

First encounters of the musical kind: Strategies for learning music

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Outline of talk

- Background
- Research questions
- Method (questionnaire survey)
- Results
- Conclusions



Background

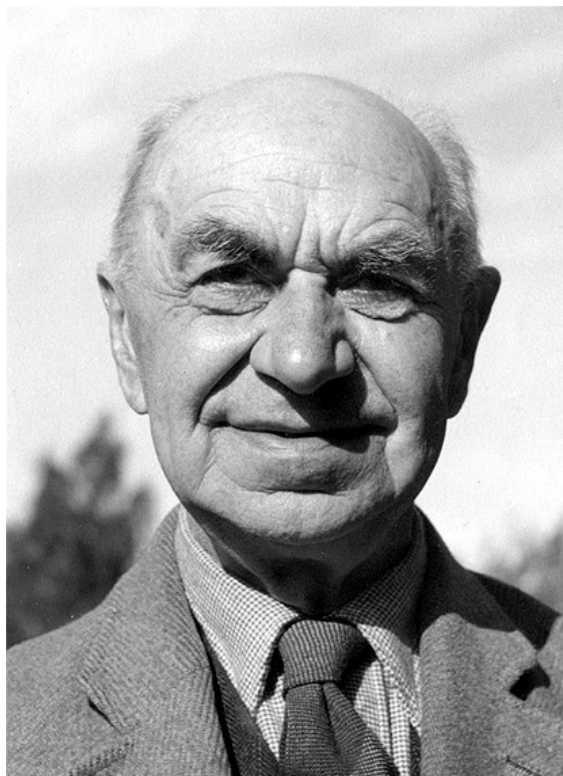
- Schemata as a means of viewing listeners' understandings of a piece of music
- Understanding performance preparation in detail
- Variation in performers' approaches to learning
- Learning styles
- Learning styles in music performance



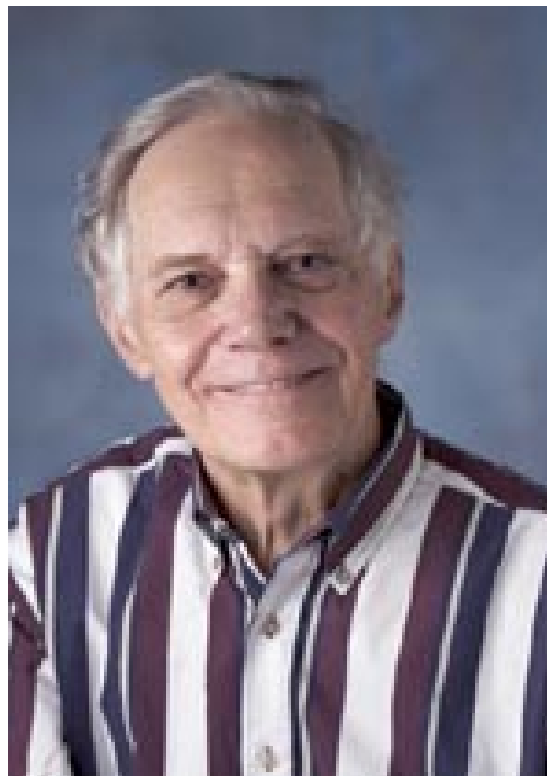
Musicians are listeners

- Complex, multi-faceted engagement with music – understanding for
 1. Recognition on subsequent hearing
 2. Linking with already-known pieces (similar or same genre, melody, emotion, instrument, performer etc.

Schema theory



Frederick C. Bartlett
1886-1969



Ulric Neisser
b. 1928



Definition of schema

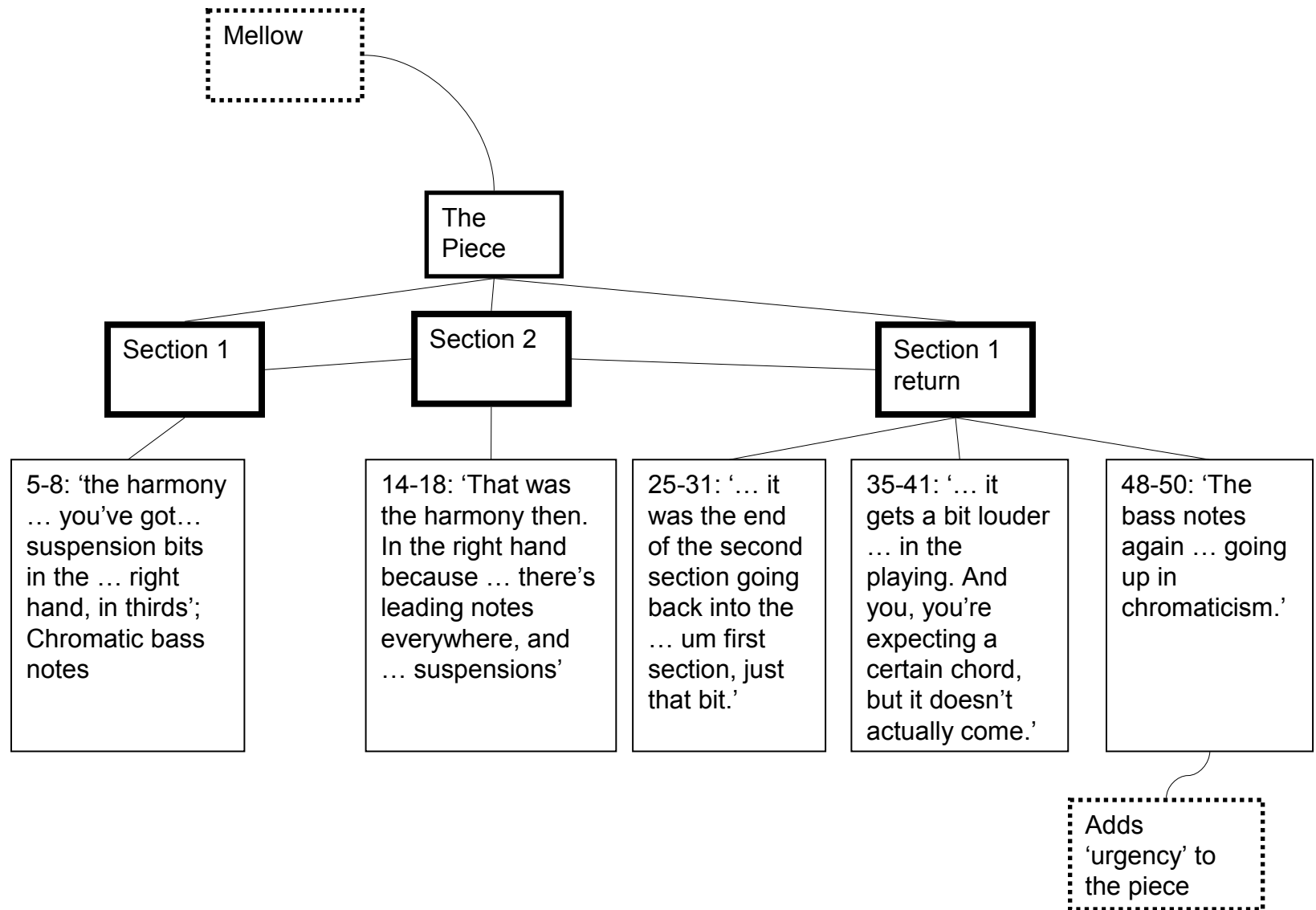
- *A mental framework for representing knowledge, encompassing an array of interrelated concepts in a meaningful organisation (Sternberg, 1996, p. 199)*



