of the Polytechnic Institute of Porto (Portugal). He completed his music studies in the Music Conservatory of Porto (1988), in the College of Music and Performing Arts of the Polytechnic Institute of Porto (1990),

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Nathan L. Lam – Chapter 23: Finding Common Ground in the Do-/La-Minor Solfège Debate

Nathan L. Lam is a music theorist from Brisbane, Australia, and currently holds the position of Lecturer in Composition and Theory at the Massachusetts Institute of Technology (US). His research examines the compositional use and perception of diatonic modes through different lenses, including mathematical music theory, historical music theory, and solfège. His PhD dissertation (2019 Indiana University) explores the reemergence of diatonic modes in Western art music ca. 1800–1950, and he has presented at regional, national, and international conferences, including Society of Music Theory meetings. Nathan's 2017 paper 'Relative diatonic modality' on la-minor solfège and English pastoral music won the Dorothy Payne Award. Other research interests of his include pentatonicism, canons, and musical symmetry. Putting theory into practice, Nathan also composes in his spare time. An upcoming CD album will include his solo and chamber works informed by his theoretical research.

Jena Root – Chapter 24: Teaching Improvisation: Starting Points

Jena Root is Professor of Music and Music Theory Coordinator for the Dana School of Music at Youngstown State University in Ohio (US). Her service in higher education has spanned more than 25 years in the music theory and aural skills classroom, including positions at Shenandoah Conservatory, Syracuse University, Yong Siew Toh Conservatory at the National University of Singapore, and St. Olaf College. Her teaching interests include improvisation, technology for theory and ear training practice, and the integration of popular music and music by women into the undergraduate theory core. She is the author of *Applied Music Fundamentals: Writing, Singing, and Listening* (Oxford University Press) and *Applied Music Theory: A Practical Guide for Writing, Listening, and Understanding* (OUP, forthcoming). Her work has also appeared in the *Journal of Music Theory Pedagogy* and *The Routledge Companion to Music Theory Pedagogy*. She has presented papers at the Advanced Placement (AP) National Conference, College Music Society National Conference, Society for Music Theory (SMT) National Conference, Association for Technology in Music Instruction (ATMI), and the Ann Arbor Symposium. Jena has served as Resources Editor for the *Journal of Music Theory Pedagogy*, and is also an active composer.

David John Baker – Chapter 25: Understanding Melodic Dictation via Experimental Methods

David John Baker is a music researcher and educator who is passionate about questions at the intersection of music and science. His research seeks to understand how computational musicology and cognitive psychology can explore how music can be used to learn about how people think. He

formerly worked as a Lecturer at Louisiana State University, and as Lead Instructor of Data Science at Flatiron School in London, England. Prior to working at Flatiron, he worked on music industry projects as a data scientist and volunteered in the charity sector.

Kent D. Cleland – Chapter 26: Toward a New Pedagogy for Teaching the Reading of Atonal Melodies

Kent D. Cleland is Professor of Music Theory at the Baldwin Wallace University Conservatory of Music in Berea, Ohio, (US). His research interests include aural skills pedagogy and the application of Bergsonian Temporalism to musical transformation. He is the co-author of an aural skills textbook, *Developing Musicianship through Aural Skills*, published by Routledge and currently in its second edition. He is also the creator of a dictation drill application for iOS devices called *Dr. C's Music Theory Suite*, and he maintains a YouTube channel, *Dr. C's Music Theory Land*, which provides instructional video lectures on basic topics in music theory. Kent is a Senior Fellow of the Higher Education Academy (UK).

Jenine Brown – Chapter 27: Your Teacher Cares if You Listen! Helping Students Analyze 12-Tone Compositions Without a Score

Jenine Brown (PhD in Music Theory, Eastman School of Music) is Assistant Professor of Music Theory at the Peabody Conservatory of the Johns Hopkins University (US), where she teaches core ear-training courses. Her research on hearing post-tonal music has been published in *Music Theory Spectrum, Music Perception*, and the *Journal of New Music Research*. She has presented related experimental findings at conferences, including the biennial meeting of the Society for Music Perception and Cognition, the International Conference on Music Perception and Cognition, the annual meeting of the Association for Psychological Science, and the annual meeting of Music Theory Midwest. Brown's writings on aural skills pedagogy can be read in the *Journal of Music Theory Pedagogy* and *Engaging Students: Essays in Music Pedagogy*. Other research projects include collaborations with colleagues at her institution; these are published in *Frontiers in Psychology* and *Research Studies in Music Education*. She has served on the Society for Music Theory's program committee for the 2020 annual conference. She is also secretary for the Music Theory Society of the Mid-Atlantic (2018–2022) and previously served as SMT statistician (2017–2019).

Nathan Fleshner and Trevor de Clercq – Chapter 28: Technology Inside, Outside, and as the University Aural Skills Classroom

Nathan Fleshner (PhD Eastman) is Assistant Professor of Music Theory at the University of Tennessee, Knoxville (US). His research focuses on the portrayal of mental illness, trauma, and the psychoanalytic process in music as well as popular music and the use of iPad apps for theory pedagogy and music cognition. He has presented papers at national and international music analysis conferences and in other disciplines, including the Second International Conference on Music and Consciousness in Oxford, England, and the Trauma and the Medical Humanities Conference in Durham, England. His research has been published in multiple journals and the edited volumes, *Music Video Games: Performance, Politics, and Play*, *The Oxford Handbook of Hip Hop Studies*, and *For the Sake of the Song: Essays on Townes Van Zandt* (forthcoming). He authors the column, 'Do You Hear That Too? Music and the Medical Humanities' for the website, The Polyphony, associated with the Institute for the Medical Humanities at Durham University, UK. The column explores musicians and their music through the lens of mental health and the broader field of medicine, including analyses of specific works,

interviews with musicians and health professionals, and other columns on connections between fields of music and medicine.

Trevor de Clercq is Associate Professor in the Department of Recording Industry at Middle Tennessee State University (US), where he coordinates the musicianship curriculum and teaches coursework in audio theory and music technology. His research focuses on the ways in which contemporary popular music departs from traditional theoretical frameworks developed primarily within the context of common-practice-era music, especially as shown through empirical methods. His *Nashville Number System Fake Book*, which includes charts for 200 acclaimed country songs, was published in 2015 by Hal Leonard. He holds a PhD in music theory from the Eastman School of Music.

Jonathan Pitkin – Chapter 29: Audit: The Development of a Web-Based Practice Tool for Individual Note Recognition in Consonant and Dissonant Piano Chords

Jonathan Pitkin is a composer and a member of the professorial staff of the Royal College of Music, London, where his teaching responsibilities encompass composition, orchestration and academic studies at various levels. His creative research interests revolve predominantly around areas of overlap between composition and music psychology, particularly where these concern the workings of listener expectations, or the creation of illusions of one kind or another. His compositions include works that have been broadcast by BBC Radio 3 and published by Oxford University Press; his published writings include contributions to the SAGE Encyclopedia of Music in the Social and Behavioral Sciences (2014).

ACKNOWLEDGMENTS

Kent and Paul would like to thank all the educators around the globe who contribute to the lifelong learning of ear training, and this thank you is inclusive of all people, places, musics, and levels of education. Throughout the writing and editing of this book we have kept in mind the reason we teach aural skills: it is to continue the joy of inclusivity through music. From an early age, when as children we sang with our parents, peers, or stereos (giving away our age here!) with full hearts and such innocence, we were part of the practice and not the product of music. We would ask that anyone reading this book take a moment to think about those who have instilled in them the love of repeating a simple musical melody or rhythm that enabled them to 'join in.' And if we should ever forget the importance of inclusivity regardless of ability, we should remember possibly the largest aural training event in history that took place on 13 July 1985 with one of the world's greatest showman educators (see https://bit.ly/2ORPc71).

We would also like to particularly thank Christopher Atkinson, who started the conversation by organizing an aural skills symposium at the Royal Academy of Music in April 2017, and who has supported this book as an outgrowth of that symposium.

Kent would like to thank our contributors: I went from casually knowing a few of you, to having a network of colleagues and friends around the world who share a passion for good teaching and for making music. I would especially like to thank Paul for being an amazing collaborator on this book: for his keen sense of humor and good spirit (especially during the 'hiccups' a project of this scope always entails), for his amazing vision of the big picture and the possibilities, and for his friendship. Of course, a project like this doesn't happen without the assistance of the kind people at Routledge, many of whom remain behind the curtain even for us. Our contacts, Genevieve Aoki and Shannon Neill, have been essential guides who have helped us shepherd this book through the entire process, from idea to publication and through unimaginable upheavals. To my teachers – the formal ones like Allyn Reilly, David Baker, and Larry Hartzell, who taught me how to teach music, and the informal ones, my students, who continually teach me how and why to teach music – I am forever grateful. Finally, to my family – Karen, Chloe, Larkin, and Puma – who provide never-ending support, perspective, and love, I couldn't have done this without any of you.

Paul would like to thank Kent; now this would seem to be an obvious thank you for an acknowledgment page in a co-edited book, but I would like to underscore the support and collegiality that Kent has enabled throughout this process. I am delighted to say that Kent has gone from being someone I met at a conference to someone I thoroughly enjoy working with – to a friend who never forgets to send me a Christmas card. I would also like to thank each and every contributor for

their patience in our editorial process; you have made this book the statement piece we had hoped it would become during our planning process. To David Murray, Paul Templeman, and David Gledhill, as my early musical educators who never made me feel stupid when I was beginning my ear-training journey, and to the peer with perfect pitch who sat next to me in an aural class and was simply bored by the process while I failed at transcribing the tone-row from scratch, I thank you for one of my 'educational eurekas' as I experienced first hand the importance of pedagogical differentiation in an ear-training session. Finally, and by no means least, I thank my family for supporting me in my grumpy moments where work spilled over into life and it took a while to get my 'head out of the shed' – Nathalie, Belle, and Evan, you are my world.

OVERTURE

It has been over 20 years since the publication of Gary S. Karpinski's landmark *Aural Skills Acquisition* (Karpinski, 2000). That work remains a seminal work in the field of aural-skills pedagogy, as evidenced by its ongoing number of citations, including in the chapters of this book. What made that book stand out among the many publications concerning ear training was that it focused on the pedagogy; it was not a manual nor a curriculum rich with musical examples. The field of Aural-Skills Pedagogy, however, has grown significantly in those 20 years. Lines of research suggested in Karpinski's book have been further developed, and new lines of research have arisen. It seems like it is time for another overview of where the field stands in relation to the practice of ear training before, in, and beyond higher education.

