**Prisons and Primary Schools: using CHAT to analyse the relationship between developing identity, developing musicianship and transformative processes**

*Abstract*

This paper draws on three different research projects to demonstrate the use of an expanded model of Cultural Historical Activity Theory (CHAT), developed as part of a doctoral research study (Henley, 2009). The first project is an evaluation of the impacts of a Music Partnership Project within Primary and Secondary Schools. The second project is an evaluation of the Good Vibrations Javanese Gamelan project in male and female prisons. The third project is an exploration of the learning processes within a Good Vibrations Javanese Gamelan Project in a young offenders' institution. CHAT provides a lens for analysing activity, placing the interactions between the individual, individual cognition and the socio-cultural environment at the heart of the analytical framework. Although a useful way of looking at activity in order to understand the individual and social processes occurring in a learning activity, criticisms of CHAT include the rigidity of the unit of analysis, its inability to view progression and transformation and the focus on one individual without taking into account the labour power that a group offers (Daniels and Warmington, 2007).

This paper focuses on how CHAT has been developed in response to these criticisms and subsequently used in the three different projects. Firstly, the two-dimensional activity system model of CHAT is explored and its application to music education considered. Criticisms of the activity system and how using the two-dimensional activity system in a doctoral research project led to the expansion of the model are discussed. The three research projects are introduced and the application of the new model to these projects is demonstrated. Finally, the usefulness of the new model as an analytical tool is considered.

*Prisons and Primary Schools*

The multifaceted nature of music education takes us on unexpected journeys. After a career in woodwind and singing teaching within Primary and Secondary schools, including ensemble and choir direction, as well as some Secondary class teaching, a journey into music education in the Criminal Justice System was one that I did not expect. However, the opportunity arose to participate in a prison music project and I was struck by how similar the learning processes within a completely different context to my normal teaching environment were. Two common elements in these learning processes are the relationship between the learner and the tutor and the evolving identity, or transformation, of the learner.

The relationship between learner and tutor has been highlighted as a key element in the learning processes of older adults. In identifying the characteristics of a 'good' music facilitator, Hallam et al. (2011) found that learners believed 'good' music facilitators should respond to the learners and motivate them through supportive feedback. When discussing their learning experience throughout a week-long Javanese Gamelan

prison project, similar characteristics were reported by participants (Henley et al., 2012). Moreover, the relationship between facilitator and learner within a criminal justice context is considered a vital component in developing social capital (personal, professional and peer relationships and social interaction) and individual agency (confidence, motivation, ownership and self-determination) attributed to the process of moving away from a criminal identity known as *desistance from crime* (McNeill et al., 2011).

The process of desistance from crime involves a transformation of identity, and this has been a key theme in recent research in criminal justice. Within the Good Vibrations Project, Caulfield, Wilson, & Wilkinson (2010) found that participants had an increased sense of self-esteem and were able to identify themselves as members of the Javanese Gamelan within the prison. This contributed to a rise in confidence and a transformative effect leading to offenders taking on new responsibilities within their prison communities. In turn, this contributed to the development of a more positive identity that they hoped would take them through the transition back into the community. Transformation of identity has also been seen as key in wider offender education and preparation for transition into the community. Christopher (2013) explored the process of preparation for work given within prisons. She developed a model that can be applied to any employment training, which will help ex-offenders move into employment. The model comprises Identity, self-Esteem, Competence and Resilience (IECR), identity development being the first step in the transformative process; identity needs to be developed before self-esteem, self-esteem is vital in developing competence, and competence leads to developing resilience.

As well as being a key concept in recent research in criminal justice, identity development and transformation has also been discussed in music education. Freer (2009, 2010) investigated issues relating to gender in choral singing using the concept of Possible Selves (Markus & Ruvolo, 1989). He suggests that within a choral singing context, learners look for positive role-models that help to develop a positive possible self. This positive possible self is crucial in the development of a positive identity of a male choral singer (Freer, 2010). Hoffman (2012) looked at the relationship between engagement, exclusion and identity construction in ensemble learning within a diverse socio-economic environment. She investigates the relationship between socio-economic status and academic success in the US and how the structures of the ensemble contribute to the construction of identities, calling us to move away from hierarchical ensemble structures so as to foster emerging positive identities. Taylor's (2011) study of older adults' musical learning experiences documents how identity is constructed at a mature age. Through analysing the life histories of her participants she was able to understand the complex nature of mature musical identity and the way adults use their youthful musical identity in learning later in life. These three studies all provide examples of the centrality of identity within transformative processes in different learning

contexts; without the construction of a specific identity, change could not have occurred. Furthermore, the facilitator or tutor plays a considerable role in inspiring this change.

With common elements within the learning processes in both music and prison education, it seems reasonable to draw on research carried out in these educational contexts to explore how the learning processes contributing to identity and transformation can firstly be viewed and secondly understood. However, as the contexts are so different, a conceptual framework that allows interactions between the individual and the social context to be viewed and understood, but is not specific to either context is needed. Cultural Historical Activity Theory (CHAT) provides such a framework.

*CHAT and Music Education*

CHAT is a way of looking at any activity involving a subject, or learner, and a desired object, or goal. At the core of CHAT is Vygotsky's (1930/1994) concept of mediation. Wertsch (2007; 178) explains,

> *'Instead of acting in a direct, unmediated way in the social and physical world, our contact with the world is indirect or mediated.'*

In other words, people use tools, such as symbols and language, to carry out activity; the tools carry some kind of meaning that can be interpreted by the individual in the social context. Therefore, the tools act as mediators between the individual and the social and physical world. Mediation can occur explicitly in the form of tools that are intentionally introduced into an activity, but it can also occur implicitly. During the process of teaching, a teacher may introduce a way of assimilating information in order to enable the student to organise the information to gain meaning. For example, a music teacher may teach a student a rhyme so as to remember where notes lie on the stave. Once this is memorised, the student can then organise this information and realise it by interpreting the written notes into sounds.

The rhyme is an example of a tool of explicit mediation. Over time, the student internalises this tool until the process of reading music becomes what Hutchins (1995; 310) calls an '*automized skill*'. This skill has been mediated by a rhyme, however with continued interaction between the student and the notation, the rhyme has become obsolete yet the process still exists. Moreover, the notation then becomes itself an explicit tool of mediation between a physical activity and a sound.

