



Civil wind bands beyond music education: a scoping review (2010-2021)¹


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Abstract: The aim of the present study is to provide a comprehensive scoping review focused on the educational effects of active music-making participation in wind bands. This review combines mapping studies to identify the primary sources, authors, institutions, and types of evidence available in wind band research and a literature review to identify the key concepts underpinning this research domain. Based on literature published between 2010 and 2021, a total of 712 records were examined, resulting in 459 papers screened and 84 studies included in the analysis. Findings indicate that, in the past decade, the essential contribution to research about active music-making participation in wind bands came from Western English-speaking academic institutions based in the United States of America, Australia, the United Kingdom and Canada. The research's relevant focus was on the purposes of music education and the psychosocial and health effects of participation. Furthermore, the psychosocial effects encompassed a comprehensive set of themes, such as social bonding, community music participation, emotional well-being, and individual quality of life. Nevertheless, all these topics are closely linked to the single overarching expression of the quality of life. Other than music education, educational effects were not at the heart of the last decade of wind band research. A few gaps in the literature exist, including a lack of research concerning the educational benefits of informal and intergenerational environments of wind band practices. Equally important is the lack of research on the impacts of wind band activities on social cohesion or the inclusive intercultural development of their local communities. This could be a significant opportunity to provide up-to-date insights into the education potential of non-school contexts and the impact of wind band activities in supporting the cultural ecology of each place.

Keywords: community music; educational effects; non-formal education; quality of life; scoping review; wind band.

ES **Las bandas de viento civiles más allá de la educación musical: una revisión de alcance (2010-2021)**

Resumen: El objetivo del presente estudio es ofrecer una revisión de alcance centrada en los efectos educativos de la participación activa en la práctica musical de las bandas de viento civiles. Esta revisión combina estudios de mapeo y una revisión de literatura para identificar los conceptos clave que sustentan la investigación sobre las bandas de viento. Basados en la literatura publicada entre 2010 y 2021, se examinaron un total de 712 registros, lo que resultó en 459 registros seleccionados y 84 estudios incluidos en el análisis. Los resultados indican que, en la última década, la contribución esencial provino de instituciones académicas occidentales de habla inglesa con sede en los Estados Unidos de América,

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Australia, el Reino Unido y Canadá. La investigación se centró en los fines de la educación musical, y en los efectos psicosociales y para la salud de la participación. Además, los efectos psicosociales abarcaron un amplio conjunto de temas, como el vínculo social, la participación musical comunitaria, el bienestar emocional y la calidad de vida individual, temas que están estrechamente relacionados con la única expresión global de la calidad de vida. Aparte de la educación musical, los efectos educativos no han estado en el centro de la última década de investigación sobre bandas de viento. Existen algunas lagunas en la literatura, como la falta de investigaciones sobre los beneficios educativos de los entornos informales e intergeneracionales de las prácticas de las bandas de viento, sobre el impacto de las actividades de las bandas de viento en la cohesión social, o sobre el desarrollo intercultural de sus comunidades locales. Por último, existe una gran oportunidad de aportar conocimientos actualizados sobre el potencial educativo de los contextos no escolares y las repercusiones de las actividades de bandas de viento en el apoyo a la ecología cultural de sus lugares.

Palabras clave: banda de viento; calidad de vida; educación no formal; efectos educativos; música en la comunidad; revisión de alcance.

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1. Introduction

Music represents a singular pathway for social interactions, providing for the integration of individual and social skills and, furthermore, promoting human development (Cross, 2003). Music is also a multimodal art form, a primary cultural practice that people use to express collective identities, giving them a sense of belonging to a community through participation and performance in a synchronised experience (Turino, 2008). Active music-making, especially ensemble music, has the potential to promote inclusion, value cultural differences and increase belief in social values (Hallam, 2015).

Since the 19th century, British brass music ensembles have nurtured a working-class sociocultural movement that rapidly became a mass activity connecting working-class people and ensemble instrumental art music (Herbert, 2000). Ensemble music indicates the concept of community music grounded in the community arts movements of the 1970s (Higgins, 2007). Music performance is a central theme for community music (Veblen, 2008), and real-time music practices, such as presentational music performance, can connect individuals and identity groups (Turino, 2008).

Brass, concert or wind bands are typical examples of ensemble music that fit the community music definition of “an intentional intervention, involving skilled music leaders, who facilitate group music-making experiences in environments that do not have set curricula.” (Higgins, 2012, p. 4). The large spectrum of active music-making activities can explain the diversity in conceptions of community music (Veblen, 2008) but also stimulate new insights challenging its theoretical and philosophical problems or music education perspectives (Kertz-Welzel, 2016).

Addressing music education, Constantijn Koopman (2016) points out that community music does not use its educational potential and does not take advantage of the inherent contributions of new educational concepts such as authentic learning, situated learning, and process-directed education. Based on the idea of a world-centred education, Biesta (2022) observes that education is not only qualification and socialisation. He states that education functions through three domains: qualification, socialisation, and subjectification, which also become the three purposes of education. He argues that education is a form of intentional action and, moreover, deliberate non-action and that educational work relies on educational gestures. The use of gestural expression is fascinating since gesture has a profound meaning in musical conducting, as the conductor’s gesture is an intentional movement toward a shared (aesthetic) goal (Chen et al., 2018).

Civil wind bands are voluntary associations (Mantie & Tan, 2019) set in a variety of social, cultural, and geographical contexts. Their constitution, institutional affiliations, and relations with other social actors and meanings at a community level (e.g., religious events and local festivals) are diverse. According to Dubois et al. (2013), the space of brass bands (or similar instrumental wind bands) is dominated by a limited influence of musical or aesthetic factors, by a musical practice based on close-knit solidarity in a deeply rooted local sphere and by a structural association with music schools. Its members, as non-professional musicians, join voluntarily by using their free time in an ongoing value-commitment activity that complies with the definition of serious leisure activity (Stebbins, 2017). As leisure-time music groups (Pitts, 2020), wind band activities provide encounters with people and environments, making it possible for meanings to emerge that strengthen the relationships of their members to the communities (Stebbins, 2017). Wind band activities have the potential to shape the cultural and social environment of the local communities and are part of their cultural ecology (Pitts, 2020).