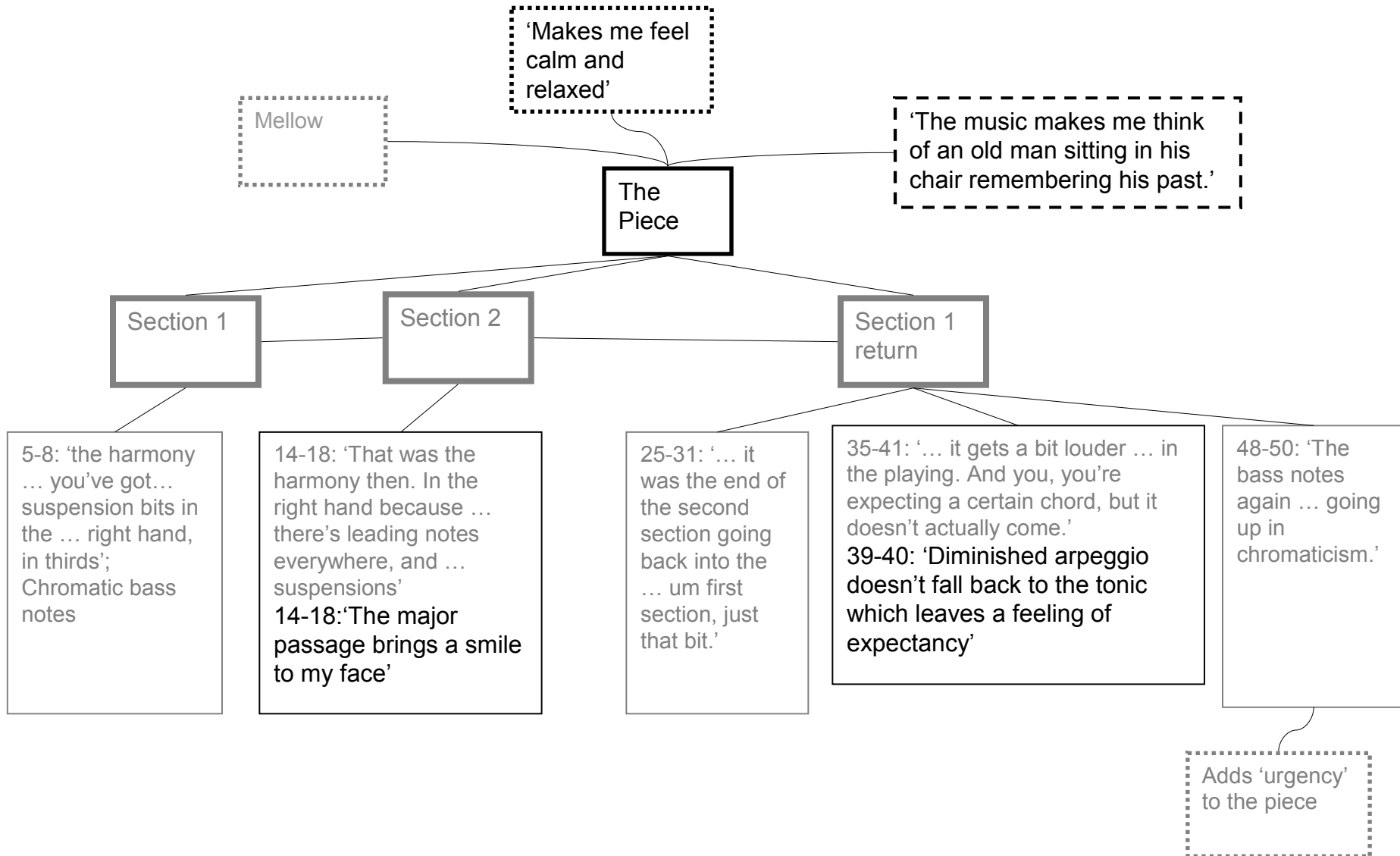
Schema theory and music

- Liking (Gaver & Mandler, 1987)
- Genre (Pascall, 1989)
- Cue abstraction (Deliège, 1996; Deliège & El Ahmadi, 1990; Deliège & Mèlèn, 1997; Deliège et al., 1996)
- Expectations (Ockelford, 2006; Huron, 2007)
- Structure (Zbikowski, 2002)
- Familiarity (Prior, forthcoming)

