

Relationship in special music education: A new form of assessment; The AQR Tool in inclusive music lessons

Erik Esterbauer

The Orff Institute, Mozarteum University, Austria

erik.esterbauer@moz.ac.at

Abstract

Relationship is the basis of human development and should be of primary importance in pedagogical contexts. Music and movement education offer an ideal basis for a holistic approach based on relationship through their ability to address cognitive, emotional, social, and creative areas of the human being. Inclusive learning contexts in heterogeneous groups depend on recognizing the diverse abilities of children and their ability to relate. The fundamental effectiveness of artistic-pedagogical music and dance interventions can be refined by observation and assessment of the quality of relationship. This paper is giving a short overview of the observation and evaluation tool for the Assessment of the Quality of Relationship (AQR Tool), which has been developed for music therapy and is in adaption for special music education. The AQR Tool consists of four scales, which focus on: the instrumental expression, the vocal-pre-speech quality, the physical-emotional expression, and the therapist/pedagogue and his/her interventions. Each scale focuses on certain points of observation and is divided into seven relationship qualities ("modi") that are described by characteristics of relationship aspects. Next, the paper will discuss a research project implemented at the Orff Institute in Salzburg, Austria, working on an adaption of this tool for pedagogical use. Inclusive groups of music and dance lessons were videotaped and selected scenes were analyzed with the adapted AQR Tool. Phenomena related to relationship matters not outlined in the AQR Tool but relevant for pedagogical situations were identified, classified and assessed. Furthermore, new aspects of observation were generated and validated through inter-rater reliabilities, thus leading to an expanded version of this tool. The adapted AQR Tool seems to be an appropriate instrument for observing and assessing the quality of relationships, especially for the means and concepts of inclusive music and dance education. Further modifications and extensions of the AQR Tool are necessary in order to be applied in the field of special music education in school and non-school contexts (developmental level, relationship abilities, educational interventions).

Background

The original human rights-based idea of inclusion has developed in the last 15 years into a cross-sectional discipline in the most varied areas of life, but especially in pedagogy its influence has become a major topic nowadays (Booth & Ainscow, 2016; Gibson & Haynes, 2009; Rix et al., 2010; Woolley, 2017). The various traditions and national agendas in inclusive teaching areas are as varied as the field itself (Armstrong, Armstrong, & Spandagou, 2011; OECD, 2003). In music education many approaches have been developed and publications have drawn attention towards inclusion and its processes (Adamek & Darrow, 2010; Economidou Stavrou & Stakelum, 2015; Jellison, 2015; VanderLinde Blair & McCord, 2016). Tischler (2013) refers to the heterogeneous groups that predominantly exist in inclusive systems and require individualized views and procedures with differentiated measures. Music education and music therapy, through their ability to address cognitive, emotional, social and creative areas of the human being, provide an ideal foundation for a holistic approach in both disciplines. In addition to the diverse abilities such as musicality, physical restrictions, cognitive preconditions, it is also of great importance to focus on the socio-emotional or relationship skills of the learners.

The monumental analysis of meta-analyses *Visible learning* by John Hattie has exerted enormous influence on educational research. Hattie attributed a prominent role to the teacher-student relationship and gave it a place in the forefront of important factors (number 12 out of 150), which have impact on learning (Hattie, 2009, 2012). This awareness, that the relationship aspect of school life is an essential one, has also led to the measurement of teacher-pupil interactions (Pianta, Hamre & Stuhlmann, 2003). Especially in the field of inclusive education, it is necessary to get a deeper view on these models of relationship. A profound knowledge of qualities of relationship in terms of the fundamental dimension of the ability to relate is recommended.

Assessment of the quality of relationship with the AQR Tool

The cooperation between music therapist Karin Schumacher and developmental psychologist Claudine Calvet, which began in the 1990s, enabled the developmental psychological foundation of music therapy experiences with children suffering from a profound developmental disorder, especially autism. Their efforts resulted in the formation of an observation and assessment tool to get a clear idea about relationship aspects in music therapy. The Tool for the Assessment of the Quality of Relationship

(abbreviated as AQR Tool) is a qualitative observation method, which is designed to identify the developmental level of a client's functioning and relating in music therapy for the purpose of assessment, diagnosis, further planning and evaluation.