That was the situation in April 2017, when Christopher Atkinson of the Royal Academy of Music, London (RAM), organized a one-day symposium dedicated to the latest research and pedagogical innovations in aural-skills pedagogy. Entitled 'Aural Skills Pedagogy: What is to be done?', the symposium featured eight presentations on a variety of topics followed by a round-table discussion on the current state of aural-skills teaching in the United Kingdom and the United States. It sought to advance cooperation, collaboration, and the sharing of ideas in the field (see the program in Figure 0.1). Many participants expressed a strong desire to continue the discussion and to preserve the presentations delivered that day. That desire was the genesis for this work. Atkinson graciously gave us his blessing to build on the spirit of the symposium and organize the forces to produce the present volume.

We started with five of the presentations from the RAM symposium,[1] asking the authors to adapt (and, in some cases, expand) their presentations for inclusion in this book. We then put out a global call for proposals, which was enthusiastically answered. We soon found ourselves reading abstracts from all over the world on a variety of topics in aural-skills pedagogy. Once the selection process was completed, we were delighted that these contributors represented five continents and a wide variety of approaches and topics in aural-skills pedagogy (see Figure 0.2).

We have tried to select a mixture of topics that address the theoretical, the pedagogical, and the practical, so that you might finish this book not only with a list of new techniques to try in your classroom but also with the germ of an idea or two to turn into a research project. And this is an important point: the book you are reading is not an ear-training manual. It is a companion to ear training, so while a chapter may provide case studies of good practice, these are not the sole contents of the chapters. Where case studies and ideas are presented, they are all underpinned by and framed alongside research-driven methodologies.

Aural Skills Pedagogy Symposium: What is to be done?
Royal Academy of Music
7 April 2017

Admission Free

Timetable

9:15–9:45	Registration & welcome
9:45–10:15	Anna Wolf (Hanover University of Music, Drama and Media) **Can We Measure Aural Skills? Development and Evidence from the Musical Ear Training Assessment (META)**
10:15–10:45	Kent Cleland (Baldwin Wallace University, Berea, Ohio) **Techniques for Teaching the Reading of Atonal Melodies**
10:45–11:15	Peter Lee (Rising Software, Publishers of *Auralia* Ear Training *Musition* Music Theory Software) **Successful Integration of Technology in Aural Courses--*Auralia* Case Study**
11:15–11:30	Coffee/Tea
11:30–12:00	Chris Atkinson (Royal Academy of Music) **Some Thoughts on Trying to Improve Understanding of Pitch Function in Tonal Music in Undergraduate Performers**
12:00–12:30	Gary S. Karpinski (University of Massachusetts Amherst) **The Seeing Ear: Towards a Rationale for Dictation**
12:30–1:45	Lunch
1:45–2:15	Jena Root (Dana School of Music, Youngstown State University, Ohio) **Teaching Improvisation: Starting Points**
2:15–2:45	Robin Harrison **The Kodály Technique--recently accredited by UNESCO as an Intangible Cultural Heritage: Will it really do what it says on the tin?**
2:45–3:15	Simon Parkin (Royal Northern College of Music) **Aural training within an integrated approach to musicianship training**
3:15–3:30	Coffee/Tea
3:30–4:30	Roundtable 'What is to be done?' introduced and chaired by Paul Fleet (Newcastle University)
4:30	End

Figure 0.1 Program from the Aural Skills Pedagogy: What is to be done? Symposium.
Source: The Royal Academy of Music, 7 April 2017.

As the final drafts of the individual chapters were coming in, two significant events began to have a dramatic effect on the work for this volume. First, Philip Ewell gave a plenary address at the Society for Music Theory National Conference in Columbus, Ohio, in which he asked practitioners of music theory to become aware of and expand beyond the field's traditional white racial frame. This was followed soon after by social unrest, sparked by the killing of George Floyd in Minneapolis, Minnesota, which led to worldwide demonstrations aimed toward recognizing and correcting socially ingrained inequities with how non-white people are treated and educated in Western societies.

Figure 0.2 Geographic distribution of contributors to this volume.
Source: From the authors.

Second, the world began to shut down due to the emergence of the COVID-19 virus, with many of our contributors coming from places that were identified as 'hot spots,' and virtually all of us having to quickly adjust our teaching from traditional, in-classroom teaching to remote instruction and in some cases a mixture of both.

As a result of both of these events, many of us were suddenly finding ourselves rethinking and reworking the way that we deliver instruction to our students. As editors, the question of relevance became all the more important: would this book, as it was conceived, still be relevant across de-colonized curricula and in a post-COVID world where musical performance, singing, and in-person musical activities were being reconsidered? Would the field still look the same? Would the techniques we use to teach, and the philosophies that inform them, still apply? Although a few of the authors address these issues in their chapters, these forces really began to take hold after much of the research work had already been done. While we went into this project with a conscious desire to be inclusive and expansive with the selection of contributors – we had sought out authors who wrote on using literatures beyond the traditional European Classical tradition and who described techniques and perspectives that are applicable to a wide variety of musics, and we consciously pursued participation by authors from as wide a geographic distribution as we could – this book still finds its genesis in the belief structures and status quo of a pre-George Floyd/pre-COVID-19 world. However, it is also because of this book's broad focus – a mixture of philosophies of pedagogy, best practices, and calls for expanding into new techniques and pedagogies – that we feel that this book, and the excellent scholarship that it contains, remains relevant. Many of the chapters express ideas and pedagogies that, with a little imagination, are expandable into wider literatures, while others approach the teaching of aural skills as a humanity: a common language that unites because of music's ubiquity in human culture.

A quick reading of the table of contents shows a tremendous breadth of topics to be found within. For example, modern interpretations of long-established methodologies are described in Jack Stevenson's and Robin Harrison's chapters on Dalcroze and Kodály techniques, respectively. The use of state-of-the-art technological tools are described in the chapter by Nathan Fleshner and Trevor de Clerq and the chapter by Jonathan Pitkin. Justifications, dispositions, and methodologies for approaching hearing skills (dictation) are addressed by Gary S. Karpinski, Martin Scheuregger, and Timothy Chenette. Harmonic hearing through literature-based approaches are addressed by Crystal Peebles and Daniel Stevens, Philip Duker, and Jennifer Shafer. The use of the keyboard in the aural-skills classroom is covered in a chapter by Samantha Inman and a chapter by Peter Schubert and Justin Mariner. Tonal function is addressed by Chris Atkinson. Issues of relevance and integration permeate the chapters, with special emphasis to be found in chapters by Jeffrey Lovell, Simon Parkin, Miranda Francis, Christopher Price, Jorge Costa, and Colin Wright. While there is an emphasis on the traditional art music literature, Bryden Stillie and Zack Moir make the case for how aural skills in popular music education differs, and Anri Herbst uses local folk music to discuss pedagogies for teaching listening skills. Post-tonal techniques are covered in chapters from Kent D. Cleland and Jenine Brown. Vocal production is covered by Jennifer Beavers and Susan Olson. Teaching improvisation is addressed in the chapter from Jena Root. While most of the chapters focus on aural training at the postsecondary or higher education level, the book's scope is broadened by Chi Ying Lam's chapter on using dramatic play to raise aural awareness in early education in Hong Kong. Techniques for listening analytically are covered in chapters by Martin Scheuregger and Jorge Costa. Finally, it wouldn't be an aural-skills book without addressing the ongoing discussion of syllable systems, found in the chapter written by Nathan L. Lam.

Certain themes run through and between this breadth of topics. For example, curriculum development runs through several chapters, as do the topics of harmonic hearing, improvisation, embodiment, assessment, and linking hearing with understanding. Several chapters take the long view of the development of aural skills, pointing out how things have changed over the course of the authors'

careers. Throughout the book, one finds an almost constant concern with the relevance of what we, as aural skills teachers, do, and whether the skills we teach our students will be relevant in their careers as professional musicians.

Ultimately, our aim with this project is to broaden the question of the original symposium: 'What is to be done?' and to begin to seek answers. We can only do this if we know the field as it stands upon asking the questions, and Paul Fleet begins the journey by investigating the terrain of ear training across the globe. This helps us with such questions as 'What is being done?,' 'How do we know that it's working?,' and even 'Why do we do what we do?' With one such book end (or book start, if you will) in place, we have taken the liberty of proposing a course of action at the end of the book. The true cadence, the *clausaula vera*, is where we do not just summarize the findings of our chapters but also create a common practice (to be understood in both a discipline- and non-discipline-specific manner) stopping point for us all to consider where we were and are with our respective ideas and concerns for the field of aural skills. To help us then move toward this, we have written a kind of 'manifesto' or 'call to action' that makes suggestions for how we, as practitioners of a common field, can collectively improve the discipline for the next 20 years (or longer) by using research and promoting collaboration on a broad scale. We hope, therefore, that you enjoy this volume in the spirit in which it was created: for the promotion of the theory, methodologies, research, and critical thinking alongside aural case studies – and that you regard it as a valuable companion on your academic journey as an educator and/or vested educatee through the lifelong skill of ear training.

Note

1. The other three presenters, who were unable to participate in this project because of prior commitments, gave excellent presentations that we recommend you look up once they reach publication.

INTERMEZZO 1

Terrain

The word 'terrain' refers literally to the defining characteristics of a stretch of land. Metaphorically, it refers to the defining characteristics of something being described. In the case of aural skills, it can have multiple meanings: (1) the mechanical characteristics of curricula and practice; or (2) the psychological space of how aural skills are conceived in the mechanical arena.

The opening section of this book is devoted to looking at the terrain of aural skills pedagogy from both perspectives. Paul Fleet begins with a meta-examination of the typical place of aural-skills instruction in curricula throughout the English-speaking world. He examines when aural-skills instruction typically starts and how long it typically continues in various types of institutions as well as how often aural-skills instruction is combined or integrated with other theoretical and musical instruction. These elements will inform, as will the following chapters, the coda to this book, where a design for the future of aural training will be proposed.