The example Wertsch (2007) gives of implicit mediation is thinking aloud. When thinking and speaking at the same time, a person is exploring their thought processes through the tool of spoken language. In

musical terms, an example of this is when a student is trying to learn to play a tune that they know, say for example Happy Birthday, by working out the notes aloud on an instrument against a tune in their head. They are exploring the musical sounds in order to find the ones that they want to fit in with the tune, the cognitive tools mediating the activity as it progresses.

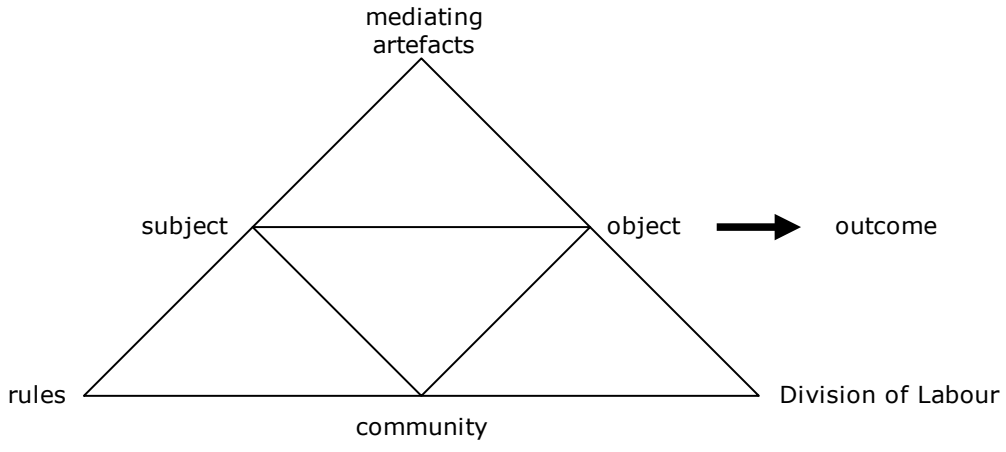
The crucial factor of mediation is that individual cognitive factors and environmental factors (including other people and their cognitive factors) are not separated, but are integral to each other. Furthermore, as environmental factors are culturally and historically developed, the individual cannot be separated from the cultural historical context of the activity. Cole (1996; 103) tells us that

> *'The dual process of shaping and being shaped through culture implies that humans inhabit "intentional" (constituted) worlds within which the traditional dichotomies of subject and object, person and environment, and so on, cannot be analytically separated and temporally ordered into independent and dependent variables.'*

The example Cole gives to demonstrate this is that of tying a knot in a handkerchief as an external way to control memory. This highlights the point that tools are culture-specific in that if they were in a different context, they would not have the same meaning; without the culturally embedded knowledge of what the knot in the handkerchief means, the knot cannot mediate the act of recall. Moreover, a handkerchief is a cultural object and the act of tying a knot in a handkerchief to aid memory recall is a custom that is passed down through generations. If handkerchiefs are no longer used by a younger generation, perhaps replaced by paper tissues, the custom of tying a knot in a handkerchief might disappear. The disappearance of the custom would be the result of interactions between people and their environment. Furthermore, if we attempted to analyze why the custom has disappeared, we would find it difficult to separate out the younger generation from their environment.

Over the past 25 years, Engeström has developed CHAT and it continues to evolve as a theoretical concept (Engeström, 1987; 1990; 1993; 1999; 2001; 2005; 2007; 2008). The triangular model of the activity system put forward by Engeström (1999) is shown in figure 1. It is a framework for viewing mediation and practical activity within the context of the social environment. In other words, it is a way of *'examining the relationships that hold between the individual and her environment'* (Barrett, 2005; 264).

**Figure 1** - Engeström's activity system



(Engeström, 1999; 31)

Engeström (1993; 67) describes the activity system as incorporating

> *'both the object-orientated productive aspect and the person-oriented communicative aspect of the human conduct. Production and communication are inseparable.'*

Therefore the functional aspects of an activity can be viewed in relation to the social aspects of an activity. The triangular model represents interactions within an activity between the different activity constituents. The subject, the object and the mediating artifacts (also known as tools) interact with the community of the activity, the rules of that community/activity and the division of labour within the community/activity to produce an outcome. In terms of musical learning, the learner is the subject, the object is the particular musical learning objective, and the tools are both physical instruments and cognitive processes (such as aural learning, note reading, non-verbal communication, etc.); a person learns to play the flute through manipulating their instrument, developing technique and engaging in musical expression and cognition. The person may be learning within a group, so the learning group is the community, the way the learning group is organized and managed (whether it is learner-led, teacher-led, whether there is peer learning etc.) constitute the rules, and the division of labour is the amount the person is contributing to the music; when playing with others, do they lead, do they follow, do they play everything, do they miss notes out and let others provide fluency? All of these things contribute to musical learning, and all are inseparable. For example, if a person is learning to play electric guitar, the type of community (a rock band) might predict the rules of the group (learner-led), and the rules of the group might predict the cognitive tools used (a mixture of guitar tablature and aural skills). The way the labour is divided in the group (guitar solos) contributes to musical development through increased expertise of guitar playing. Mapping these interactions using the activity system enables the analysis of *how* activity is taking place without separating individual cognitive processes from the socio-cultural and historical context, and provides a lens through which to view musical activity that recognizes music-making as a cultural practice.

In addressing the multifaceted nature of music education, Welch (2007) discusses the use of CHAT as a methodological approach that allows the complex processes within musical learning to be viewed in a holistic way, so that the investigator can *'combine both macro and micro perspectives'* (p.27). In applying the activity system to a case study of female choristers within a previously all-male environment, Welch was able to begin to understand how female choristers are inducted into an all-male environment and the

resulting cultural transformation of both the participants and the socio-cultural environment. Moreover, using the activity system framework to view the cultural environment of the cathedral chorister, Welch (2011) is able to find explanations for the maintenance of the choral tradition within cathedrals. With this case study, Welch highlights the potential for using CHAT to view both activity and transformation as a result of an activity.

