CULTURE NOW • PEACEPLUS PROGRAMME

MORE THAN MUSIC

Methodology, Results and Findings

Final Research Report • September 2026

New Gate Arts and Culture Centre
North West Cultural Partnership

Funded through the SEUPB PEACEPLUS programme.

Methodology Results and Findings

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Purpose. This report presents the methodology and findings from a pilot study of the wider benefits associated with participation in marching band culture, music and dance. It brings together experience surveys, wellbeing and perceived exertion responses, recorded Garmin activity sessions and stakeholder feedback while keeping their units and limitations distinct.

Headline conclusion. Participation was associated with a connected pattern of physical activity, positive experience, wellbeing, friendship and belonging, learning and personal development, cultural participation and community value. Stakeholder feedback reinforced this interpretation. The evidence supports the title More Than Music without claiming that participation caused medical or psychological outcomes.

Research Team

Patrick Danagher BMus (Hons), MMus
Jemma Irwin BMus (Hons)
Andrew Lynch BSc (Hons)
Georgian Kee McCarter
Richard Laird
David Thompson

External Research Reviewer

Dr Conor McAuley

Participating Bands and Groups

William King Memorial Flute Band
East Bank Protestant Boys
Hamilton Flute Band
Killaloo Accordion Band
Culture Now Musicians
North West Folk Collective

Report guide

The report is organised so that readers can see how the evidence was produced before considering what it shows. The methodology describes the pilot design, field protocol, measures, calculations, AI-assisted workflow, stakeholder interviews and the boundaries of interpretation.

Section	What the reader will find
Executive summary	The strongest results, the central finding and the evidence boundaries.
Methodology	Research questions, pilot design, field protocol, measures, calculations, AI-assisted workflow, ethics and limitations.
Results and findings	Experience, reported benefits, community importance, wellbeing, perceived exertion, recorded physical activity and stakeholder feedback.
Interpretation recommendations and appendices	Integrated themes, responsible interpretation, recommendations, next steps and detailed supporting tables.

Report structure for stakeholder, partner and participant audiences.

Reading the numbers

- Counts describe the unit named beside them: a survey response, a wellbeing response or an activity session.
- The same individual may contribute to more than one evidence strand; the strand totals are therefore not added as a unique participant count.
- Survey and wellbeing findings are self reported. They describe perceptions and associations rather than proving causation.
- Garmin summaries use Garmin Vivosmart 5 wearable activity trackers to show recorded movement and physiological response during sessions. They do not establish fitness, diagnosis or medical outcomes.

1 Executive summary

This pilot brought together self reported experience and wellbeing responses with recorded activity sessions while keeping each evidence strand distinct. The findings are highly consistent on two points: participation was experienced positively across all three cultural groups, and respondents regarded their activities as important to local community life. The other strands add depth by showing what respondents valued and the physical activity recorded during participation.

Headline result	Evidence	Interpretation
97.4% positive	188 of 193 experience responses were positive or very positive.	Positive experience was consistent across groups, ranging from 95.9% to 100%.
99.0% important locally	191 of 193 responses rated the activity important or very important to the local community.	Personal benefit and perceived community value were both present.
Benefits varied by group	Wellbeing led for bands and musicians; development and social connection led for dancers.	The activities share value but do not produce one identical experience.
Recorded physical activity	52 cleaned Garmin sessions: 43 marching band and 9 dance sessions.	Band sessions accumulated movement over longer periods; dance sessions were shorter with higher recorded heart rates.
Stakeholder feedback	Seven stakeholder responses from band, pipe band, traditional music, dance and community roles described rehearsal, mentoring, volunteering, teaching, travel and performance.	The qualitative feedback strengthens the finding that participation has social, cultural, physical and developmental value beyond the public event itself.

Headline findings and their intended interpretation.

1.1 Central finding

More than performance. Participation in music, dance and marching band culture extends considerably beyond the moment of performance. Across the available datasets it was associated with meaningful physical activity, positive wellbeing and enjoyment, friendship and belonging, learning and personal development, cultural continuity and connection to local community life.

This conclusion rests on convergence rather than a single measure. No one dataset demonstrates every dimension, and the different counts are not treated as separate people. The strength of the finding is that survey, wellbeing and activity evidence point towards complementary aspects of the same cultural experience.

2 Methodology

This research was conducted as a pilot mixed methods observational study across cultural events over approximately 12 months. It tested a practical approach to examining physical activity, wellbeing, social connection, personal development, cultural participation and community value in real world marching band, music and dance settings.

The pilot was developed within the Culture Now PEACEPLUS programme, delivered by North West Cultural Partnership through New Gate Arts and Culture Centre. It combined wearable activity monitoring, structured wellbeing and perceived exertion measures, experience surveys and stakeholder perspectives. The findings are descriptive: they identify patterns, test the feasibility of this combined approach and inform future research rather than estimating effects for the wider population.

2.1 Research purpose and questions

Primary question. What wider benefits are associated with participation in marching band culture, music and dance across physical activity, wellbeing, social connection, personal development, culture and community?

The final analysis addresses five supporting questions:

- How did respondents describe their overall experience and the greatest benefit of participation?
- Which aspects of participation did people enjoy, and how did patterns differ across marching bands, musicians and dancers?
- How important did respondents consider their activity to local community life?
- What do the available wellbeing and perceived exertion responses indicate at the level of the collected response sets?
- What physical activity patterns were recorded during marching band and dance sessions, and where do these patterns complement the self reported evidence?

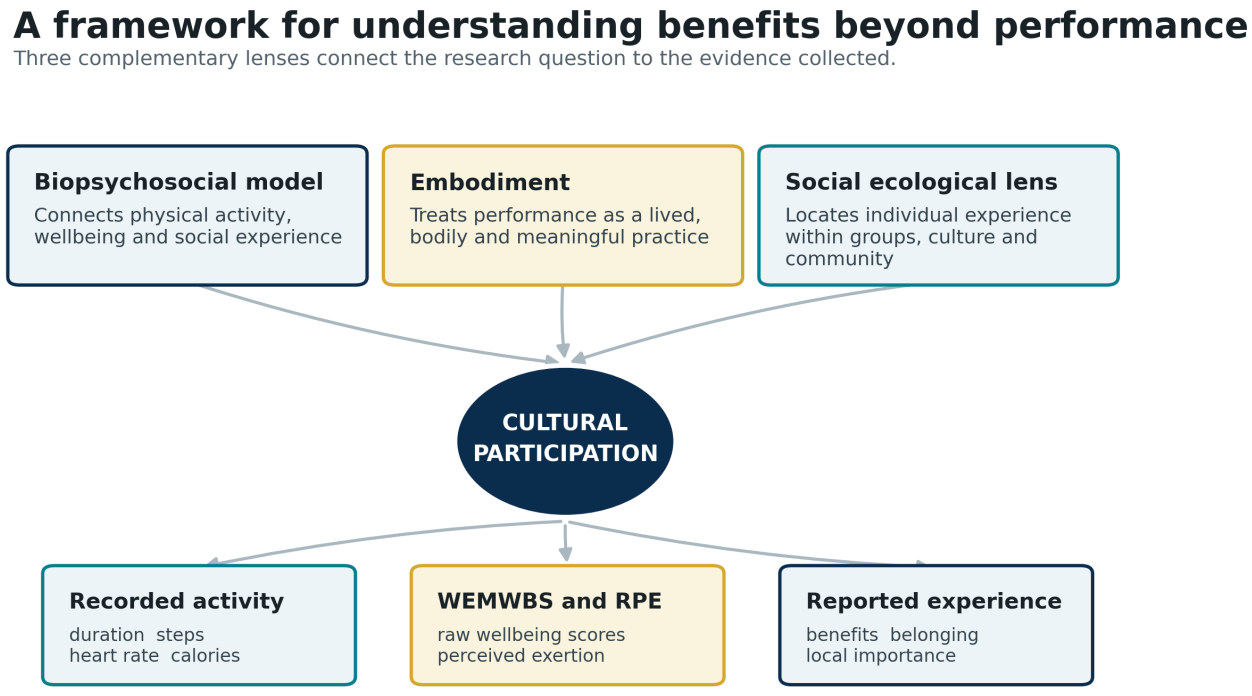


Figure 1. Conceptual framework used to interpret the final evidence.

2.2 Conceptual framework

The research draws on the biopsychosocial model, embodiment theory and a social ecological perspective because the question is inherently multidimensional. The biopsychosocial model supports consideration of physical, psychological and social evidence together. Embodiment theory recognises that music and dance are experienced through movement, sensation and performance rather than as abstract cultural products. The social ecological lens places personal experience within peer groups, organisations, traditions and local communities.

In the final report these theories guide interpretation rather than serving as tested causal models. The available evidence can show recorded activity, reported experience and patterns of association. It cannot establish that participation produced a clinical change or that one mechanism explains all groups.

2.3 Pilot study design

The study used a convergent mixed methods logic. Structured experience and wellbeing responses describe how participation was perceived; Garmin records add an objective activity dimension. Each strand was analysed separately and then compared for convergence, difference and complementarity. Integration occurred at the interpretation stage, not by merging raw scores or adding counts.

Fieldwork was event based and involved cultural participation in natural settings rather than a controlled laboratory environment. This increases relevance to real world marching, music and dance activity but also means that event duration, routes, weather, performance demands and recording conditions could vary.

