Children composing: Mapping in creative thinking

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Abstract

Children's compositional processes and products have been investigated from a range of perspectives with the aim of further understanding the ways in which children compose and the characteristic features of the compositions they develop. We have learned a great deal about the nature of their musical thinking from the analysis and categorizations of compositions generated by children of varying ages. From a cognitive perspective, much of the research has focused on applied experimental task-driven designs within tightly structured, pre-arranged research contexts. Whilst there is no marked absence of research in how children engage in composing, there is less understanding about the role creativity plays in composing within situated contexts where children contribute to the meaning and understandings about what counts as composing. The research reported here constitutes an attempt to operationalise a model of creative thinking in music as a basis for analyzing children's talk. Whilst there is plenty of theoretical justification for seeing children's talk that occurs amongst peers and with adults as an important site for learning, the use of talk as a rich resource for examining individual thought processes remains under-valued. From this, the presenter will illustrate aspects of creative thinking that characterize children composing.

The marvels of the creative spirit are the offspring of the marriage between play and discipline, purpose and mastery. (Okri, 1997)
Introduction

The role of creativity in composition has been the focus of fruitful study by researchers for decades. A recent working definition of creativity found in the report *All Our Futures* (Robinson, 1999), proposes creativity is ‘imaginative activity fashioned so as to produce outcomes that are both original and of value’ (p. 29). Crucial to such a notion is the question of what constitutes creative thinking in music. Webster (2001, 1990, 1987a/b, 1977) places two types of thinking, divergent (imaginative) and convergent (factual), at the centre of a conceptual model of creative thinking. During the creative process, there is considerable movement between these types of thinking which move in stages over time. These stages refer to the creative operations of preparation, incubation, illumination and verification (as first outlined by Wallas, 1926 and Guildford, 1967). According to Webster these stages involve: time to play with ideas (preparation), time to have away from the tasks (incubation), and time to work in structured ways through the ideas (verification) and how solutions have presented themselves (illumination). These stages run between divergent and convergent thought processes.

Integral to an understanding of musical creativity are our assumptions about how children compose. We have learned a great deal about the nature of their musical thinking from the analysis and categorizations of compositions generated by children of varying ages (Loane, 1984; Swanwick and Tillman, 1986; Bunting, 1987; DeLorenzo, 1989; Levi, 1991; Wiggins, 1994; Hickey, 1995; Marsh, 1995; Barrett, 1996; Younker and Smith, 1996; Diagnault, 1996; Seddon and O’Neill, 2000; Swanwick & Franca, 1999; Mellor; 2000). From a cognitive perspective, much of the research has focused on applied experimental task-driven designs within tightly structured, pre-arranged research contexts (Kratus, 1989, 1994). There have been a small number of studies that seek to determine the effect of constraints and freedom as conditions of compositional task designs (Burnard and Younker, 2002; Younker 2000a/b, Burnard, 1995). Whilst there is no marked absence of research in how children engage in composing, there is less understanding about the role creativity plays when children compose in situated contexts where there is no time or task restrictions and where children are encouraged to contribute to the meaning and understandings about what counts as composing (Christensen, 1993; Sudin et al, 1998; Marsh, 1995; Folkestad, 1998; Burnard, 1999, 2000a/b; Glover, 2000).

Focus of this paper

This paper will examine the interplay between divergent and convergent processes as characterized by the strategies reported by a group of 12-year-old children from a study drawn from within a situated context (a lunchtime club for ‘Music Creators’) where the children were
observed, talked to and interviewed about their approaches to composing. As a feature of this particular situation (where tasks, time and expectations were not bound by a researcher or teacher), what the children said and did (their utterances and actions) will be related to some of the parameters of creative thinking as developed in Webster’s model.

I will offer an analysis of two contrasting cases of children composing. This analysis is intended to illustrate the relevance of Webster’s model and to show some ways in which the concepts of context and intention are vital to the study of creativity. How creative thinking in music helps us understand what it is, for children, to compose and implications for the teaching of composition in the classroom, will be discussed.

Methodology

This paper examines the composing pathways of two case studies from a group of 12-year-old children who participated in 21 weekly hour-long lunchtime club for ‘Music Creators’. The initial study was carried out in a multi-ethnic, comprehensive Middle School in West London, England over a period of six months. Eighteen self-selected children participated in weekly music-making sessions of which there were 12 girls and 6 boys. Fourteen children had received instrumental tuition and five had taken graded examinations; four had received no formal instrumental training. There were 14 of British descent, two Afro-Caribbean and two Asian children.

