



# Creative Conceptualisation: Nurturing Creative Practice Through the Popular Music Pedagogy of Live Recording Production

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## Abstract

Record production is a major aspect of many tertiary-based popular music education programs. It is a practice that involves the capturing of an artist's vision and is realised when that vision draws an emotional response from the listener. In professional practice there are many techniques the producer learns via experience to accomplish this, but as technology develops, processes of past eras risk being brushed aside by technological advancement. The capturing of a live performance was the practical framework used by popular music pioneers and the creative results of this process have particular characteristics that are difficult to achieve by contrasting methods. This article outlines the importance of an education in live recording frameworks to tertiary popular music students; it presents learning and teaching practices that accomplish this and concludes with a case study of a live recording workshop that nurtures the students' developing creative practice.

KEYWORDS: record production, popular music pedagogy, live recording

## Introduction

This paper is a documentation of reflective practice that examines the importance of a live recording experience for tertiary-based popular music students. Live

Production Projects is a workshop I developed and delivered that has been running for three years within the Bachelor of Popular Music Program, Queensland Conservatorium Griffith University.

The paper will explain how the workshop's design mirrors professional practice and utilises a practice-based and peer-reviewed learning framework that develops student understanding of associated technical and creative concepts. History indicates that popular music productions are constantly using sounds, tones, and creative processes from past eras and these influence the development of new musical styles. Therefore, this paper argues that the popular music graduate will benefit from practice-based knowledge of the live recording experience and its creative practice to add to their skill set in preparation for the demands of the popular music industry.

Popular music record production began by capturing a live performance and, as technology developed, this process evolved to include an overdubbing option. Technological advancement has always influenced the creative practice options available to popular music record producers and the introduction of the digital audio workstation (DAW) broadened the scope of creative practice further. The DAW's tools facilitated a major shift in record production techniques. Editing technology now had the ability to dominate the creative process, altering how musicians and producers worked. Record production could become a more scrutinised and then "pieced together" type of process.

Marketing campaigns for DAW technology promote the use of the newest, latest, and greatest "in the box" (ITB)<sup>1</sup> technology, and the untrained producer's practice is in danger of being smothered by this. Internet forums, or message boards, like GearslutZ confirm this is happening and it has the potential to dominate the untrained producer's creative practice and limit their musical diversity to the point where the art of performing as a musician has the possibility of being lost.

Recent record production from professionals, including The Foo Fighters (2011), Amy Winehouse (2006), and Gotye (2011), are wonderful examples of recordings that have balanced the use of technological applications from the past and present with the musician's creative practice. These projects adopt production techniques from previous decades including live tracking, using analogue tape and vintage equipment, as well as modern DAW processes. A live recording framework of some sort was utilised by all of these artists and can be essential to many styles of music production. This balance of technology and musical creative practice is a skilled art that tertiary popular music students should experience so they are properly equipped for the professional industry upon graduation.

In this paper, I seek to discuss how technology can be used to enhance the creative practice of live recording. I will then contextualise processes in tertiary popular music learning and teaching geared towards live recording, including the creative concept of performance. A case study of the workshop's design and process will then be presented, where research and class practice will be discussed to emphasise the many positive learning outcomes generated by the live production workshops.

## Using technology to capture the creative moment

In most popular music styles, live recording and overdubbing are the two main production practices available to the producer, and this choice determines how a recording will be made, how technology will be used, and how the recording will sound. Producer Trevor Horn (Seal) states that “in this business it’s very difficult to disentangle the technology from the music, whether you like it or not” (cited in Buskin 1999: 278). Capturing a quality performance, and the technology used to do this, draws a lot of discussion (Buskin 1999; Farinella 2006), yet research has revealed that top producers list the equipment they used on famous records, but do not often explain why they used it and how. Networking and discussions on Internet forums like GearslutZ are popular methods of researching technology that was used for certain professional recordings, but again the why’s and how’s of using these technologies are not mentioned. This is a reminder that the student musician’s thought process hierarchy often places discussing equipment above the creative process. Göran Folkestad states that “research has also shown that technology is deeply embedded in the contemporary lexicon of young people’s musical lives” (cited in Burnard 2007: 38). If it is embedded deeply in their lives, this suggests young musicians are talking about technology and, therefore, are often thinking of technology as a dominant solution to meet recording challenges. Mixerman (2010: 3) also identifies this problem in the creation of music:

All too often in this business of recording and mixing music we lose sight of the music itself. If you go onto the internet you can find thousands of debates comparing converters, compressors, mic pre’s, DAWs, etc [technology]... I can assure you it’s the music that’s important not the sound.