Burnard and Younker (2008; 63) applied Engeström's model of CHAT to the micro processes of musical learning so as to '*identify and describe how cultural tools are used and characterise interaction in composing and arranging.'* Focusing on the collaborative interactions involved in group improvising, they used a qualitative methodology to observe children's responses to composing and arranging tasks. In analyzing video observations and field notes, they applied CHAT as a framework to view the different types of interactions and collaborations taking place within the tasks. They found that within these tasks, there were in fact different activity systems at play; that composing and arranging involved different interactions and therefore different activity systems. They concluded that the triangular model of activity as viewed in the activity system may not be the best framework for viewing multiple activities.

An interesting example of how the activity system has been adapted to view a specific complex musical environment can be seen in Burrows' (2004) exploration of the interactions between musicians within an improvisation. Burrows applied CHAT to free improvisation within a performance context in order to answer questions relating to the nature of improvisation and how a group of musicians improvise together. For Burrows, the triangular model posed difficulties in the way the complex interactions within improvisation are identified and labeled. He found when he applied the model to free improvisation he was not able to understand improvisation through purely viewing the constituents within the activity. However by taking the constituents out of the activity system, and placing them within a model that linked group cognition and individual cognition, he was able to see *'the contribution and interchange of musical ideas between individuals'* and understand *'the aural tapestry which is a kind of nexus for distributing cognition'* (p.8). Burrows is able to manipulate the activity system so as to draw out the elements of activity and then find a way of linking together the activity of multiple subjects in order to understand the transaction between musicians within free improvisation.

Although Burnard and Younker (2008;62) say that *'in music education, however, Activity Theory research remains relatively under-represented'*, there is potential for using CHAT to view transformation within music education, and also potential to manipulate the constituents of activity and create a flexible activity system that can be applied to multiple contexts and activities.

*Moving from Two Dimensions to Three Dimensions*

As a doctoral student looking for ways to untangle the complexities of learning to play an instrument within an ensemble, discovering CHAT was key moment. I was grappling with analyzing data that related to both individual cognition and also the social environment, trying to separate the two in order to understand what was taking place within the learning. The different theoretical concepts that I was using relating to individual learning within group activity (see table 1) all indicated that context was important, but I had no theoretical underpinning of how these concepts joined together or supported each other.

Whilst exploring CHAT I recognized Russell's (2004) description of context as a *'web or network of sociocultural interactions and meanings that are integral to the learning.'* To this, Russell added that CHAT enables us to look *'beyond the individual learner, the interface and the 'material' to understand the social and material relations that affect complex human learning'* (p 310). It helps us move beyond the *what* and into the *how*. I then set about applying CHAT to my data to see if it enabled me to look deeper into the learning process and understand these social and material relations.

I regrouped my initial coding into categories headed by the constituents of the activity system: subject; object; mediating artifacts; rules; community and division of labour. In doing so, I discovered that the individual theoretical concepts that I had understood and used to explain different aspects of the learning process could be brought together (see Table 1). Moreover, by bringing them together through the activity system, I could explore the relationships between the concepts and see how they interacted and complemented each other.

**Table 1 –** Main Theoretical Concepts Brought Together By the Activity System

| Constituent | Main Theoretical Concepts |
|---|---|
| Subject | Possible Selves (Markus and Ruvolo, 1989); Self Efficacy Theory (Bandura, 1997) |
| Object | Goal Setting Theory (Locke and Latham, 2007) |
| Mediating artifacts | Mediation (Vygotsky, 1930/1994;, Informal Learning (Green, 2002); Practice-Based Community Learning (Fenwick and Tennant, 2004) |
| Rules | Social Group Theory (Turner, 1987) |
| Community | Communities of Practice (Wenger, 1991; Wenger, 1998), |
| Division of Labour | Zones of Proximal Development (Vygotsky, 1978) |

The result of this was a snapshot of the learning processes and social interactions that come into play during a learning activity embedded in active music-making. However, the research findings also alluded to the transformative power of learning through active music-making, not only in musical development but also in the development of identities. Furthermore, identity seemed to be a key factor in the continuation of learning (Henley, 2009). Russell (2004) acknowledges that mediation is an evolving process, suggesting that

> *'Activity Theory prompts us to ask how we can 're-mediate' our interactions by changing our tools or the ways we share them with others.'*
>
> (p.311)

In line with Daniels and Warmington's (2007) criticisms of the activity system, I found that the activity system as it stood was not able to show me how the tools were re-mediated and therefore how progression and transformation occurred.

Daniels and Warmington (2007) highlight how contradictions within the activity system made it an unstable framework for analysis with reference to three important aspects: contradiction and labour-power (i.e. the potential of the group being greater than the potential of the individual), subject positioning and identity within activities, and emotional experiencing in personal transformation. All three of these aspects also became problematic in using the two-dimensional system in my research; not only in that contradictions appeared, but also the activity itself changed at different points in the learning process. Sometimes these changes in activity were context-driven – moving from rehearsal to performance, but more often they were learner-driven. Deeper analysis suggested that these learner-driven changes in activity were initiated by the learner in order to cope with external events or internal perceptions of failure (Henley, in press).

Nardi (1997; 75) recognizes that the constituents of activity do change.

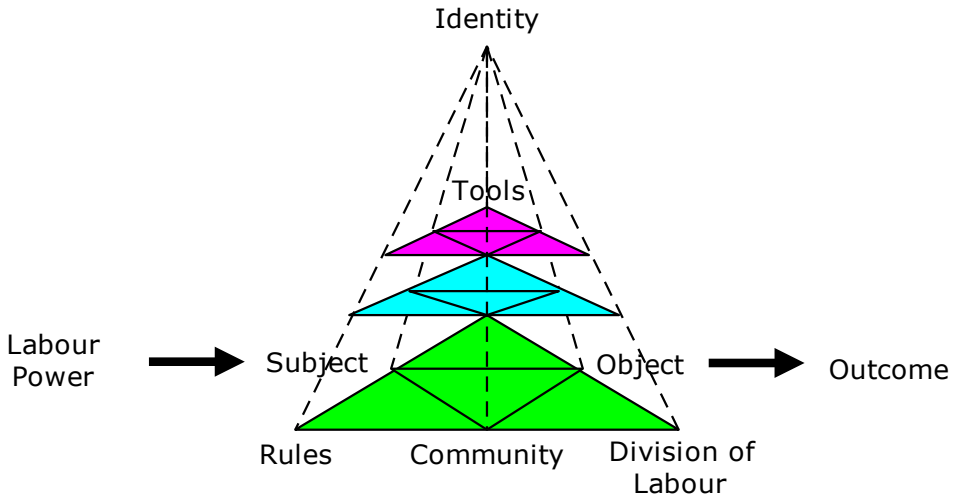
> *'Activity Theory holds that the constituents of activity are not fixed but can dynamically change as conditions change'* and that *'changing conditions can realign the constituents of an activity'*