Diverse disciplinary approaches have endeavoured to comprehend the complexity of civil wind bands, adopting different scopes and stressing different dimensions of their practices. The ethnomusicological

research field that embraces all types of music expression, including wind bands, has focused on musical practices outside formal educational institutions and has drawn attention to the sociocultural contexts of music production and reception as socially embedded cultural practices. Other literature review studies manage to examine the “impact of active engagement with music on the intellectual, social and personal development of children and young people” (Hallam, 2010, p. 271) and to focus on literature related to older adult populations and their participation in the programs of the New Horizons International Music Association (Dabback et al., 2018).

In the educational research field, civil wind bands may be considered a pertinent scientific subject; they are considered educational sites within which learning processes beyond music learning are present with specific characteristics. Their daily practices outside the formal music curriculum involve non-formal education processes concerning technical and artistic musical learning, interpersonal communication, and interaction, particularly intergenerational relationships.

The present study intends to identify the research studies published between 2010 and 2021 that, taking wind bands as an empirical object, emphasise their educational aspects and show the most relevant educational effects of active music-making and participation in wind bands.

2. Method

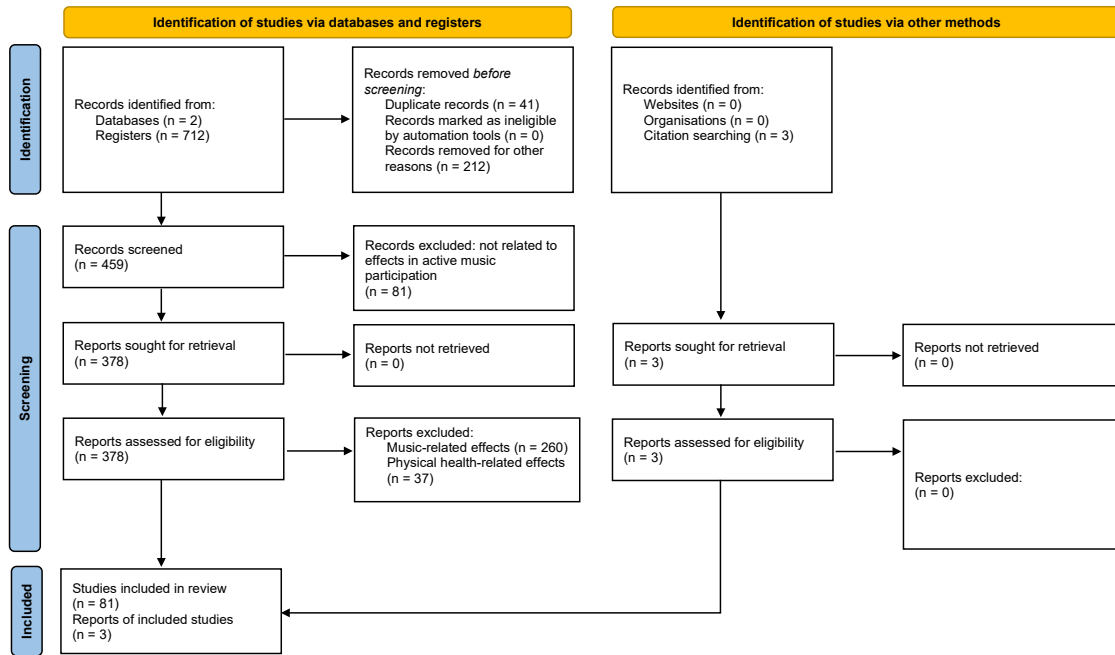
To achieve the objective mentioned above, an exploratory study was carried out to identify the prominent journal publications and types of documents conveying research addressing the empirical field of wind bands. This preliminary study was done between September and December 2021 and involved iterative search processes on several databases. It yielded thousands of records, which made it possible to identify the main disciplines from which the field of research draws its conceptual and theoretical framework: education, sociology, and musicology. A critical analysis of the results of this exploratory search enabled us to develop an appropriate strategy for the scoping review. It was crucial to define the databases and their research fields, the time interval, the search string, and the type of documents to be included. The search string was broadened to include words similar to the wind band (concert and brass bands). The timeframe was defined to identify relevant international academic literature produced in the same period as the Portuguese wind band doctoral research.

Scoping reviews are valuable for identifying and mapping available evidence on a research topic (Munn et al., 2018). Our scoping review aims to identify the published studies focused on the educational effects of participation in wind bands, examine how this research topic is being conducted, and analyse knowledge gaps. The search protocol of our review comprised the Scopus (Elsevier B.V.) and Web of Science Core Collection (Clarivate) electronic databases. The search included documents published between January 1, 2010, and December 31, 2021, using the following search string: (Education OR “non-formal education” OR “informal education” OR “community” OR “community music” OR “leisure” OR “culture”) AND (“brass band” OR “concert band” OR “wind band”). The search included all fields of the databases and the following documents in any language: journal articles, books, book chapters, dissertations, and conference papers to maximise the search results. However, the following exclusion factors were adopted: a) duplicate records, b) non-peer-reviewed records, c) non-participation effects records, d) music-related effects records, e) non-educational effects records, f) all languages other than English, French, and Spanish.

Our search was conducted on February 28, 2022, and yielded 712 records. After removing 41 duplicates and 212 no-peer-review documents, the remaining 459 records were screened by their titles and abstracts. In this step, 81 records were excluded since they were not related to the effects of participation in music ensembles. The full-text reading of the concluding sections of the 378 reports assessed for eligibility identified 260 music-related effects and 37 concerned with physical health-related effects. Both sets were removed as they did not comply with the research objectives. Finally, this review included 81 records and three additional articles selected *from the reference lists of the former by citation searching, title and abstract reading* (see Fig. 1).