Simon Parkin follows with an examination of the psychological space of aural skills in the curriculum, providing an engaging look at how current practices have evolved over a career that has spanned several decades. Ultimately, his chapter is a story of a search for relevance, and a description of how his institution, and many others, have similarly sought to increase the relevance of aural skills instruction and what concrete steps these institutions took (and are taking) to pursue this goal.

In many ways, the remainder of this book continues an examination of these foundational themes, as relevance is an ideal that most of the authors in this collection seek. They have been successfully finding creative and innovative ways to do so within the mechanical constraints of the higher education curriculum and the amount of 'space' that it allots to aural skills instruction.

1

THE TERRAIN OF EAR TRAINING ACROSS THE GLOBE

Paul Fleet

Introduction

The title of this chapter is a remarkably lofty one, and one that I acknowledge suggests more than it can deliver. However, such a bold statement is needed – and particularly within this volume. At the close of the Royal Academy of Music Aural Skills Pedagogy Symposium (2017) the vested parties sat in a circle and shared ideas of what to do next after hearing, discussing, and questioning the informative papers that had been presented (to note, one of those ideas was this volume). Those speaking in this circle-of-trust included educators from North America, Canada, Europe, Australia, and the United Kingdom from middle-school, high school, college, university, and conservatoire institutions. We found much in common from our respective global and educational areas, and while one would expect such collegiality from a group of invested people who had all made the effort to gather together to discuss the value of ear training, what surprised us most of all was the level of detail in our commonalities.

We agreed that ear training was an essential part of musicianship – of course, we would, wouldn't we? But we also agreed that it was not equally represented either in music education or when compared to other essential skills of musicianship. To quote Christopher Small – which no self-respecting book on the understanding of music can nor should avoid: '[I]t is possible to do too much study of scores and not enough listening; a symphony is, after all, primarily an aural experience.' (1998, 171). An anecdote was told during this final session of the symposium of the student who is practicing for their performance grade. Two weeks before the exam, the educator reminds the student that ear training will be part of the test and suggests that they should run through some examples together. On hearing this story, we shook our heads in communal frustration at its familiarity, and agreed that two weeks is not enough time to build in the ability nor the competency for many students to do more than just pass the test and instead be able to demonstrate the skill. In this moment, we were not pointing fingers at any particular exam body (as all learning bodies that we have been involved with as educators recognize the value of ear training); neither were we pointing any fingers at instrumental tutors (as many of us owe our passion for music education from these educators). What we were doing is reminding ourselves that the value of ear training can be regarded as something adjunct to the learning experience, and shouldn't we as those vested in ear-training pedagogy critically challenge this and provide some solutions?

We agreed that not only was ear training not given enough space in educational curricula, but it was also not recognized proportionally in the academic journey toward professional musicianship.

No one present in that room in London, nor would we suggest anyone involved in music education, believes that aural skills are something that can be learned in a semester or even on completion of a program of study. Ear training is a lifelong skill. Just as the acquisition and use of language is a lifelong skill, so is the ability to listen to sounds being produced and recognize and understand them. First as sounds; then as forming some type of hegemonic or self-organizing collections of tones; to becoming identifiable as individual elements within a recognizable structure; moving toward the ability to retain and then recollect elements that share properties and codes across and between musical experiences; to the point of correct identification of elements; before reaching the skill of reproduction of those elements inside or outside of a musical context and either sung or notated. While this is an unashamedly structuralist reading of the process of ear training, the relationship between the musical signifier and the signified (Agawu, 1991; Nattiez, 1990; Tagg, 2012) is a useful way of thinking about the lifelong journey of developing aural skills. We might even relate this to the stages of pedagogical standard in Bloom's taxonomy (Biggs & Tang, 2011, 124), where the musician undertaking ear training encounters learning objectives that enable her or him to move from remembering sounds, to understanding, applying, analyzing, evaluating, to finally critically creating them.

Perhaps this is where the problem lies: how do we co-create a curriculum that speaks to the lifelong journey of a skill that is taught at various stages of education, across varying institutions across the globe, and undertaken by students with varying abilities upon joining each stage of the designed learning journey at that particular institution? This does seem like an impossible task, and are the disconnections in the mapping of the educational journey to the institution to the individual musician something that we cannot ever address?[1] But none of us in that room felt that way. We all believed that co-creation and sharing of ideas could tackle some of these issues and prevent the time-worn position of blaming the prior institution for not preparing the student to the appropriate standard required by the current institution. Such an excuse is not good enough, nor even correct to voice. I am minded to compare it, for dramatic effect if nothing else, to the plumber who looks at your central heating system before saying "tut-tut" and asking who was the person that installed such a badly functioning device. It is a dislocation of blame and does not address what, in a solution-finding approach, could be done to better the situation for the benefit of the student.

So how do we test these two positions – that ear training does not get the space it requires in a curriculum, and it is unhelpfully compartmentalized by educational qualification levels that do not match the differing entry points of the students – and discover whether what we unpacked during that conference is more than a collective consciousness during a moment in time and instead nearer the truth about the field of ear training? If we can do that, then we would have a surer footing on which to address and offer solutions to these concerns.

One way of investigating is to adopt a particular mode of enquiry: the scientific model. This is something that many of us grew up with at school and is almost as old the practice of research itself. While there are many versions on what constitutes a 'scientific method,' we would hope that the majority of our readership would recognize and feel comfortable with the following pattern as it progresses through the various subheadings in this chapter. But before we begin, I might need to defend the position of adopting an overly scientific method in a humanities discipline. I would counter this potential claim by suggesting that what we are trying to uncover does need some assistance from a more quantitative field, given that we are testing a hypothesis. Further, the field of scientific methodology is not as rigid to qualitative inquiry as the unhelpful binarism between science and humanities may be understood, even within a populist readings of the terms. One of my favorite recruitment campaigns by a university expressed the need for a balanced academic inquiry. The University of Utah in 2012 produced a poster: 'Science can tell you how to clone a Tyrannosaurus Rex, Humanities can tell you why this might be a bad idea.'[2] Such humor aside, it is worth reminding ourselves that 'despite its rigid structure, the scientific method still depends on the most human capabilities: creativity, imagination, and intelligence; and without these, it cannot exist.' Castillo (2013, 1669).

With this now all said, let us begin with the first part of the inquiry into the terrain of ear training across the globe.

Define Purpose

As was discussed in that symposium of 2017 during and between the sessions, aural/ear training is often considered to be the 'poor cousin' of music theory. To be clear we are not talking about the objectivist problem of ear training that Covington and Lord (1994) discuss, where a distinct set of facts and skills are tested in the classroom (e.g., identify the interval of a major seventh) without reference to the 'real music' of the professional musician [see in this book the chapters by Atkinson, Parkin, and Francis, who address this very issue]. Instead, we are talking about its place in the curricula of music education. The purpose of this investigation is to test whether there are commonalities in the delivery of ear-training curricula across the levels of education at a global level. These terms will of course need to be further defined, but for the moment the purpose is to understand if those connections shared at the symposium can be regarded as being representative of ear training in education in general, and if so, how we might understand those shared elements for the benefit of its Theory and Curriculum: Methodologies for the Learning Space, Teaching: Activities within the Learning Space, Transferring: Applications outside the Learning Space, Techniques both tonal and post-tonal, and in its Technology, all of which are the chapter sections that are integral parts of this companion.

Construct Hypothesis

Any testing of a hypothesis, let alone the two we are about to formalize, is remarkably problematic when considering a global landscape and the various stages of an educational journey. But we do need to try, so let us put these elements on separate axes. What should we understand by *global* in terms of ear training for the first axis? While it would be interesting, it would be beyond the realm of useful through variance to consider each country on the planet. So instead, if we move up a stage to continent, and then cross-reference with locations that were not only represented by their citizens at the symposium but also those that are commonly understood as having long-standing related educational systems from middle school to Higher Education Institutions (HEIs), then we find ourselves with the following list: United States of America, Canada, United Kingdom, Western and Central Europe, and Australia.

With this regional axis now defined, we can consider what should be understood by *levels of education* for its complementary axis. There is a remarkable difference in educational systems and structures within each of the global locations. For example, given its size, in the United States of America each state has its own educational framework; and each of the four countries that make up the United Kingdom have different educational curricula depending upon the average common age of the student (HMC, unknown). So what do we use? We must define the use for the data in reference to its own boundaries and in this sense for ear training before, in, and beyond higher education. For that, we can usefully employ the European Qualifications Framework (EQF) as a common model. The EQF divides the stages of learning into eight levels under the guidance that they are 'a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any qualification system' (European_Union, unknown). By unpacking these descriptors with their learning outcomes, we can then map them against the various educational levels that are represented in our understanding of the previously defined global locations. The EQF is therefore an adaptable model that speaks to the various qualifications across our identified regions because of the commonality to be found in the definitions of the descriptors. The descriptors of knowledge, skills, responsibility, and autonomy that are allocated to an EQF level are allocated to the levels of education across all of our surveyed institutions in Table 1.1.

Table 1.1 Mapping of EQF descriptors to commonly recognized higher education institution (HEI)-related qualifications

EQF Level	*Knowledge*	*Skills*	*Responsibility and Autonomy*	*HEI-Related Qualifications*
1	Basic general knowledge.	Basic skills required to carry out simple tasks.	Work or study under direct supervision in a structured context.	Not appropriate.
2	Basic factual knowledge of a field of work or study.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools.	Work or study under supervision with some autonomy.	Not appropriate.
3	Knowledge of facts, principles, processes, and general concepts, in a field of work or study.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials, and information.	Take responsibility for completion of tasks in work or study; adapt own behavior to circumstances in solving problems.	For example, BTEC Higher National Certificate, 'A' Level and High School Diploma.
4	Factual and theoretical knowledge in broad contexts within a field of work or study.	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study.	Exercise self-management within the guidelines of work or study contexts that are usually predictable but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities.	For example, First Year of Foundation Degree, First year of Undergraduate Degree, Certificate of Higher Education, Certificate of Upper Secondary Education, Higher National Certificate, Freshman and Sophomores.
5	Comprehensive, specialized, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge.	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others.	For example, Final Year of Foundation Degree, Second year of Undergraduate Degree, Diploma of Higher Education, Higher National Diploma and Juniors.