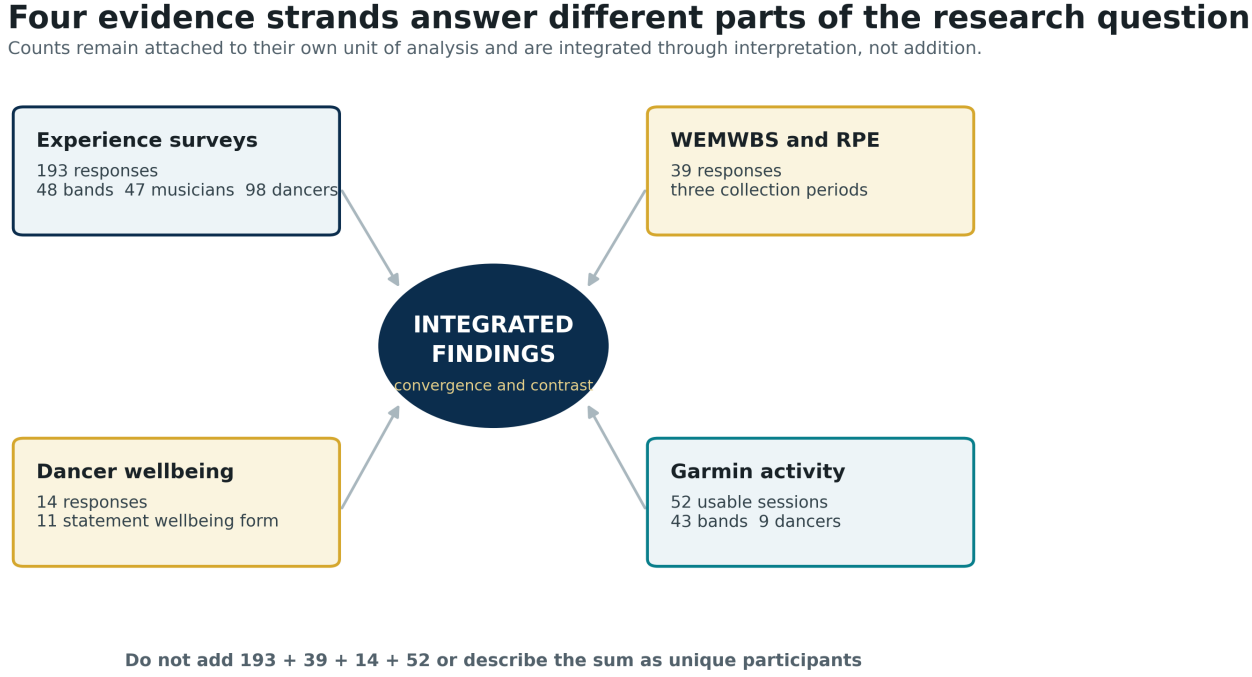


Figure 2. Final evidence architecture and unit boundaries.

2.4 Participants recruitment and setting

Recruitment took place through participating marching band, music and dance networks connected with Culture Now. The sample is therefore purposive and opportunity based: it reflects people available through participating organisations and events rather than a probability sample of all cultural participants in Northern Ireland or the border region.

Participants were actively involved in a target cultural activity and available through at least one participating event or organisation. The datasets do not contain a sufficiently complete, consistent demographic profile for reliable subgroup analysis by age, gender or background. No claim is therefore made that the achieved evidence is demographically representative.

Data collection began with a pilot involving the William King Memorial Flute Band on 9 August 2025 and continued across further activity settings during 2025 and 2026. The cleaned Garmin file covers activity dates from August 2025 to August 2026. Main WEMWBS responses were collected on 6 December 2025, 8 January 2026 and 8 August 2026. Dancer Garmin sessions were recorded on 15 July and 25 to 27 August 2026.

2.5 Fieldwork and device protocol

The field protocol was designed around a pool of 30 Garmin Vivosmart 5 devices. Before each activity, devices were charged, allocated and logged. Participants received study information and consent procedures, were assigned an anonymised or pseudonymous identifier and were fitted with a device. At the end of the activity, watches were signed back in, post activity responses were collected where scheduled and data were downloaded for checking.

Operational quality controls included a device tracker, sign in and sign out records, role allocation among assessors, spare devices and chargers, live checks, an issue log and paper fallback materials. Environmental and event context could be recorded to assist interpretation, including route, terrain, weather and activity duration. These contextual observations are not converted into causal adjustments in the final quantitative analysis.

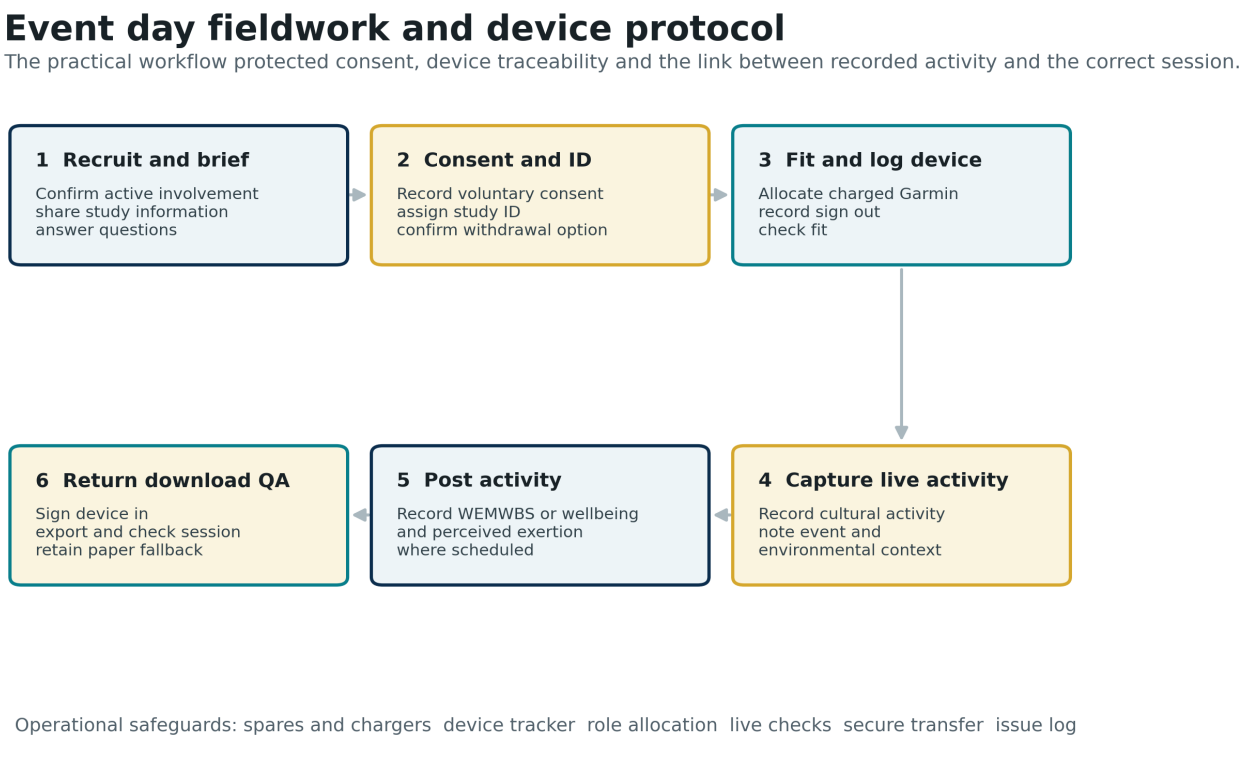


Figure 3. Event day fieldwork and device workflow.

2.6 Measures and scoring

Measure	Unit	Content	Scoring or summary	Final analytical use
Experience survey	Response	Overall experience, greatest benefit, enjoyed most, local importance	Counts and percentages by group and overall	Describe perceived experience, benefit and community value
WEMWBS	Response	14-item Warwick-Edinburgh Mental Wellbeing Scale raw total	Mean, median and observed range for each collection set and all 39 responses	Describe wellbeing by response set and overall
RPE	Response	Labelled values such as 13 Somewhat hard	Extract the leading integer, then calculate mean and median	Describe perceived effort by response set and overall
Dancer WEMWBS	Response	14 WEMWBS items rated from None of the time to All of the time	1 to 5 per item; possible total 14 to 70	Present within the combined wellbeing findings on the same WEMWBS scale
Garmin activity	Session	Duration, steps, calories, average and maximum heart rate	Descriptive summaries with metric specific valid n	Characterise recorded activity profiles without medical inference
Stakeholder interview	Interview	Four open questions for community and organisational representatives	Thematic analysis of documented notes or transcripts	Add contextual evidence on observed benefits, community value and future support

Table 1. Measures, scoring and analytical role.

Experience survey. Overall experience and local importance are reported as the percentage selecting one of the two positive categories. Greatest benefit was a single choice. Enjoyed most was multi select, so its item counts and percentages overlap and do not sum to 100%.

WEMWBS. The 14-item Warwick-Edinburgh Mental Wellbeing Scale was used for the main WEMWBS response sets. Results are presented as raw scores using means, medians and observed ranges for each collection period and across all 39 responses.

Dancer WEMWBS. None of the time was scored 1, Rarely 2, Some of the time 3, Often 4 and All of the time 5. Fourteen items produced a possible raw total from 14 to 70. The reported percentage of maximum is descriptive and is not a clinical threshold.