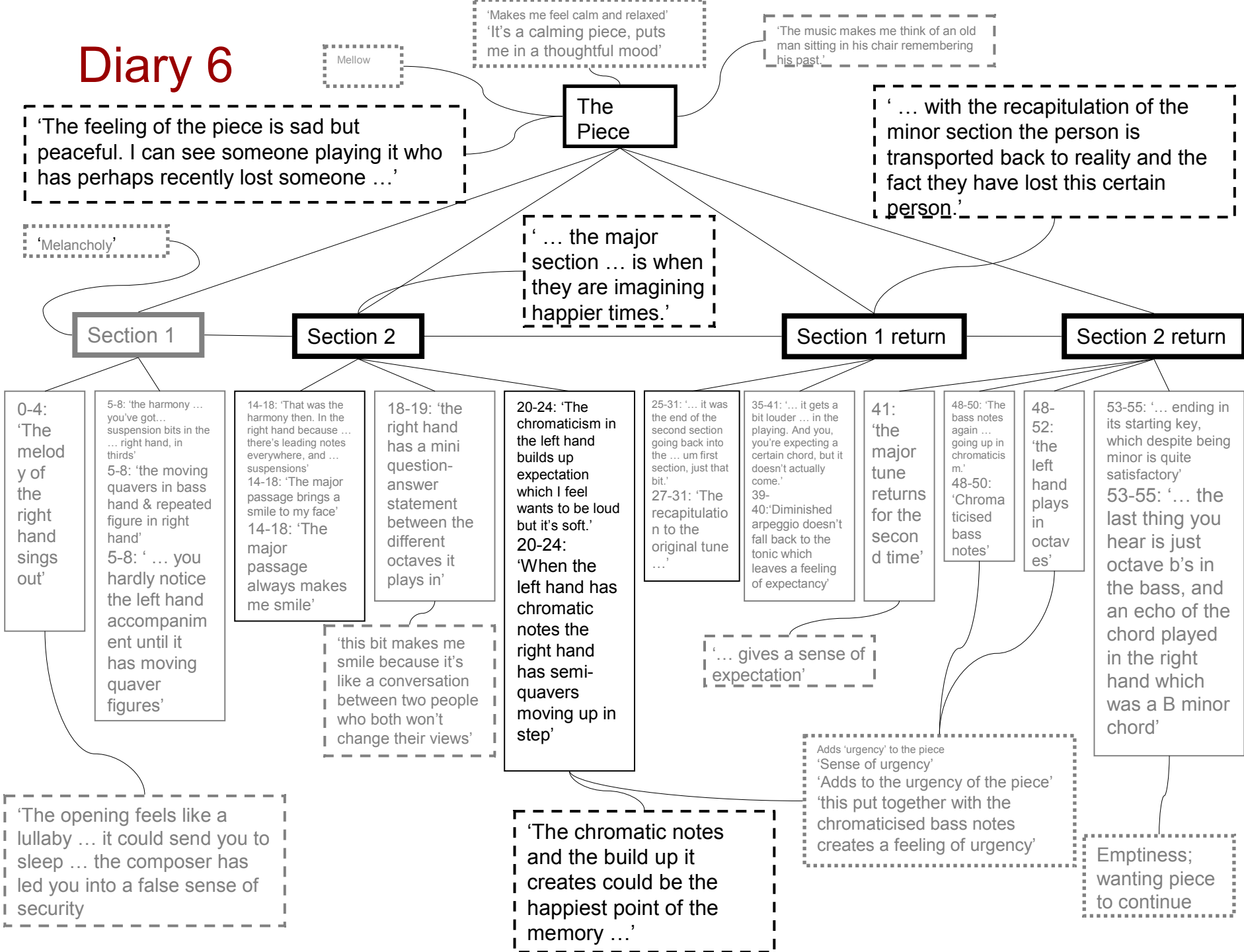
Interview 1: Clementi



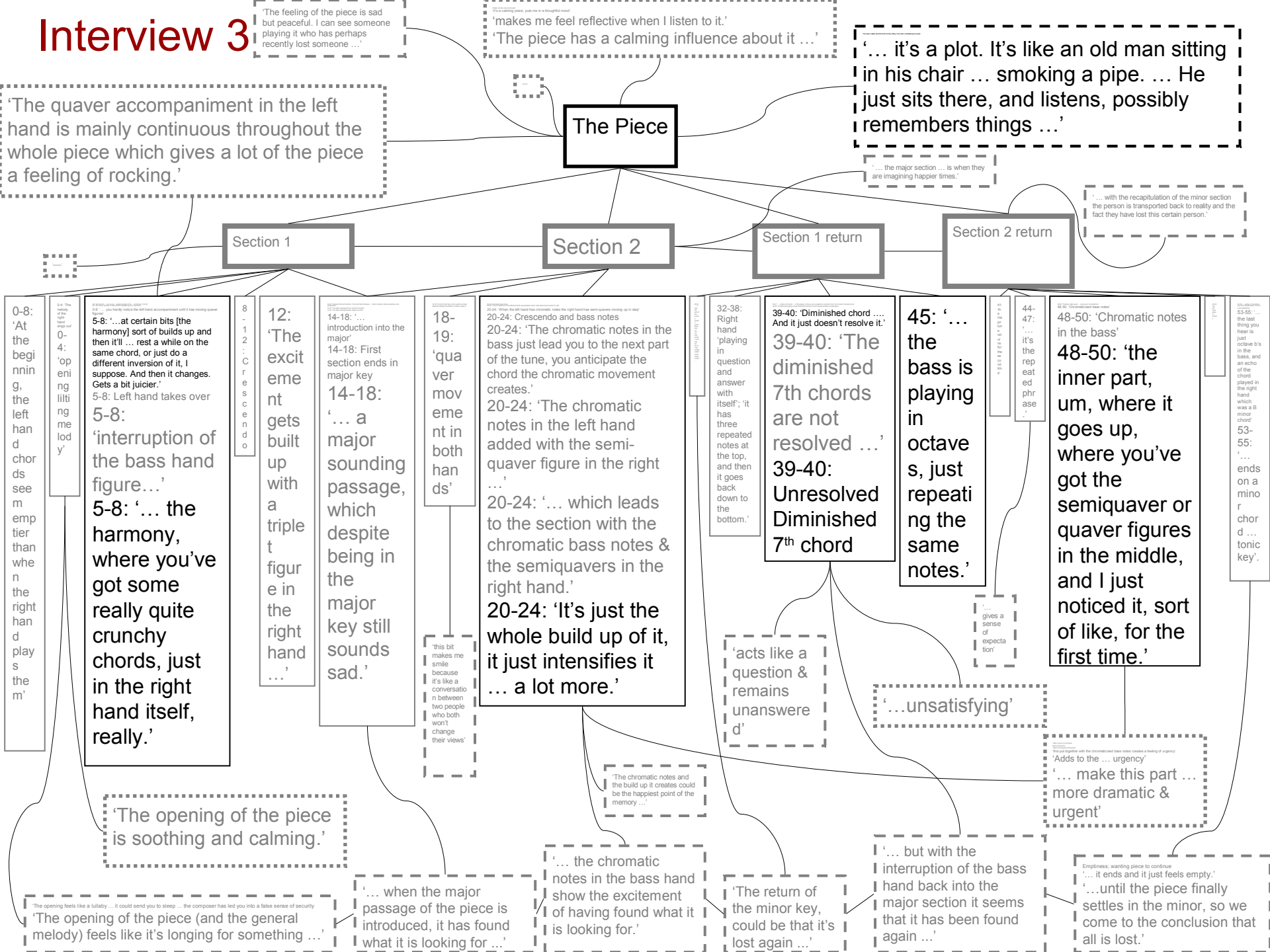
Diary 1



Diary 6



Interview 3



The Piece

Section 1

Section 2

Section 1 return

Section 2 return

0-8: 'At the beginning, the left hand chord seems emptier than when the right hand plays the melody'

4-4: 'The opening of the piece (and the general melody) feels like it's longing for something ...'

5-8: '... at certain bits [the harmony] sort of builds up and then it'll ... rest a while on the same chord, or just do a different inversion of it, I suppose. And then it changes. Gets a bit juicier.'
5-8: 'interruption of the bass hand figure...'
5-8: '... the harmony, where you've got some really quite crunchy chords, just in the right hand itself, really.'

8-12: Crescendo
12: 'The excitement gets built up with a triplet figure in the right hand ...'

14-18: '... introduction into the major'
14-18: First section ends in major key
14-18: '... a major sounding passage, which despite being in the major key still sounds sad.'

18-19: 'quaver movement in both hands'

20-24: 'Crescendo and bass notes'
20-24: 'The chromatic notes in the bass just lead you to the next part of the tune, you anticipate the chord the chromatic movement creates.'
20-24: 'The chromatic notes in the left hand added with the semi-quaver figure in the right ...'
20-24: '... which leads to the section with the chromatic bass notes & the semiquavers in the right hand.'
20-24: 'It's just the whole build up of it, it just intensifies it ... a lot more.'

32-38: Right hand 'playing in question and answer with itself'; 'it has three repeated notes at the top, and then it goes back down to the bottom.'

39-40: 'Diminished chord ... And it just doesn't resolve it.'
39-40: 'The diminished 7th chords are not resolved ...'
39-40: Unresolved Diminished 7th chord

45: '... the bass is playing in octaves, just repeating the same notes.'

44-47: '... it's the repeated phrase.'

48-50: 'Chromatic notes in the bass'
48-50: 'the inner part, um, where it goes up, where you've got the semiquaver or quaver figures in the middle, and I just noticed it, sort of like, for the first time.'

53-55: '... ends on a minor chord ... tonic key.'

'The quaver accompaniment in the left hand is mainly continuous throughout the whole piece which gives a lot of the piece a feeling of rocking.'

'The feeling of the piece is sad but peaceful. I can see someone playing it who has perhaps recently lost someone ...'

'... makes me feel reflective when I listen to it.'
'The piece has a calming influence about it ...'

'... it's a plot. It's like an old man sitting in his chair ... smoking a pipe. ... He just sits there, and listens, possibly remembers things ...'

'... the major section ... is when they are imagining happier times.'

'... with the recapitulation of the minor section the person is transported back to reality and the fact they have lost this certain person.'

'The opening of the piece is soothing and calming.'

'The opening feels like a lullaby ... it could send you to sleep ... the composer has led you into a false sense of security'
'The opening of the piece (and the general melody) feels like it's longing for something ...'

'... when the major passage of the piece is introduced, it has found what it is looking for ...'

'... the chromatic notes in the bass hand show the excitement of having found what it is looking for.'

'The return of the minor key, could be that it's lost again ...'

'... but with the interruption of the bass hand back into the major section it seems that it has been found again ...'

'Empiness; wanting piece to continue ... it ends and it just feels empty.'
'... until the piece finally settles in the minor, so we come to the conclusion that all is lost.'

'acts like a question & remains unanswered'

'... unsatisfying'

'Adds to the ... urgency'
'... make this part ... more dramatic & urgent'

'The chromatic notes and the build up it creates could be the happiest point of the memory ...'



Understanding performance preparation in detail

- Longitudinal case study approach
- Miklaszewski (1989): pianist
- Lehmann & Ericsson (1998): pianist
- Nielsen (1999): organist
- Chaffin, Imreh & Crawford (2002): pianist
- Chaffin, Lisboa, Logan & Begosh (2010): cellist
- Ginsborg & Chaffin (2011, forthcoming): singer / pianist-conductor
- Cristina Capparelli Gerling – yesterday: pianist

Stage	Explore	Smooth	Listen	Re-work	Prepare performance
Sessions	1-10	11-19	20-32	33-35	36-75
Expressive/Sections	B	BE	BE	B	B
Subsections	BE	BE	B		BE
Switches	E		E		
Interpretive PC				BER	BER
Intonation PC				ER	ER
Basic LH PC		ER	ER	E	BER
Basic RH PC			BER		-E
Dynamics	BER				-R
Sound quality	R	R		R	BER
Intonation	R	-E	ER		BER
Phrasing		BR			B
Hand position	R	R	R		R
Bowing/change string		E	ER		E
Technical difficulties			ER		BER



Variation in performers' approaches to learning

- Hallam (1995ab): professional instrumentalists
 - Strategies influenced by ability to create internal aural representation
- Ginsborg (2002) – experienced professional singers vs. amateur singers vs. student singers
 - Low-level methods: speaking words, humming/playing melody, singing words together
 - Higher-level strategies: goal setting and evaluation



Learning styles

- More than 70 models: “theoretically incoherent and conceptually confused” (Coffield, 2004)
- Visual, aural, kinaesthetic (VAK)
 - Learning Styles Inventory (Kolb)
 - Learning Styles Questionnaire (Honey & Mumford)
- Holistic or serial
- Surface, deep or strategic

Learning styles for music



- “Musical intelligence” (Gardner, 1983)
- Effective strategies for learning to play an instrument – music-specific (McPherson & Davidson, 2006)
- Learning styles for playing by ear (Green, 2010)
- Mental strategies (McPherson & Davidson, 2006)
 - Sight-reading: identifying important features
 - Memorising: linking sound with fingering
 - Practice: “business before pleasure”
- Memorising (Ginsborg, 2004; Williamon, 2002): multiple strategies including *VAK and analytic*



Development of schemata for music

- Potential links between initial encounters and first approaches to a new piece of music, and starting practice...
- ...influence musical features and therefore the development of performance cues



Research question

- Identify nature of first encounters and approaches
⇒ learning styles
- Questionnaire survey: how did you start work on the piece you began to learn most recently?
- Look at score?
- Listen to recording (Spotify, iPod, CD)?
- Do both sequentially or simultaneously?