6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles.	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.	Manage complex technical or professional activities or projects, taking responsibility for decision making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups.	Final Year of Undergraduate Degree and Seniors.
7	Highly specialized knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields.	Specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields.	Manage and transform work or study contexts that are complex, unpredictable, and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams.	For example, Postgraduate / Masters Degree.
8	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields.	The most advanced and specialized skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice.	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity, and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts, including research.	Doctoral Study.

Source: Author.

We should begin our inquiry with Level 3 for our understanding of how far back one should usefully go in this survey. Ear training teachers in schools that follow the Kodály (KodályHub, 2018) or Suzuki (Americas, 2020) methods would argue that ear training should start from the early years of education (and in an ideal world we would not disagree), but as we locate this volume before, in, and beyond higher education, it would make sense to begin the understanding of the educational journey from the capture point that informs entry into higher education, namely, those education levels that are considered for admission to a degree-level program. Similarly, we should also define the end point of the educational journey for this investigation. Level 7 is a natural stopping point for this investigation, as it is where the student transitions from being educated to being supervised, and by the time they reach level 8 the mode of education is largely self-directed as, to quote the descriptor earlier, they should be at the most advanced frontier of a field of study.

With these two axes now defined we can move to the contextual construction of the hypothesis. If we can understand the connections (the coordinated planes) in a learning journey that take into account the representative locations of delivery alongside the representative levels of education, then we can construct a global terrain of ear training before, in, and beyond higher education. This is because we can chart through a random sampling of institutions the delivery of ear-training courses, modules, and programs that will indicate their representative value within and across institutions.

It is worth saying before we progress any further that this capture of data took place in 2020 but before the COVID-19 pandemic, which caused the rethinking of educational delivery across the globe. Singing became one of those activities that was under debate as to its being a contributing factor to transmission of the virus (Hamner et al., 2020; Ministry of Housing, 2020; Moss, 2020), and many institutions at the time of writing are considering how to teach aural training in environments that are either online or socially distanced. As such, the appearance of education activities that include ear training are of a landscape pre-COVID-19 but will hopefully be part of an educational landscape post-COVID-19.

Test the Hypothesis and Collect Data

In order to test the hypothesis that there is a common understanding of the value of ear training across institutions but there is not enough presence in the respective curricula for ear training, we need to find a way of populating the data between the axes of region (where these education institutions are based) and level (what level of education they offer in alignment with the EQF). To do this, the method employed for capture is the broad understandings of 'not taught,' 'taught within,' and 'taught alone.' While these are fairly self-explanatory, it is worth saying how they are captured, and that is through the information present on the institutions' web pages. For example, a visit to a home page of an institution will reveal links to learning events (this is an inclusive term for module, course, or program, which can be specific to institutions). The home page is an information point for prospective students: a page where the values of the institution are shown through the modules they elect to publish. It was decided that if an institution had a learning event that specifically mentioned words that represented aural or ear training as the primary activity, that would count as 'taught alone'; if they mentioned those words alongside others that included theory, musicianship, and so on, it would count as 'taught within'; and if no mention of those words featured within the learning events for that stage of learning at that institution, it would count as 'not taught.' This proved a remarkably and thankfully surprisingly useful sifting tool for gathering the information, given the differentiation in words used across institutions and countries.

The other element to consider was the representation of institutions across those defined on page 11 and using the EQF levels as the guide, it was settled upon five colleges (including those high schools that offered that level of provision), five conservatoires, and five universities from each of these regions. Within these 15 institutions per region, the principle of representative sampling was

employed, and in order to ensure a mix of institutions (for example, and in respect to the university sector, a mix of institutions was needed in order to represent those that are ancient, civic, plate glass, post-92 (UKuni, 2019), research intensive, teaching-focused, and Russell Group/Ivy League), league-table rankings were not used to form the collection list, but a wide trawl of institution types were considered before five were selected as the representative group to be data mined.

What this means for both the indication of presence of an ear-training activity and the selection of institutions for the survey is the conscious avoidance of any bias toward types of learning event or particular types of institution. While such a survey is recognized by the author as not being perfect for the data capture needed to undertake a survey of the terrain of ear training across the globe, it is certainly 'good enough' (Winnicott, 2000 [1964]) in terms of what is practicable while having enough value to be able to proceed with confidence upon data collection (see Table 1.2) and would also have enough value to be able to slice the data capture to compare the three types of institution (see Table 1.3) and the five geographical regions (see Table 1.4).

There are some initial reactions to the tables just presented, most notably the difference in Western and Central European institutions when compared to the other regions (72.5% of these European institutions present evidence of teaching ear-training events alone as part of their curriculum offerings). But mining such data is the task of the next section, so let us move to that part of our scientific model and analyze this data capture with the use of graphs for visual as well as numerical representation.

Table 1.2 The presence of ear-training learning events across 75 institutions (percentages rounded to one decimal place)

	Not Taught	*Taught Within*	*Taught Alone*	*Total*⋆
Level 3	11 (34.4%)	10 (31.3%)	11 (34.4%)	32
Level 4	12 (17.1%)	18 (25.7%)	40 (57.1%)	70
Level 5	18 (26.9%)	10 (14.9%)	39 (58.2%)	67
Level 6	45 (69.2%)	8 (12.3%)	12 (18.5%)	65
Level 7	52 (82.5%)	7 (11.1%)	4 (6.3%)	63

⋆ This is the total number of institutions (college, conservatoire, and university) across the 75 surveyed that offered that level of education. For example, 32 of the 75 institutions surveyed offered Level 3 education, of which 31.3% of them taught ear training within their learning events.

Source: Author.

Table 1.3 The presence of ear-training learning events across all colleges, conservatoires, and universities (percentages rounded to one decimal place)

	Not Taught	*Taught Within*	*Taught Alone*	*Total*⋆⋆
College (Levels 3–5)	41 (27.7%)	36 (24.3%)	71 (48%)	148
Conservatoire (Levels 3–6)	82 (39%)	37 (17.6%)	91 (43.4%)	210
University (Levels 4–7)	116 (48.1%)	39 (16.2%)	86 (35.7%)	241

⋆⋆ This is the total number of institutions (in the United States of America, Canada, United Kingdom, Western and Central Europe and Australia) across the 75 surveyed who offer those levels of education. However, out of the 75 institutions who offer Levels 3, 4, and 5 (theoretically 225 data capture points) in reality not all institutions offer all levels. So, to avoid misrepresentation of the data and skew, the percentages of the total figures column was adjusted on the principle that if one institution did not offer one level then the total would be reduced by one, and so on.

Source: Author.

Table 1.4 The presence of ear-training learning events across the United States of America, Canada, the United Kingdom, Western and Central Europe, and Australia (percentages rounded to one decimal place)

	Not Taught	*Taught Within*	*Taught Alone*	*Total*★★★
United States of America	36 (54.5%)	13 (19.7%)	17 (25.8%)	66
Canada	41 (60.3%)	6 (8.8%)	21 (30.9%)	68
United Kingdom	22 (46.8%)	13 (27.7%)	12 (25.5%)	47
Western and Central Europe	1 (2%)	13 (25.5%)	37 (72.5%)	51
Australia	38 (58.5%)	8 (12.3%)	19 (29.2%)	65

★★★ This is the total number of institutions in each region across the 75 surveyed that offer all levels of education. However, out of the 75 institutions (theoretically 75 data capture points) in reality not all institutions offer all levels. So, to avoid misrepresentation of the data and skew, the percentages of the total figures column was adjusted on the principle that if one institution did not offer one level then the total would be reduced by one, and so on.

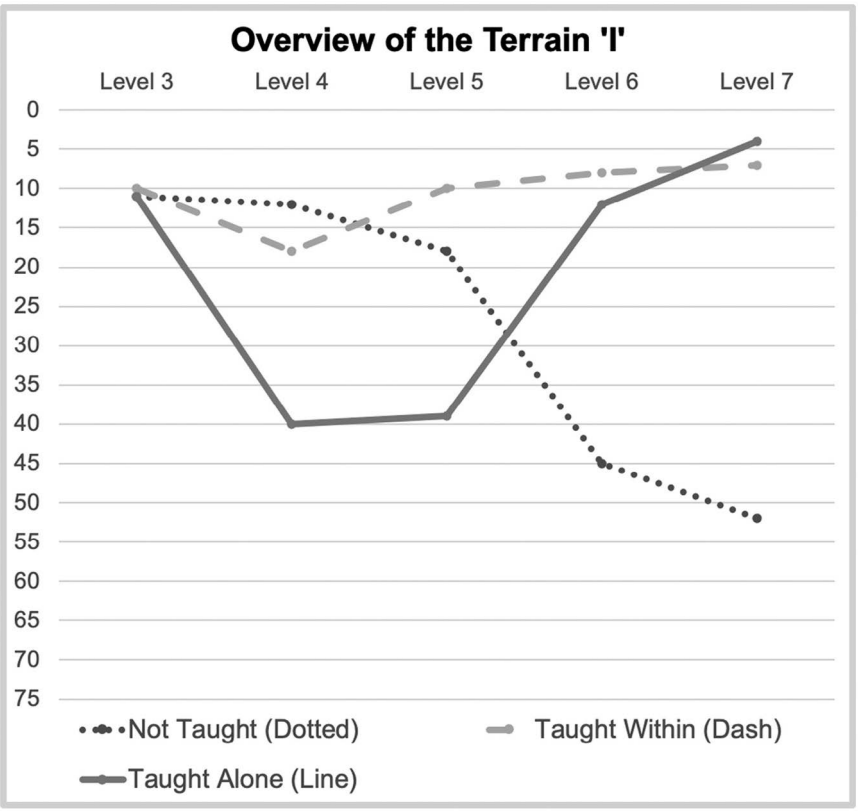
Source: Author.

Analyze Data

The title of this chapter does promise much, but with the methodology just explored, we can proceed toward a global understanding of ear-training provision across institutions while noting the definitions of such terms (see Graphs 1.1 and 1.2).