Perceived exertion. The RPE export contains text labels. The leading integer was extracted before calculation, avoiding the loss of valid values that would occur if the complete text were forced directly to a numeric field.

Garmin activity. The unit is an activity session. Elapsed duration is treated as recorded session time and is not automatically described as continuous vigorous exercise or standing time. Heart rate values are summarised descriptively; no zones or fitness comparisons are calculated without participant level information.

WEMWBS registration and acknowledgement. North West Cultural Partnership supplied evidence of non-commercial registration for the 14-item WEMWBS for community survey use connected with engagement in arts or music. The scale items are not reproduced in this report. ©University of Warwick, 2006, all rights reserved. WEMWBS was developed by the Universities of Warwick, Edinburgh and Leeds in conjunction with NHS Health Scotland.

2.7 Data processing and quality assurance

The cleaned Garmin dataset contains 52 usable sessions after duplicate exports and clearly unsuitable or test recordings were removed. Duration is available for all 52 sessions. Step data are available for 51 sessions, average and maximum heart rate for 50 sessions, and calories for 51 sessions. The three final dancer sessions were identified from the Cardio records dated 25, 26 and 27 August 2026. Results show the valid denominator for each metric rather than applying one denominator to every value.

Survey calculations were checked against supplied counts and denominators. Percentages were calculated within group and rounded to one decimal place. The WEMWBS and dancer wellbeing results are presented together in the wellbeing findings, while their raw scores are not pooled because the forms contain different numbers of statements and have different score ranges.

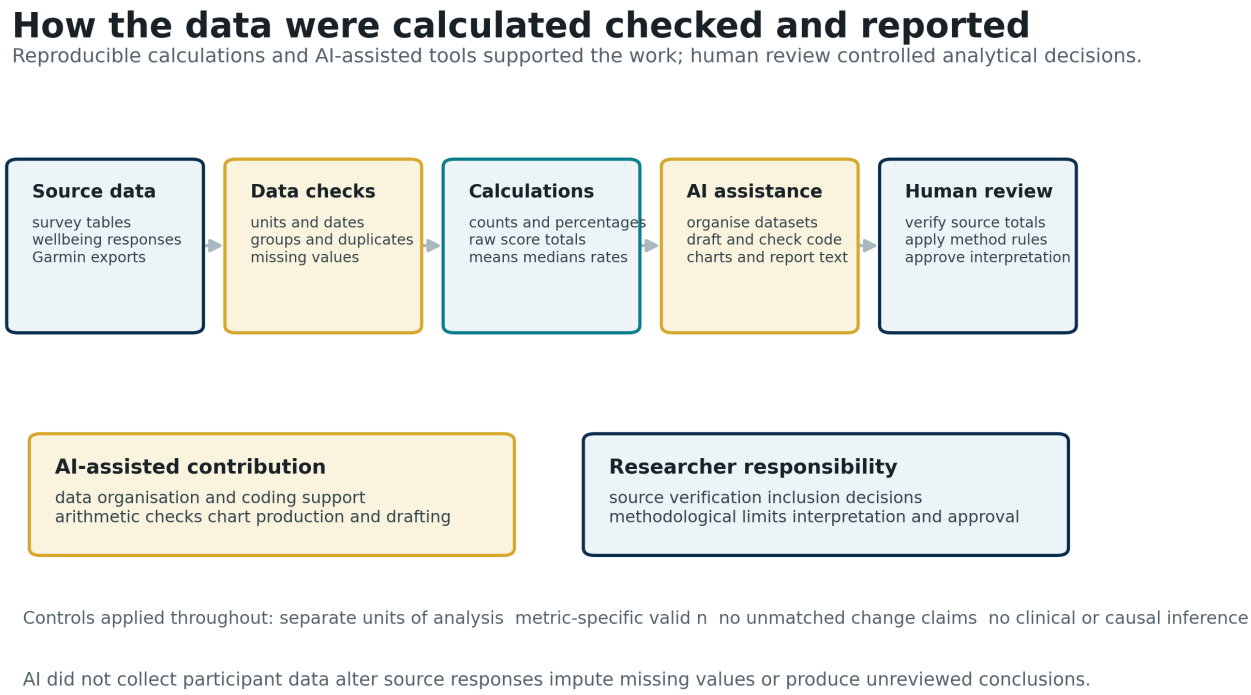


Figure 4. Reproducible calculations, AI-assisted tasks and human analytical review.

2.8 Analysis and integration

Analysis is descriptive. Categorical variables are reported as counts and percentages. Continuous variables are summarised with means and medians, supported by observed ranges or session distributions where available. Means describe the arithmetic average; medians reduce the influence of unusually high or low values and are particularly useful for varied session durations and steps.

Integration followed a triangulation approach. Findings were considered convergent when different strands supported related interpretations, such as positive experience, belonging and the WEMWBS response pattern. They were considered complementary when one strand added a different dimension, such as Garmin records showing movement that experience surveys could not measure directly. Differences were retained rather than averaged away, including the contrast between prolonged marching sessions and shorter dance sessions.

2.9 Calculation methods and AI-assisted workflow

Generative AI tools were used to support, rather than replace, the researcher's analytical work. They assisted with organising the supplied datasets, drafting and checking reproducible calculation code, producing charts and supporting the structure and editing of the report. AI was not used to collect participant data, alter source responses, fill missing values or make final research judgements.

Human review remained decisive throughout. The project researcher confirmed which records were included, defined the correct unit and denominator for each measure, checked headline figures against the supplied counts and source files, applied the methodological rules and approved the interpretation and final wording. Where any generated output differed from the source evidence, the source data and stated calculation rules took precedence.

Reported output	Calculation used	Reporting rule
Survey percentages	Category count / valid responses in that cultural group x 100	Positive experience combines Very positive and Positive. Local importance combines Important and Very important. Percentages are rounded to one decimal place.
Multi-select enjoyment	Number selecting each item / valid group responses x 100	Each option is calculated independently. Percentages may exceed 100 in total because respondents could select more than one item.
Main WEMWBS raw score	Sum of 14 item scores, each scored 1 to 5; possible total 14 to 70	Summarised by response set and overall using mean, median and observed range. Dates are not treated as matched change over time.
Dancer WEMWBS raw score	Sum of 14 item scores, each scored 1 to 5; possible total 14 to 70	Presented in the wellbeing findings alongside the main WEMWBS response sets. Percentage of maximum = mean / 70 x 100.
RPE	Extract the leading integer from labels such as 13 Somewhat hard	Calculate mean for each response set and overall, plus the overall median, using valid numeric ratings.
Mean median and range	Mean = sum of valid values / valid n. Median = middle ordered value, or the average of the two middle values. Range = minimum to maximum.	Use the valid n for that measure. Medians are emphasised where extreme session values could influence the mean.
Garmin duration and rates	Duration hours = hours + minutes / 60 + seconds / 3600. Steps per hour = steps / duration hours. Calories per hour = calories / duration hours.	Calculate only where the required values are present. Report the metric-specific valid n; do not treat elapsed time as continuous vigorous exercise.

Table 2. Calculations and reporting rules used in the final analysis.

2.10 Ethics data protection and participant welfare

The study protocol required clear participant information, voluntary informed consent, the right to withdraw and secure handling of research data in line with UK GDPR. Identifiers used for analysis were anonymised or pseudonymised, and device allocation records were managed separately from analytical summaries. Participation in monitoring was not a condition of taking part in the cultural activity.

The main foreseeable risks were fatigue or discomfort during demanding activity, emotional discomfort when answering wellbeing questions, device discomfort and privacy concerns. Safeguards included optional rest and withdrawal, check ins, access to support or signposting where required, careful watch fitting and transparent explanation of how data would be used. The report presents group and session summaries rather than identifying individuals.

2.11 Stakeholder interview guide

A short semi structured interview guide was used with community and organisational representatives including marching band and pipe band members, traditional musicians, the Londonderry Bands Forum, music tutors, Highland dancers, dance teachers and community arts practitioners. Stakeholders were selected purposively for their practical knowledge of cultural participation, programme delivery and community life.

- What is your role, and how are you involved in marching band, music or dance activity in the local community?
- What physical, mental wellbeing or personal development benefits have you observed for those who take part?
- How does participation contribute to belonging, cultural identity, friendships and wider community life?
- What support, resources or changes would help these activities continue and increase their benefits in the future?

Stakeholder responses were reviewed thematically as a distinct qualitative evidence strand. They are used to add practical context to the quantitative findings and to inform the recommendations and next steps.

2.12 Methodological limitations

- Recruitment through participating organisations and events limits generalisability beyond the observed cultural settings.
- The evidence strands may include some of the same people and cannot be summed to a unique participant total.
- The experience and wellbeing data are self reported and may be influenced by recall, social desirability and who chose to respond.
- The three WEMWBS collection dates are not matched repeated measures and cannot demonstrate change within individuals.
- The main WEMWBS response sets and the dancer WEMWBS responses should be interpreted descriptively because the groups, collection settings and dates are not matched repeated measures.
- Garmin values reflect device based estimates and recorded sessions in natural settings; they do not establish clinical outcomes or continuous intensity.
- The dancer Garmin sample is small, so between group contrasts should be treated as descriptive profiles rather than population estimates.

3 Results and findings

The results are presented by evidence strand before being brought together. This ordering preserves the distinction between what respondents reported and what activity monitors recorded.