I have worked extensively in the music industry as a producer for twenty-five years and have worked with producers like Chris Thomas (INXS, The Beatles), Chris Lorde-Alge (Prince), and Warne Livesey (Midnight Oil). I have learnt that technology is an integral part of the production process, but definitely not the most important aspect. This reasoning supports the importance of education in the tertiary arena of creativity-based practices like live recording production. Neil Young (2014) elaborates:

A lot of you out here are craftsmen: just beautiful records, and take great care with every note. And I know I’m not one of them. I like to capture the moment. I like to record the moment. I like to get the first time that I sung the song. I like to get the first time the band plays the song. So there’s a lot of compromises you make to get that feeling, but in the long run, that’s where the pictures are when I hear my words and when I see the pictures while I’m listening. So that’s what we try to record.

When recording live, the artist’s goal is to perform a single, complete performance, and the producer must nurture that creative performance and be ready to capture it appropriately onto a recordable medium. This involves operating and creating in the moment, using technology but focussing on the performance. I often use the phrase “being in the now”, having no other thought process other than what is happening presently. To achieve this, from the

beginning of a live recording session there must be professional communication between producer and artist as to what the big picture is, so that everybody understands the creative approach to the recording process. From my experience, this is the responsibility of both the artist and the producer (it must come from both sides of the recording studio's glass).

Popular music students often believe it is the producer alone who drives this process; however, in my professional experience, studio communication constantly evolves, so understanding the communication framework is essential to both parties. Therefore, it stands to reason that the education of live recording techniques in a tertiary context is equally important to both the popular music producer/student and the artist/student.

This then raises some questions regarding the popular music tertiary student: How does one help popular music students to access their knowhow (playing technique, recording practice) and focus on the creative moment – feeling a performance rather than thinking about it, and regarding the studio as a performance space rather than a technological process? How does one instil into an often inexperienced popular musician the confidence to be creative, to let go of their reliance on technology and have faith in the unpredictability of capturing a raw live performance? Rollo May (1975) discusses this reliance on technology as being a boundary to the creative, blocking the deeper dimension of our experience, and concludes that tools and techniques ought to be an extension of our consciousness.

The popular music student needs to use technology that is appropriate for the artistic outcome, but to also understand the danger in the overuse or reliance of it. Students need to understand that music can be about emotional transference and originality, and that an original, emotive recording may not always be technically perfect. As educators, we should contemplate how the structure and delivery of the teaching/learning experience needs to progress in this instance. The case study below (Live Production Projects) presents some answers to these questions, suggesting a pathway that will increase the student's experience and deliver graduates with a more diverse industry-based skill set of professional knowledge, techniques, and creative skills.

## Developing a flexible pedagogy that mirrors the learning experience

In this paper, I support the use of a flexible learning environment. Exploring how pedagogical practices can shift focus between technology and creativity, Pamela Burnard (2007: 37) states:

Imagine a music pedagogy that builds upon assumptions about creativity and the instrumental use of technology as unrelated concepts, treated separately or at best where one was made to "fit in" to the other's way of working... Conversely, imagine multiple forms of music pedagogy, where creativity (like inspiration) comes from outside in *and* inside out as a process inseparable from technology, playing into and recruiting different forms of pedagogy.

Therefore, when considering suitable pedagogy for live recording, perhaps the learning and teaching rationale needs to be as alive as the music itself, evolving and changing as the direction of the production does. This is the essence of how I teach. I was told many years ago by Professor Don Lebler (2004) that I was very intuitive in my delivery as an educator, and I believe this comment is a true reflection of how Live Production Projects operates. However, to understand why a flexible learning environment may have positive results, it is first important to discuss some pedagogical facts about the popular music student's tertiary experience.