In the case of my doctoral research, not only did the constituents of an activity realign themselves as a result of changing conditions, they switched places with another constituent. So, whereas the object of activity might be to learn to play the clarinet, and the mediating artefacts may be an amalgam of different cognitive and environmental factors, the person carrying out the activity would change the object and mediating artefacts as it suited them. When the person was not feeling secure in their musicianship, musical identity or learning, they changed the object to something extra-musical, for example relieving

stress, and music changed to the position of mediating artefact so as to account for why they were not 'very good' at that point in time: Playing the clarinet relieves my stress, I do not have to be 'good' at it.

On deeper analysis of changes in activities I realised that there was a common element: identity. Each time the activity changed, it was initiated by a change of identity. Furthermore, learners deliberately changed their identities in order to change the activity: I am not a clarinettist, I am a person who is stressed and this activity is therefore my stress relief. By doing this, learners were able to motivate themselves to continue learning rather than give up. This suggested that identity is the key that allows interaction between activities, and transformative process to occurs as a result. After exploring a number of different models incorporating identity as a constituent, I devised a three-dimensional activity system that allows for different activities to be placed parallel to each other, and identity trajectories that allowed the switch between activities to be viewed. This activity system is shown in figure 2.

**Figure 2 –** Henley's Three-Dimensional Activity System




(Henley, 2009; 210)

This then provides a conceptual framework that enables different contexts to be viewed and interactions between individual and socio-cultural context to be understood, as it is the interactions between the individual and their context that is being analysed rather than the context in isolation.

*Three Research Projects; Different Methodologies, Same Analytical Tool*

Since its development, the expanded model of CHAT has been used in three subsequent research projects. Although located in very different social contexts, each project centred on collaborative music-making and investigated some aspect of identity development.

**Project 1 – Music Partnership Project**

The first project was an evaluation of a nine-month Music Partnership Project (MPP) funded by the Department for Education (DfE) that was carried out in Birmingham, UK (Hoskyns and Henley, 2010). The objective of the project was to bring together a network of music education providers within the city who had begun working together collaboratively to provide music enhancement experiences for children in Primary and Secondary schools. The aims of the project were:

- To reach as many children and young people as possible across the city;
- To bring together different music educators through collaborative activity;
- To bring together Primary and Secondary schools in order to improve transition;
- To engage children and young people in creative music-making;
- To provide continuing professional development (CPD), particularly for Primary teachers who feel under-confident in teaching music;
- To develop partnerships between schools and music practitioners that can be sustained.

The project was complex and involved the creation of five clusters each comprising one arts organisation, one Secondary school and three Primary schools. Within the clusters, performing musicians from the arts organisations and instrumental teachers from the local music service worked with children both in individual schools and together as clusters to form creative ensembles. The clusters shared their work both within their cluster and across the clusters, and regular sharing events to facilitate this were organised as a key element of the MPP.

The MPP involved a commitment to working together and to develop shared understandings of creative music-making ensembles. Each organisation involved, including the schools, had different attitudes toward creative music-making and ensembles, but the intention was to share some of these in order to be better able to work collaboratively and cooperatively with a range of teachers, musicians and young people. Of particular interest within this was the way the Primary generalist teachers worked with Secondary specialist teachers, instrumental teachers and performing musicians to develop their understanding of creative music-making and enhance their own pedagogy. In addition to the development of shared understandings through collaborative working, CPD events were organised throughout the project. These included a

*Practitioners' Ensemble* that brought together the different practitioners musically and who also performed at project sharing days.

The research team was engaged as external partners to evaluate the impacts of the project and how far the aims had been met. The evaluation brief was to take an objective stance and to look critically at the project in terms of how it was achieving its aims. The research used a mixed-methods approach and comprised three strands. The first strand involved an investigation of the impacts of the project on the musical development of the children and young people. This strand explored the ways in which the project enabled the participants to access music-making, and the impacts of working in a creative way on their perceptions of themselves as musicians. The second strand involved an investigation of the ways in which the parties collaborated. This strand explored the impacts of collaborations between different practitioners as well as collaborations between children, young people and practitioners. The final strand involved an investigation of the impacts in terms of the professional development of the practitioners. This involved an exploration of the transformations of the practitioners as teachers, and looked particularly at whether generalist Primary teachers were empowered to continue to teach music as a result of the project. Impacts were interpreted as being on both a macro and micro level. On a macro level, data were required to explore how many participants had accessed music-making as a result of the project, what their perceptions of the quality of this music-making was, how visible the project had been within the schools, and how visible the project was to the wider community. On a micro level, data were required to explore individual impacts in terms of the ways in which the project had enriched the musical lives of participants (both adults and children) and also how far the project had changed participants' perceptions of themselves as learners and teachers. This being the case, a mixed methodology was adopted that allowed the researchers to collect both quantitative and qualitative data, and triangulate these in order to construct an understanding of the impacts of the project, what led to these impacts and to see how far they related to the project's aims.

Data were collected throughout the nine-month project using four layers of data collection. Observation data was collected from 50% of participating schools (one Secondary and one Primary in each cluster), from all project sharing days, one CPD day, and one Practitioners' Ensemble. This was collected via video observation where parental permission had been granted and by audio recording and field notes where video permission was not granted. Interview data was collected via semi-structured interviews with Secondary, Primary and Instrumental teachers and Cluster Leaders from each cluster, short semi-structured interviews with children both at sharing days and in school, and via dialogue with practitioners during observations. Qualitative and quantitative questionnaire data were collected via two online questionnaires; one for practitioners and one for students. Finally, statistical data were provided by clusters on participation rates across the project.