3.1 Experience was consistently positive

Across 193 experience survey responses, 188 were positive or very positive, equal to 97.4%. All 48 marching band respondents were positive or very positive. The equivalent figure was 46 of 47 musicians and 94 of 98 dancers. The remaining five responses were mixed; none was reported in a negative category in the supplied summary.

Very positive was the most common category in every group: 75.0% for marching bands, 63.8% for musicians and 79.6% for dancers. The pattern is therefore not driven only by respondents selecting the less emphatic positive category.

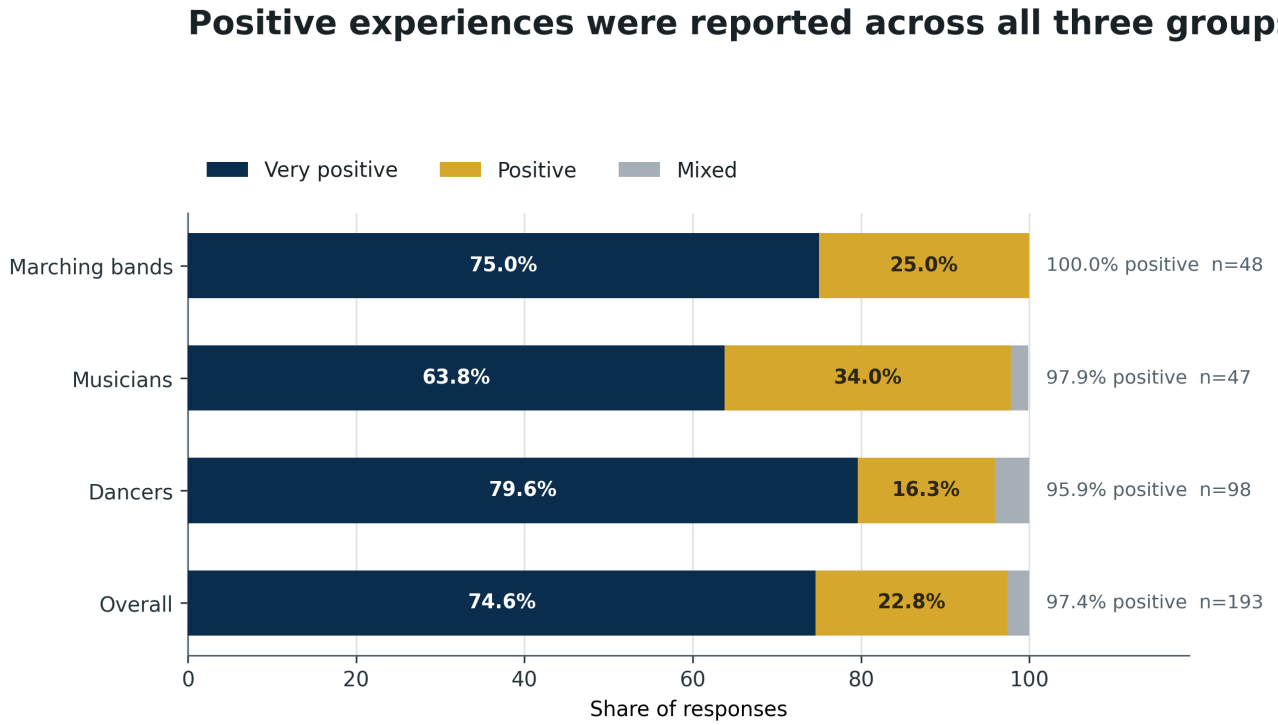
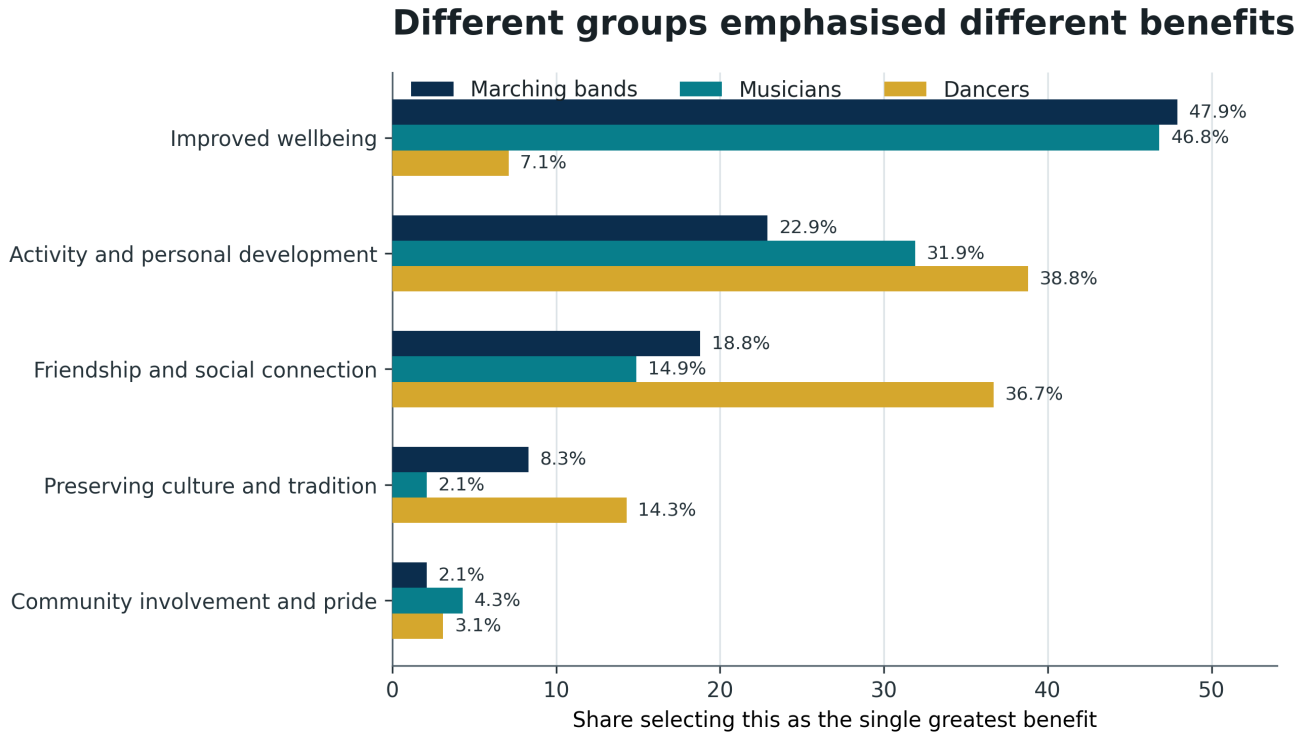


Figure 5. Overall experience ratings by cultural group. Percentages may differ slightly from 100% because of rounding.

3.2 The greatest reported benefit differed by activity

Improved wellbeing was the leading single benefit for marching band respondents and musicians. It was selected by 23 of 48 marching band respondents, or 47.9%, and 22 of 47 musicians, or 46.8%. Musical and personal development was the next most common choice in both groups, selected by 11 marching band respondents and 15 musicians.

Dancers placed greater emphasis on development and social connection. Dancing and personal development was selected by 38 of 98 respondents, or 38.8%, while friendship and social connection was selected by 36, or 36.7%. Together these two categories accounted for 74 of the 98 dancer responses. Preserving culture and tradition was selected by a further 14 dancers, or 14.3%.



Activity and personal development combines the equivalent music and dance response wording.

Figure 6. Greatest reported benefit by cultural group. Each respondent selected one greatest benefit.

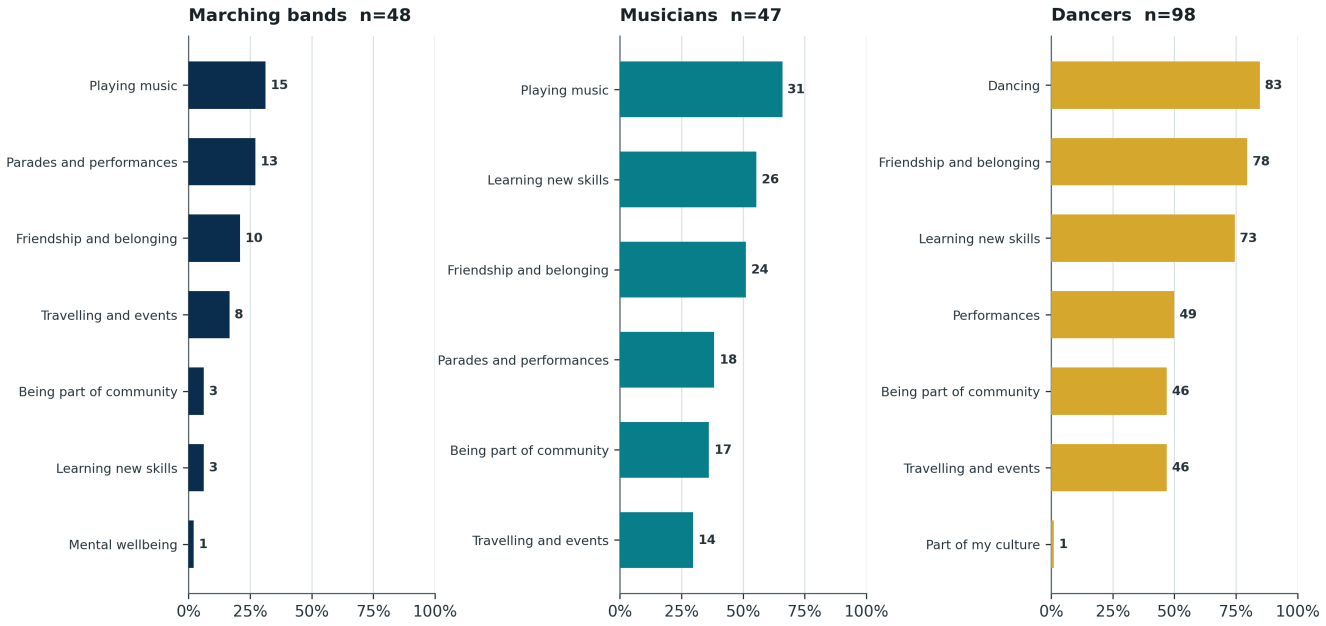
Personal and social value of marching band participation. Almost nine in ten marching band respondents (89.6%; 43 of 48) identified improved wellbeing, activity and personal development, or friendship and social connection as their single greatest benefit. These responses highlight the personal and social value participants attach to their involvement and offer a broader perspective than a solely political interpretation of marching band participation. Political motivation was not directly assessed by this question, and responses concerning culture, tradition or community pride should not be classified as political motivation.