### *Flexible methods: practice-based research, teaching, and learning*

Live Production Projects uses practice-led frameworks to educate students. In my industry experience, record production is an intuitive process: there is no right or wrong, just ideas and paths to follow. During his interview at Full Sail University (2012), Chris Lorde-Alge emphasises the importance of making decisions, but embraces the producers' ability to change their minds when things aren't working. The popular music student needs experience to gain the confidence to explore music and follow their instincts. Guy Claxton (1997) supports this, suggesting that learning power grows through experience, and the student must be given freedom to explore. This exploration gives the student time to practice, experience failure, then understand what went wrong and learn from that experience, to improve: this cannot be taught, only learnt.

Professional experience also demonstrates that some creative outputs are based on a solid foundation of technique and understanding: a great guitarist will know their instrument intimately; a great engineer will understand the operation of the recording studio completely. A broad understanding of the field in which you are operating is important in the development of creative practice-based learning and should be included in popular music education. This kind of experience is provided in Live Production Projects, which uses some recognised popular music learning and teaching frameworks: formal and informal.

### *Using formal and informal learning in popular music*

Formal learning is normally sequenced beforehand and is a teacher-led experience, where rules and practice are demonstrated by the teacher and then learnt by the students for example when learning how to use recording equipment or play an instrument. By comparison, the informal process is not sequenced beforehand and the practice steers the experience from choices made by the students involved (Folkestad 2006). These concepts apply directly to artists, engineers, and producers in a live recording project. However, formal learning in equipment use, musicality, and recording practices must have already occurred to achieve optimum results in the creative practice of live recording. Live Production Projects uses teacher-as-facilitator and a teacherless design with the informal learning process. At times, the classes may seem to lack structure; however, this forces students to follow their instincts and the teacher can nurture the students' involvement to transform the class framework (Folkestad 2006). So, in Live Production Projects, as the teacher I let the students take control of the learning experience, but often give impromptu prods in various areas to get the class back

on track should it lose its way. The students' instinctive actions design the learning and, with peer reflection, great understanding of the live recording practice can be gained. Lucy Green (2006: 142) enforces the importance of informal peer learning:

[...] not only is the informal learner self-taught, but crucially, learning takes place in groups. This occurs through conscious and unconscious peer-learning involving discussion, watching, listening to and imitating each other... Finally, throughout the informal learning process, there is an integration of listening, performing, improvising and composing, with an emphasis on creativity.

The informal, peer-learning process is essential to the whole live recording workshop framework as it recognises the creative concept and nurtures its existence. The development of a learning practice that is based on the students' interactions with each other leads to variation of the teacher's role.

There is much research that highlights the importance of the teacher's involvement in technique-based learning; however, Don Lebler (2007) states that the importance in self-directed learning frameworks is that the student in fact takes on the role of the teacher. Lebler (2007) also discusses the benefit of peer-assisted learning being rewarded (as it should be) rather than labelled as cheating. This type of framework replicates the professional industry: throughout my experience, the greatest recordings I have been involved in have often been group collaborations. Folkestad (2006) also corroborates that a great deal of music education takes place outside the school environment, during situations where students are free to express and play music together with an intention not to learn, but just to play. The live recording workshop is framed around this model: just playing.

This research all supports my experience as a producer: this is how bands and producers find what feels right. The producer (and the engineer) places the artist in a position to just play and be in the now and create whatever they feel appropriate. This is creativity being nurtured, and a learning environment similar to this experience is essential to the tertiary popular music student's real world knowledge.

### *Real world learning*

Live Production Projects mirrors industry practice as much as possible and this is essential to the popular music student's learning. John Biggs and Catherine Tang (2007) discuss a similar practice referred to as "lifelong learning". With this framework as the fundamental design of the workshop, the student is given the opportunity to access their creative intuition more often and find the confidence to do so; they will become less reliant on rules by using their musical and technical tools to feed a more creative practice. Choices made in this type of situation are instinctive and subjective decisions. Producer Butch Vig (Nirvana) outlines a direct similarity in professional practice:

[...] a lot of times we don't know what we're doing. It's like trial and error, and a lot of error. I mean we never really sit down and say, "here's a plan,

lets do this” we really do experiment a lot and it’s difficult. (cited in Buskin 1999: 350)

This “not knowing” practice Vig describes places many popular music students outside their comfort zone and forces them to face their inhibitions, understanding that failure is ok and an experience to be learned from, and that it is the journey that is of greatest importance, not the outcome. To some, it may seem a little hit-and-miss, but that is the point when dealing with creativity: stuff happens.