Method: design and respondents

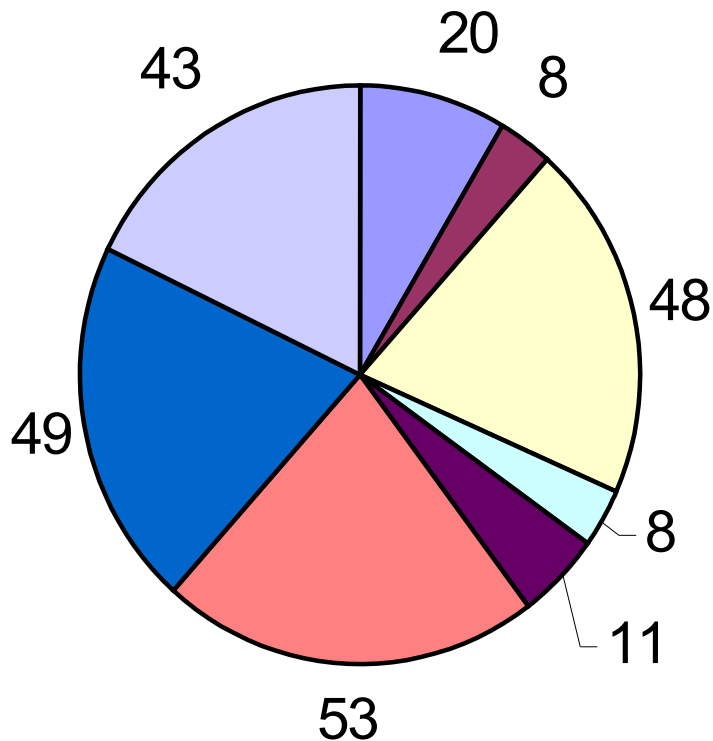
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- Online questionnaire using SurveyMonkey™
- 240 respondents (91M 149F) recruited via authors' institutions and those of helpful colleagues
- Four conservatoires (RWCMD, RNCM, RSAMD, Trinity Laban)
- Four university music departments (KCL, Hull, RHUL, York)
- 20 instruments, or sang, conducted or composed
- 73% of non-first study keyboard players also played a keyboard instrument



(Preliminary) breakdown by instrument group



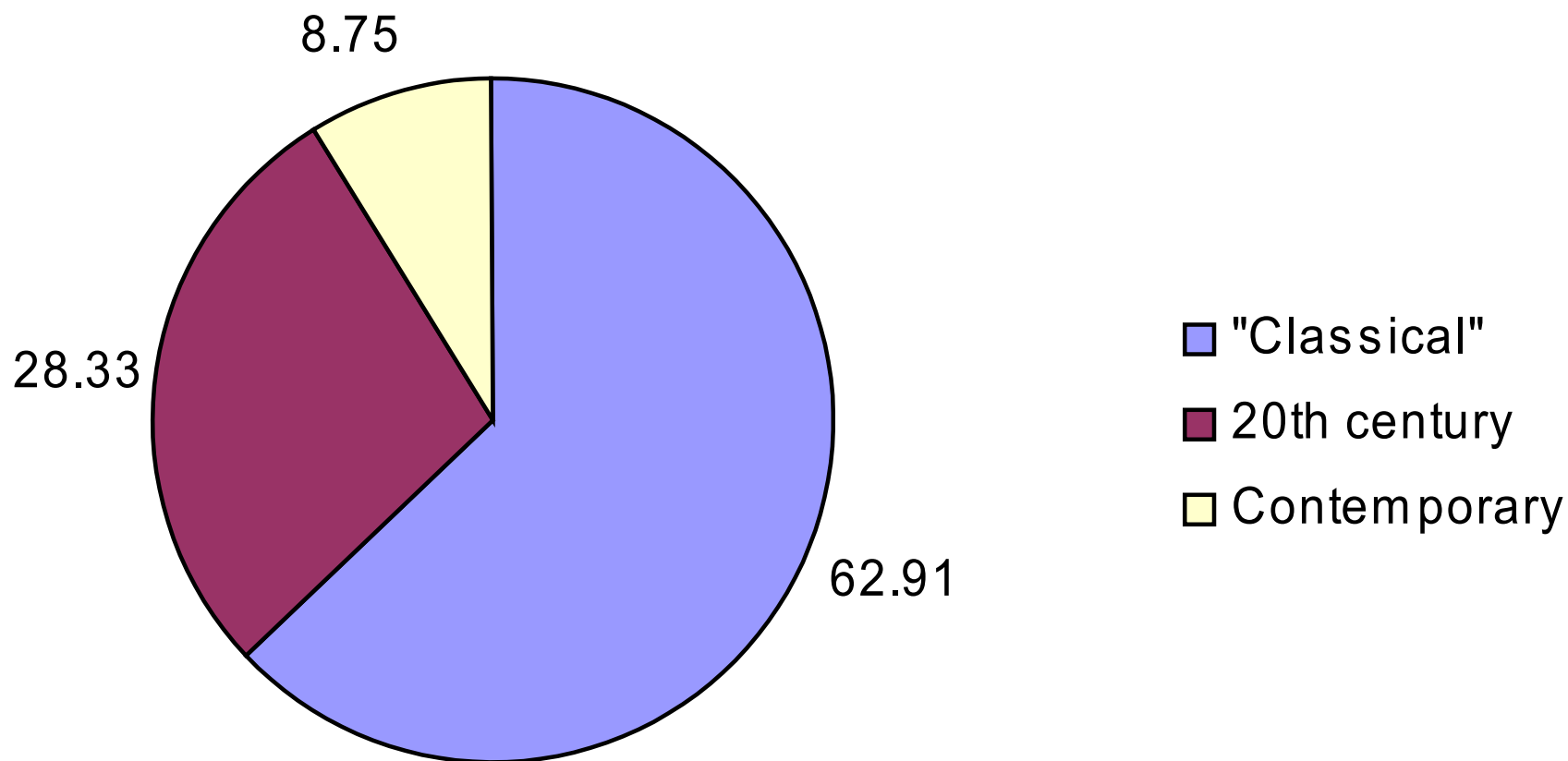
- Brass
- Composition/conducting
- Piano/organ
- Percussion
- Guitar/harp
- Strings
- Vocal
- Woodwind



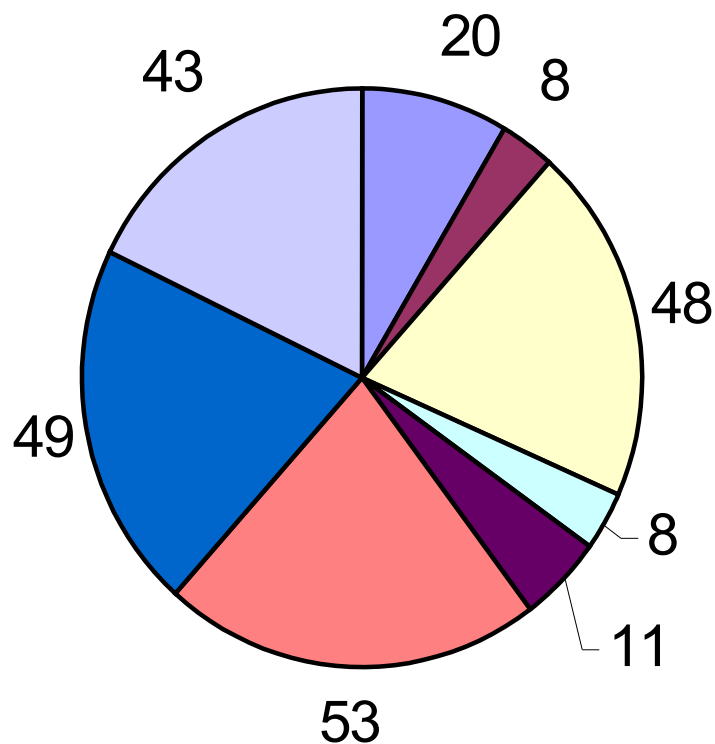
Method: materials

- 14 items including demographic information (sex, main instrument/voice, additional keyboard instrument, year of study)
- Name and composer of last piece practised
- When and how first encountered and first learned
- Estimate of time spent during first week of practice
 1. “Working on the piece”
 2. Listening actively and passively
 3. Playing alone, reading from the score
 4. Rehearsing with others

Results: genre of pieces practised



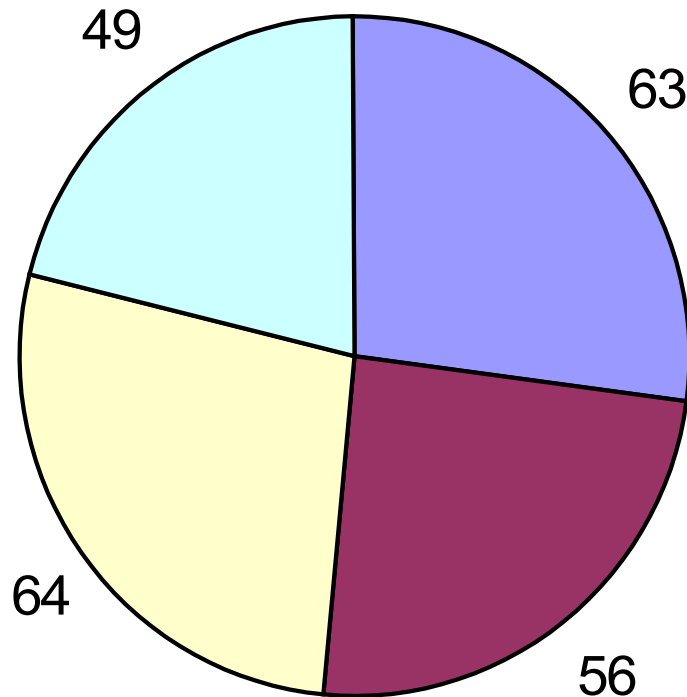
(Preliminary) breakdown by instrument group (numbers of Rs)