3.3 What participants enjoyed most

The multi select question shows that enjoyment was layered. The activity itself was prominent: playing music was selected by 15 marching band respondents and 31 musicians, while dancing was selected by 83 dancers. At the same time, friendship and belonging was selected by 10 marching band respondents, 24 musicians and 78 dancers. Learning new skills was selected by 3, 26 and 73 respondents respectively.

Performance, travel and community participation also featured across the groups. Where response options differed between groups, the results are interpreted within their own group context rather than as a direct like-for-like comparison. The response pattern therefore supports an interpretation in which artistic or cultural practice remains central but is experienced together with learning, social connection, events and community life.

Enjoyment combined the activity itself with learning and belonging



Bars show the percentage of each group selecting an item; labels show counts. This was a multi select question, so percentages within a panel do not sum to 100%.

Figure 7. Items selected in response to what participants enjoyed most. Respondents could select more than one item.

3.4 Activities were valued as part of local community life

Perceived community importance was almost universal. Forty seven of 48 marching band respondents, all 47 musicians and 97 of 98 dancers rated their activity important or very important to their local community. The combined result was 191 of 193 responses, or 99.0%.

Community involvement and pride was selected less often when respondents were asked to name one greatest personal benefit. This is not contradictory. One question required prioritisation of the strongest individual benefit; the other asked whether the activity mattered locally. Respondents could therefore prioritise wellbeing, friendship or development personally while also seeing substantial community value.

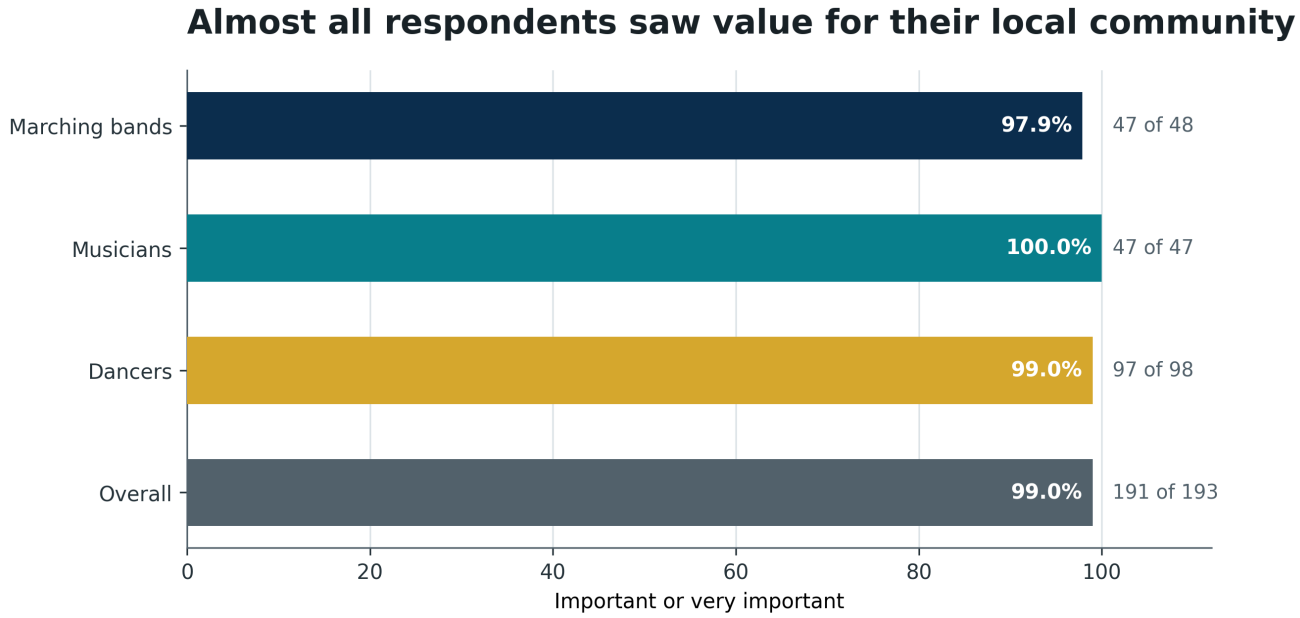


Figure 8. Responses rating the activity important or very important to the local community.

3.5 Wellbeing scores were generally positive but varied

The wellbeing findings bring together the 39 main WEMWBS responses and 14 dancer WEMWBS responses in one section. Both are interpreted on the 14-item WEMWBS scale, while differences in group, timing and collection context mean the results should be read descriptively rather than as matched change over time.

Across all 39 main WEMWBS responses, the mean raw score was 46.2, the median was 47 and the observed range was 13 to 65. The 6 December 2025 response set had a mean of 49.4, a median of 52 and a range from 31 to 64. The 8 January 2026 set had a mean of 40.8, a median of 39 and a range from 13 to 65. The 8 August 2026 set had a mean of 48.2, a median of 47 and a range from 39 to 64. The central scores were generally positive, with variation between response sets and individuals. The dates remain separate collections rather than matched change over time.

The 14 dancer WEMWBS responses had an aggregate mean of 54.3 out of a possible 70, approximately 77.6% of the maximum possible score. Responses leaned towards the positive end of the scale, particularly around social connection, confidence, feeling loved, decision making and interest in new things. Read together, the wellbeing sources indicate broadly positive central scores while also showing that individual experience varied.

