Flow and creativity in the music classroom

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Abstract

This study was designed to examine any links between the concept of Flow or Optimal Experience and the creative output of student compositions. The creative products of group compositions by University students (n=45) were rated for creativity and on a number of standard criteria and compared with scores obtained from Experience Sampling Forms (Csikszentmihalyi, 1988) completed by each participant. A significant correlation was found between Optimal Experience or Flow levels of students and the quality of their group compositions as measured by creativity ratings. Some implications for educators and learners in the music classroom are explored.
Introduction

Creativity in music has exercised the minds of teachers and scholars for some time now (Webster, 2000; Hargreaves, 1999; Sundin, McPherson & Folkestad, 1998) and ideas linking the quality of musical output with the quality of the student experience have been explored by Byrne & Sheridan (2000) and MacDonald and Miell (2000). There is a growing literature emerging from the ideas contained in the notion of Flow as introduced by Csikszentmihalyi (1975) and developed by him and Massimini & Carli (1988) among others. The characteristics of Flow are clearly recognisable in many worthwhile pursuits and activities ranging from cooking and gardening to downhill skiing (Csikszentmihalyi, 1992) and musical performance (O’Neill, 1999). Csikszentmihalyi (1996) describes nine components of enjoyment that many people experience when engaged in activities such as sports and hobbies. Activities which ensure that ‘there is no worry of failure’ and provide ‘clear goals every step of the way’, instant feedback on the performance during the activity and which contain a balance between challenge and skill often provide individuals with the exhilarating feeling that is Optimal Experience or Flow. In addition, such pursuits also provide a feeling of time being altered and a state in which distractions are excluded from consciousness. Actions or decisions become automatic and feelings of self-consciousness disappear. Such pursuits and activities are also described as being ‘autotelic’ in nature since they provide their own goals and are therefore worth doing for their own sake. Activities can become rewarding experiences if ‘the activity is structured right and if one’s skills are matched with the challenges of the action. In this optimal condition, people enjoy even work, extreme danger, and stress’ (Csikszentmihalyi, 1975, p. xiii). Byrne & Sheridan (2000) have described a model for music education which utilises the Flow concept and it has also been suggested (MacDonald, Byrne and Carlton, 2002) that the creative output of musicians can be directly correlated with levels of Flow.

The study of Flow (Csikszentmihalyi, 1975) or Optimal Experience (Csikszentmihalyi, 1988) in every day life has extended to performance in sport (Jackson & Marsh, H., 1996) and in learning to play musical instruments (O’Neill, 1999). Although there exists a considerable literature on creativity and music (Webster, 2000) there has, so far, been no evaluation of possible links between musical creativity and optimal experience.
Background

Music educators are concerned with the idea of enabling students to become good thinkers and to be able to take a set of transferable skills from their time spent studying music (Byrne et al, 2001). This is one of the aims of a novel class for music undergraduates at one Scottish University that prepares students to work in a wide range of contexts including both formal and informal educational settings. A crucial component of the class, Applied Music, is the completion by students of a small group composing task intended to promote the identification, acquisition and development of collaborative skills. As a result, the task is framed in such a way as to optimise the contributions of each group member. At the same time, reflection upon the processes involved in the creation of the composition is also encouraged through the use of a modified version of the Experience Sampling Form (Csikszentmihalyi, 1988).

Aims

The present study was located in a University specialist music course in which concepts such as Flow and a number of learning theories were embedded within the class. While the content of the class was designed to enable students to apply some of the ideas in their own learning and, subsequently, their teaching, the researchers were interested in two linked facets of the class: the creative product of a composing project and students’ own reflections on the quality of their experience while engaged in the project. It was postulated that if at least three of the conditions of Flow were present within the learning environment, then a high level of optimal experience would occur. Furthermore, if such a high level of Flow was indeed present, would this be reflected in the quality of the group composition? Therefore, the composing task was designed in such a way as to provide potential for the following three conditions of Flow to be present:

- there are clear goals every step of the way
- there is immediate feedback
- there is a balance between challenge and skill

The study also compared two methods of assessing the quality of musical output; a standard criteria based method (0-21 marks) and the Consensual Assessment Technique (7-point scale) of Amabile (1983, 1996) as applied by Hickey (2000) in a study of the musical compositions of children.
Methodology

Students were required to work in groups of three and to meet at least three times to work on their group compositions. Each time they met, students (n=45) completed individually an Experience Sampling Form that was modelled on that used by Csikszentmihalyi (1988) as a strategy for sampling levels of concentration on the task and the balance of skills and challenge associated with it. Completed compositions were recorded and rated for creativity both by the students (n=31, 69% of the total number of students) and by two groups of specialists who had experience of teaching and assessing composition. One group consisted of experienced music lecturers (experienced raters, n=9) working in a University department and the other was of trainee teachers (postgraduate student raters, n=15) on the postgraduate certificate in education course at the University. In addition, the experienced raters assessed each composition on a standard set of criteria (staff criteria score) as used on the music degrees taught within the department.