Above all, the theory of the self-concept of the infant researcher Daniel Stern (1985) underpinned the music therapy experience. The theory of early organization of behaviour according to Heidelinde Als (1986), attachment theory (Bowlby, 1969; Main, Hesse & Hesse, 2011) and findings from infant research and brain research (Hüther, 2009) completed the theoretical background. Thus, the AQR Tool was developed in the search for proof of effectiveness for music therapy interventions (Schumacher & Calvet, 2007; Schumacher, Calvet & Reimer, 2013, 2019a, 2019b; Schumacher & Calvet-Kruppa, 1999).

The AQR Tool focuses on the way in which relationships to oneself (body and voice), to objects (musical instruments) and to the other human being (e.g. music therapist) appear and develop.

Figure 1 shows an overview of the structure of the AQR Tool. It comprises of four scales, which work with observational focuses. Each of them is described with particular characteristics that enable the different levels of the quality of relationship to be identified.

Based on certain characteristics, the quality of relationship skills can be assessed and thus determined comprehensibly. In the analysis of the physical-emotional expression (PEQR), one focuses on the intra-personal and interpersonal relationship, the physical contact, the affect and the quality of the eye contact. Vocal pre-speech qualities (VQR) demonstrate the expressive quality of the voice, its relationship to one's own body and to the therapist. In the assessment of the instrumental expression (IQR), the choice of the instrument, the relationship to the object, the musical resources used and the play space are analysed. Of central importance and a special feature of the AQR Tool is the scale for the assessment of the therapist (TQR) and his/her interventions. In order to be able to verify the effectiveness of music therapeutic work, the interventions of the therapist in particular must be analysed. The assessment using the TQR scale can be used to detect possible intervention errors as well as over-stimulation or under-stimulation of the child. The developmental psychology-oriented feature lists for each of these four scales serve as a basis for assessing the quality of relationship. Schumacher et al. (2013, 2019a) have therefore defined on the basis of the work of Stern (2000) and Sroufe (1997) seven levels of abilities to relate – so-called "modi" – that follow the logic of a typical development.