Video observations and interviews were transcribed and initially coded using a constant comparative process that allowed themes to emerge (Boeije, 2002). The thematic analysis was repeated with questionnaire data and themes were compared, categorised and analysed using the expanded model of CHAT as a framework. This enabled connections between the themes that emerged from the data and the processes within the music-making activities as seen by CHAT to be made, uncovering the micro impacts of the MPP. Statistical data were analysed so that an understanding of the macro impacts of the project could be constructed. These were then cross-referenced to see how the micro and macro impacts interacted. The results gave us a detailed understanding of the impacts of the project as a whole, the impacts of the project on each cluster and the impacts of the project on individuals.

**Project 2 – Good Vibrations Javanese Gamelan with male and female offenders**

The second project investigated the short- and medium-term impacts of a Good Vibrations Javanese gamelan project within prisons (Caulfield et al, 2010). The research involved four simultaneous research strands:

- Strand one: male offenders who had participated in a Good Vibrations project previously in order to investigate the medium-term and potential long-term impact of the project;
- Strand two: male offenders who had recently completed a Good Vibrations project in order to investigate the short-term impact on male offenders;
- Strand three: male ex-offenders who had previously completed a Good Vibrations project in order to investigate the potential medium- and long-term impact as offenders move out into the community;
- Strand four: female offenders who had recently completed a Good Vibrations project in order to investigate the short-term impact on make offenders.

The research built on previous research findings (Wilson, Caulfield, & Atherton, 2008) and adopted a similar methodology. The field researchers were all experienced in researching within prison environments and working with vulnerable populations. Data were collected via interviews and document analysis. In strands two and four, participants were interviewed daily and an emotional scale was used so as to compare behavioural and emotional change during the project. Participants were then interviewed at the end of the project in depth to investigate behavioural and emotional change after completion of the project. Prison staff were interviewed in strands one, two and four and disciplinary and other relevant records were analysed (Henley et al, 2012).

A structured approach to data analysis was taken using a method derived from Braun and Clarke's (2006) six-point process. Detailed line-by-line coding was carried out using themes initially drawn out of previous research literature, and new codes were used as they emerged out of the data. Codes were then compared and cross-referenced in order to identify themes, and a list of key themes was drawn up. These themes

were then checked to ensure that enough evidence could be found to support their identification as key themes. The themes that emerged during this analysis included positive change, anger management and stress reduction, coping and emotional and psychological impacts amongst others (Caulfield, et al., 2010).

Once these findings had been thoroughly analysed and written up, a further analysis of the data was conducted. As I was not part of the field-work team, the secondary analysis was carried out with no personal relationship with the participants. This enabled a certain level of objectivity in analysing the data. The themes suggested that there were multiple outcomes and impacts, and therefore a framework was needed that drew together these outcomes and enabled the elements of the project that contributed to these outcomes to be viewed. The expanded model of CHAT was applied and through the secondary analysis we were able to see how social music-making acted as a catalyst for the positive change found in the primary analysis (Henley et al, 2012).

**Project 3 – Good Vibrations Javanese Gamelan with young offenders**

The findings from Project 2 produced an exciting possibility that the processes of social music-making could in fact be shared processes with behavioural and emotional change in offenders. So, I wanted to investigate these learning processes in more depth to understand the relationship between musical learning and behavioural and emotional change.

The aim was to explore the learning processes in depth and gain a detailed understanding of the workings of a Good Vibrations project. Therefore, a qualitative methodology that comprised participant observation as the main data collection method was used. In addition to participant observation, follow-up semi-structured interviews six weeks after the project had finished were carried out. Both the project facilitator and the prison officer in charge of the project were also interviewed and access to Good Vibrations own evaluation data, including pre- and post-project questionnaires and a post-project focus group, was given.

The methodology was experimental in terms of previous research. Participant observation has not been used as the prime data collection method in a Good Vibrations project and I hoped that it would allow me to see something new. Labaree (2002; 103) suggests there are four interlinked values of participant observation: '*the value of shared experiences; the value of greater access; the value of cultural interpretation; and the value of deeper understanding and clarity of thought for the researcher*.' However, he warns that these values are not without their challenges. Maintaining objectivity and accuracy, and not allowing familiarity and comfort within a situation to hide the mundane are two such challenges and the participant observer must ensure that their position inside the researched environment does not engulf their responsibility as a researcher to question that environment. To minimise this, a 'cooling off' period

took place before the observation data were analyzed, and observation data was triangulated and cross-referenced with the other data sets so as to fully interrogate the data.

I participated in the project in the role of a support tutor. As a Javanese gamelan player and an experienced music educator, this role proved to be a natural role for me to undertake. Plus, previous research and the literature both suggested that the interactions between tutor and learner are a significant factor within the transformative learning process. Being completely inside the project enabled me to understand that interaction more fully through both experiencing these interactions first-hand, and also observing the interactions between the participants and the main project facilitator; it allowed me to exploit the multiple positions of insider-outsider within participant observation in order to collect data through different lenses (Labaree, 2002).

A participant observation schedule was drawn up using CHAT to as a framework. Field notes were collected and collated using categories from the model of CHAT and interview questions were designed to collect data relating to the different constituents of the model. The data provided by Good Vibrations - pre- and post-questionnaire and focus group data - were coded using codes derived from the model of CHAT. The themes that emerged through using CHAT in this way were closely related to those of previous research (Caulfield et al, 2010), and two overarching categories were identified relating to individual processes and group processes. On referring back to literature surrounding desistence theory, what had emerged as a result of collecting and collating the data using the expanded model of CHAT were findings closely linked to attributes relating to the development of desistence from crime (McNeill et al, 2011). The individual processes related to *Individual Agency* and the group process related to *Social Interactions*. Moreover, I was able to align the codes and categories from CHAT with these attributes and analyse the data using a framework derived from desistence theory.