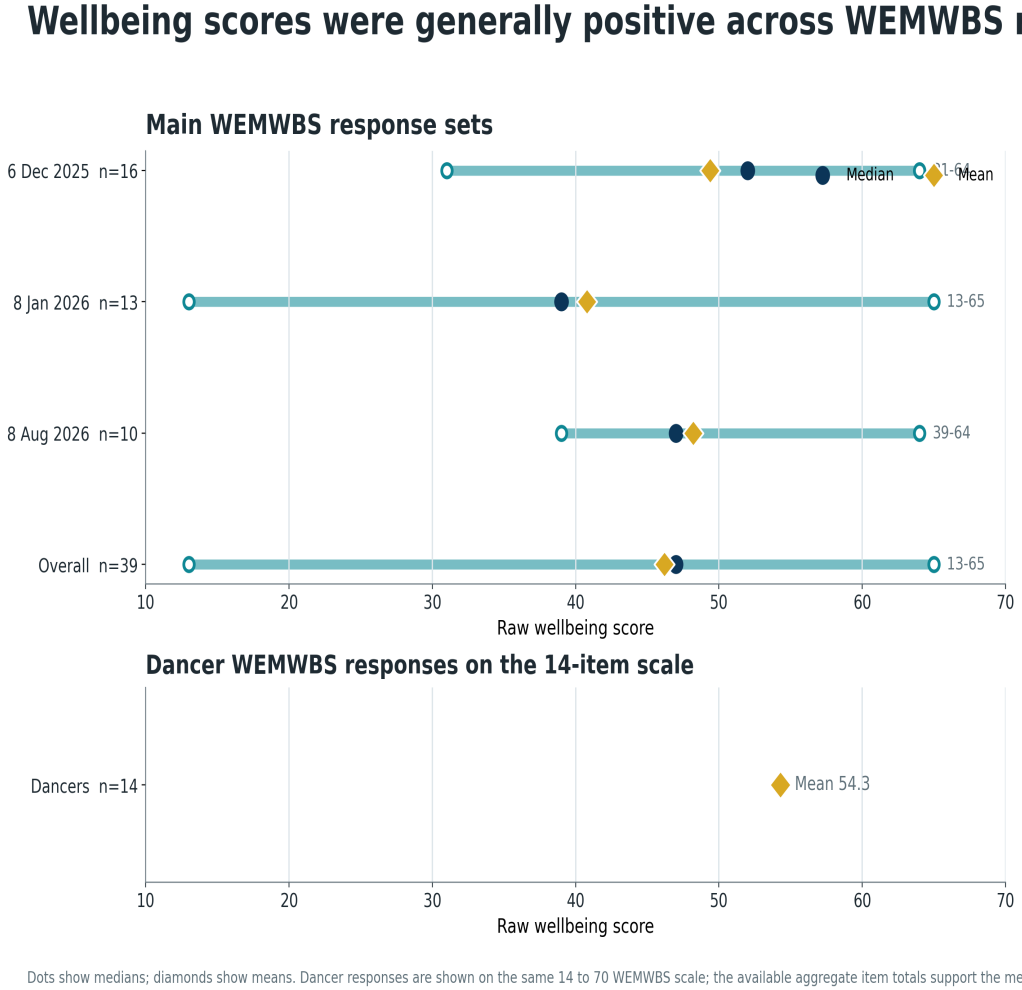
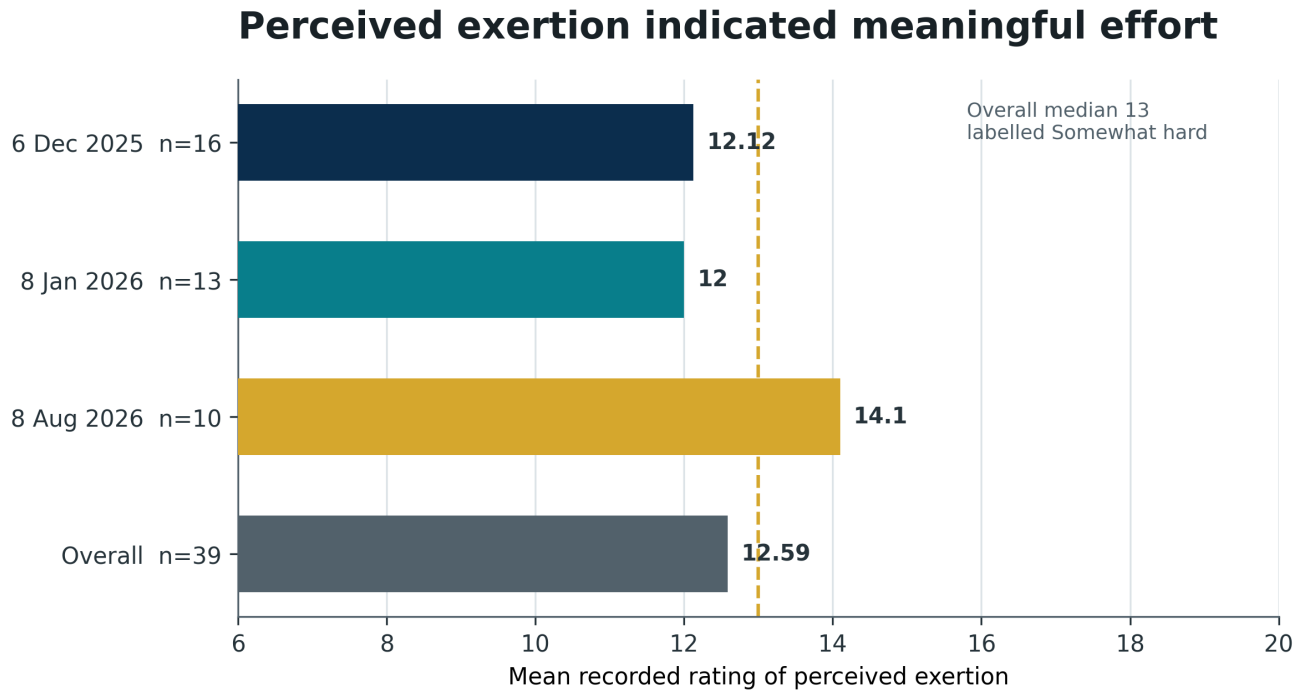


Figure 9. Wellbeing means, medians and observed ranges for the main WEMWBS response sets, with the dancer WEMWBS mean shown on the same 14-item scale.

3.6 Perceived exertion indicates meaningful effort

Mean perceived exertion was 12.125 on 6 December 2025, 12.0 on 8 January 2026 and 14.1 on 8 August 2026. Across all 39 responses, the mean was 12.59 and the median was 13. The recorded label for 13 was Somewhat hard, indicating that the activity was experienced as meaningful physical effort by the typical response.

The higher mean in the August set should be read descriptively. It may reflect a different mix of people, activities or event conditions. The available data do not support a claim that exertion increased within the same individuals.



The date based sets are separate response collections and should not be interpreted as matched change over time.

Figure 10. Mean rating of perceived exertion by response set and overall, with the overall median marked at 13.

3.7 Recorded activity shows two contrasting physical profiles

The cleaned Garmin dataset contains 52 usable activity sessions: 43 marching band sessions and nine dancer sessions. These are sessions, not necessarily 52 unique people. Duration values were available for all sessions. Step values were available for all 43 marching band sessions and eight dancer sessions. Heart rate values were available for 42 marching band sessions and eight dancer sessions.

Marching band sessions involved prolonged accumulated movement. Median recorded duration was approximately 8.6 hours and median steps were approximately 20,090. Mean average heart rate was approximately 107.4 beats per minute and mean maximum heart rate was approximately 157.7 beats per minute across the 42 sessions with usable heart rate data. For context, these heart-rate values were recorded during activity rather than at rest, so they should not be read as resting clinical measurements.

The nine dancer sessions were recorded on 15 July and 25 to 27 August 2026. Mean duration was approximately 1.3 hours and the median was approximately 1.5 hours. Across the eight sessions with usable step data, mean recorded steps were approximately 3,273 and the median was 3,334. Across the eight sessions with usable heart rate and calorie data, mean average heart rate was 141.1 beats per minute, mean maximum heart rate was 185.8 beats per minute and mean calories were 583.9. Mean steps per hour were approximately 2,511 across eight usable step records, while mean calories per hour were approximately 446.0 across eight usable calorie records.

The most defensible interpretation is a difference in activity profile. Marching band participation produced much longer periods of accumulated movement, while the recorded dance sessions were shorter and more cardiovascularly demanding. A lower average heart rate is not interpreted as greater fitness, and the elapsed duration of a marching session is not described as continuous vigorous exercise.

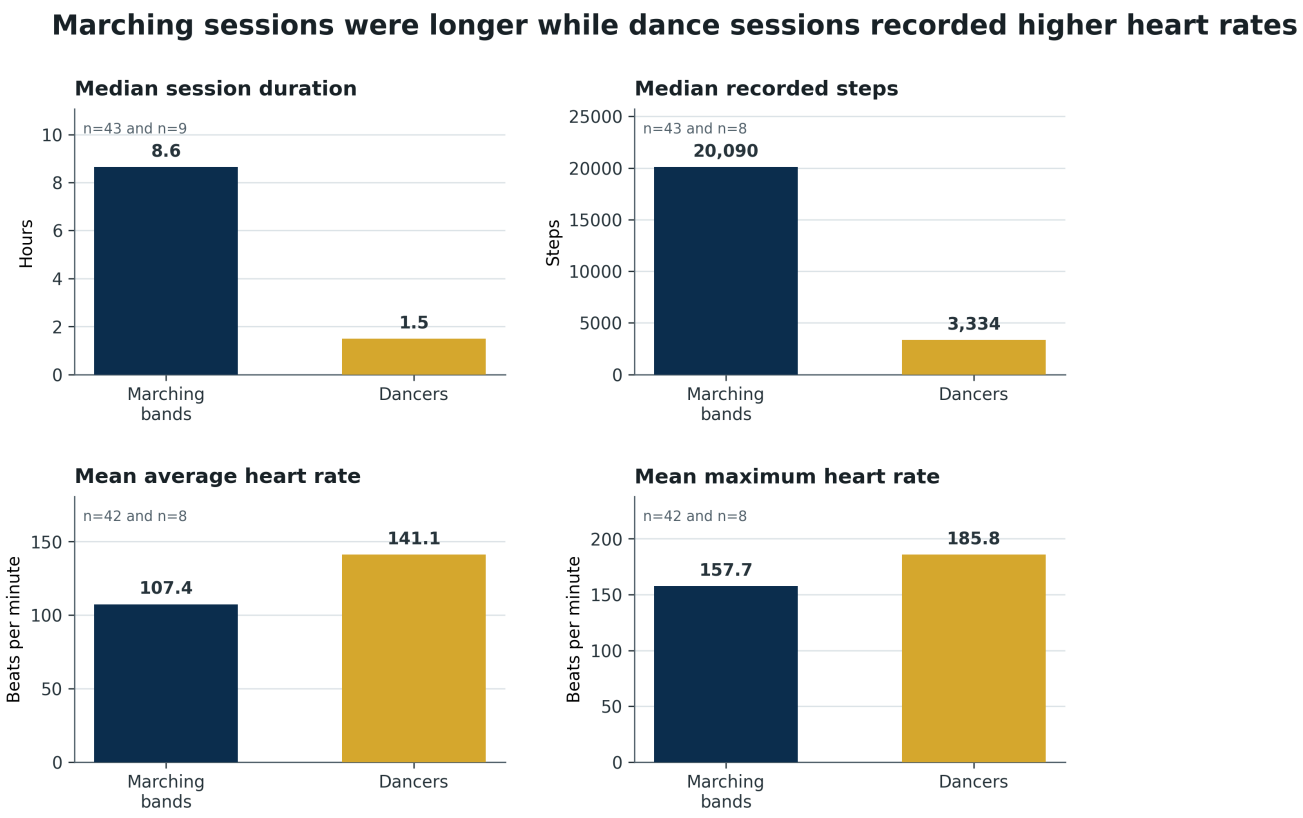
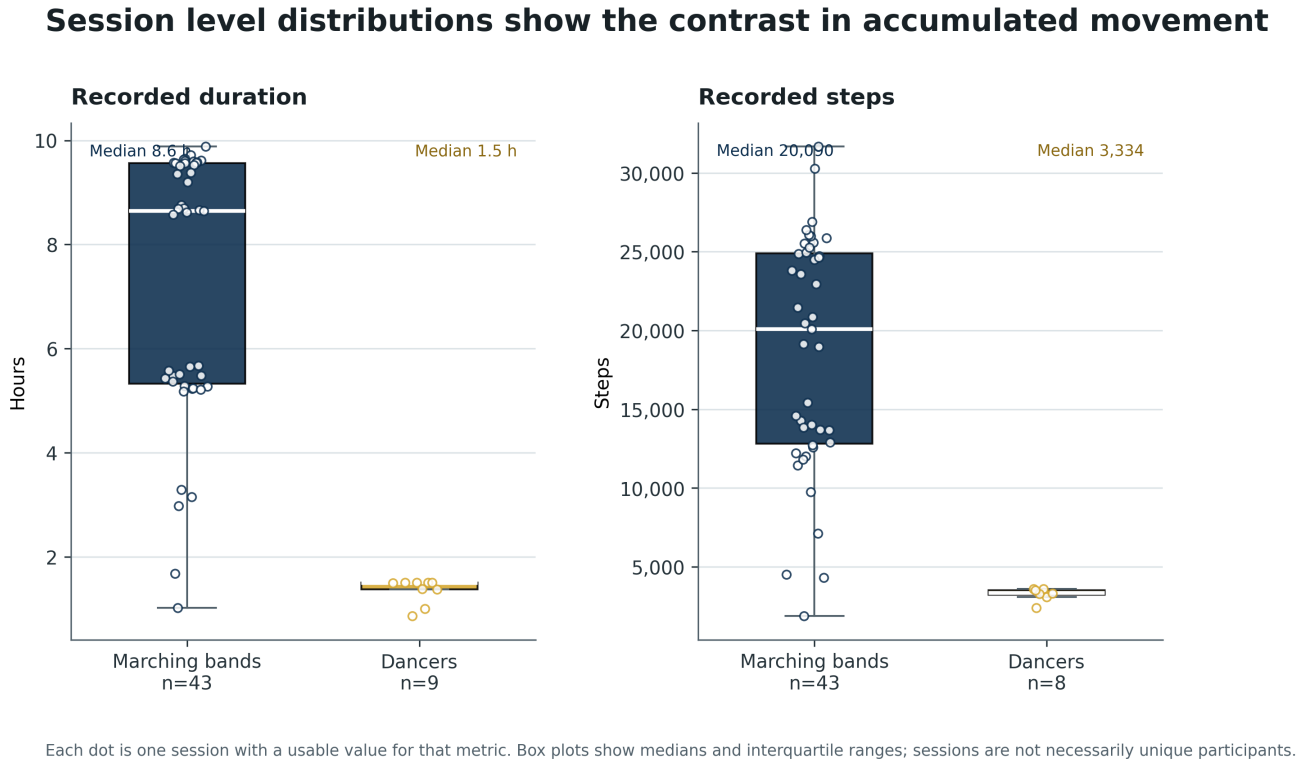