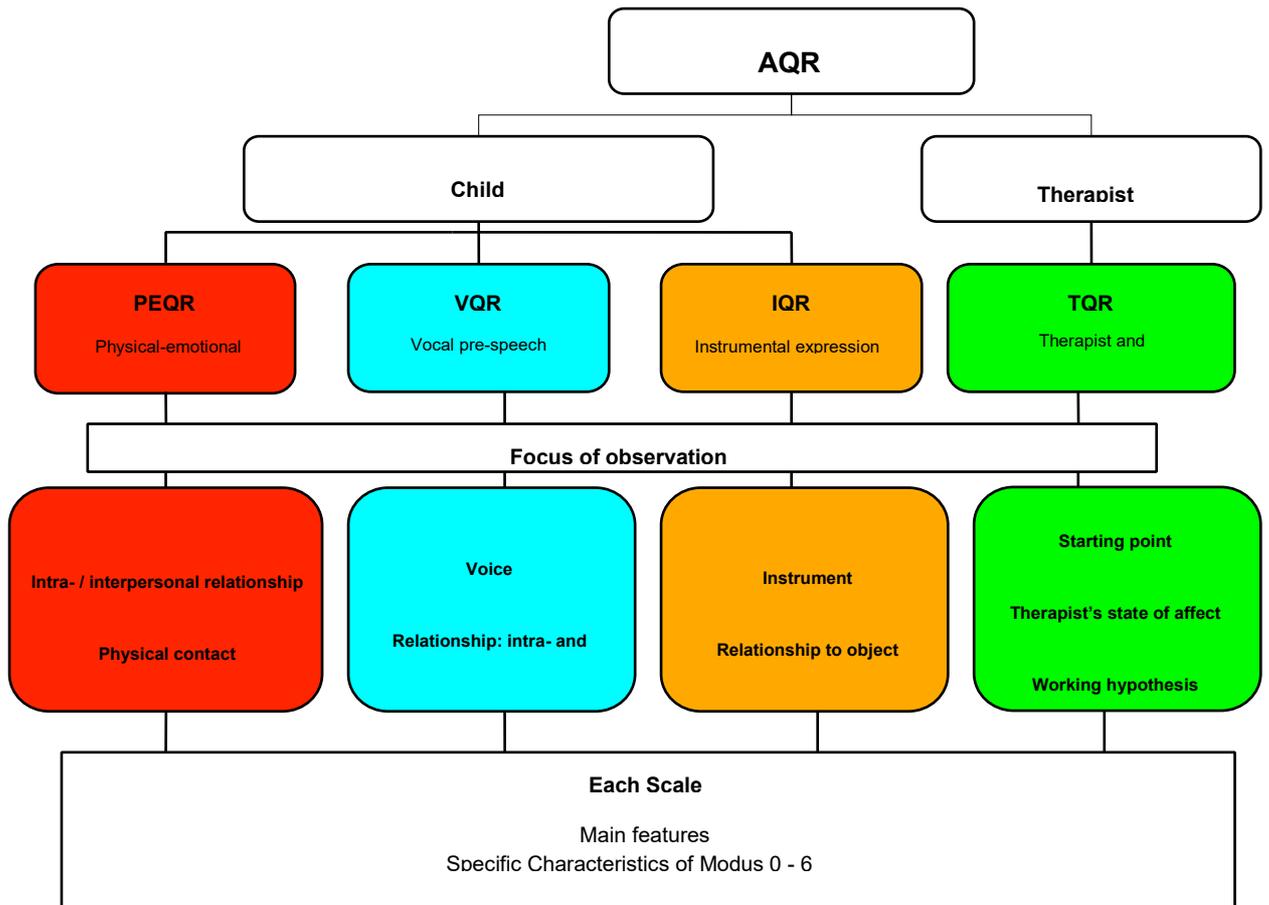


Figure 1: Structure of the AQR Tool (see Schumacher et al., 2013, p. 36)

The main characteristics of the modi are:

- 0 Lack of Contact / Contact Rejection: The lack of social interaction or reaction to musical activities. The child seems to be unapproachable for the therapist. The therapist accepts this emotional state. Music is offered with the intention of creating an atmosphere that makes a relationship possible without forcing it.
- 1 Sensory Contact / Contact-Reaction: The therapist's concentration on the child's sensory needs supports intermodal perception and leads to synchronised experiences. The results are a short awareness of the child's own body accompanied by brief vocalizations.
- 2 Functionalizing Contact: If the child shows a high inner tension the therapist regulates these affects with affect attunement and affect shaping, so that the child can experience affect regulation through another.

- 3 Contact to Oneself / Self-awareness: The child's awareness of its own body or voice as the origin of activity or the intentional explorative handling of a musical instrument will be supported by the therapist's imitating and accompanying the child's expressions and actions.
- 4 Contact to Another / Intersubjectivity: The ability for inter-attentionality (joint-attention) is developed. The child shows interest in the therapist and in the joint activity; social referencing occurs.
- 5 Relationship to Another / Interactivity: The ability to imitate is developed. In the dialogical exchange of motifs, mutual referencing, as well as making pauses, becomes evident. The therapist takes up the child's motifs and experiences that the child answers.
- 6 Joint experience / Inter-affectivity: Joint expressive playing or vocalizing that is accompanied by a positive emotional state arises. The main feature is pleasure. The relationship is firmly established.