- Brass
- Composition/conducting
- Piano/organ
- Percussion
- Guitar/harp
- Strings
- Vocal
- Woodwind



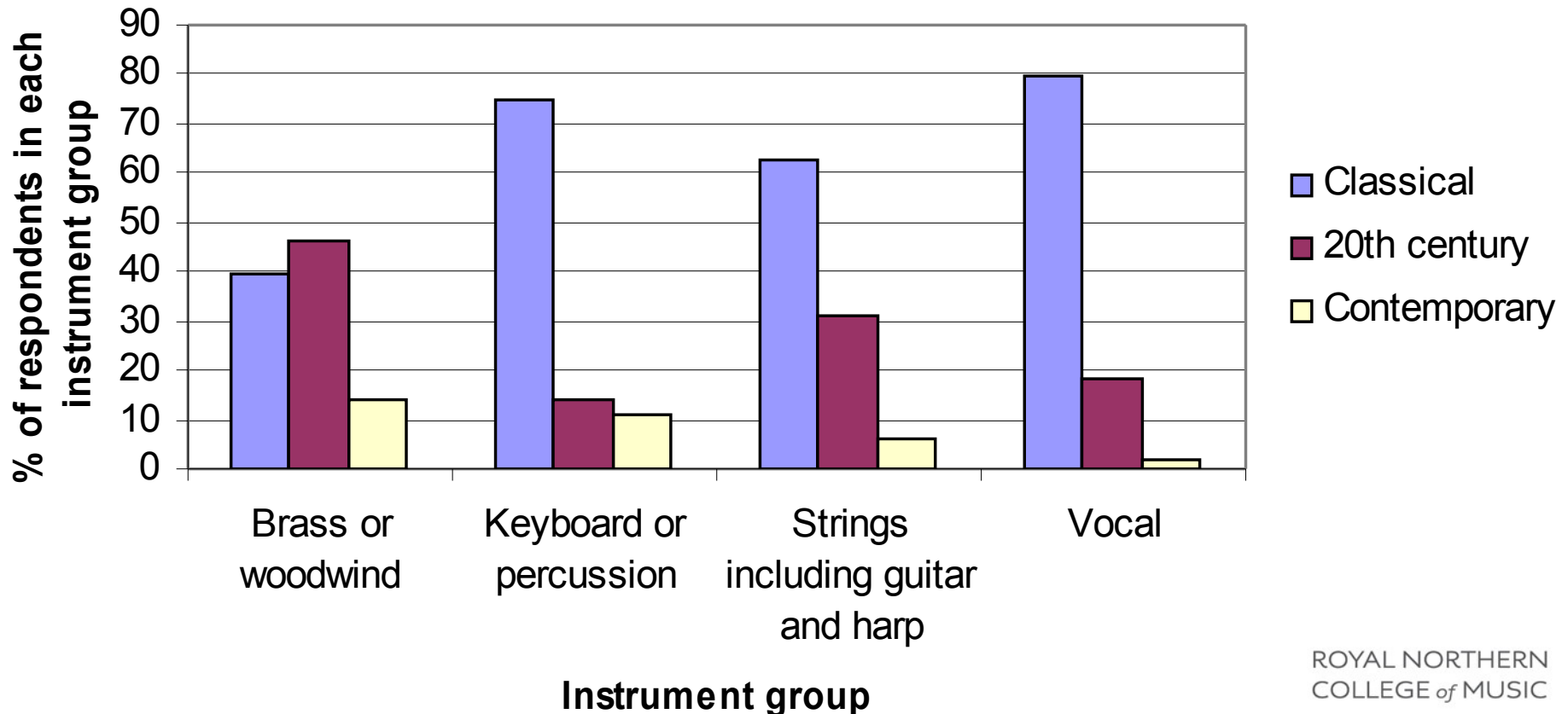
Instrument groups for analyses (numbers of Rs)



- Brass and woodwind
- Keyboard/percussion
- Strings including guitar and harp
- Voice

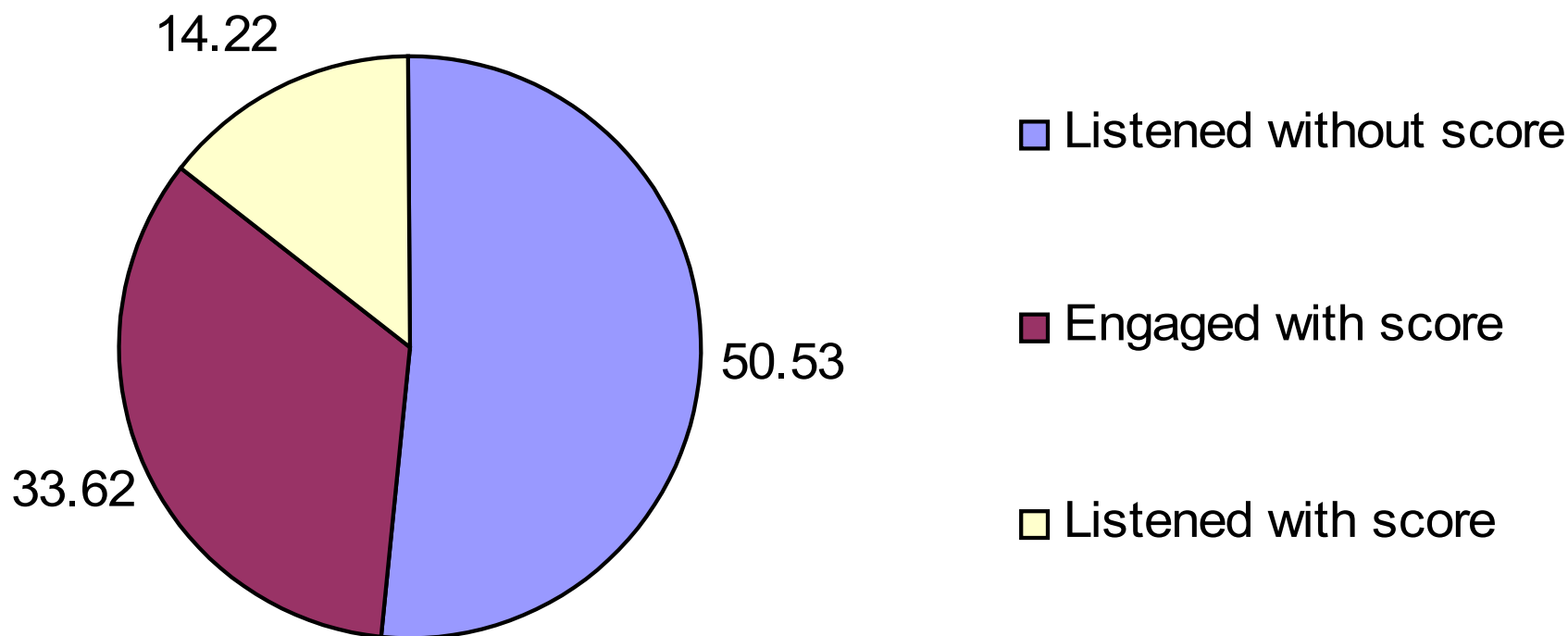
Genre by instrument group (%)

$X^2 (6, N = 232) = 27.1, p < .0001$



First encounters (%)