An ethnographic research strategy formed the basis of the fieldwork. The lunchtime club involved children composing and reflecting on their present understanding of how they composed. Video-stimulated retrospective accounts were also sought. In this study, the term composing came to be referred to as the act of making a revised piece created over time. Data collection techniques included (i) observation of the participants engaged in music making with the researcher in the role of participant observer, (ii) interviewing involving semi-structured interviews which included an elicitation tool based on Personal Construct Psychology called ‘Musical Rivers of Experience’ and image-based techniques (see Burnard 2000a) and (iii) the examination of artifacts. The participants were interviewed both individually and in focus group sessions across the phases of the study. These included the Early, Middle and Late Phases each of which comprised seven sessions. There were 80 compositions recorded of which examination of the artifacts involved musical transcriptions made by the researcher.

The compositions elaborated here (and more particularly in the extended version of this paper) were chosen because they represented a wide range of phenomenological descriptions of
the intentional acts of children’s consciousness. *Intentionality* means that all consciousness is consciousness of something. It is oriented, at all points, to the world with which it is in contact (Merleau-Ponty, 1962).

In an attempt to be representative of children’s own experiences, a grounded theory approach was adopted (as described by Glaser and Strauss, 1967) to obtain a comprehensive account of children’s experiences. My priority was not to place children at a disadvantage, because they may not be so concerned with outcomes and products based on adult model, but rather nest the research design within the parameters of an interpretative-constructivist paradigm underpinned by a philosophy of phenomenology or theories of experience.

**Analysis procedures**

The working procedure in the analysis of the present study involves a hermeneutic phenomenological approach to the analysis by focusing on the phenomena of composing alternating between two interactive working sequences in which the different steps are considered to some extent simultaneously (Van Manen, 1990). The units of analysis include analysis of compositional products and participants descriptions of strategies or explicit decision (or plan) involving significant decision-making moments for the overall composition. The idea of a narrative description or dialogue, which reflects on the experience of the phenomena by those who experience it and the researcher was described by Van Manen (1990) in this way:

> Phenomenological text is descriptive in the sense that it names something. And in this naming it points to something and it aims at letting something show itself. And phenomenological text is interpretive in the sense that it mediates. Etymologically ‘interpretation’ means explaining in the sense of mediating between two parties. It mediates between interpreted meanings and the thing toward which the interpretation points (pp. 26-27).

The procedure adopted was to subject the data to a method of iterative inductive coding, as described in many standard texts on qualitative methods (Glaser and Strauss, 1967; Van Manen, 1990). The process of thematic analysis involves a continuous interplay between observation of action, musical outcome (drawing upon the use of transcriptions) and children’s talk. Because the children’s engagement in compositional processes involved a lot of time and planning, monitoring and revising, occurring in-session and out-of-session, the key components of the experience were communicated in-session (from discussion and reflection on action) and out-of-session (interviews using video-stimulated recall).
Findings

The children composed in a variety of ways. Of the participants, two illustrative cases are presented in this paper. What follows represents children’s composing pathways plotted along a continuum of mapped strategies as routes in the creative process. It has been deductively derived, as empirical categorisations of the extremes of composing routes through which many of these children moved. Elaborations of evidence will be provided in the full paper.

These cases each illustrate composing pathways which are described in terms of:

Case 1: **Linear pathway** where movement skips directly from generative to verification phases with minimal interplay between divergent and convergent thinking
Case 2: **Recursive pathway** where movement occurs as loops backward and forward across stages with maximum interplay between divergent and convergent thinking

<table>
<thead>
<tr>
<th>Case 1</th>
<th>Linear pathway</th>
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<tbody>
<tr>
<td>Lia</td>
<td>Guitarist</td>
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<td></td>
<td>few parameters set</td>
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<tr>
<td></td>
<td>exploratory action sequence</td>
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<td></td>
<td>continuous stream of ideas</td>
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<td></td>
<td>preoccupation with developing new musical structures</td>
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<td>operates within immediate time frame</td>
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<th>Case 2</th>
<th>Recursive pathway</th>
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<tr>
<td>Tim</td>
<td>Pianist</td>
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<td></td>
<td>all parameters set</td>
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<td>fluid action</td>
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<td>interplay focuses on</td>
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Table 1: Overview of children’s different compositional pathways
Case 1. Introducing Lia: a guitarist who creates ‘quick pieces’