The application of the AQR method is done via a microanalysis of relevant scenes of max. 3 minutes that have been videographed during music therapy sessions. Starting with an analysis of the intervention of the therapist by using the TQR scale, the next step, depending on whether the client/patient expresses physical-emotional, vocal and/or instrumental contents, the scene is analysed with one or more of the three scales for the child. Only if the mode of the therapist agrees with that of the client/patient we can expect a constructive course of therapy (Mössler et al., 2017). If this is not the case, the therapist's approach to his working hypothesis and his goals as well as musical resources should be discussed.

Working with the AQR Tool in inclusive or special music education

The AQR Tool has been designed for working with children with developmental disorders, specifically autism, and must be adapted to any other area of application. Especially in the context of inclusive pedagogy the AQR Tool could provide valuable support. Comparable to the results of music therapy where a therapeutic relationship arises only when the therapist musically and emotionally adapts to the child's utterances and develops further playing ideas based on the child's

current state of development (Mössler et al., 2017), the same can be supposed for a pedagogical relationship in an inclusive setting: the correspondence of relationship qualities is of immense importance.

The use of the AQR Tool in schools and especially in inclusive classes and extracurricular music groups was carried out by Fragkouli (2013) and Salmon (2012), clearly stating the advantages of the AQR in this field. Pauls refers to this application with the following statement:

In this context, the insights into practice of determining qualities of relationship are particularly noteworthy. For the first time, music and dance educators, as well as therapists, have at their disposal a tool that reliably displays the quality of their relationship skills and thus enables them to work more adequately, specifically, cautiously and individually. (Pauls, 2010, p. 15)

Further developmental work on the AQR Tool was done by Jordan (2017) for incorporating a speech scale. In particular the research project "Assessment of the quality of relationship in inclusive music lessons" at the Orff Institute of the Mozarteum University Salzburg, will bring forth an adaptation of the AQR Tool for educational areas (Esterbauer, in press).¹

Objective

The content and methodical decisions of teachers in (elemental) music teaching should be subjected to critical, empirical consideration with regard to their influence and their effect on the quality of the relationship of children in heterogeneous learning groups. To gain insight into successful methodological measures in artistic-educational and inclusive contexts, it is important to assess the development and skill level of the children as precisely as possible and to pay attention to their possibilities to relate.

These considerations have led to the following research questions:

- What adaptations of the AQR Tool are necessary to make it useful in music pedagogy?
- What specific educational interventions are involved in (elemental) music teaching by focussing on relationship matters? Analysis and

¹ For information see: [https://www.uni-mozarteum.at/apps/app_ck/ckuserfiles/67428/files/Information%20EBQ-Forschungsprojekt%20\(Stand%20Juni%202017\).pdf](https://www.uni-mozarteum.at/apps/app_ck/ckuserfiles/67428/files/Information%20EBQ-Forschungsprojekt%20(Stand%20Juni%202017).pdf)

description of the (effective) artistic-educational interventions found.

- Which of these interventions show effects on the quality of relationship and on the behaviour of children needing additional support?
- Which of the described interventions have a positive effect on the quality of relationship and the behaviour of these children and lead to an increase in the capacity and disposition to relate as the core premise and basis for learning?

Method

The research design is located in the area of qualitative teaching research and aims at comparative studies of individual cases in different heterogeneous learning groups. By means of video analysis of selected scenes (micro-situations) of music and dance lessons with the AQR Tool used, a description of the developmental level and the possibilities and abilities of the individual children as well as the content and methods offered by the teachers for their effectiveness and relevance will be produced.

Phenomena related to relationship not outlined in the AQR Tool and relevant for pedagogical situations will be identified, classified and assessed. New aspects of observation criteria and modi of relationship quality are generated throughout the process by means of video-oriented content analysis (Mayring, Gläser-Zikuda, & Ziegelbauer, 2005).²

Samples

1. Inclusive groups having elemental music and dance lessons at the Orff Institute: age 6-14 years, each $n = 5-10$
2. Inclusive classes of primary schools: age 6-10 years, each $n = 20-25$
3. Inclusive classes of secondary schools: age: 10-14 years, each $n = 20-25$
4. Classes of special schools: age 6-14 years, each $n = 5-10$
5. Inclusive groups having elemental music and dance lessons in an inclusive kindergarten: age 4-6 years, each $n = 5-10$

² Video-oriented content analysis is a qualitative research method that uses content analytic techniques for video recordings and is based on the concept described by Mayring (2010). It should not be mistaken for Video content Analysis (VCA) which is a new automated technology for evaluation of videos in diverse fields.