All groups rated each composition for creativity using Consensual Assessment Technique (Amabile, 1983, 1986; Hickey, 2000). All raters were given the same instruction: ‘Using your own definition of creativity, rate the degree to which each composition is creative’ (Hickey, 2000, p. 11). All responses were collated and analysed using SPSS software. ESF (Experience Sampling Form) scores generated a mean of three scores for each individual student and a group mean of all nine individual scores. ESF scores were compared with creativity, and staff criteria scores.

Results

Two important strands emerged from the data. Firstly, there was a significant correlation between the staff criteria score and the staff rating for creativity (r =.966, p<0.001) which suggests that Consensual Assessment Technique is no more or less reliable than the set of seven criteria commonly used in music degree courses at the University.

Secondly, student teacher ratings for creativity correlate with mean individual ESF scores (r = .305, p< .05) and with mean group ESF scores (r = .484, p<.01). Ratings for creativity by all experienced raters (figure 1) correlate highly with mean group ESF scores (r = .392, p<.01). Students’ own ratings for creativity correlate highly with all experienced raters (r = .315, p<.05) but were more similar to the postgraduate students raters (r = .396, p<.01). A striking feature of the data is the extent to which the postgraduate student raters appear to be able to distinguish
compositions by groups who experienced high levels of flow. In this case the Mean Creativity Rating by student raters was directly correlated with the Mean Group ESF score (r = .484, p<.001).

Conclusions

There are implications for University music teaching staff concerning the ways in which student compositions are assessed. The use of standard sets of criteria is widespread in the assessment of creative music making in schools in the United Kingdom and the United States and a variety of models exist (Webster & Hickey, 1995; Webster, 2000). Staff time is both valuable and expensive and a more economic model of assessment procedures could be developed in the knowledge that Consensual Assessment Technique has proven to be robust and reliable. Studies, including the present one, suggest that experienced raters do, in fact, take into account the many factors of criteria based methods while subjectively rating musical compositions on the single dimension of creativity.

While these assessment procedures may be of benefit to staff and students in Universities and Colleges, it is in the secondary school music classroom that there is potentially the greatest benefit. Byrne & Sheridan (2000) suggest that a powerful reflective tool for teachers can be developed using the Flow model. Such a tool would be valuable to teachers in initiating, planning, monitoring, regulating and assessing learning. It has been observed that both formative assessment and marking criteria are ‘necessary in an examination system that rewards attainment with certificates of achievement’ but that it should be possible to develop assessment tools designed to assist the novice composer in building skills while also enjoying the experience (Sheridan & Byrne, 2002).

Developing a self-regulation tool

In completing ESFs, students in our study indicated their moods and feelings over 28 different variables. Two of the key variables, challenges and skills, have been found to be good indicators of flow when they ‘are above a certain level, and are in balance’ (Csikszentmihalyi, 1988, p. 260). Similarly, when students report feeling ‘active’, ‘happy’, strong’, ‘clear’ and ‘involved’ it can be assumed that there is some sense of wellbeing and that some of the conditions of flow are present. As educators we are really interested in the quality of our students’ learning and in ensuring that the learning process produces a positive experience. Remembering that opportunities for success can also be opportunities for failure (Clarke &
Haworth, 1994), activities can be designed that build upon the learner’s existing skills and take account of the level of challenge presented by any new activity. Csikszentmihalyi describes one possible scenario:

For instance, a beginning piano player will see learning the keys corresponding to the various notes as challenging, and might feel in flow simply by running the scales on the keyboard. As soon as the player feels confident with the scales, however, new challenges need to be found or he or she will get bored.

(Csikszentmihalyi, 1988, p. 261)

We can envisage a teaching and learning tool that makes use of the flow model in which the learner is kept on-task, regular and immediate feedback is given, clear targets are well defined and achievable, and in which there is a balance between challenges and skills. Of course, activities in which participants can attain feelings of flow are likely to be highly intrinsically rewarding in themselves. The present study has shown that it is possible to achieve high quality creative output in musical composition and that a directly related flow state can occur. Music educators may like to consider a refined version of the Experience Sampling Form which acts as a self-regulatory tool for the learner. The attainment of high levels of flow would be a strong indicator of progress by the learner and of good quality attainment in creative music making. Such a version of the ESF would also allow the balance between skills and challenge to be monitored and adjusted by both the learner and the teacher.
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References