No significant association between instrument group and first encounter



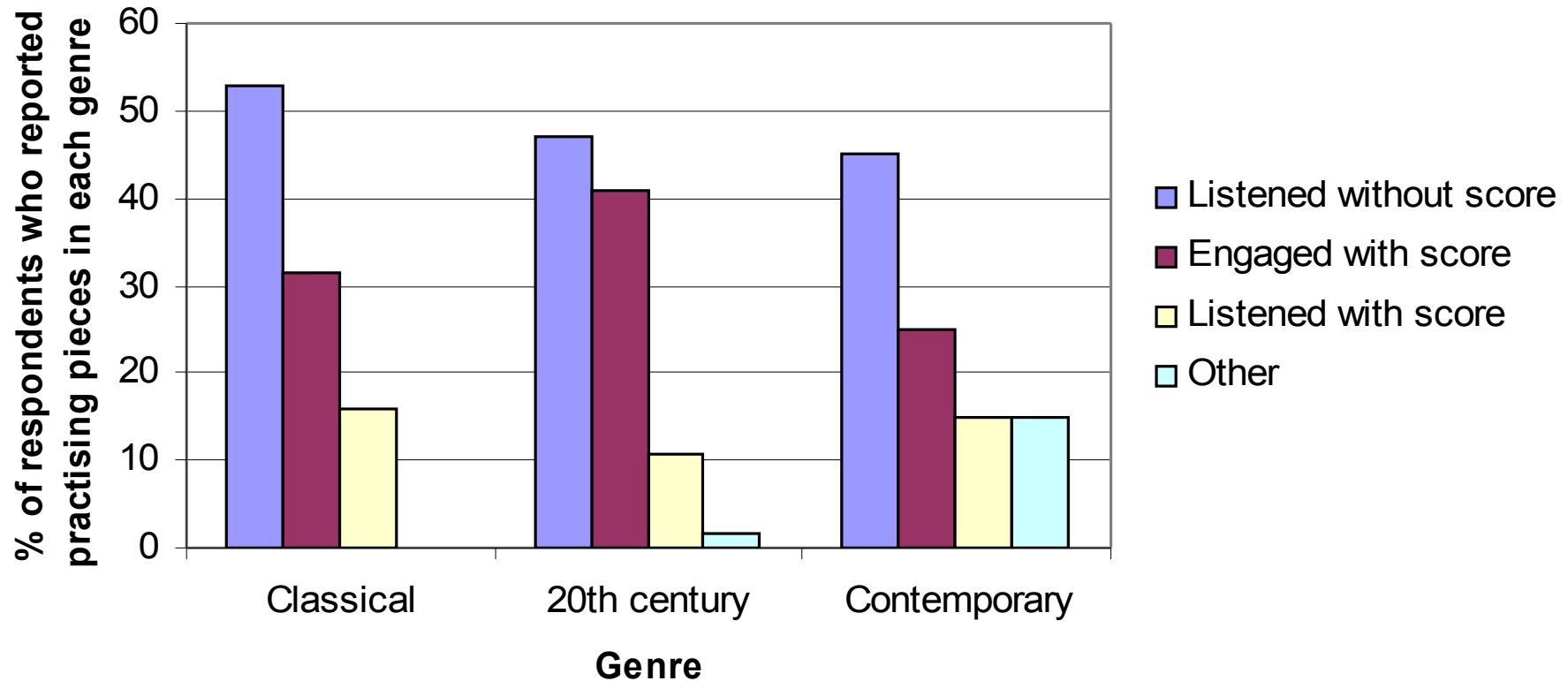
“Other” forms of first encounter



- *Teacher recommendation*
- *Saw it on a list of new works by the composer*
- *Saw the score and a description in a book*
- *Played it at a jam session*
- *I wrote it*

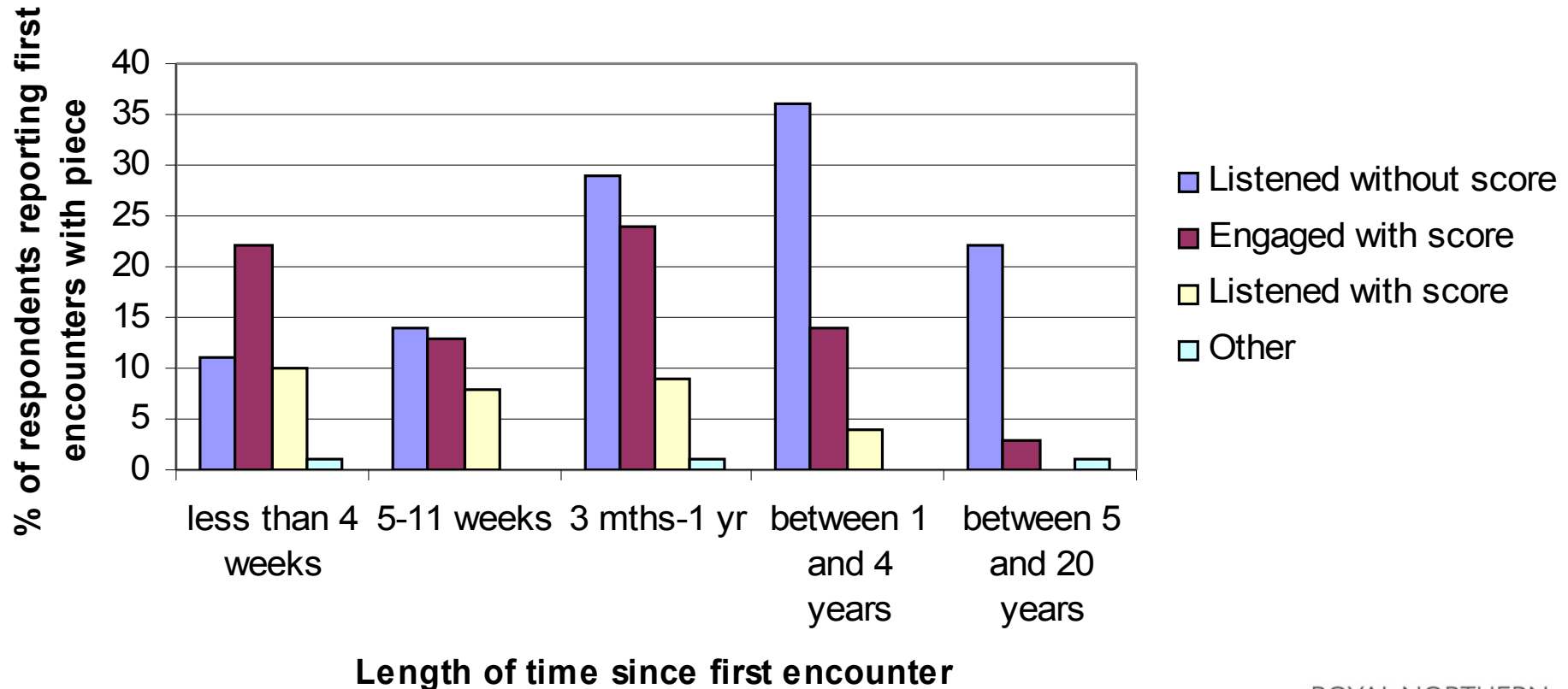
First encounter by genre (%)

$X^2 (6, N = 232) = 25.94, p < .0001$



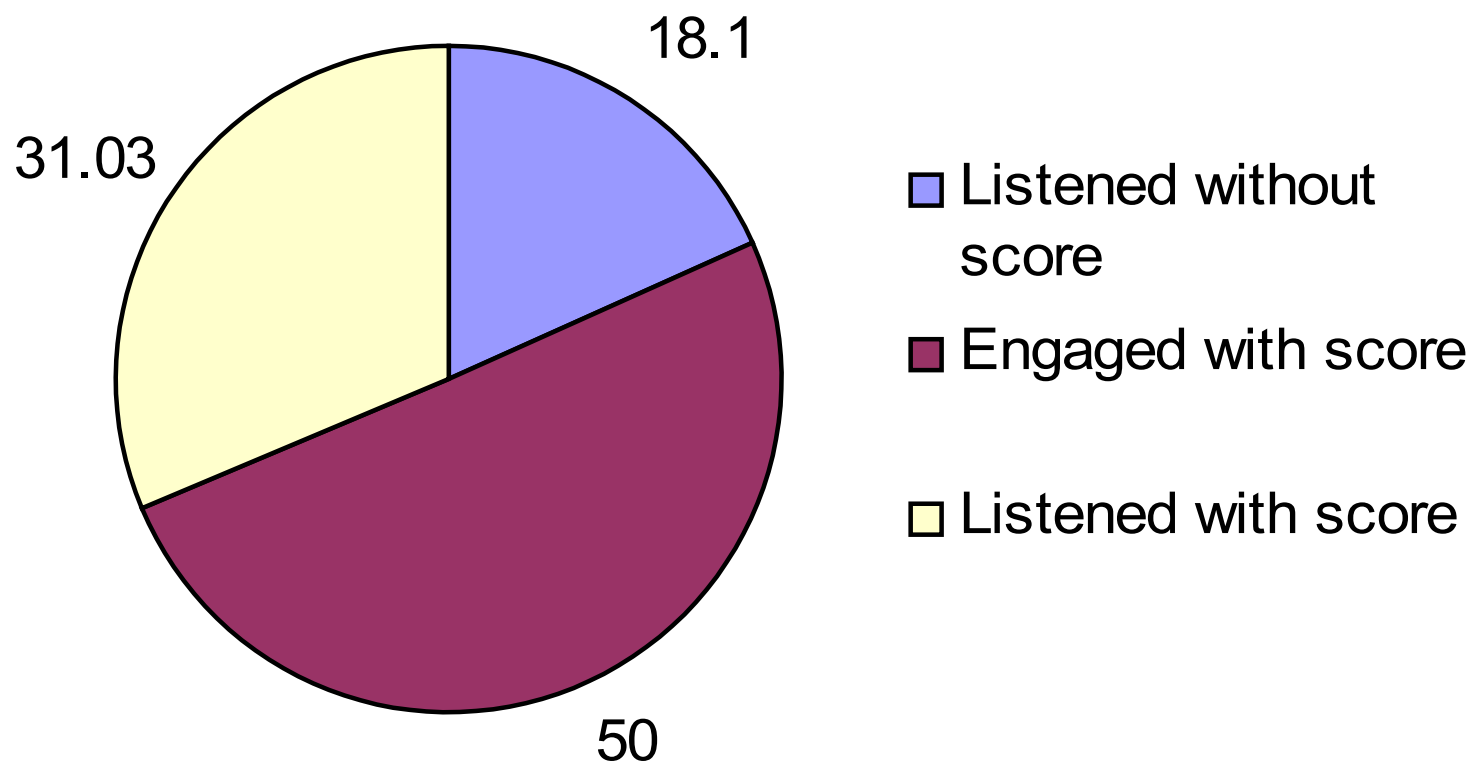
Type of encounter by length of time since encountered (%)