Based on CSV files (comma-separated values) extracted from the bibliographic database of the 459 screened records and the 84 selected papers, independent mapping studies were carried out by constructing and viewing bibliometric maps with VOSviewer software, version 1.6.18 (van Eck & Waltman, 2009). Mapping studies are reviews based on the assumption that the published journal articles display the findings and related activity, such as place, funding, or publishers (Cooper, 2016). The bibliometric analysis explores scientific data and uncovers trends in a specific field (Donthu et al., 2021).

A thematic analysis using NVivo software, version 1.6.1 (Lumivero), was conducted on the full text of the 84 articles selected for this review. Thematic analysis “is a method for identifying, analysing and reporting patterns (themes) within data.” (Braun & Clarke, 2006, p. 79). An inductive thematic analysis of the content of the introductory and theoretical sections attempted to identify the themes that arise from the theoretical approach of each journal article and elucidate “the specific nature of a given group’s conceptualisation of the phenomenon under study.” (Joffe, 2012, p. 212). The same data analysis technique allowed us to codify the content of the discussion and concluding sections and the goal description of each selected study on a semantic level. A deductive thematic analysis of the methodology section enabled coding each paper’s methodological features, such as research paradigm, strategy, and method, using the authors’ precise words.



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71.

Figure 1 - PRISMA 2020 flow chart.

3. Findings

3.1 Mapping study

When dealing with a large set of articles like those screened (n = 459), a mapping study can bring important cluster information about authors, affiliation, and keywords involved in the topic. Using VOSviewer, the bibliometric network of all keywords with at least five occurrences discovered a three-domain network linking active music-making participation with music, psychosocial, and health domains (see Fig. 2).

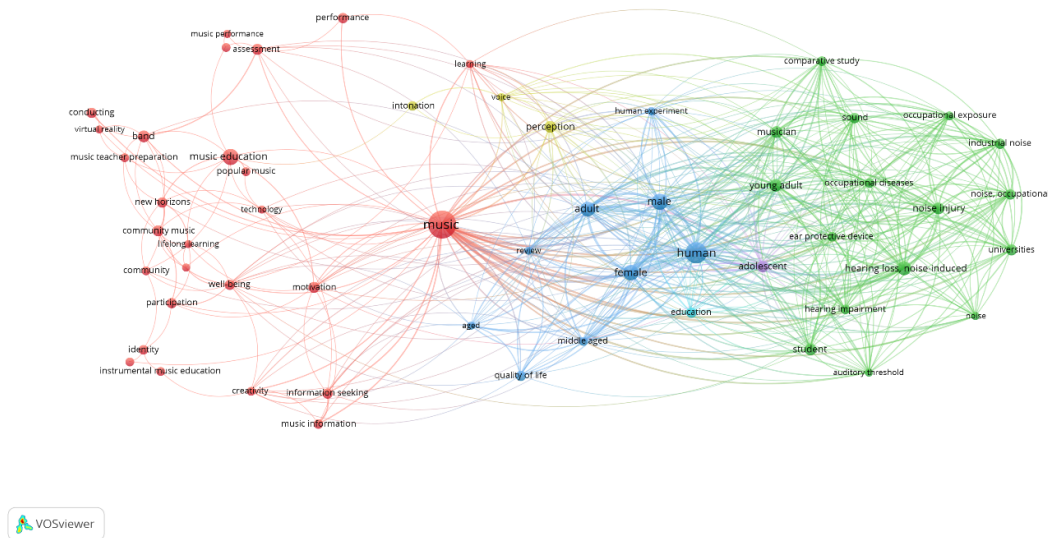


Figure 2 - Visualisation of the keywords co-occurrence network.

The *Journal of Band Research*, the *Journal of Research in Music Education*, and the *Bulletin of the Council for Research in Music Education* published most of the research on brass, concert, and wind bands in the last decade. Table 1 below illustrates these results.

Table 1 - Journals with most publications on brass, concert and wind bands.

Journal	Screened peer-review papers (n = 459)
Journal of Band Research	9%
Journal of Research in Music Education	8%
Bulletin of the Council for Research in Music Education	5%
International Journal of Music Education	4%
International Journal of Community Music	3%
Music Education Research	3%
Research Studies in Music Education	3%
All others (n = 189)	65%

Simultaneously, the results from mapping the articles selected for this review (n = 84) confirm the interest in the subject and the relevance of the same journals for disseminating research in the field. Table 2 illustrates these results. Our research topic is also present in 36 other journals focused on different disciplinary areas such as musicology, health, history, sociology, psychology, quality of life, and teaching.

Table 2 - Journals with most publications: dissemination of research.

Journal	Selected peer-review papers (n = 84)
Journal of Band Research	12%
International Journal of Community Music	12%
Music Education Research	12%
International Journal of Music Education	7%
Bulletin of the Council for Research in Music Education	5%
Research Studies in Music Education	5%
All others (n = 36)	47%

Regarding the country of affiliation of the first author, the mapping study of the articles selected for this review (n = 84) shows a substantial contribution from the United States of America, Australia, the United Kingdom, and Canada, representing about 75% of the publications on brass, concert, or wind band research, regardless of the subject. The following Table 3 illustrates these results. There are 15 other authors' affiliated countries: Austria, France, Finland, Germany, Hungary, Israel, New Zealand, Philippines, Poland, Portugal, South Africa, Spain, Sweden, Taiwan, and Thailand.

Table 3 - First author's country of affiliation.

Country	Screened peer-review papers (n = 459)	Selected peer-review papers (n = 84)
United States of America	56%	45%
Australia	8%	14%
United Kingdom	8%	13%
Canada	4%	6%

3.2 Thematic analysis

The inductive thematic analysis (Joffe, 2012) of the introductory and theoretical sections of the selected papers (n = 84) shows a prevalence of four codes concerned with social (community music participation, social bonding) and individual psychological (quality of life, well-being) perspectives. This is along with a broad set of 20 other codes related to active music-making participation: active ageing; aesthetic/repertoire; cognition; competition; cultural diversity; demography; external sponsorship; family background; gender; identity; lifelong learning; migration; military music; music curriculum; musicology; popular music; religion; serious leisure; social capital and voluntary associations (see Fig. 3).