Figure 11. Garmin comparison of marching band and dancer sessions. Duration and steps are medians; heart rate measures are means.

3.8 Session distributions add context to the averages

The session level distributions show variation within the marching band data as well as a clear contrast with the dancer sessions. Marching band durations ranged from approximately 1.0 to 9.9 hours and steps ranged from 1,876 to 31,678. Dancer durations ranged from approximately 0.9 to 1.5 hours across nine sessions, while the eight sessions with usable step data ranged from 2,414 to 3,614 steps.

The lower end of the marching band distribution overlaps with the dancer range, while many marching sessions extend far beyond it. This reinforces the distinction between prolonged accumulated movement and a shorter concentrated dance session. Because the groups differ greatly in session format and sample size, the distributions should be read as profiles of the recorded sessions rather than formal population comparisons.



Each dot is one session with a usable value for that metric. Box plots show medians and interquartile ranges; sessions are not necessarily unique participants.

Figure 12. Session level distributions for recorded duration and steps.

3.9 The evidence converges around six connected dimensions

The combined evidence supports a multidimensional account of cultural participation. Garmin sessions add an objective physical dimension. Experience responses identify wellbeing, friendship, learning and development as perceived benefits. Community importance places these individual experiences within local collective life, while responses concerning culture and tradition show that participation also carries meaning connected to identity and continuity.

The findings are not uniform across groups. Wellbeing was most prominent for marching band respondents and musicians, while dancers emphasised personal development and friendship. This variation strengthens rather than weakens the central interpretation: different cultural forms can support a shared set of dimensions through different pathways and emphases.

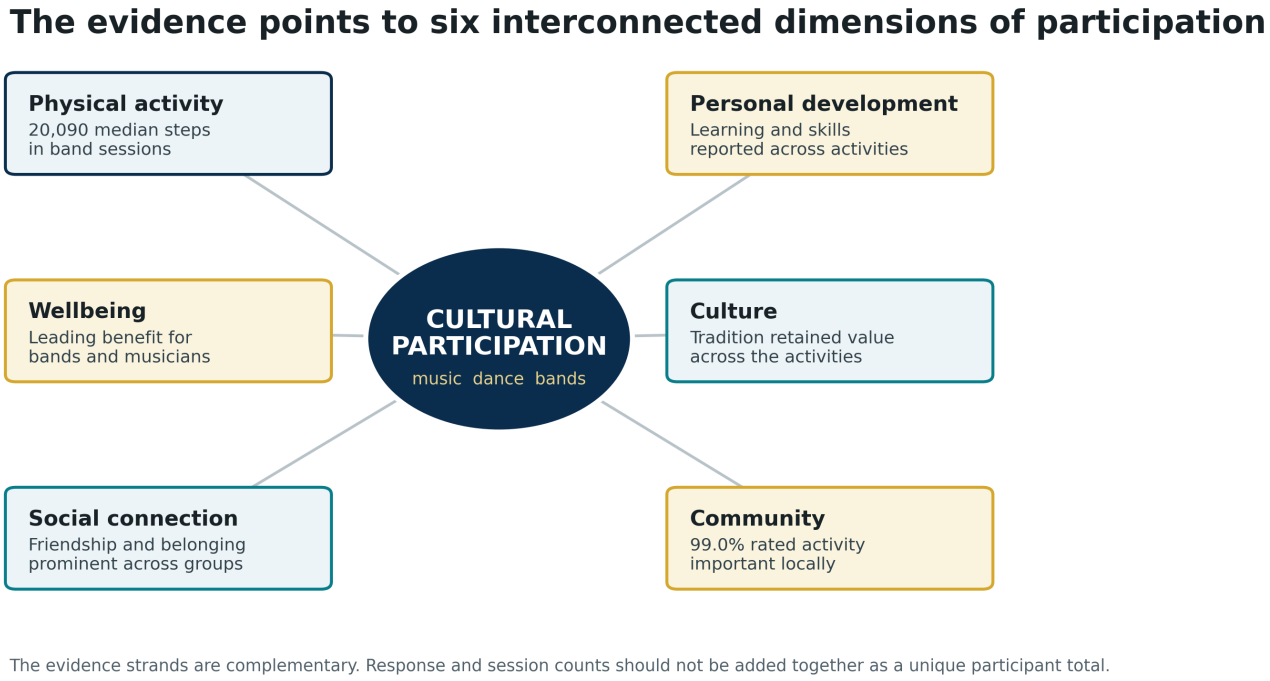


Figure 13. Integrated summary of the six principal themes supported by the research evidence.

3.10 Stakeholder feedback confirms the central themes

Seven stakeholder responses were received from people involved in marching bands, pipe band activity, traditional music, music tuition, Highland dance, band forum coordination and community arts delivery. The responses were reviewed thematically as qualitative context rather than counted as survey data.

The strongest message was that participation is much more than the visible public performance. Stakeholders described weekly rehearsal, practice, teaching, mentoring, volunteering, committee work, travel, preparation and social support as part of the ordinary life of bands, music groups and dance organisations.

Theme	Stakeholder feedback	How it supports the findings
Physical activity	Band stakeholders described sustained walking while playing, with larger parade days reaching around 20,000 steps. Dance stakeholders highlighted strength, stamina, balance, coordination and flexibility.	Supports the Garmin finding that participation can involve meaningful physical activity through different activity profiles.
Wellbeing and social support	Respondents described weekly rehearsal, practice and performance as a positive focus, a reason to get out of the house, a safe space, a source of friendship and a visible route to achievement.	Reinforces the survey finding that wellbeing, friendship and belonging are central reported benefits.
Confidence and development	Stakeholders highlighted discipline, perseverance, confidence, communication, teamwork, leadership, mentoring and lifelong learning.	Strengthens the interpretation that participation supports personal development as well as artistic skill.
Belonging and identity	Responses emphasised cultural identity, intergenerational learning, pride in place, passing traditions on and opportunities to meet people from other communities.	Adds practical context to the finding that activities are valued as part of local community life.
Future support	Stakeholders called for affordable practice spaces, accessible instruments, uniforms and costumes, insurance, transport, rehearsal and performance spaces, good tuition, lower-cost access for beginners and steady support that allows groups to plan ahead.	Provides a direct evidence base for recommendations on access, sustainability and future planning.

This qualitative feedback does not alter the quantitative totals. Its value is interpretive: it shows how the measured themes are experienced in practice by people who organise, teach, perform and sustain the activity.