Whether the reader's preference for understanding is by numbers within the institutions surveyed (Graph 1.1) or by percentage of those numbers within the institutions (Graph 1.2),[3] the analysis remains the same. At Level 3 there is an equal representation of the three variables, but as the generic global music student progresses to Level 4, the split between 'taught alone' and 'taught within' widens, and the number of learning events that are labeled as ear training or aural training dramatically increases. We then recognize this as the first element of significant variation (SV) in the data to consider: (SV1): at Level 4 there is a noticeable increase in the number of specific ear-training learning events. From Level 4 onward, this number of 'taught alone' declines at Level 5 slightly by a rebalance of increased 'not taught' and a decrease of 'taught within.' However, from Level 6 to Level 7 the shift is dramatic, and there are far fewer ear-training events present in the curriculum. This we would recognize as our second element of significant variation: (SV2): from Level 5 to 7 there is a decline in ear-training events both 'taught alone and within.' At a global level then, we can ask why there is a sudden increase in advertised ear-training modules at Level 4 when we recognize that ear training is a lifelong skill. But before we begin pointing fingers at those involved in education at that level, we must also ask why there is a sudden drop in aural training from Level 5 onward following the same rationale (see Graphs 1.3, 1.4, and 1.5).

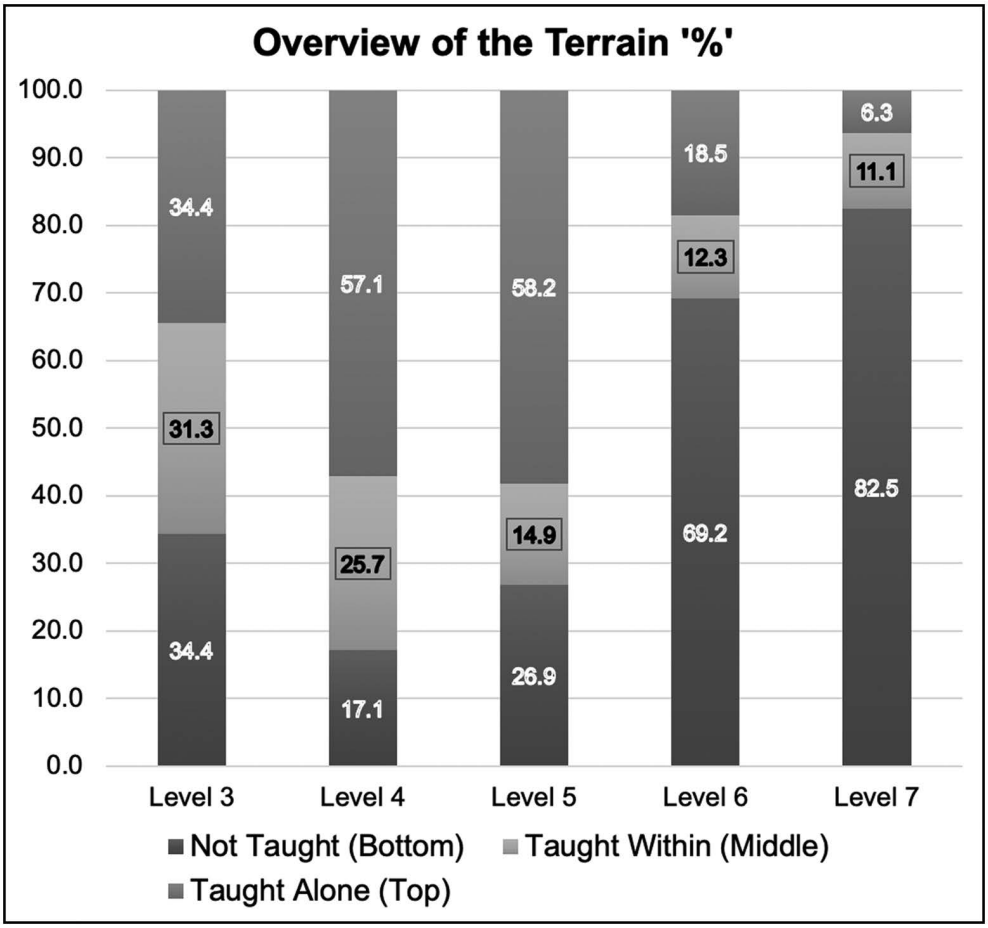
There are several mitigating factors to this understanding of SV1 and SV2. At Level 3 the ear-training learning events may well take place but are hidden to the published curriculum, but as was said on page 14 a measure of importance by the institution on ear training can be gauged by their use of learning event titles. As such, we can say with relative confidence that ear training in Level 3 is not given the place in the curriculum either in identified modules or within learning events as it is at Level 4. Given that many of the surveyed institutions have Level 3 and Level 4 within their offerings, this is not a simple case of, to give a deliberately dramatic example, a university blaming a college for not preparing students. Not only is that not helpful, as was previously discussed, from the data gathered we can safely say that it is not representative and therefore not a safe enough basis on which to propose an argument. If we are being sympathetic to Level 3 education, then we can suggest that ear-training events are present in two-thirds of the programs offered, and this does not seem an unhealthy position. For example, if we were to do a similar survey on cultural studies learning



Graphs 1.1 and 1.2. Numerical and Percentage representation of ear-training learning events by the variables 'not taught.' 'taught within,' and 'taught alone' from Level 3 to Level 7 across all institutions surveyed.

Source: Author.

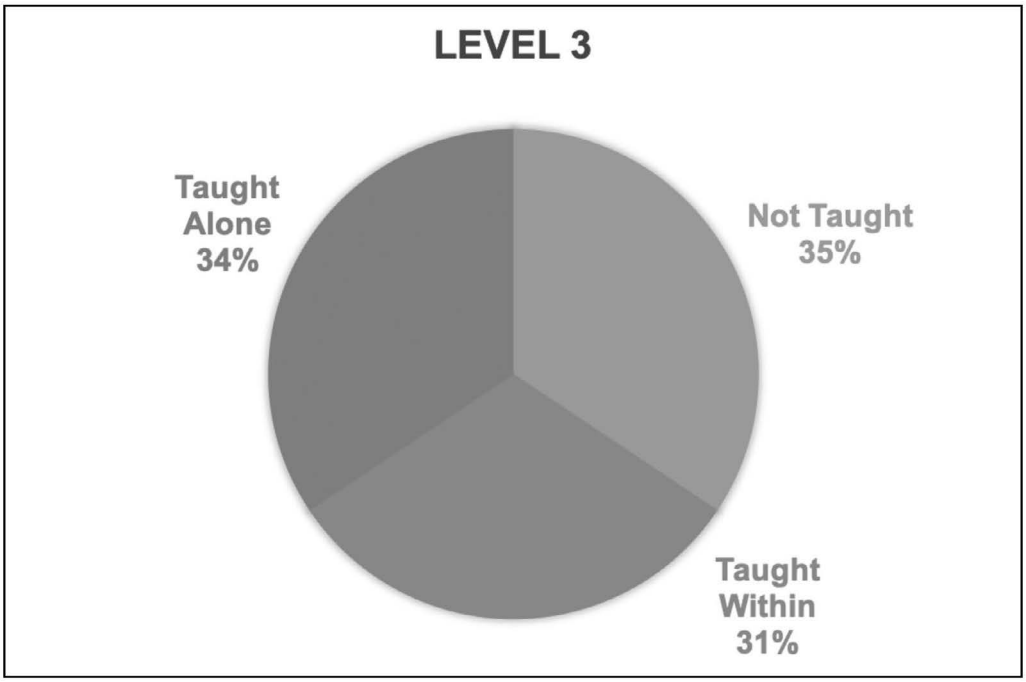
events, it would be surprising if the number of events was equal to that of ear-training events at that level. If we are being sympathetic to Level 4 education, then the presence of over half the institutions offering "taught alone" ear-training events in their programs would seem to be a reaction to a recognized skill set that is needed by the student to engage with their other modules and so is boosted upon their entry to degree-level study. If we are to consider the two sides of SV1, then looking backward we might argue that the student is underprepared, and looking forward we might argue that there is not enough space in the curriculum to place such emphasis upon ear training. And this is where a solution can be found, by thinking of the position not from a curriculum point of view but the student point of view. If the Level 3 provision is suitably balanced, then perhaps it would make sense to integrate ear training into the learning events across Level 4 rather than having a significant number as 'taught alone.' By doing so the integration of skills would become explicit and implicit to the students and it would also remove this spike in learning that goes against the principle of it being a lifelong skill. Further, the integration of skills would speak to the concern of differentiation across a cohort's aural abilities upon entry to the same education level (as mentioned on page 10). By embedding the skill within practice, the differentiation can be placed not on the skill itself but upon its application, and rather than streaming the groups at the same educational level (which can cause inequalities in the learning experience, and there is evidence of this in pre-HE education [NEU, 2019]), all would be present and developing the skill at the same time but applying the skill to their



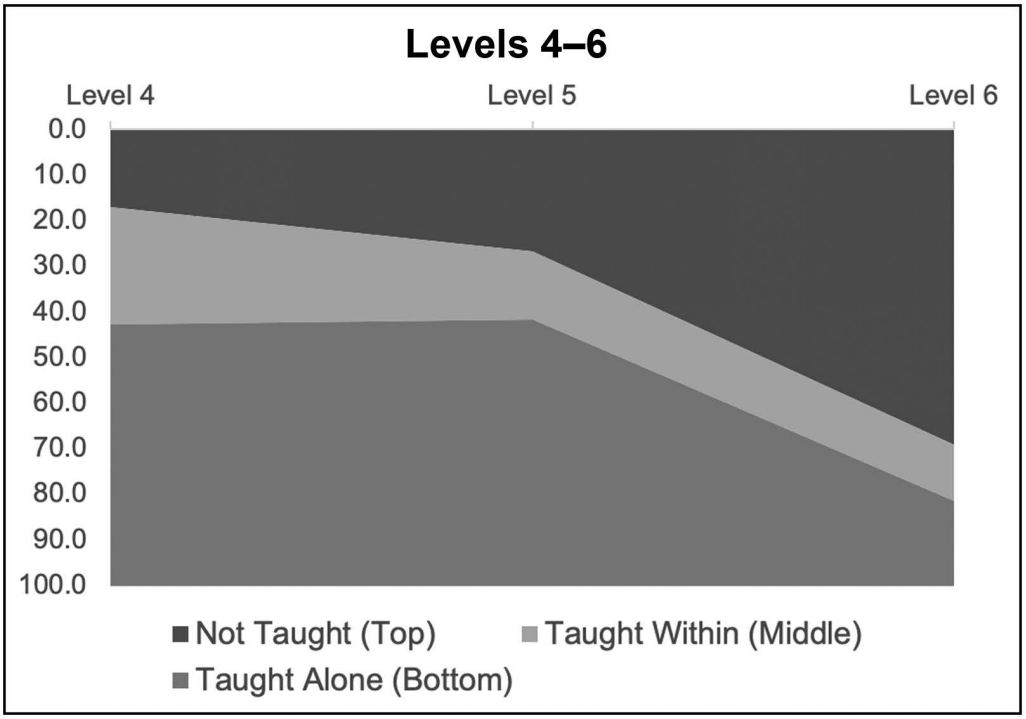
Graphs 1.1 and 1.2 (Continued)

own level of practice); this area will also be discussed in the following chapters by Stillie and Moir, Francis, Price, and Stevens, Duker, and Shafer.