$X^2 (6, N = 232) = 36.44, p < .0001$



First learning (%)

No significant association between instrument type and first learning



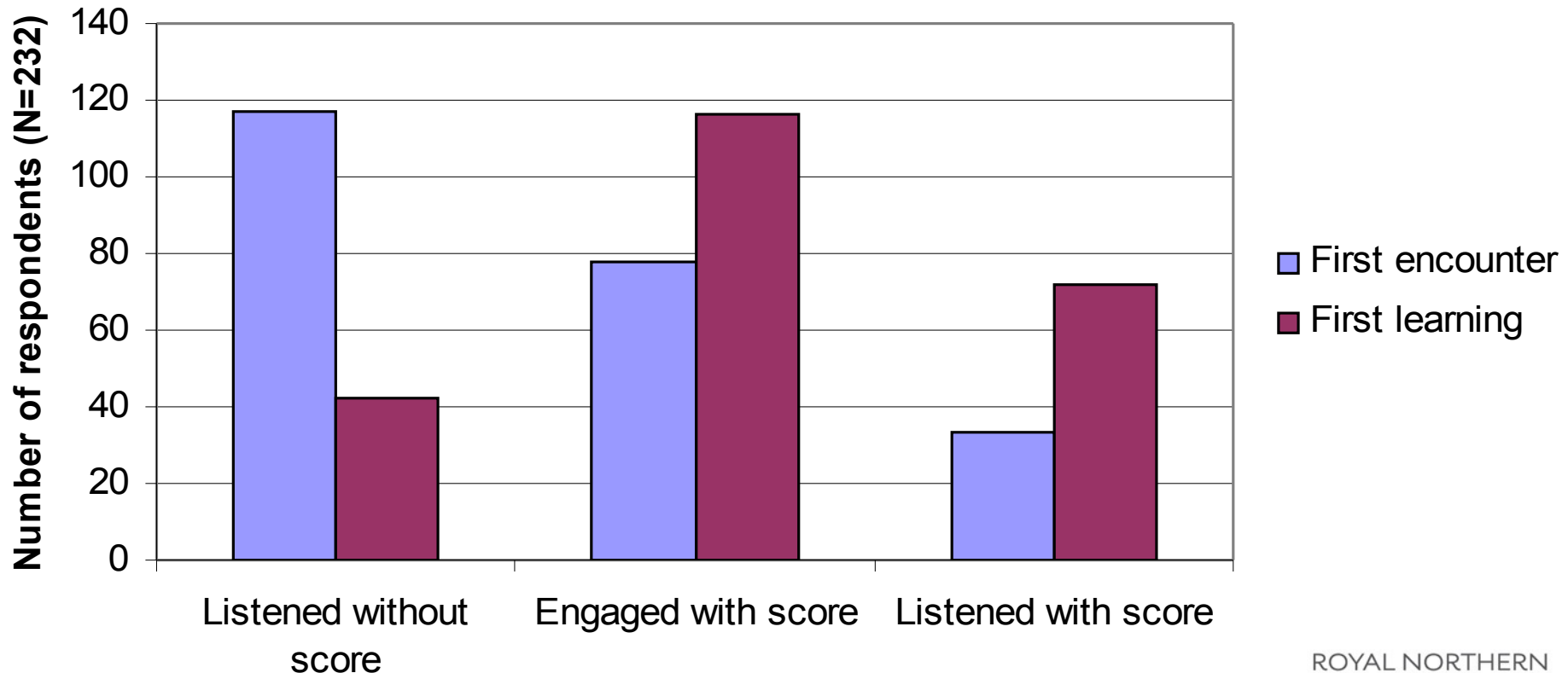


“Other” forms of first learning

- *Listening to a live performance while transcribing the piece*
- *The learning was a fundamental part of writing it. I sang the lines as I wrote them*

First learning by first encounter (numbers of Rs)

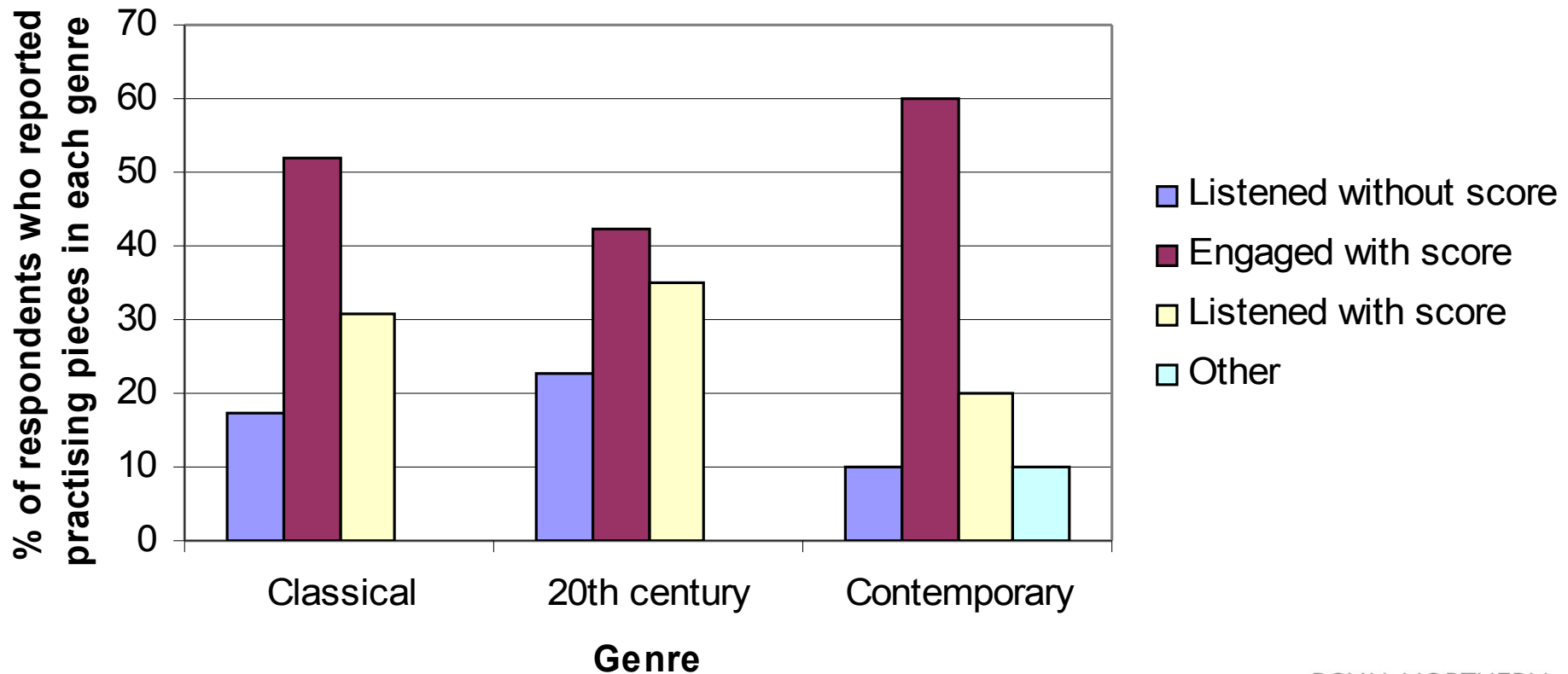
$X^2 (9, N = 232) = 46.52, p < .0001$





First learning by genre (%)