Video recordings of 5-10 lessons per sample have been carried out.

First results

The first data collection phase has captured 80 music and dance lessons over 9 sample groups. Videos from the school year 2016/17 have already been examined, relevant scenes were selected and the existing AQR Tool was applied to the data.

First results show the basic applicability of the AQR Tool in inclusive contexts of music education with the desired qualitative output for adapting pupil tasks and reflecting the teacher's methodological, didactic and social approach. Some of the modi, which show the same state of quality of relationship but have clearly distinguishable expressions, have been differentiated. This procedure (already introduced by Schumacher, 2014) enables the possibility of broadening the spectrum (especially for other disciplines or fields of application) by maintaining the structure of the AQR Tool and at the same time taking new phenomena into consideration (Reimer, 2016). Especially in the context of pedagogical musical activities where the quality of joint attention is usually a core requirement, a differentiated look at the modi 3 to 5 may lead to an expansion and modification of these qualities of relationship. Tasks such as imitation, listening to each other, playing together, which are of main importance in the view of most teachers, could be analysed more deeply. Not every child has the ability for these activities, so that alternative interventions are necessary and could be found through the support of the AQR Tool (Esterbauer, Salmon & Schumacher, 2018)..

In the next step, the videos from school year 2017/18 will be inspected with the selection of relevant scenes and an application of the AQR Tool to these micro-situations. Similar results are expected for this material. By reviewing the new data additional categories will be produced to extend the modi of the AQR Tool.

Conclusions

The AQR seems to be an appropriate tool for observing and assessing the quality of relationships in inclusive music and dance education as well as in music therapy. Modifications and extensions of the AQR Tool are necessary in order to be applied adequately in the field of music education in school and non-school contexts. These transformations concern topics like the developmental level, relationship abilities and educational tasks or interventions.

The main focus of the AQR Tool in inclusive music lessons is on those pupils who are less easily accessible and who have low motivation in the classroom or those

who have diverse (dis-)abilities and need additional support The AQR Tool should give assistance, so that suitable interventions can also be found for these children to enable them to participate positively in the lessons.

Benefits of the use of the AQR Tool in special music education

By taking the relationship aspect of music education into the focus of observation and by assessing the quality of the relationship we can get a range of valuable information for further music lessons.

In the first step there is diagnostic information about the current ability to relate. Different skill levels (as well in musical parameters as in social preconditions) can be observed and assessed. The recognition of the lack of joint attention, as the basis of any guided learning process, is a core feature that can be facilitated by the AQR Tool and should lead to a change in didactic approaches, especially for inclusive group work. The detection of demanding too little or too much can clearly be seen. By means of this information an adaption of the contents for individual learning and experience can be profoundly implemented. In this way the teacher can provide adequate contents and methods for different individual needs. Finally, the self-reflection of the pedagogue, a core element of the AQR Tool, can be initiated on different levels (content, methods, emotional, social factors, etc.). This should result in planning more individually tailored interventions or tasks for the learners in the future.

In this way the extended AQR Tool could be used as a guide to pedagogical practice to show which interventions produce which effects, how the quality of relationship can be strengthened and / or changed and which interventions are most suited to the development level of the respective child.

References

- Adamek, M. S., & Darrow, A.A. (2010). *Music in special education* (2nd ed.). Colesville: American Music Therapy Association.
- Als, H. (1986). A Synactive model of neonatal behavioral organization: framework for the assessment of neurobehavioral development in the premature infant and for support of infants and parents in the neonatal intensive care environment. In J. K. Sweeney (Ed.), *The high-risk neonate: Developmental therapy perspectives* (pp. 3–53). New York: Haworth.
- Armstrong, D., Armstrong, A. C., & Spandagou, I. (2011). Inclusion: By choice or by chance? *International Journal of Inclusive Education*, 15, 29–39.