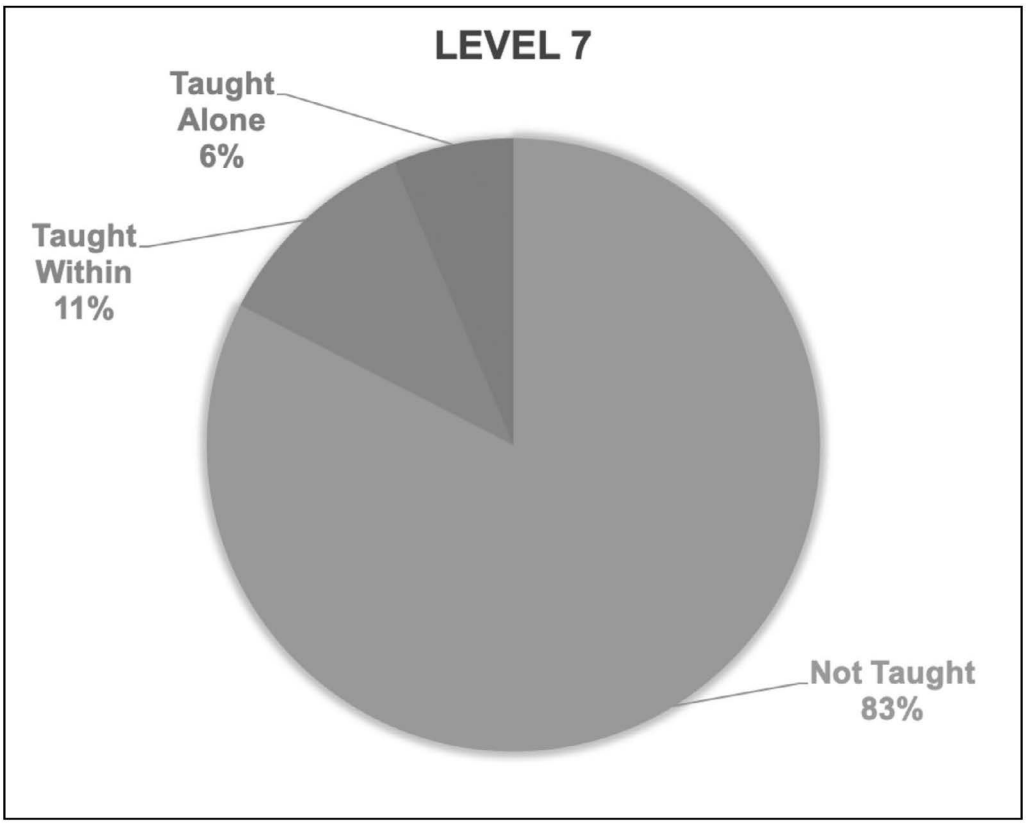
Similarly, the decline of ear training as a 'taught alone' and 'taught within' variable in this data capture (SV2) is not an accurate representation of the practice being employed. I firmly believe that many an educator, and the same educators who were part of ear training at Level 3 and Level 4, continue with the teaching of such skills but in an implicit way. In other words, while these skills are continued, they are not externally published to the students as such, and the understanding by the cohort of ear training being a lifelong skill diminishes at a greater rate rather than the training itself. Of course there are nuances to such suggestions, and without the many years to undertake a rigorous desk-based survey (which would itself become redundant given the time it would take to do such a task leading to the data first captured becoming out of date) and interview every educator, we cannot know the conclusion just made for sure. However, I am convinced that many of those responsible for ear training and those that are reading the words in this chapter will find themselves nodding in agreement at the positions described here. By making this explicit, and from the data capture previously presented, we can then make some suggestions for change that will be explored under the next subheading.



Graphs 1.3, 1.4, and 1.5 Percentage representation of ear-training learning events by the variables 'not taught.' 'taught within,' and 'taught alone' shown as Level 3 (see Graph 1.3), Levels 4–6 (see Graph 1.4), and Level 7 (see Graph 1.5) across all institutions surveyed.



Graphs 1.3, 1.4, and 1.5 (Continued)

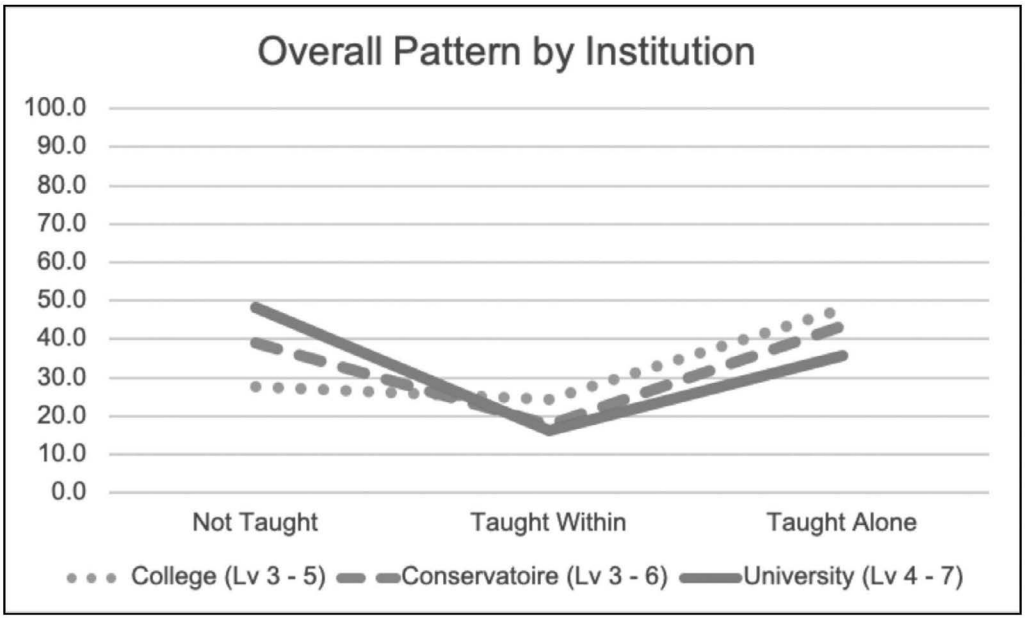


Graphs 1.3, 1.4, and 1.5 (Continued)

There are two other ways we can extract information to help us unpack the matter of ear-training provision across the globe before, in, and beyond higher education. The first is to understand the data by types of institution: college (remembering that this includes high school as a similar level of provider in certain regions), conservatoire, and university; and the second is by region: United States of America, Canada, United Kingdom, Western and Central Europe, and Australia.

What is interesting to note when we consider the pattern of teaching ear training according to our three variables ('not taught,' 'taught within,' and 'taught alone') is the similarity in profile (see Graph 1.6). If we consider the institutional offering, when the student is undertaking the program that is typically greater than just one year, we find that there is balance between the ear training being and not being taught but there is a significant variation when it comes to ear training being part of a module/course/mode of delivery (SV3).

One reading of the data in Graph 1.6 informs us that out of the three variables, the category of 'taught within' is the least represented (I am being careful here, as I have throughout, not to take too much heed of the actual numbers, as these are indicative, but I am basing these positions on the trend of these numbers relative to each other, which is more reliable) and runs against the evidence we as a community of ear-training scholars promote and publish. It would seem therefore that we do not, on the whole, find the practice in what we preach. There is strong evidence for the benefit of teaching aural skills within other modules (Fieldman, 2008, 2015; Herdener et al., 2010; Karpinski, 1989; Mayfield, 2002) for the reasons of connection to practical application, deeper understanding of musical materials, and to the improvement of compositional, analytical, and performance activities,

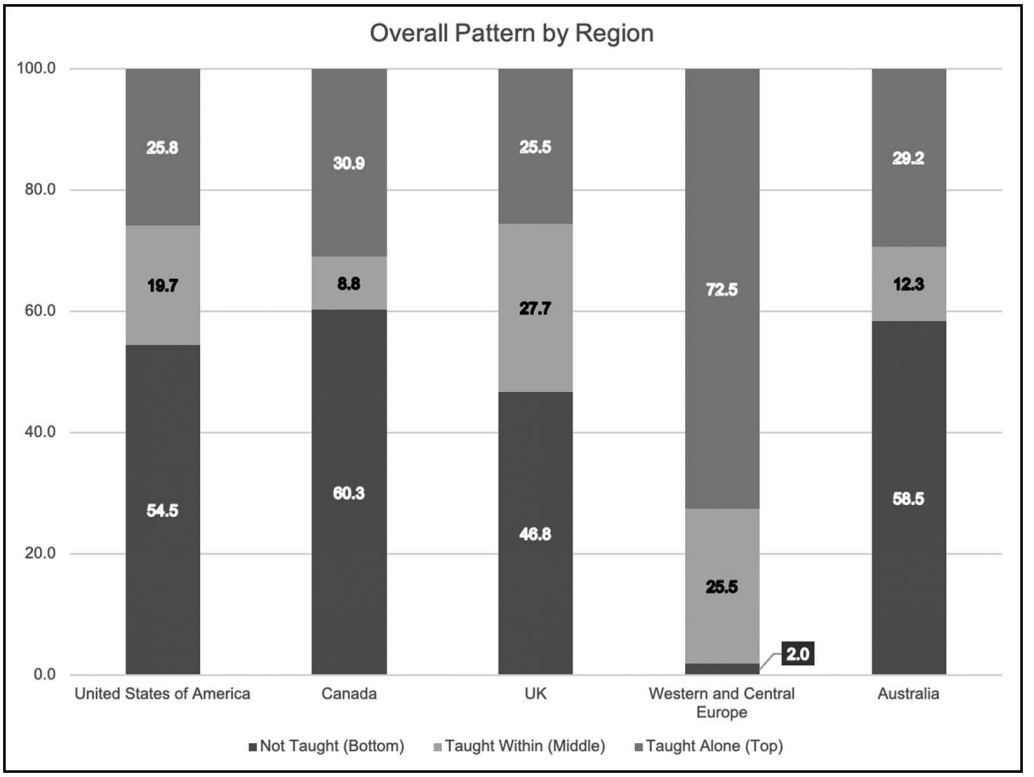


Graph 1.6 The pattern of ear-training learning events separated by types of institution.
Source: Author.

to quickly summarize these selected publications. Indeed, in the following chapter, Simon Parkin argues for a 'true synthesis with other aspects of the curriculum,' and that is a position that many of the contributors to this volume uphold. SV3 is therefore linked to SV1 and SV2, and it is not that it is a particular institution's fault about the weighting or presence of the skill sets a musician needs to be taught and encouraged to develop. No, it is our collective problem to solve, and we might suggest one solution would be to not have a such a high concentration of 'taught alone' study at Level 3 (SV1) and not let the presence of aural training diminish through the academic journey within an institution (SV2). Instead, we could rethink the whole provision of ear training away from the polar positions of 'taught alone' and 'not taught' (SV3) and move more toward the inclusive position of aural skills being 'taught within.'