$X^2 (6, N = 232) = 25.16, p < .0001$



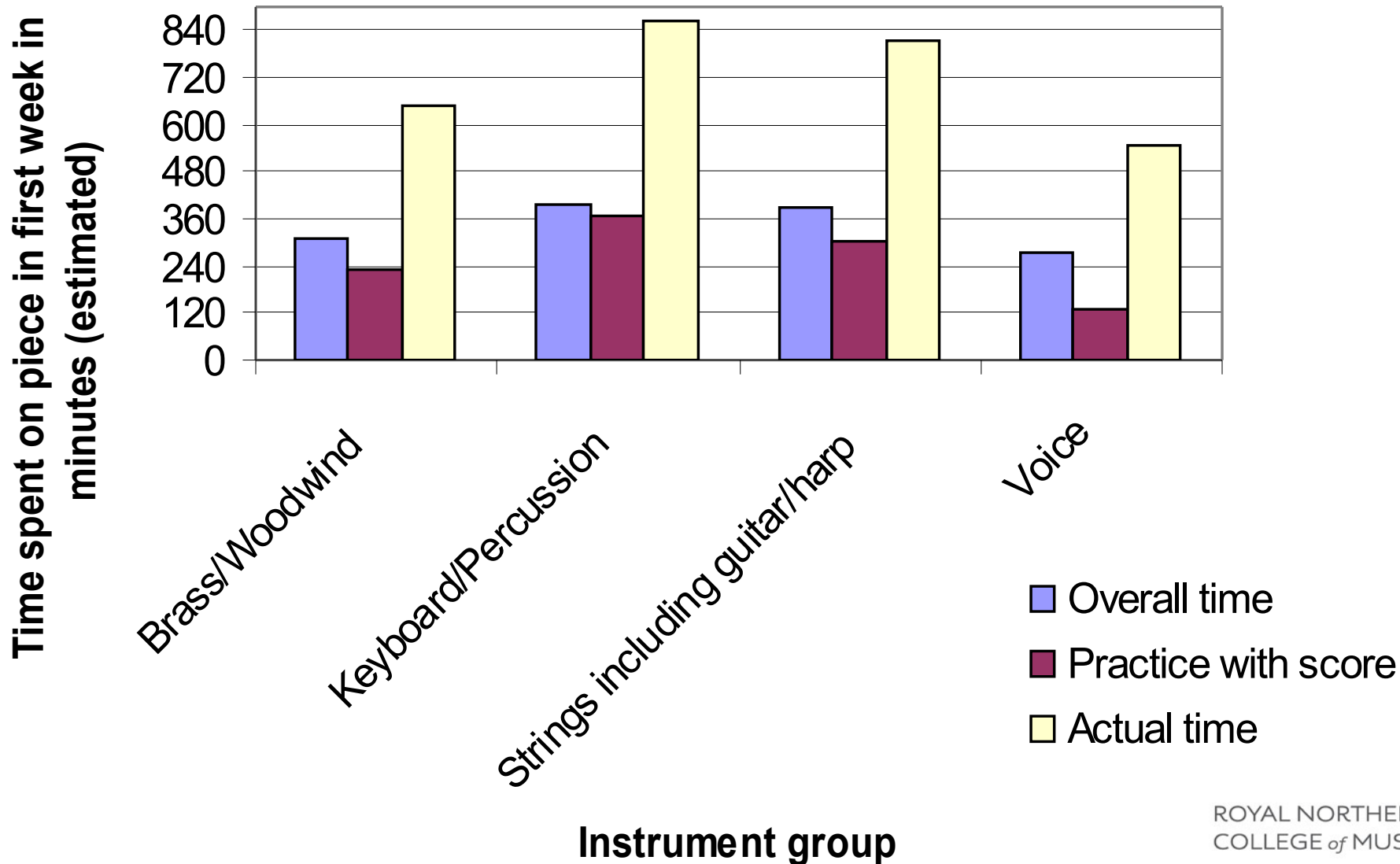
Estimated practice time in minutes



- Significant differences between instrument groups (ANOVA)
 1. Playing while reading from the score: $F [3, 228] = 10.59, p < .0001$
 2. Estimated time on piece spent on other activities: $F [3, 228] = 3.75, p = .012$
- Estimated overall time spent during first week neared significance $p = .095$

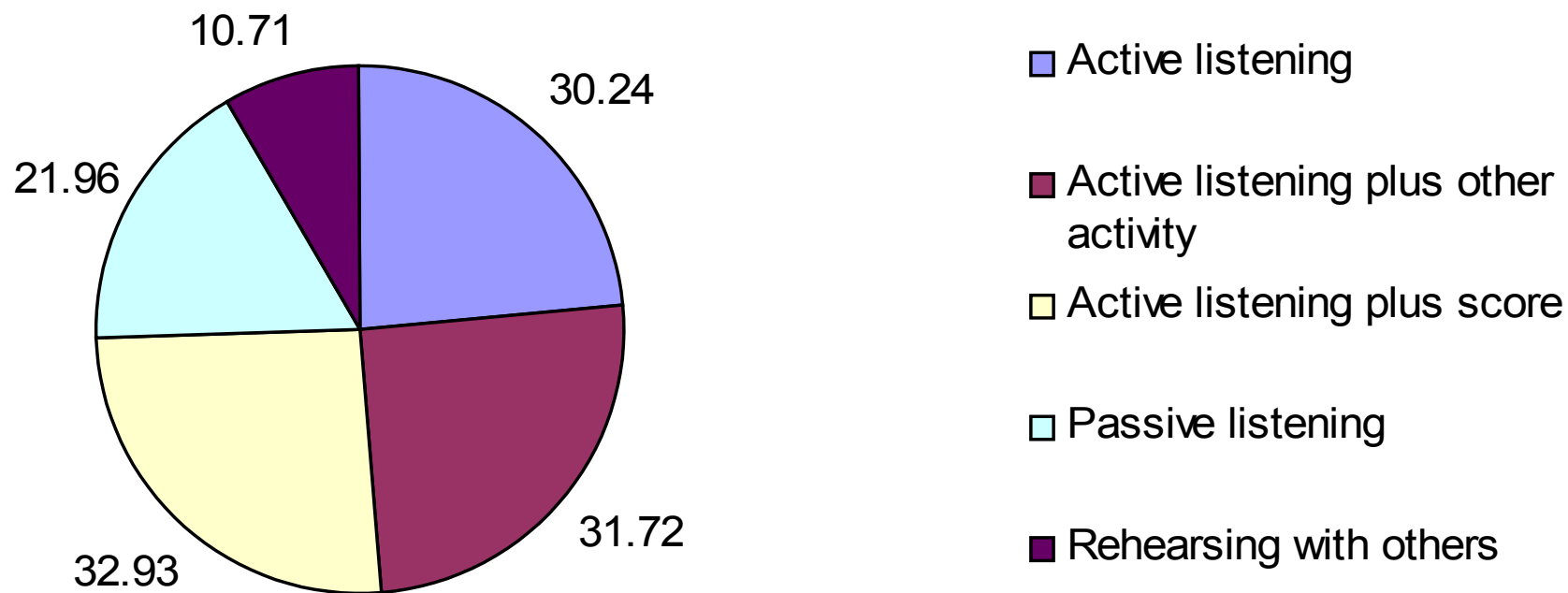
Estimated time in minutes

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Estimated time on other activities (in minutes)

No significant differences between instrument groups





Other activities while listening

- Checking e-mail, searching copy of the music
- Browsing the net
- Reading books
- Answering e-mails
- “office work”
- Defragmenting computer
- On the bus
- Eating a meal
- Tidying up, cooking, washing up
- Working out



Discussion (1)

- Snapshot approach rather than micro-analysis
- First encounters may or may not coincide with first learning
- Earliest encounters serendipitous, more recent deliberate
- While most first encounters involve listening, 50% of respondents also began learning by listening
- Use of score for learning
- Different strategies suggests use of multiple strategies, as for memorising



Discussion (2)

- Different instrument groups
 - estimate different periods of time engaging with the score (Jørgenson, 1997)
 - play different genres of music – limited repertoire for some groups
- Genre but not instrument associated with different kinds of approach to learning
- Do students use learning strategies appropriate to the piece they're learning?
- If so, learning strategies are probably flexible



Future research

- Ask respondents to report on first encounters with and learning of pieces from different genres
- Identify students with preferences for particular approaches and persuade them to track subsequent preparation and performance
- how learning styles influence the development of schemata and performance cues

Thank you for your attention



- Any questions?
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