**Table 2 –** Attributes relating to the development of desistence from crime

| | |
|---|---|
| **Individual Agency:** | Personal Identity |
| | Diversity |
| | Motivation |
| | Hope |
| | Self-determination |
| | Personal strengths |
| | |
| **Social Interactions:** | Professional relationships |
| | Peer relationships |
| | Personal relationships |
| | Sense of belonging |
| | Ownership |

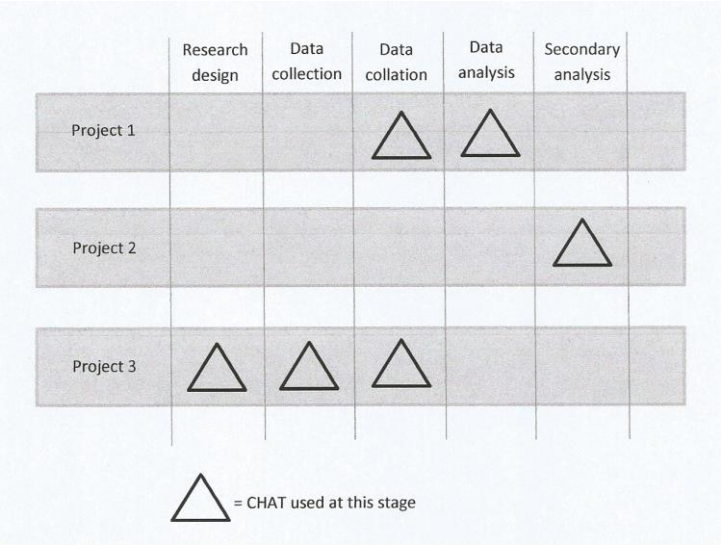
(adapted from McNeill et al, 2011)

Questions for the follow-up interviews were prepared based on the initial analyses of the project data sets, including the responses of the participants to the focus group and post-questionnaire. These follow-up interviews provided detailed information of the participants' reflections six weeks after the project and their aspirations as a result of the project. Moreover, on coding the data using the codes and categories aligned with desistence theory, I was able to see the contribution that the musical learning process had on the development of the attributes relating to desistence from crime and suggest that the development of individual agency and social interactions is a shared process with the development individual musical understanding and ensemble skill (Henley, 2014).

*The Three-Dimensional Activity System in Action*

The findings related to the outcomes of these three projects are inspiring (Hoskyns and Henley, 2010; Henley et al, 2012; Henley 2014). However, the concern with this discussion relates to the research process. In all three projects, the three-dimensional activity system was applied but used in slightly different ways (see figure 3). Project 1 (Music Partnership Project) used CHAT as the primary analytical tool. Project 2 (Good Vibrations Male and Female Offenders) used CHAT for a secondary analysis to understand the processes that led to primary findings. Project 3 (Good Vibrations Young Offenders) used CHAT in the design of the data collection, the collection and collation of the data, and in initial analysis. This then enabled an analysis to take place using a context specific framework.

**Figure 3 – The use of CHAT in each project**



In Project 1 (Music Partnership Project), using CHAT as the primary analytical tool enabled the interactions between the Primary generalist teachers, their own musical development and the socio-cultural environment to be viewed. After participating in the MPP a generalist Primary teacher commented,

> *I'm Faculty Leader for the arts in our school. I've been trying to work with the Head on how we can build staff confidence, but I've had a lot more teachers come to me in the last couple of weeks asking if there any opportunities for [teaching music]. Now we are going to try and generate our own [music curriculum].'*

By seeing how the MPP functioned in terms of the development of individual confidence through interaction between the teachers and the tools, and how this progressively developed as the division of labour changed and the teacher took on more responsibility, we were able to begin to understand this transformation. Similarly, it enabled us to begin to understand why some teachers responded in a negative way, '*I have learned nothing, and gained no experience or knowledge as a result.'* Data in this case showed that the teacher did not interact with the community, the rules of the activity, and was not able to share the division of labour within the project in the same way as others who reported some kind of change.

Project 2 (Good Vibrations Male and Female Offenders) used the three-dimensional activity system in a similar way, but was used as a secondary analytical tool rather than for the primary analysis. The activity system was applied to understand the findings of the research after they had been analysed and reported for evaluation purposes. These findings included a change in behaviours during the project that related to individual feelings and emotions,

> *I was going through a bad patch, where I was getting those angry thoughts and self-harm thoughts, and for that week I just didn't get none of it. I was just . . . it was chilled. (Male participant)*

Also, change in behaviours that impacted on how participants were viewed by others,

> *It showed a different side of me and it let officers see that side. Officers came up and said they didn't know that side of me existed. (Male participant)*

Through the application of CHAT we were able to see the processes that led to these changes in behaviour. Moreover, using a three-dimensional model allowed us to understand how a participant was able to engage in the musical learning in a multi-layered way.

Creating ownership, finding a voice, working together and, importantly, feeling normal appeared to contribute to the development of positive change identified by the primary analysis (Caulfield et al, 2010). By understanding the different layers of activity within the project, we could begin to understand how and why this was the case. The prime musical activity centred on creative, collaborative music-making through improvisation and composition. This led to the participants developing ownership of the project in terms of

their own creativity. However, in different layers of activity, such as group discussion, planning a performance, and formative assessment, participants found that they were able to find a voice, work together, feel normal and address particular personal challenges of working within a group such as this. This too contributed to a sense of ownership in terms of owning decision-making process and the ownership of the community. In fact, there appeared to be a myriad of different layers of activity that each individual participant engaged with during the musical learning process within the project.

This was also apparent in Project 3 (Good Vibrations Young Offenders). CHAT was used in the design and collection of data as well as the initial analytical tool, but it led to the application of a framework that enabled a way of understanding how the processes within musical learning contributed to context-specific transformation. By applying the three-dimensional model of CHAT it was clear that there were common project outcomes but also that different participants were gaining very different things from the project. As with previous research (Caulfield et al, 2010), participants reported that they were able to sleep as a result of the project.

> *It's good to sit down and play. I got a good night's sleep. I was chilled out. People kept asking me what's wrong I was that chilled.* (Young male participant)

This was explained by the participants as a direct result of the music.

> *It's that beat, that repetitive beat, going over and over in your head. It would just come back and then you would just drop off.* (Young male participant)

The activity system enables us to see how this may have occurred through a process of listening and internalising the music, but also how the tools of the prime musical activity, creative music-making, were re-mediated in another activity producing an entirely different outcome. It was clear that there were many different activities relating to listening, communication, working together, ownership, developing relationships and agency, and in each of these activities tools were re-mediated to produce the desired outcome. When the links between these different activities and the components of desistance theory were discovered, I was able to take this further and understand the significance of this in terms of the particular context of the participants.