I do not want to sum up this section quite yet, as we should now move to the cutting of the data by region, as the position just mentioned is related (see Graph 1.7). We find similar extremes to the aforementioned binaristic positions of 'taught alone' and 'not taught' when we consider the ear-training events by region.

From a quick reading it may be tempting to single out the learning events that are found in the data representing ear training in Western and Central Europe. Should we exalt their delivery in recognition of the high percentage of learning events that are taught alone and very little that are not taught? If so, should we at the same time disparage the learning events in Canada, Australia, and the United States of America for their high rate of 'not taught' ear training? A commonsense check would tell us that this is not a good idea, and in discussions within our ear-training learning community across the globe I am sure not many would recognize this pattern as being indicative of one region having the correct approach and another the incorrect approach. Further, we should be highly skeptical of any suggestion that the results of these approaches could be backed up with the result of excellent ear-trained musicians from Western and Central Europe but not from Canada, Australia, and the United States of America. Then what does this graph usefully tell us?



Graph 1.7 The pattern of ear-training learning events separated by region.
Source: Author.

From an inclusive position, the practice is unhelpfully varied across the globe, and none of the regions have the best practice. If we agree with the position outlined on page 9 that ear training is not equally represented across other skills within musicianship, then we can recognize that the development of aural training within institutions has changed organically within each institution, and there has not been centrally agreed curricula beyond subject benchmark statements such as 'Demonstrate the ability to recognize and respond to aspects of musical organization, whether aurally or by studying a written score.' (QAA, 2019). Perhaps it is time to formalize this skill, not as the valuable outsider to our music education but as a core competency. Perhaps we can agree to come together to propose a set of useful criteria with which to enrich the general curriculum. But I am getting ahead of myself, and there will be more on this matter in the next part of our adopted scientific enquiry, and more specifically in the 'coda' section of this book, 'The Future of Aural Training: *Clausula Vera* (True Cadence).'

To return to the information provided by Graph 1.7, we have discussed earlier that 'taught within' would be a preferred model of delivery, yet this is the most consistently poor in representation across the regions (SV4), and in four of the five regions (although in that fifth region it is only by 2.2%, which is not statistically significant against the trend) 'taught within' is the least represented. We have now seen this position from two different viewing angles, when looked at by the types of institution (SV3) and by the difference by region (SV4). While it is the same underlying data that is driving both views, it is significant that there are no outliers to this position in the sense of a particular institution or region bucking this trend. Therefore, what we can safely say is that it is the same issue that is

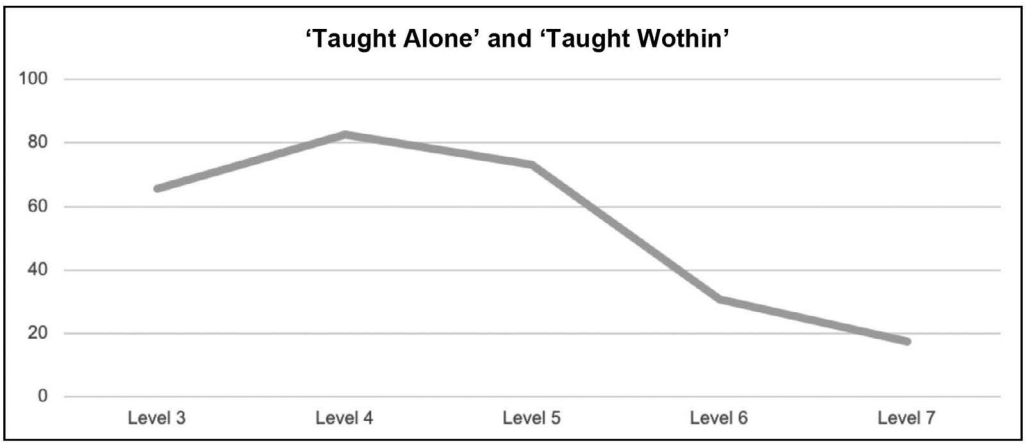
present globally and that the issue is not dependent upon institution or region; no one is to blame for the previously fitted boiler – we are all to blame.

Draw Conclusion

Before reaching for the metaphorical birch rod, let us revisit the four significant variations in the data and then move toward a position that takes us forward as a community of educators. The first significant variation we encountered from this data collection was the jump from Level 3 to Level 4 in the number of specific ear-training learning events (SV1). This was then followed by the second significant variation in the gradual and then rapid decline of ear-training learning after Level 4 (SV2). If we plot this information on a simple line graph by percentage by combining 'taught alone' and 'taught within,' then we can see that this trajectory of provision is not something we can ignore if we are to maintain our value of ear training being a lifelong skill (see Graph 1.8).

So what pattern would we hope to see five years after the publication of this book, or realistically in ten years, within music curricula and its practical realization? Certainly not a rising line, as this would then place ear training above the other musical skills. While those of us invested in such training are keen to speak up for its value, we recognize that it is a strength among others and a fundamental skill that underpins our practice as musicians and musicologists. The pattern should be that of a steady line, one that does not dramatically rise or fall as the student progresses on his or her educational journey but remains constant as supported training for a lifelong skill. This is a position that can be further strengthened by reference to the data when we move from a global position to casting the spotlight on the types of institutions that deliver the ear training. Colleges, conservatories, and universities are equal in their delivery model of having ear training least represented 'within' modules/courses/modes of delivery (SV3). Finally, when focusing on regions we find significant variation between modes 'not taught' and 'taught alone,' but we find a common element in our research-driven preferred model of delivery, 'taught within' being the most consistently least represented across the regions (SV4). To be blunt, no matter how you look at the data, it is screaming at us to take action.

In an acknowledged mix of metaphors, it would not be helpful to shout 'I am Spartacus' (Kubrick, 1960) and continue marching toward our collective voices being silenced. Rather, I would not



Graph 1.8 The variables of 'taught alone' and 'taught within' combined and plotted along the progression of educational levels.

Source: Author.

suggest that we extinguish the candle from our music stands in the style of Haydn's *Farewell Symphony* (Church, 2003) but that we take that light from our commitment to ear training and return to our practice. We can find solidarity in this data and take stock of the current situation in general. We can understand the terrain we find ourselves working within, and work toward setting the ear-training learning events we value within a mutually agreed collective framework of understanding within our respective institutions across the globe. We cannot do this as individuals. By exploring the good practice and gaining perspective on the relative variations on training throughout the following chapters, you will encounter voices and ideas from those that are keen to change the curriculum, and they offer practical and guided solutions that we could agree to collectively adapt or adopt.

If time is tight and you plan to dip in and out of this book over a period of time, then the next logical chapter on your reading list is the coda, 'The Future of Aural Training: *Clausula Vera* (True Cadence).' In this closing chapter of the book, we will return to the main ideas of collective and inclusive education in ear training, or to be as clear as possible, thinking of its teaching as 'within' rather than 'alone' or 'not.' It will also end with a manifesto for ear training: a short position piece that sets out the values of ear training that have been gained from the encounters in this journey with the people who traveled to that symposium in 2017, then agreed to be part or help inform the chapters in this volume from the subsequent call for papers, until this point in which its publication marks the first collective voice for aural training before, in, and beyond higher education.

Notes

1. If the reader can hold their excitement, on reaching the final chapter in this volume (Coda, 'The Future of Aural Training: Clausula Vera (True Cadence') they will find a methodology and a manifesto that moves towards answering exactly these questions.
2. The campaign poster from the College of Humanities at the University of Utah is no longer available through their .edu site but can be found on Pinterest: www.pinterest.co.uk/pin/482377810062102452/.
3. Please note that on the graph the percentage figures may seem to not add up exactly to 100%, but this is due to the rounding to one decimal place.

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2

AURAL TRAINING WITHIN AN INTEGRATED APPROACH TO MUSICIANSHIP TRAINING

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Introduction

This chapter originated as a talk given at the symposium *Aural Skills Pedagogy: What is to be done?* held at the Royal Academy of Music, London, in April 2017. Speakers were chosen from a wide variety of backgrounds, some more academic than others. My own experience is that of a performing musician, composer, and arranger who has been involved in curriculum development and delivery at a UK music college ('conservatoire') over a long period of time. The experiences and views here expressed are my personal experiences and views, and I have not sought to reinforce them with academic citations. These could no doubt be found, along with citations supporting an opposing view, but my hope is that the experiences I have had will resonate with readers, both those who have undergone aural training in the past, those who are now involved in its delivery, and those interested in the way conservatoire-level musical education is developing, in my own institution at least.

A typical UK music college may take on between 100 and 150 new students each year with varying degrees of proficiency on their instruments, academically and in terms of general musicianship skills. These skills would include aural ability and knowledge and experience of theory and harmony. Our task as educators is twofold: first, to prepare our students for an ever-evolving musical workplace, and second, to develop their intellect, sense of curiosity, work ethic, and power of self-expression in a more general sense. Many factors have driven the evolution in the curriculum that music colleges provide. The increasing variety and unpredictability of the workplace has necessitated more flexibility and adaptability from our students, who now need a greater range of skills than ever before. Some formerly 'academic' skills such as harmony, arranging, and aural skills have taken on a more direct relevance as potential prerequisites for a portfolio musical career.