Empirical studies with adult participants represent 68% of the selected studies (n = 84). Studies involving young people account for 29%, and only three, coded as intergenerational, combined the two.

As foreseen by the search string of our study, research on active music-making participation is primarily related to the activities of instrumental ensembles rather than singing groups. Oddly enough, the temptation to compare the two musical environments prompted few studies (see Fig. 4).

In our review, most studies involving adult or young participants defined their goals as aiming to understand, examine, or investigate the lived experience and participation in music ensembles. Interpretative paradigm analysis (IPA) is a suitable approach when the researcher might be interested in finding out how someone makes sense of particular situations in their life (Smith et al., 2009). IPA shares the view that human

beings are meaningful creatures, which means that the reports that participants submit will reflect their attempts to make sense of their experiences. In our review, where understanding active music-making participation is the primary goal of adult or youth studies, only 13 studies expressly mentioned using this analytical tool.

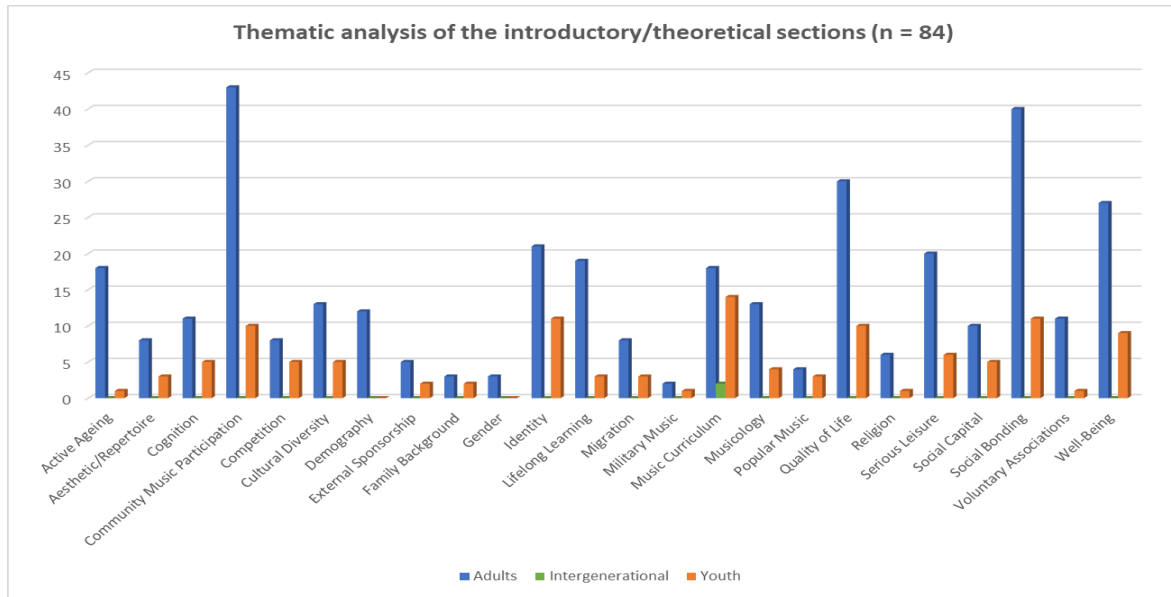


Figure 3 - Codes from the introductory and theoretical sections of the selected papers.

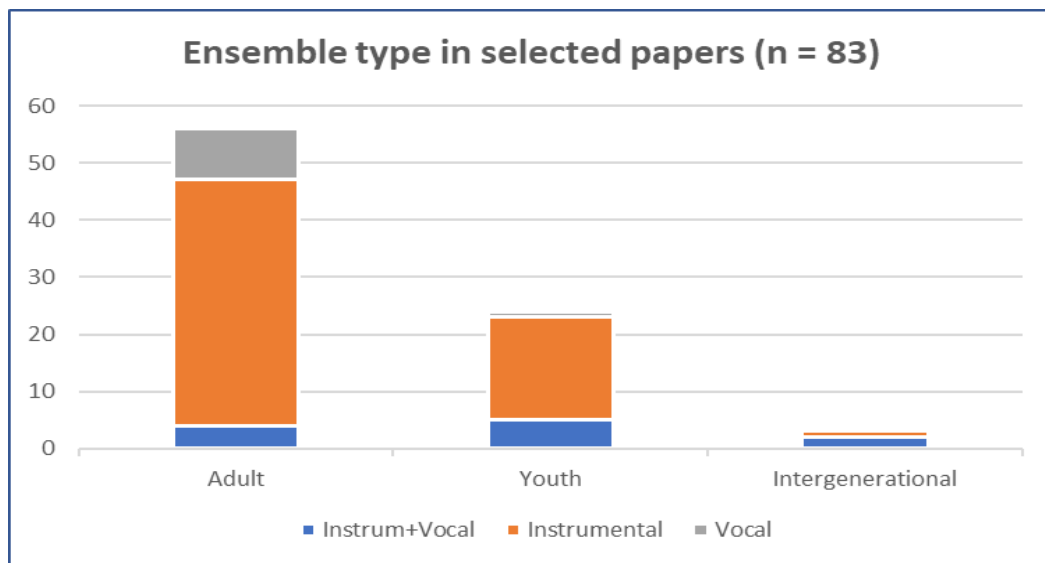


Figure 4 - Ensemble types and participants mentioned in the selected papers.

From the description of the goals mentioned in each study, an inductive thematic analysis (Joffe, 2012) identified and coded ten different goals: benefits, identity, meaning, motivation, participation value, quality of life, school music practice, self-esteem, social support, and understanding participation. Figure 5 shows a strong interest in improving understanding of the implications of active participation in music-making activities for adults.