> *'I am able to listen a lot more. What other people are saying, that was something that I struggled with before. I used to be 'I don't care, I'm here for one person and one person only'. You can't be like that. In order to get anywhere in this world you've got to listen. Good Vibrations taught me that. It made me appreciate life a lot more. I get up in the morning now and just sit in silence for a minute and listen. Listen to the birds and the keys and everything around me. I sit on my bed with a fag and a coffee and just listen. I don't switch the TV on any more. I used to sleep with the TV on, I don't do that now. I'm from the city, there's lights and sounds all the time through the night. I'm not used to silence so I had to have the TV on to go to sleep. Now, I don't do that. I've learnt to be myself and to listen more.'* (Young male participant)

Moreover, four further individual case studies compiled as a result of this research demonstrate a further four different transformations and their link to desistance from crime can be seen.

1. It was important for one participant to complete the week even though he became very frustrated on a number of occasions and constantly reported that he did not like the music: *If I don't stick to it now, it makes me think I can't stick it when I go out and get a job.*
2. The project enabled another participant to engage with a sense of himself: *It was an incredible break from such a horror. Being trapped in here with no way of moving on. It lifts you up and gives you perspective.*
3. A third participant overcame his personal feelings for others in the group for the benefit of the musical outcome: *There were people on that course that I couldn't stand. They knew I didn't like them. I avoided putting myself into a situation that could get me into trouble. I'd not do that on other courses.*
4. A fourth participant demonstrated how he overcame his nervousness of working with others through music: *'I wasn't really comfortable working in groups before.*

If the activity of the project had have been view holistically through one singular activity system, it would have been a more difficult task to tease out how these different individual outcomes transpired from one project, and the re-mediation of tools may have been missed. The point is that through a dynamic model of CHAT the dynamic nature of musical learning and its relationship with a particular context can be understood.

*Moving the Model Forward*

The commonality of these three research projects is that transformation appeared to have occurred as a result of the interaction between the different constituents of the three-dimensional activity system and that identity is a key component in this. Furthermore, whereas the doctoral research that led to the development of this activity system model found that a change of identity inspired a change of activity, these research projects suggest that a change of activity can inspire a change of identity. Therefore there is potential for the expanded model to show a two-way transaction between identity and activity.

The benefits of using CHAT as an analytical tool are clear. Not only is it useful for understanding how particular activities lead to musical transformation and change, but it is also useful for leading us to new understandings of the relationship between musical learning and personal and social transformations. However, this is not to say that it does not have its challenges. The reason that the initial analysis using the

three-dimensional model in Project 3 (Good Vibrations Young Offenders) led to a different theoretical framework is because it showed nothing new about the musical learning process itself. Whilst this might suggest that the musical learning process in very different contexts is the same, the value is seeing how the socio-cultural context and the learner interact. Perhaps the real value then of CHAT is its capacity to be used as a tool to explore the inter-relationship between musical, social and emotional behaviours in different socio-cultural contexts, and how these lead to transformation.

In practical terms, the potential for CHAT to be applied at a praxial level when designing learning is significant. If research has demonstrated the way that learners interact with the specific elements of CHAT, and these interactions lead to transformation, then perhaps there is a value in using CHAT in the planning and organisation of musical learning. Moreover, if more researchers and educators use and develop this three-dimensional activity system, our understanding of CHAT will evolve. Not only will this give both the music education research and teaching community a tried and tested tool for understanding the complexities of developing identities and developing musicianship, but it will also give the wider education community a lens for viewing learning processes in diverse contexts, and a potential framework for pedagogical development.

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*References*


Christopher, A (2013) *Impact of Employment, Training and Skills on Reducing Re-offending:* Middlesex University, Unpublished thesis.

Bandura, A. (1997a) *Self-Efficacy: The exercise of control*. New York; Freeman.

Barrett, M. (2005) Musical Communication and Children's Communities of Practice, in D. Miell, R. Macdonald and D. J. Hargreaves (eds.) *Musical Communication*. Oxford; Oxford University Press. 261-278.

Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology, 3,* 77-101.

Boeije, H. (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality and Quantity*, *36*(4), 391–409.

Burnard, P. and Younker, B. A. (2008) Investigating Children's Musical Interactions Within the Activities Systems of Group Composing and Arranging: An application of Engeström's Activity Theory. *International Journal of Education Research,* 47:1. pp 60-74.

Burrows, J. B. (2004) Musical Archetypes and Collective Consciousness: Cognitive Distribution and Free Improvisation. *Critical Studies in Improvisation,* 1:1. www.criticalimprov.com. Last accessed 08/07/2013.

Caulfield, L. S., Wilson, D., & Wilkinson, D. (2010). Continuing Positive Change in Prison and the Community: An Analysis of the Long-term and Wider Impact of the Good Vibrations Project. *Birmingham, England: Centre for Applied Criminology, Birmingham City University*.

Cole, M. (1996) *Cultural Psychology: A once and future discipline*. Cambridge, Mass.; Harvard University Press.

Daniels, H., & Warmington, P. (2007) Analysing third generation activity systems: labour-power, subject position and personal transformation. *Journal of Workplace Learning*, *19*(6), 377–391.

Engeström, Y. (1987) *Learning by Expanding: An activity-theoretical approach to developmental research*. Helsinki; Orienta-Konsultit Oy.

Engeström, Y. (1990) *Learning, Working and Imagining: Twelve studies in activity theory*. Helsinki; Orienta-Konsultti Oy .

Engeström, Y. (1993) 'Developmental Studies on Work as a Testbench of Activity Theory' in S. Chaiklin and J. Lave (eds.) *Understanding Practice: Perspectives on activity and context*. New York; Cambridge University Press. pp 64-102.

Engeström, Y. (1999) 'Activity theory and Individual Social Transformation' in Engestom, Y., Miettinen, R. and Punamaki, R-L. (ed.) *Perspectives on Activity Theory*. Cambridge; Cambridge University Press. pp19-38.