- Booth, T., & Ainscow, M. (2016). *Index for inclusion: A guide to school development led by inclusive values* (4th ed.). Cambridge: Index for Inclusion Network (IfIN).
- Bowlby, J. (1969). *Attachment and loss. Vol. 1: Attachment*. New York: Basic Books.
- Economidou Stavrou, N., & Stakelum, M. (Eds.). (2015). *Every learner counts: Democracy and inclusion in music education. European perspectives on music education: volume 4*. Innsbruck, Esslingen, Bern-Belp: Helbling.
- Esterbauer, E. (in press). Assessment of the quality of relationship in music lessons – a new approach. Joint (ad)venture of music therapy and music pedagogy. In M. Oebelsberger, A. Bernhofer & G. Sammer (Eds.), *European perspectives on music education: Vol. 8. Joint (Ad)Venture*. Innsbruck: Helbling.
- Esterbauer, E., Salmon, S. & Schumacher, K. (2018). Einschätzung der Beziehungsfähigkeit mit Hilfe des “EBQ-Instruments” im inklusiven Musikunterricht [Assessment of the quality of relationship with the help of the AQR Tool in inclusive music education]. *Diskussion Musikpädagogik*, 79, 18–23.
- Fragkouli, A. (2013). Music therapy in special education: Assessment of the quality of relationship. *Approaches: Music Therapy & Special Music Education*, 5, 152–165.
- Gibson, S., & Haynes, J. (Eds.). (2009). *Perspectives on participation and inclusion: Engaging education*. London, New York: Continuum.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London: Routledge.
- Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. London: Routledge.
- Hüther, G. (2009). The significance of exposure to music for the formation and stabilisation of complex neuronal relationship matrices in the human brain: implications for the salutogenetic effects of intervention by means of music therapy. In R. Haas & V. Bandes (Eds.), *Music that works: Contributions of biology, neurophysiology, psychology, sociology, medicine and musicology* (pp. 119–141). Wien: Springer.
- Jellison, J. A. (2015). *Including everyone: Creating music classrooms where all children learn*. New York: Oxford University Press.
- Jordan, A.-K. (2017). *Assessing the quality of relationship in music therapy sessions with the Focus on language*. Spoken paper at the ESCOM conference. ESCOM conference, Gent, Belgien.

- Main, M., Hesse, E., & Hesse, S. (2011). Attachment theory and research: Overview, with suggested applications to child custody. *Family Court Review*, 49, 426–463.
- Mayring, P. (2010). *Qualitative Inhaltsanalyse: Grundlagen und Techniken* [Qualitative content analysis: basics and techniques] (11., aktualisierte und überarb. Aufl.). *Beltz Pädagogik*. Weinheim u.a.: Beltz.
- Mayring, P., Gläser-Zikuda, M., & Ziegelbauer, S. (2005). Auswertung von Videoaufnahmen mit Hilfe der Qualitativen Inhaltsanalyse - ein Beispiel aus der Unterrichtsforschung [Evaluation of video recordings with the aid of qualitative content analysis]. *MedienPädagogik*, 9, 1–17.
- Mössler, K., Gold, C., Aßmus, J., Schumacher, K., Calvet, C., Reimer, S., Iversen, G., & Schmid, W. (2017). The therapeutic relationship as predictor of change in music therapy with young children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 47(Sep 21), 1–15.
- OECD. (2003). Chapter 1: Diversity, Inclusion and equity: Insights from special needs provision. In OECD (Ed.), *Education policy analysis* (pp. 9–57). Paris: OECD.
- Pauls, R. (2010). Introduction. In S. Salmon & C. Kallós (Eds.), *"Between Freedom and Ritual": Means of expression with music and movement for people with disabilities. (DVD-Booklet)* (pp. 14–15). Salzburg: Univ. Mozarteum Salzburg, Abteilung für Musik- und Tanzpädagogik - Orff-Institut.
- Pianta, R. C., Hamre, B., & Stuhlmann, M. (2003). Relationships between teachers and children. In I. B. Weiner, W. M. Reynolds, & G. E. Miller (Eds.), *Handbook of psychology: Volume 7, Educational Psychology* (Vol. 7, pp. 199–234). Hoboken NJ: Wiley & Sons.
- Reimer, S. (2016). Musiktherapeutische Interventionen zur Affektregulation schwerst mehrfachbehinderter Menschen [Music therapy interventions for affect regulation of people with severe multiple disabilities]. *Musiktherapeutische Umschau*, 37, 29–40.
- Rix, J., Nind, M., Sheehy, K., Simmons, K., Parry, J., & Kumrai, R. (Eds.). (2010). *Equality, participation and inclusion 2: Diverse contexts* (2nd ed.). London: Routledge.
- Salmon, S. (2012). Die Einschätzung der Beziehungsqualität bei Menschen mit Schwerstbehinderung in einem musikpädagogischen Setting [The assessment of the quality of relationship of people with severe disabilities in a music education setting]. In G. Enser & M. Oebelsberger (Eds.), *Musikpädagogische Forschung*