4 Integrated interpretation

4.1 Relationship to wider research

The pattern identified in this pilot is consistent with a wider evidence base. A World Health Organization review synthesised more than 3,000 studies and identified a substantial role for arts engagement in health promotion and wellbeing. A systematic review of active music and dance participation found evidence spanning social and cultural factors, mental wellbeing and physical activity, while also noting methodological variation. Specific studies mirror the themes in this report: group drumming research identified connection, belonging, inclusive learning and embodied physicality, while a meta-analysis of 28 dance studies involving 1,276 participants found that structured dance improved physical outcomes and was comparable with, or more effective than, other structured exercise for the outcomes examined. The present pilot adds context-specific evidence from marching bands, musicians and dancers in Derry/Londonderry and supports further, larger-scale investigation (Fancourt and Finn, 2019; Sheppard and Broughton, 2020; Perkins et al., 2016; Fong Yan et al., 2018).

4.2 What the research can say

The evidence indicates that participation in marching band culture, music and dance was associated with more than artistic performance. Respondents described highly positive experiences and near universal local importance. Their accounts emphasised wellbeing, friendship, belonging, learning, personal development and cultural continuity. Recorded activity sessions showed substantial movement through two different patterns: prolonged accumulation during marching activity and shorter, higher heart rate dance activity. Stakeholder feedback added practical evidence of the volunteering, mentoring, teaching, travel and social support that sit behind the public events.

The findings have practical relevance for Culture Now and PEACEPLUS stakeholders. Cultural activity can be understood as a setting in which physical activity, social relationships, skill development, cultural expression and community connection occur together. Programme design and future evaluation should therefore avoid reducing value to performance outputs alone.

4.3 What the research cannot say

- It cannot establish that participation caused a change in wellbeing, health or community outcomes.
- It cannot report one total number of unique participants by adding the separate response and session counts.
- It cannot claim longitudinal improvement or decline from the three WEMWBS collection dates without matched participant identities.
- It cannot treat the main WEMWBS response sets and dancer responses as matched repeated measures or infer subgroup differences as causal effects.
- It cannot infer heart rate zones, clinical risk or comparative fitness from the Garmin summaries.
- It cannot assume that all elapsed marching session time was continuous exercise or standing time.

4.4 Overall finding

More Than Music. Participation in music, dance and marching band culture extends considerably beyond performance. The evidence indicates interconnected physical, social, personal, cultural and wellbeing dimensions, including meaningful physical activity, friendship and belonging, learning and personal development, cultural participation and community connection.

The title is supported by the combination of consistently positive experience, near universal recognition of local importance and recorded physical activity across marching band and dance sessions. The different groups did not describe their benefits identically, but together they show a broad pattern of value grounded in cultural participation.

5 Recommendations and next steps

As this work was a pilot study, the findings should be used to shape future programme design and further research rather than treated as a final population-level estimate. The recommendations below reflect the evidence, the stakeholder feedback and the need to build wellbeing into future cultural programming.

Recommendation	Reason	Suggested next step
Expand the research sample	The pilot demonstrates feasibility but remains limited by sample size, event coverage and unmatched response sets.	Develop a larger regional study across more bands, dance groups, music groups and events, with clearer matched pre and post measures where feasible.
Build wellbeing into programme design	Wellbeing, friendship, belonging and confidence were repeated across survey and stakeholder evidence.	Include wellbeing aims, participant support, reflection points and appropriate signposting in future programme planning.
Support access and sustainability	Stakeholders identified costs for instruments, uniforms, costumes, insurance, transport, rehearsal spaces, tuition and beginner access.	Seek accessible funding routes that reduce barriers for young people, families, complete beginners and voluntary organisations, while supporting longer-term planning.
Invest in volunteers tutors and leaders	The activity depends on unpaid committee work, teaching, mentoring, safeguarding, fundraising, communication and organisation.	Provide training and shared resources through partners such as the Londonderry Bands Forum, dance schools and community organisations.
Strengthen partnerships and public recognition	Stakeholders felt the public often sees the parade or performance but not the preparation, learning and community work behind it.	Create more links with schools, youth organisations, arts partners and media opportunities that show the wider value of participation.
Continue mixed methods evaluation	The strongest interpretation came from combining survey responses, wellbeing data, activity recording and stakeholder testimony.	Retain quantitative measures but add fuller qualitative interviews, case studies and regional comparison in any next phase.

Appendix A Detailed result tables

A1 Experience and local importance

Group	n	Very positive	Positive	Mixed	Important or very important
Marching bands	48	36 (75.0%)	12 (25.0%)	0	47 (97.9%)
Musicians	47	30 (63.8%)	16 (34.0%)	1 (2.1%)	47 (100.0%)
Dancers	98	78 (79.6%)	16 (16.3%)	4 (4.1%)	97 (99.0%)
Overall	193	144 (74.6%)	44 (22.8%)	5 (2.6%)	191 (99.0%)

Table A1. Experience ratings and local importance by group.

A2 Greatest reported benefit

Benefit	Marching bands n=48	Musicians n=47	Dancers n=98
Improved wellbeing	23 (47.9%)	22 (46.8%)	7 (7.1%)
Activity and personal development	11 (22.9%)	15 (31.9%)	38 (38.8%)
Friendship and social connection	9 (18.8%)	7 (14.9%)	36 (36.7%)
Preserving culture and tradition	4 (8.3%)	1 (2.1%)	14 (14.3%)
Community involvement and pride	1 (2.1%)	2 (4.3%)	3 (3.1%)

Table A2. Single greatest benefit by group. Activity and personal development aligns the music and dance wording for comparison.

A3 Wellbeing and perceived exertion

Dataset	n	Mean	Median	Range	Mean RPE
6 December 2025	16	49.4	52	31 to 64	12.125
8 January 2026	13	40.8	39	13 to 65	12.0
8 August 2026	10	48.2	47	39 to 64	14.1
WEMWBS overall	39	46.2	47	13 to 65	12.59
Dancer WEMWBS	14	54.3	Not reported	Not reported	Same 14-item scale

Table A3. Wellbeing and RPE summaries. Dancer responses are included within the wellbeing evidence on the 14-item WEMWBS scale.

A4 Garmin activity summary

Metric	Marching bands	Dancers	Statistic and valid n
Recorded sessions	43	9	Count
Duration hours	7.2	1.3	Mean n=43 and n=9
Duration hours	8.6	1.5	Median n=43 and n=9
Steps	18,543	3,273	Mean n=43 and n=8
Steps	20,090	3,334	Median n=43 and n=8
Average heart rate bpm	107.4	141.1	Mean n=42 and n=8
Maximum heart rate bpm	157.7	185.8	Mean n=42 and n=8
Calories	2047.6	583.9	Mean n=43 and n=8
Steps per hour	2,521	2,511	Mean n=43 and n=8
Calories per hour	285.8	446.0	Mean n=43 and n=8

Table A4. Garmin session summaries. The main narrative prioritises the supplied key statistics; additional rate values are included for transparency.

A5 Terminology used in the report

Term	Meaning in this report
Participant	A person taking part in a cultural activity or research process. Used only when referring to people rather than dataset totals.
Response	One completed survey or wellbeing record. A person may contribute to more than one strand or collection period.
WEMWBS	The 14-item Warwick-Edinburgh Mental Wellbeing Scale used for the main date-based response sets and the dancer wellbeing responses.
Valid n	The number of responses or sessions with a usable value for the specific calculation. It may differ between metrics because of missing fields.
AI-assisted workflow	Generative AI supported data organisation, reproducible coding, arithmetic checks, chart production and drafting. Source verification, methodological decisions, interpretation and approval remained with the project researcher.
Session	One usable Garmin activity record. It is not automatically equivalent to one unique participant.
Associated with	A pattern observed alongside participation; it does not state that participation caused the result.
Recorded duration	Elapsed activity session duration in the cleaned Garmin summary, not a claim of continuous vigorous exercise or standing.

Table A5. Consistent methodological terminology.

References and source note

The conceptual framework, wellbeing measure and reporting approach draw on the following sources:

- Csordas, T. J. (1993). Somatic modes of attention. Cultural Anthropology, 8(2), 135 to 156.
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- Fong Yan, A., Cobley, S., Chan, C., et al. (2018). The effectiveness of dance interventions on physical health outcomes compared to other forms of physical activity: A systematic review and meta-analysis. Sports Medicine, 48, 933 to 951. https://doi.org/10.1007/s40279-017-0853-5.
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- Tennant, R., Hiller, L., Fishwick, R., et al. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. Health and Quality of Life Outcomes, 5, 63.
- University of Warwick. (2020). WEMWBS Non-Commercial Licence. Version 4.

Research source material

The evidence base comprises the supplied summary of 193 experience survey responses, 39 WEMWBS and RPE responses, 14 dancer WEMWBS responses, seven stakeholder responses and the cleaned file garmin_cleaned_sessions.csv containing 52 usable activity sessions. These are separate evidence strands and may overlap; they are not added to form a unique participant total. North West Cultural Partnership also supplied its non-commercial WEMWBS registration record for the 14-item scale.

Analytical transparency

Reproducible calculation and visualisation routines were used to check counts, percentages, wellbeing summaries, RPE values and Garmin statistics and to prepare figures. Generative AI supported data organisation, coding assistance, calculation checks, drafting and visualisation. It did not collect participant data, change source values, fill missing data or make independent conclusions. The project researcher retained responsibility for source verification, analytical decisions, interpretation and final approval.