This chapter will argue that these skills are better taught in an integrated way. To separate aural from theory, for example, impoverishes both subjects, and leads to an insular attitude where these subjects become ends rather than means. I will argue that aural training, being in general the most demonstrably relevant aspect of conservatoire-level academic provision, is now increasingly in the vanguard of the new integrated approach that is evolving.

Part 1: How It Used to Be

Approaches to aural training at college/conservatoire level are changing. Three principles seem to be driving developments in what we provide for students. One is a recognition that the world of work

is changing rapidly and constantly, and aural-skills teachers need to provide graduates with a range of practical skills to equip them for a professional life that will involve far more than playing standard repertoire on their instruments. The second principle is that the acquisition of these new skills involves forming connections between academic subjects that, in my own education, were taught in isolation. Finally, in my own institution at least, there is increasing pressure for academic courses to lead to practical outcomes – performable arrangements, recordable lecture-recitals, transcriptions, improvisations, and so on. This chapter will suggest some practical steps for achieving these triple goals of relevance, integration, and output. This section discusses some of the obstacles institutions will face in achieving these goals, viewed through and drawing on my experience with evolving and delivering a curriculum, at conservatoire level, which now incorporates aural training, improvisation, instrument- and paper-based harmony, composition, and arranging in an increasingly integrated way. Starting with an examination of my own experience of aural training, the section then discusses the musical goals of aural training before suggesting how it can be expanded to include, theoretically, any other academic subject you care to put in the mix. It is a (relatively) exciting time to be an aural teacher, since the relevance of what we do is becoming increasingly palpable.

At school and then at college, I was taught aural in the following way. At the beginning of the lesson, a dictation would be played, and we would attempt to write it down. After a couple of times through, the teacher would ask who had finished. A few people would put up their hands. The teacher would then play it a few more times, until either everyone had finished or nobody could hear any more. People who only required a couple of play-throughs were 'good at aural' and people who took longer were 'weak.' Everyone knew where they stood. The weaker ones were discouraged because they never improved relative to the better ones, who spent most of the lesson sitting around looking ostentatiously bored and a bit smug while they waited for the others to finish. My own perfect pitch was such an advantage that I'm not sure that my musical perception really benefited from this training beyond the mere exercising of a muscle. Sight singing and rhythm, the other two main components of standard aural training, were, similarly, continually tested rather than trained. The educational principle seemed to be that doing things over and over again made you better at them, which is, of course, true to an extent, though what I really missed in my own education was an examination of *how* I listened, and any strategy for improvement. While those of us who practiced regularly did better than those of us who didn't, it was, in many ways, a frustrating subject to study, and, when I started my job, to teach.

Shortly before graduating, I was invited to be an aural teacher at my music college. I had happened to get high grades in my aural exams, and this was presumed to qualify me to explain to others how they could do the same. I got good grades primarily because of my perfect pitch, which when I started to teach seemed a disqualification to be an aural teacher, since it made it more difficult to get inside the mind-set of students who did not have this mixed blessing. The initial problem for me was that I had always found it easy, and never had to think about how I did it. When I started to consider how to teach rather than test, I needed to examine my own thought processes, which was a little like breaking down a movie into a succession of still shots. It was at this point that aural training became fascinating, as it gave me the opportunity to compare how I, myself, thought to how my students thought. The self-reflection was a vital precursor to formulating ways to explain the process to my students.

Aural was streamed and graded when I started to teach, and the attainment of a certain standard was a requirement for the award of a diploma. One or two students (generally singers) would come back to college for a chance to resit every summer for up to seven years before giving up. At that time there was something of a divide between instrumental teachers and academic staff. The instrumentalists, not all of whom had had uniformly positive experiences of training in aural, harmony, and essay-writing, were disheartened by the fact that students who in their view were excellent musicians were being denied degrees because of weaknesses in 'academic' subjects.

In subjects like history and, to a lesser extent, theory, this was somehow more acceptable than in aural. The Quality Assurance Agency (QAA) requires a certain minimum standard of literacy, for example, to justify the award of a university-equivalent degree. Theory can be taught mechanically, with both species counterpoint and Bach Chorales being 'solvable' by following sets of rules and guidelines. They can be negotiated without requiring musical ability, demanding, rather, a certain level of organization and meticulousness. Although the exercises are musically sterile, they are 'correct' and the application of common sense and method can improve a student's results very quickly. One can see the pragmatic purpose of objectifying music in this way (easy to teach, easy to mark, the mark unlikely to be affected by the personal taste of the marker), but since this objectification stifles creativity it is, by and large, demotivating to students, and the relevance to their future musical life is hard to prove.

Aural is different. You can't be a good musician if you don't have a good musical ear, and, surely, if you don't have a good musical ear, you won't do well on aural tests. Therefore, people who get low marks in aural tests can't be 'good musicians.'

The problem was that instrumental teachers brought me examples of students with excellent intonation, sensitivity to sound, and ensemble skills who had done badly in aural tests. The top marks always went to those with perfect pitch, which is by no means a prerequisite for a successful career in music.

We made various attempts to link aural training with the 'musical ear' – perceptions of intonation, instrumentation, performance nuance, and so on, but this didn't prove a great success, being rather unchallenging and largely over-obvious. These tweaks to the curriculum didn't address the core of the problem: the 'musical ear' doesn't appear to equate with success in aural tests.

Part 2: What Is Trained in Aural Training?

Let us examine what aural actually *does* test. There are three principal components: structured listening, the development of short-term musical memory, and the ability to process the information that is taken in.

First, let's look at the ability to plan and prioritize your listening. Let's assume you have 20 minutes to complete an eight-bar dictation exercise that will be played 15 times. How do you plan your listening for maximum success? Work on organization and strategy produces the most dramatic and rapid improvement in aural grades. Two playthroughs, for example, to determine key and meter. Two more to sketch in the rhythm independently of the notes. Two more to mark every occurrence of the tonic. There are many strategies, which should be individually tailored to each student. The instinct of the untrained student is to concentrate on the first few notes of an exercise, and the student feels unable to proceed until these notes are correct; often, they have run out of time before getting beyond the first couple of bars. It is more effective to get the general picture and the musical highlights (eight bars, 3/4, C minor, triplet in bar five, diminished seventh in bar seven, and so on) before focusing on the detail. This is far closer to the way in which people normally listen to music: forming a general impression, noting interesting details, and discovering more on each subsequent hearing. So in training students to develop strategies for transcriptions (number of bars first, then time signature, then identify tonic and key-signature, then placing significant notes and rhythms in the relevant bars, getting the outline before the detail), we are also training them to listen to music more constructively and less haphazardly. In my college we now deliver the dictation test as a sound file that students listen to on their phones, tablets, or laptops. This means that the strategy is chosen by the student rather than imposed by the examiner, since the student can determine the length of extracts, the number of play-throughs, and the size of the gaps between them, as well as check the given first note as a reference pitch whenever they like. The development of technology (universal

access to Wi-Fi and the ubiquity of smartphones, tablets, and laptops) has made these new ways of doing assessments more practical, and the enormous wake-up call given by the 2020 pandemic has intensified the search for more effective means of technology-based learning and assessment.

The second ability that needs to be developed for success in aural exams is good short-term memory. The student needs to be able to retain a reference pitch for long enough to relate it to a series of other pitches in the course of the test. The student must be able to remember musical fragments for long enough to process them during the silences between play-throughs. The training of musical memory involves analytical listening. In the same way that we can remember a multi-digit number as a series of four-digit dates (much easier to remember if the dates are famous historical ones), we can look for patterns in groups of notes (e.g., a descending D major seventh chord, the first five notes of the Franck Sonata, four notes of an octatonic scale). We seek ways of forming larger units from individual notes, or of gradually increasing the level of detail from a general impression. These two techniques (micro to macro or vice versa) are fundamental to musical analysis, so this aspect of aural training develops an analytical way of thinking that will help musical memory and understanding.

The third ability is that of good theoretical knowledge, or musical processing ability. Clearly, you can't recognize a descending D major seventh chord if you can't name it or don't know how it's made. The greater this processing ability is, the less likely it is that short-term memory will have faded before the notes have been reproduced on the page. The processing of musical information (recognition of interval size, chord types, harmonic progression, rhythmic detail) needs secure foundations in theory, and training in theory is fundamental to understanding how and why music works.

So the training of aural encompasses theory, memory, and structured listening. All of these move into the territory of other areas of the curriculum. The necessity for an integrated approach becomes clearer.

Part 3: Toward Integration

The initial stage in an approach to integration would seem to indicate the necessity for some kind of liaison with the teachers of these relevant subjects (theory, in particular). Personal experience as 'module coordinator' for theory and musicianship shows that if aural and theory are taught separately, it is very difficult to coordinate the two subjects. Aural trainers demand of theory teachers continual reinforcement of material theory teachers consider basic (chord types, progressions, inversions, intervals, even key signatures) that has generally been covered within the first couple of weeks of a theory course. As aural trainers, we find that many students have not truly absorbed this basic information long after their theory course has moved way beyond it. Program managers need these courses to move in parallel; this is impracticable, because in aural training this basic theory has to be completely understood and 'felt' – in theory lessons, you write your exercise and move on to the next thing. What could be understood theoretically is always far in advance of what can be applied practically. This is not to say that advanced theory shouldn't be taught – the information and techniques are always *potentially* useful. There are many things I was taught as a child that I was able to apply practically only when I was an adult. For example, I was taught to resolve diminished sevenths in certain set ways without realizing their usefulness in (particularly improvised) modulations or their creative uses in nineteenth century music. In an ideal world, then, the theory needs to be taught simultaneously with the aural training, either by the same tutor or by two tutors in close liaison.

As an institution, we have expressed this as an aspiration for many years, but it has always come up against practical difficulties. Theory and aural teachers can appear to have different priorities – to summarize crudely and far from impartially, for theoreticians, practice comes out of theory (or will, eventually!); for teachers of aural, the theory will emerge from the practice (almost immediately!). Theory classes work more easily to a curriculum, since there is less necessity to wait for something