Musical talent: conceptualisation, identification and development
Musical ability

The concept of musical ability has a long history. Tests were developed to assess it. These focused on aural skills. Performance improved with musical experience. It has recently been recognised that musicians require a wide range of skills and that acquiring them takes time and commitment.
Hallam and Prince (2003) asked:
129 musicians;
80 non-music educators;
112 adults in other occupations;
60 students involved in extra-curricular music;
30 not involved in extra-curricular music
to complete the statement
‘Music ability is:’
Musical ability was conceptualised in relation to:

- aural skills (pitch, rhythm);
- receptive activities (listening, understanding, actively responding, appreciating, evaluating, knowing about music);
- generative activities (playing, singing, reading notation, technical skills, emotional sensitivity, communicating and interpreting, ensemble skills, composing, improvising, being creative);
- metacognition (self-criticism, solving problems, organisation, self-discipline, knowledge of strengths and weaknesses);
- motivation (personal expression, immersion in music, total commitment).
Study 2

Hallam (2010) devised a questionnaire based on the previous study. It was distributed to:
102 musicians
95 educators who were not musicians
132 adults - active amateur music makers
60 adults not actively engaged in making music
193 children actively engaged in making music
71 children with no engagement with music outside of the school curriculum.

Factor analysis revealed 6 groups of responses
1. Playing an instrument or singing

Reading music – sight reading
Playing or singing
Having technical skills, good physical co-ordination
Understanding musical concepts and form
Able to analyse and critically evaluate music
Valuing music
Having a complex range of skills
Playing an instrument or singing

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2. Musical communication

Being able to communicate moods and emotions
Interpreting, expressing feelings, expressing through sounds, communicating meaning of composer
Uniting a group, being sensitive to others within an ensemble
Using music as inspiration, music as part of life, using music to express personality, making sense of the world through music
Being able to make decisions about performance and compositions, taking risks
### Musical communication

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3. Valuing, appreciating and responding to music

Valuing music through listening, enjoying and appreciating music
Responding to music, its mood, creatively, rhythmically
Judging what is musically good or bad, evaluating, able to perceive what is musically beautiful
Being able to describe music in words or gestures
Valuing, appreciating and responding to music

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4. Composition, improvisation and related skills

- Being able to compose (in new styles, organise sound)
- Being able to improvise
- Being able to integrate listening, performing and composing (play an instrument, sing, read music)
- Being able to make decisions about performance and composition, analysis of music, reading music, taking risks
- Being able to describe music in words or gestures
- Being able to play by ear
### Composition, improvisation, related skills

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5. Commitment, motivation, personal discipline and organisation

Commitment to practise, personal discipline, organisation
Motivation to succeed (goals, interest, desire)
Being self-critical
Immersion in music, relationship between music and life, music as inspiration, music as a means of expressing personality
Commitment, motivation, personal discipline and organisation

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6. Rhythmic and pitch abilities and understanding

Perceiving a rhythmical progression, singing in time, good sense of rhythm, moving in time
Recognising pitch, internalising sound
Being able to play by ear
Hearing and understanding music
Being able to analyse music
Rhythmic ability, pitch skills and understanding

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Learning

Learning is a natural process for human beings.

Learning may be deliberate and intentional or incidental occurring without conscious awareness.

All forms of learning involve change in the learner.
Learning and the brain

When we learn connections are made or reinforced in the brain

Pruning also occurs

Through these processes the cerebral cortex self-organises
Neural responses to the environment occur instantly

Only where responses recur over long periods of time does fundamental change occur

Change is specific to what is learned and how it is learned

The brain substrates of processing reflect the ‘learning biography’ of each individual
Learning as the development of expertise

This paradigm:
- challenges notions of ‘ability’;
- stresses the role of prior knowledge and skills in learning;
- emphasises the time taken to learn complex skills;
- explores the acquisition of specific skills and knowledge;
- explores how thinking and learning processes change as expertise develops.
Experts excel mainly in their own domains and in those domains:

- perceive large meaningful patterns;
- are fast;
- have superior short and long-term memory;
- see and represent problems at deeper levels than novices;
- spend longer analysing problems before attempting to solve them;
- have strong self-monitoring skills.
The stages of developing expertise

**Procedural skills**
- Cognitive-verbal-motor-stage
- Associative stage
- Autonomous stage

**Knowledge acquisition**
- Acclimation
- Competence
- Proficiency/expertise
Motivation and personal commitment are required to sustain the time and effort to reach high levels of expertise in any domain.

Interesting tasks may sustain interest in the short term.

Interest needs to be internalised as part of identity for long term commitment to be made.
Study 3

Questionnaire study exploring issues of motivation. 3352 musicians across a wide range of levels of expertise (from beginner level to conservatoire entry standard) playing a wide range of instruments or singing. They responded to a series of statements on a seven point scale. Factor analysis revealed 6 factors. All of these elements were important predictors of wanting to be a musician.
Support and social affirmation by level of expertise

What is the most recent grade examination that you have taken
Social life and enjoyment of musical activities by level of expertise

What is the most recent grade examination that you have taken?
Enjoyment of performing by level of expertise

What is the most recent grade examination that you have taken
Self-belief in musical ability by level of expertise

What is the most recent grade examination that you have taken
Enjoyment of playing, lessons and practice by level of expertise

What is the most recent grade examination that you have taken
Disliking practice by level of expertise

What is the most recent grade examination that you have taken?
Conceptualisation and identification

Musical ability is complex and has many facets. Different skills are required for different professional outcomes.

Identification depends on providing opportunities. Different criteria may apply at different levels of expertise.

Because of the time taken to develop musical expertise total commitment is required on the part of the learner.
Developing talent

Individuals need opportunities to pursue their own goals.

Teachers and institutions need to recognise those goals and support their development.

As comparisons are made with others, goals and possible selves may change.

Opportunities for exploring a range of career paths need to be made available.
Any questions?

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