A deductive thematic analysis (Joffe, 2012) revealed that wind band researchers, in pursuit of their research goals, preferred a qualitative research approach (56%) rather than a quantitative one (17%). A mixed-methods approach represented a residual option (7%). Within the research methods, most studies relied on inquiry methods (70%), mainly combining individual interviews and questionnaires as data collection techniques. Focus group discussions were less favoured (14%).

A few studies (15%), with either adult or young participants, make explicit reference to a hermeneutical phenomenological paradigm. Moreover, the case study research strategy was the most preferred to examine both groups of participants.

Concerning the discussion and concluding sections of the selected studies (n = 84), an inductive thematic analysis identified 18 different codes. If a hierarchy of them were to be inferred from the coding density, 75% of the sentences coded (n = 627) concerned the following codes, given in decreasing

order: social bonding, individual quality of life, emotional well-being, community music participation, identity, music, and cognition. Table 4 below illustrates the codification references of the densest codes:

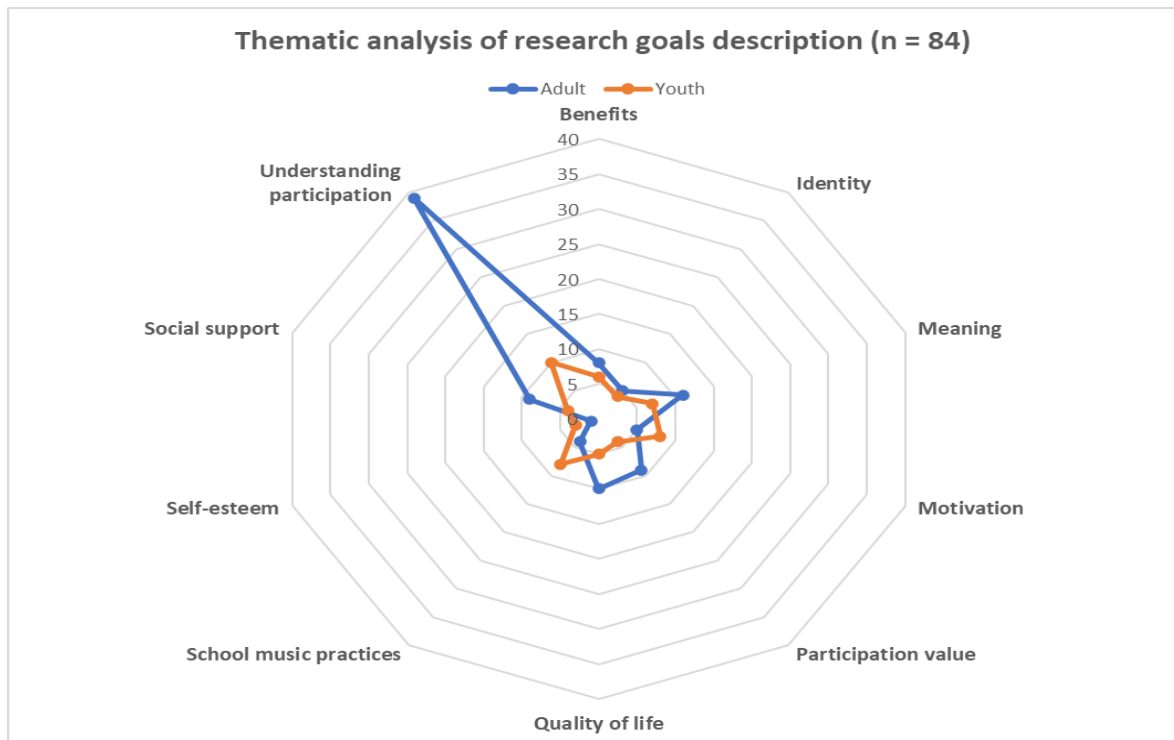


Figure 5 - Codes from the description of research goals in the selected papers.

Table 4 - Codification references from the discussion and concluding sections of the selected papers.

Codes	Sentences in discussion and concluding sections
Cognition	"Participants also reported that learning and stimulating the brain were important aspects of QoL and that the band experience provided the sort of knowledge acquisition they were looking for." (Barbeau & Cossette, 2019, p. 283)
Community music participation	"In order to glean the most enjoyment from a community music experience" (Rohwer, 2017, p. 377)
Emotional wellbeing	"This supports existing research that highlights adults' sense of belonging and emotional well-being through social interaction and companionship provided by ensemble membership" (Kruse, 2012, p. 69)
Identity	"Participants choose activities that help foster both collective and individual identity." (Kumar, 2020, p. 19)
Individual quality of life	"Music-making offers a sense of purpose, as well as a degree of autonomy and control in the lives of those who participate." (Creech, Hallam, McQueen et al., 2013, p. 98)
Music	"The participants in this study joined this community band because of their desire not only to continue playing their instruments, but they were also attracted by the repertoire." (Goodrich, 2019, p. 180)
Social bonding	"From a social point of view, participants enjoyed being part of a group and having the opportunity to meet new people." (Barbeau & Cossette, 2019, p. 283)

Cluster analysis is an exploratory technique based on measuring the similarity between extensive data sets (Cutillo, 2019). Since similarity is "the ratio between the amount of information in the commonality and the amount of information in the description of the two objects" (Lin, 1998, p. 298), cluster analysis by word similarity reveals the codes sharing many words in common. The NVivo software begins creating a table containing the codes in the rows and each different word appearing in the codes in the columns. Table cells are filled with the number of times the word in the column appears in the code in the row. A similarity index between each pair of codes is calculated using the Pearson correlation coefficient (least similar = -1, most similar = 1). Using the calculated similarity index, NVivo groups the items into multiple clusters using the complete linkage (farthest neighbour) hierarchical clustering algorithm (Lumivero, 2023).