- Österreich: Reihe 1: Tagungsberichte: Vol. 4. *Vernetzung als Chance für die Musikpädagogik* (pp. 133–148). Wien: Universal Edition.
- Schumacher, K. (2014). Music therapy for pervasive developmental disorders, especially autism: a case study with a theoretical foundation and an evaluation tool. In J. de Backer & J. Sutton (Eds.), *The music in music therapy: Psychodynamic music therapy in Europe: Clinical, theoretical and research approaches* (pp. 107–123). London: Jessica Kingsley Publishers.
- Schumacher, K., & Calvet, C. (2007). The "AQR-instrument" - an observation instrument to assess the quality of relationship. In T. Wosch & T. Wigram (Eds.), *Microanalysis in music therapy: Methods, techniques and applications for clinicians, researchers, educators and students* (pp. 79–91). London: Jessica Kingsley.
- Schumacher, K., Calvet, C., & Reimer, S. (2013). *Das EBQ-Instrument und seine entwicklungspsychologischen Grundlagen: Mit 10 Abb., 5 Tab und einer DVD mit 28 Praxisbeispielen* [The AQR Tool and its foundations in developmental psychology] (2. Aufl.). Göttingen: Vandenhoeck & Ruprecht.
- Schumacher, K., Calvet, C., & Reimer, S. (2019a). *The AQR Tool – Assessment of the quality of relationship based on developmental psychological knowledge*. With DVD. Wiesbaden: Reichert.
- Schumacher, K., Calvet, C., & Reimer, S. (2019b). The AQR Tool - assessment of the quality of relationship. In S. L. Jacobsen, E. G. Walden & G. Gattino (Eds.), *Music therapy assessment* (pp. 197–214). London: Jessica Kingsley Publishers.
- Schumacher, K., & Calvet-Kruppa, C. (1999). The "AQR" - an analysis system to evaluate the quality of relationship during music therapy. *Nordic Journal of Music Therapy*, 8, 188–191.
- Sroufe, L. A. (1997). *Emotional development*. Cambridge: Cambridge University Press.
- Stern, D. N. (1985). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology*. New York: Basic Books.
- Stern, D. N. (2000). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology*. New introduction by the author (1st ed.). New York: Basic Books.
- Tischler, B. (2013). *Musik spielend erleben: Grundlagen und Praxismaterialien für Schule und Therapie* [Playfully experiencing music]. Mainz: Schott.
- VanderLinde Blair, D., & McCord, K. A. (Eds.). (2016). *Exceptional music pedagogy for children with exceptionalities: International Perspectives*. Oxford: Oxford University Press.

Woolley, R. (2017). *Understanding inclusion: Core Concepts, policy and practice*.
Milton: Taylor and Francis.