Lia had played the guitar since the age of seven. She had lessons for the past year and played both acoustic and electric guitar. When Lia composed she focused on the moment-to-moment connections based in performance of the repetition and development of particular motives unfolding in an expressive musical performance based on continuous motion and sound. She was mainly concerned with rhythmic and melodic patterns picked up by ear from popular music. She described how she spent most of her time ‘mucking around with ideas’. Lia was less inclined to revise or select ideas for reworking. Instead, composing was directly linked to her love of performing and the having of and playing with ideas (as divergent thinking). She favored exploring possibilities and converging on pitch patterns that arose from what she knew and found playable. The latter process appeared to involve a converging or ‘anchoring’ particular ideas that linked to performance techniques and known action repertoires. Her intention was to make pieces afresh.

*When it’s fixed, like written down in a book or something, you don’t add any more notes, do you. No, because that’s when it’s a fixed piece. But a made-up piece is just like . . . anything you like to play. You can even make mistakes and you just gear up and include . . . Whenever you play it again, it comes out different anyway so its never really the same thing or set in your memory. You just put your mind to it, anchor some ideas and play through without stopping.* [Source: Discussion Session 17]

Lia was a risk-taker who preferred generating new musical possibilities and making music afresh.
Case 2. Introducing Tim: a pianist who composers ‘proper pieces’

Tim (a 12-year-old) had completed five years of formal instrumental tuition on piano and reached Grade 5 piano, Grade 4 in Theory and Grade 3 in violin. He had also completed two terms of group lessons at school in percussion. He was a member of the school choir, string orchestra and attended a Saturday morning School of Young Musicians. Tim began composing by ‘playing around’ until he ‘found a chord’ he liked and began ‘working with it’. He worked interchangeably with rhythmic, harmonic and melodic elements until assigning a chord as a signpost ‘to mark the point where I return to the first section’. The strategy used to ‘fix’ these ‘bits’ into sections involved building a memory structure (or imagined frame) in which what was good was retained and ‘marked out’ into sections that become outgrowths of a mental representation of the overall piece. The extent to which his goal was to preserve the wholeness, at the level of the structure, of the piece was indicative of the activities of sign posting certain time points which ‘mark the end of each section’. It was as if he was consciously mapping a plotted structure. The strategy of envisioning ‘sections’ allowed him to move around and back-and-forth playing through and thinking ‘back to the beginning idea’. The process did not seem to involve a vision of the total but rather the construction of a frame (ABA), which evolved as the piece was built up and assembled in bits. As Tim metaphorically suggests ‘it’s something like when you do a puzzle, you do a bit and you can’t do anymore so you go away and then you come back and you’ve got some more ideas’. He committed the ordering of these sections to memory using a recursive pathway that saw him move back-and-forth between phases of exploration, selection, aural testing, revision and reflection on evolving drafts in musical memory.

What distinguished between these children’s composing pathways?:

1. The intention underlying the making of moment-to-moment connections based on the continuous exploration of possibilities (focus on divergent thinking processes or the having of ideas) as compared to the use of planned musical relationships by means of the sectional use of contrast and repetition (focus on convergent thinking processes or shaping of ideas).

2. The context (choice of instrument and time taken) of composing can involve either pieces created and recreated anew during performance (‘quick’ pieces) as compared to time-tested pieces relieved ‘over and over’ deliberately bracket ideas in order to develop a memorised (or ‘fixed’ or ‘proper’ piece).
3. A naturally elected and proportional dynamic balance of divergent-convergent versus convergent-divergent thinking processes seemed to be rooted in their musical biographies.

What characterises creative thinking in children’s perceptions and processes of composing?

Creative thinking in composition is reflected in the shaping, seeking and releasing of possibilities and intentional choices children make. The marvels of how and why children compose differently appear to be the offspring of:

(a) intentionality which is harnessed by enabling conditions and skills;
(b) time and how it is proportioned;
(c) the marriage between divergent thinking, the ‘bodily’ phase of purposeful, playful exploration in which the player is carried along by their engagement in physical activity, and convergent thinking, the ‘focus’ and fixing’ of ideas; and
(d) a unique relationship between action and (internalized) thought in musical creativity.
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References