Engeström, Y. (2001) Expansive Learning at Work: Toward an activity theoretical reconceptualization. *Journal of Education and Work,* Vol. 14, no. 1. pp 133-156.

Engeström, Y. (2005) *Developmental Work Research: Expanding activity theory in practice*. Berlin; Lehmanns Media.

Engeström, Y. (2007) 'Putting Vygostsky to Work: The change laboratory as an application of double stimulation' in H. Daniels, M. Cole and J. V. Wertsch (eds.) *The Cambridge Companion to Vygotsky*. New York; Cambridge University Press. pp 363-382.

Engeström, Y. (2008) *From Teams to Knots: Activity theoretical studies on collaboration and learning at work*. Cambridge; Cambridge University Press.

Fenwick, T and Tennant, M. (2004) 'Understanding Adult learning' in Foley, G (ed.) *Dimensions of Adult Learning*. Maidenhead; Oxford University Press.

Freer, P. K. (2009) “I”ll sing with my buddies’ — Fostering the possible selves of male choral singers. *International Journal of Music Education*, *27*(4), 341–355. doi:10.1177/0255761409345918

Freer, P. K. (2010) Two decades of research on possible selves and the “missing males” problem in choral music. *International Journal of Music Education*, *28*(1), 17–30. doi:10.1177/0255761409351341

Green, L. (2002) *How Popular Musicians Learn: A way ahead for music education*. Aldershot; Ashgate.

Hallam, S., Creech, A., McQueen, H., & Varvarigou, M. (2011) Perceptions of effective leadership in music facilitators working with older people. *Journal of Arts & Communities*, *3*(3), 229–248.

Henley, J. (2009) The Learning Ensemble; musical learning through participation. Unpublished PhD thesis, Brimingham City University.

Henley, J. (2014) Musical learning and desistance from crime: the case of a "Good Vibrations" Javanese gamelan project with young offenders. *Music Education Research*, *0*(0), 1–18. doi:10.1080/14613808.2014.933791.

Henley, J. (in press). The Musical Lives of the Self Confessed Non-Musician. In R. A. Mantie & G. Dylan-Smith (Eds.), *The Oxford Handbook of Music Making and Leisure*. New York: OUP.

Henley, J., Caulfield, L. S., Wilson, D., & Wilkinson, D. J. (2012) Good Vibrations: positive change through social music-making. *Music Education Research*, *14*(4), 499–520. doi:10.1080/14613808.2012.714765.

Hoffman, A. R. (2012) Exclusion, engagement and identity construction in a socioeconomically diverse middle school wind band classroom. *Music Education Research*, *14*(2), 209–226. doi:10.1080/14613808.2012.685452

Hoskyns, J. and Henley, J. (2010) *Banded About, Birmingham – Evaluation*, Birmingham City University.

Hutchins, E. (1995) *Cognition in the Wild*. Cambridge, Mass.; MIT Press.

Labaree, R. V. (2002) The risk of going 'observationalist': negotiating the hidden dilemas of being an inside participant observer, *Qualitative Research*, 2:1, pp 97-122.

Locke, E. A. and Latham, G. P. (2007) New Developments in and Directions for Goal Setting Research. *European Psychologist 2007,* Vol. 12, no. 4. pp 290-300.

Markus, H., & Ruvolo, A. (1989). Possible selves: Personalized representations of goals. In L. A. Pervin (Ed.), *Goal concepts in personality and social psychology.* Hillside, NJ: Lawrence Erlbaum Associates, Inc. pp. 211–31.

McNeill, F. (2006) 'A desistance paradigm for offender management' *Criminology and Criminal Justice* 6(1): 39-62.

McNeill, F., Anderson, K., Colvin, S., Overy, K., Sparks, R. and Tett, L. (2011) 'Kunstprojecten en What Works; een stimulans voor desistance?' (Trans. 'Inspiring Desistance? Arts projects and 'what works?') *Justitiele verkenningen*, 37(5). pp80-101.

Nardi, B. A. (1997) 'Studying Context: A comparison of Activity Theory, Situated Action Models and Distributed Cognition' in Nardi, B. (ed.) *Context and Consciousness: Activity Theory and Human Computer Interaction*. Cambridge, Mass; MIT Press. pp 69-102.

Russell, D. R. (2004) 'Looking Beyond the Interface: Activity Theory and Distributed Learning' in Daniels, H. and Edwards, A. (eds.) *Psychology of Education*. London; RoutledgeFamer. pp 309-326.

Taylor, A. (2011) 'Contintuity, change and mature musical identity construction: Using 'Rivers of Musical Experience' to trace the musical lives of six mature-age keyboard players, *British Journal of Music Education*, 28:2, pp 195-212.

Tunstall, T. (2011) *Changing lives: Gustavo Dudamel, El Sistema, and the Transformative Power of Music*, New York: W W Norton & Co.

Turner, J. C. (1987) *Rediscovering the Social Group*. Oxford; Blackwell.

Vygotsky, L. S. (1930/1994) 'Tool and Symbol in Child Development' in R. Van der Veer and J. Valsiner (eds.) *The Vygotsky Reader*. Cambridge, Mass; Blackwell.

Vygotsky, L. S. (1978) *Mind in Society*. Cambridge; Harvard University Press.

Welch, G. F. (2007) 'Addressing the Multifaceted Nature of Music Education: An activity theory research perspective', *Research Studies in Music Education,* 28:1. pp 23-37.

Welch, G. F. (2011) 'Culture and Gender in a Cathedral Music Context' in M. S. Barrett (ed.) *A Cultural Psychology of Music Education*, Oxford; Oxford University Press. pp 225-258.

Wenger, E. (1998) *Communitites of Practice: Learning, Meaning and Identity*. Cambridge; Cambridge University Press.

Wertsch, J. V. (2007) 'Mediation' in H. Daniels, M. Cole and J. V. Wertsch (eds.) *The Cambridge Companion to Vygotsky*. Cambridge; Cambridge University Press.

Wilson, D., Caulfield, L., & Atherton, S. (2008) Promoting positive change: Assessing the long-term psychological, emotional and behavioural effects of the Good Vibrations Gamelan in Prisons Project. *Birmingham: Centre for Criminal Justice Policy and Research*.