Pearson's correlation coefficient for word similarity identified the code "Gender" as an isolated branch, i.e., with no linear correlation with any other theme ($-0,04 \leq p \leq 0,02$). Each of the different discussion and concluding sections codes has no linear correlation with at least one of the remaining codes. Figure 6 indicates the pairs of codes in the discussion and concluding sections with no linear correlation ($-0.1 \leq p \leq 0.1$).

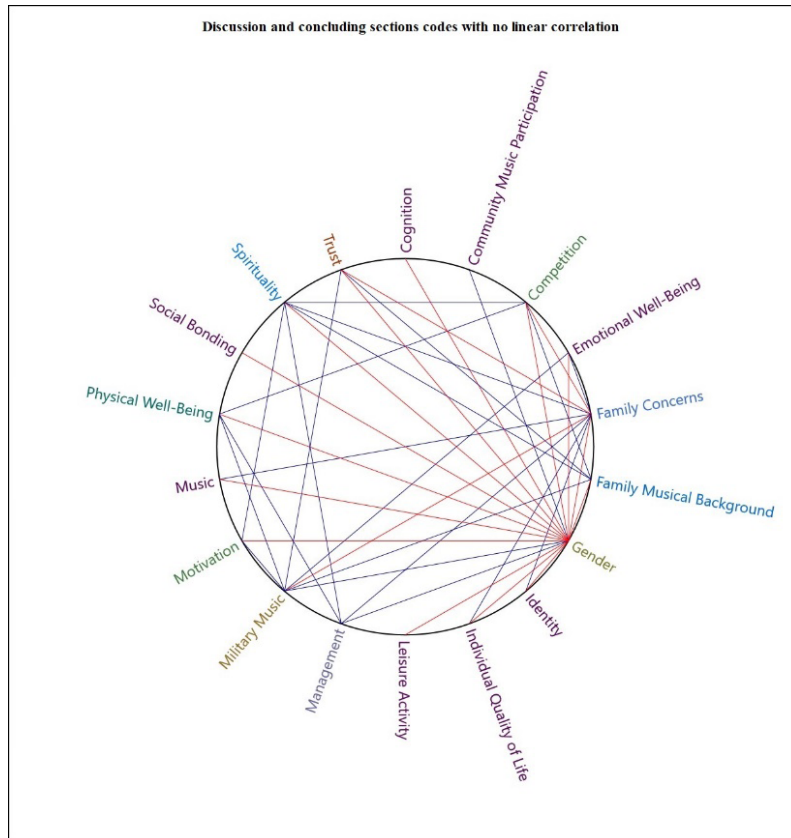


Figure 6 - NVivo word similarity cluster analysis - Pearson's coefficient ($-0.1 \leq p \leq 0.1$)

The following graphs show the codes with the most words in common and how they are grouped by strength word similarity. Figures 7 and 8 show the pairs of codes in the discussion and concluding sections with a moderate and high Pearson correlation coefficient, respectively:

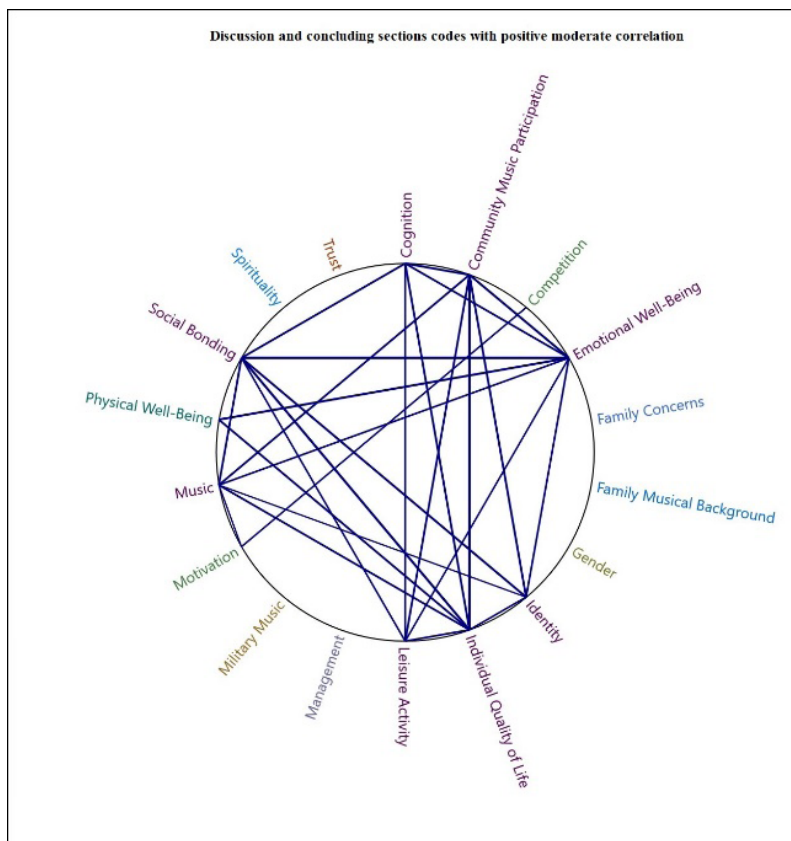


Figure 7 - NVivo word similarity cluster analysis - Pearson's coefficient ($0.4 \leq p \leq 0.7$)

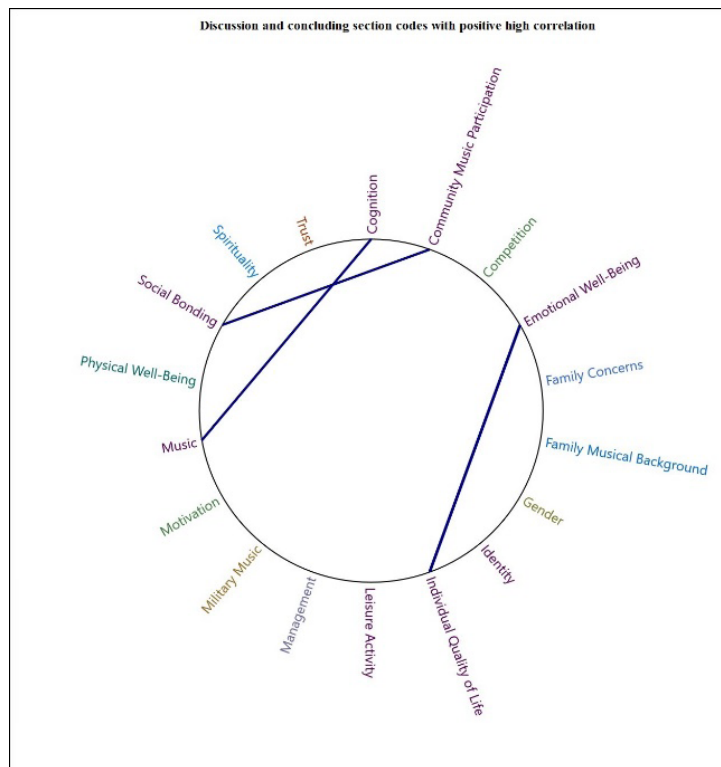


Figure 8 - NVivo word similarity cluster analysis – Pearson's coefficient ($0.7 \leq p \leq 1.0$)

The strongest linear positive correlation was found between the codes “Social Bonding” and “Community Music Participation” ($p = 0.729$), “Music” and “Cognition” ($p = 0.741$), and “Individual Quality of Life” and “Emotional Wellbeing” ($p = 0.858$). These are all part of the same cluster represented by the code colour.

4. Discussion

This study aims to identify the research studies that, taking brass, concert, or wind bands as an empirical field, show the different objects of study, particularly those which referred, even broadly, to processes and educational participation effects.

The mapping studies of both screened ($n = 459$) and selected ($n = 84$) journal articles show the prevalence of the research conducted by authors affiliated with institutions from the English-speaking world and Western culture, representing a critical bias in this discussion. The first evident outcome is the binary division of studies addressed exclusively to adult participants or young students, mirroring the significant division of American bands into school/college bands and adult bands (Association of Concert Bands or New Horizons International Music Association). Denise Odello (2013) suggests that the varied nature of the American wind band and its educational associations and contexts can explain its exclusion from the sphere of musicology.

Research with young participants focuses on the factors influencing students' retention (or dropout) in school music ensembles throughout their academic life, with the aim of advising on music teaching pedagogy or curriculum design. From an extensive survey of 2933 non-music majors enrolled in 95 colleges and universities across the United States, Jennifer Moder (2018) underlined the significant role that extrinsic social aspects play in the retention of musicians through high school. A few years before, Roger Mantie (2013) selected 19 students to investigate their musical backgrounds and self-expressed reasons for participation. From three different instrumental music ensembles (authority-led) and eight (student-led) *a cappella* groups of a private university in the United States, his study contributes to understanding how secondary- and tertiary-level music programmes can enhance transition or lifespan engagement with music. Within a multiple case study, Adria Hoffman (2012) employed a narrative inquiry to shed light on students' perceptions of their musical identity in the context of a sixth-grade wind band class in an American middle school. Her contribution advises a critical look at school practices and classroom structures, considering how students may interact with school music.

The reinforcement of social bonds and emotional learning skills emerged as positive outputs of youth participation in ensemble music groups due to the development of self-confidence and mutual trusting relationships. Allan Hewitt and Amanda Allan (2012) investigated the experience of Scottish adolescent musicians participating in two advanced-level performance ensembles outside school. Their study included an online survey of 72 school-age musicians (14-18 years old) who participated in a symphony orchestra and a concert band, exploring their previous and future participation. Their research suggests that music, social and personal aspects of musical participation may improve understanding of why young people choose to participate in advanced youth music ensembles. Participation is strongly linked to making friends, socialising, and developing relationships. Dimitra Kokotsaki and Susan Hallam (2011) studied the perceived impacts of participation in youth orchestras, bands and choirs. Based on the self-reports of 62 non-music university

students from two English universities, their research suggests that ensemble music-making impacts the social, musical, and personal senses of musicians' and non-musicians' lives. Additionally, the impacts of active music-making participation, even in non-music university students, were perceived in the short and long term.

Another research object concerning active youth music-making relates to their participation in music competitions or band festivals. Although controversial among music educators, young musicians and students seem to value these events. Peter Gouzouasis and Alan Henderson (2012) surveyed 526 students of multicultural backgrounds from 10 concert bands in Canada to investigate the learning outcomes of a non-competitive band festival. Their results suggest that students recognise an intrinsic educational value in band festivals, mainly supported by their perceived improvements in instrumental technique and musical performance.

Justin Antos (2019) surveyed 439 high school band students to investigate how favourably students respond to music competitions, measuring the educational and musical value of participation in marching band festivals. Even when their participation is associated with increased motivation levels and positive social experiences, adverse effects such as stress levels, embarrassment from their performance level, lower self-esteem or a desire to leave the competitive band were reported. Recently, Geoffrey Lowe (2018) reviewed the educational and motivational benefits of participating in school competition festivals. His study surveyed 345 7-12-year-old Australian students just after participating in an alternative large-scale cooperative music ensemble festival. The study suggests the value of the cooperative ensemble festival for stimulating learning orientation and underlines positive student feedback in enjoyment, achievement, and long-term motivation.

The research about young people's active music-making in vocal ensembles emphasises the diversity in motivations for participation, depending on the type of singing group. In a comparative case study along with data gathered from interviews, written reflections and field observations, Sara Jones (2018) examined the motivation for participation and the perceived benefits for students participating in traditional and non-traditional vocal ensembles. Three participants were selected from students enrolled in a mixed choir and a student-run *a cappella* ensemble; data were analysed using the constant comparative method, and conclusions were peer-reviewed. Students participating in traditional mixed choral ensembles seem to value individual music development and vocal technique, while student members of *a cappella* vocal groups seek a more "social-oriented musical experience" (p. 261).

More recently, Oriola-Requena et al. (2021) investigated the degree of life satisfaction reported by amateur youth choir or youth band members. An exploratory, non-experimental, cross-sectional survey was carried out on 660 adolescent musicians; 367 played in 10 youth bands in Valencia (Spain), and 293 sang in 10 youth choirs in Catalonia (Spain). This comparative study found a positive correlation between life satisfaction, leadership capacity, academic motivation, and emotional development despite differences between the two groups. The findings of this study highlight the effects of active music-making participation on adolescent well-being, reinforcing that "for an adolescent to join a band or choir could be a transformative experience, affecting the rest of their lives." (p. 11).

Demographic statistics and forecasts of changes in the elderly population are the most common arguments for research into active music-making by adult participants. Much of this literature focuses on the contribution of music to quality of life. Based on the biopsychosocial health model (Engel, 1977), the definition of quality of life brings together physical, psychological, and social factors. Research reports that active music-making activities in adult recreational community music ensembles are a powerful mechanism for improving adult quality of life. Aiming to determine the extent to which participation in a community band affects the quality of life along with the mental and physical health of older beginner musicians, Audrey-Kristel Barbeau and Isabelle Cossette (2019) selected participants from a newly formed community band to build a study with an experimental (eight musicians) and a control group (eight non-musicians). The researchers met twice with all participants (at the beginning and end of the study) for individual semi-structured interviews, physiological tests, and questionnaires. Their findings suggest that participating in a community band for fifteen weeks has self-perceived effects on quality of life and physical and mental health.

Based on a mixed-method approach, Creech, Hallam, Varvarigou et al. (2013) conducted three case studies on music community involvement, each offering various "musical activities to older people" (p. 36). Using questionnaires, which included the CASP-12 measure quality of life and the Basic Psychological Needs scale, their study collected data from 500 older people, including 398 who were engaged in musical groups and 102 who participated in other activities. A key conclusion of this research suggests that those who actively participated in making music demonstrated higher levels of subjective well-being than those who participated in other group activities.

As a conductor of an adult beginner band, Debbie Rohwer (2017) conceived an action research study to understand the social activities preferred by adult band members to improve their perceptions of social benefits from band participation. This study suggests that the engagement of band members in selecting and programming social activities can increase their social connections. Giving voice to the band members and holding informal social events in locations different from the rehearsal sites seem to favour social benefits.

Research consistently documents that social interactions in adult music ensembles are a social benefit component of well-being and individual quality of life. Through a web-based survey, Michael Hudson and John Egger (2021) conducted an exploratory study to examine the social and musical components that could affect member participation in an LGBA (Lesbian and Gay Band Association) community ensemble. Respondents were 458 instrumental performers who belonged to an LGBA ensemble. Their findings confirmed that social

factors were important for considering participation in an LGBA ensemble, indicating that making music and personal expression through music serves the purpose of community membership.

This community dimension of instrumental music groups relies on reciprocal interpersonal relationships between the elderly and young members and exchanges between social groups, both identified as positively affecting wellness. Victoria Williamson and Michael Bonshor (2019) designed an anonymous online survey to gather qualitative and quantitative data on the positive and negative effects of ensemble music-making on well-being. From the responses of 346 adult band players, they analysed 1658 statements reporting self-perceived well-being effects across five categories: physical, psychological, social, emotional, and spiritual. Physical, psychological and social well-being, along with enhanced respiratory function and body posture, reduced stress, an improvement in general mental health, and regular social interactions, are overlapping areas between the choral and brass band research. Physical demands, competitive tradition, community roles, and consistent social interaction appear to be more specific effects of instrumental music groups on general overall well-being.

Furthermore, music performances provide a sort of service to the community, giving meaning to individual commitment underpinned by a sense of purpose and building social capital, effects that could possibly be greater than in other group activities (Creech, Hallam, Varvarigou et al., 2013). From a web-based questionnaire, Christine Carucci (2012) focused on perceived and experienced aspects of social support for participants in adult recreational music ensembles. From 63 cities across the United States and Canada, 1152 members of the New Horizons Bands answered the questionnaire to identify their own perception of available support within their ensembles. The findings of this study show “how social support may surface as a component of belonging to an adult recreational music ensemble.” (p. 244).

Non-empirical studies in our review contributed to exploring the theoretical approach of wind bands, involving musicology concepts and cultural and social capital theories, as a key to better understanding the outcomes and resources provided by social relationships (Bizzi, 2015). As a music educator and community band conductor, Anita Kumar (2020) highlights that in community music, leisure activity and music education literature, the aspect of enhancing trust is frequently mentioned. She points out the absence of a model for understanding trust as a construct for satisfying basic human psychological needs. The multiverse contexts and practices of brass, concert, and wind bands can enhance trust and promote well-being in society.

5. Conclusion

Considering the peer-reviewed papers published in the past decade related to research on brass, concert or wind bands, music and music education remain the predominant topics. Nevertheless, health and psychosocial issues regarding other effects of active music-making participation in wind bands are relevant. Although our search included two multidisciplinary databases (Scopus and Web of Science), the overall search strategy may have been biased towards non-educational effects. While our study includes all articles published in English, French or Spanish, the search was carried out using English terms, which may have biased our results towards English-speaking in Western countries. The main themes that emerged from the full-text reading and content analysis of the 84 selected papers were community music participation, social bonding, emotional well-being, and individual quality of life. These studies highlight the psychosocial effects from an exclusively individual perspective in the framework of voluntary personal interaction and social benefit from the participation in community music ensembles. Moreover, all the themes in the discussion and concluding sections seem to represent different components of the same research outlook on quality of life.

Surprisingly, as informal and non-formal music education initiatives, other educational effects of active music-making participation in wind bands do not seem to be the focus of wind band research in the past decade, indicating a necessary gap to be filled in the literature. This is a significant opportunity to provide up-to-date insights into the educational potential of out-of-school settings and the impact of wind band activities in supporting the cultural ecology of their communities.

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