### *Phenomenology: stuff happens and that’s ok!*

It may seem that this learning process could be very unpredictable – but that is OK, because it mirrors what happens in the industry. The student must know that every day will not be glorious and choices made may be right or wrong. This practice draws on phenomenology, which Frederico Macedo (2013: 208) describes as intending “to set the knower free from any kind of prejudice and the rejection of pre-conceived methods in the constitution of knowledge”. This subjective experience then needs to be evaluated and acted upon, and this reflective process can happen in the moment or later during a reflective listening experience.

Macedo (2013) and Brook (2009) support phenomenology frameworks where the students and teacher develop relationships and work towards self-understanding and the greater good, thinking and working for others. This helps build what Frederico Macedo calls “the formation of authentic relations” (2013: 209). By thinking of the collective good, the student in a live production context is enhancing social and musical relationships. What is of importance here is that the teacher educates the student on the need for openness to varying characteristics and outcomes. The popular music student should expose themselves to places beyond previous boundaries and to areas of music they may have not appreciated before (ibid.). This framework is used throughout Live Production Projects: student producers will be encouraged to use techniques they have not used before in an attempt to create some authentic or vintage tone. Similarly, the artist may be asked to play in a style or manner they have not practiced.

To improve live recording learning outcomes, students should have prior knowledge of recording equipment use, recording system design, and live performance musicianship. The educator should use this foundation to encourage the students to create (sonically and musically) in novel ways. The students should work together, listen to each other, care for each other, and reflect together as equals with their teacher and their peers. The live recording process relies on the performance of the producer and engineer as much as the artists’ performances, as this defines the vehicle for the artist to create within. Every aspect of live recording is interdependent and it can result in a product that is not restrained by technology or process.

## Creativity in popular music pedagogy

Mihaly Csikszentmihalyi (1996: 25) describes creative individuals as “people who experience the world in novel and original ways. These are individuals whose

perceptions are fresh, whose judgments are insightful and who may make important discoveries that only they know about". In Live Production Projects, developing knowledge of equipment and musicianship forms a platform for the creative performance to evolve; however, having a solid knowledge base does not guarantee creativity. In this context, playing technique and recording practice are required, but accidents or mistakes develop one's understanding of the creative process. Creativity research emphasises the need to let go of past or future concerns and to operate in the now. Creativity in a class situation adds further complexity, as previous negative experiences can hold back the letting go that is necessary to the creative process (McNiff 1998). The student and teacher must understand that creativity should be nurtured even though it is unpredictable and presents challenges. The creative act cannot be contained in a lesson plan; it must be allowed to follow its own path, and this path changes in every moment.

### *The now: not thinking about it, being in it*

Operating in the now nurtures creativity by abolishing past negative experiences and thoughts of possible future outcomes. The destination is uncontrollable, as everyone involved in the recording process creates the outcome in every moment. Therefore, the performance is delivered differently every time. So how do we teach the popular music student to release their fear of unknown outcomes? Eckhart Tolle (2004: 79) answers, "By dropping it. [...] How do you drop some heavy and useless baggage that you are carrying? By recognizing that you don't want to suffer the pain or carry the burden anymore and then letting go of it". This may sound simple, but the reality is that practice breeds confidence and confidence is a suitable cure for these situations. Placing the popular music student in this framework will develop their experience and confidence in this area.

All of the research referred to above supports the proposition that a flexible learning environment that utilises formal, informal, and peer-reviewed practices will nurture the creative process of a live recording. The teacher's role in these situations must also be flexible, evolving from coach to participant of an equal standing (a colleague). Live Production Projects mirrors the professional industry: its structure and practice focus on the student developing their own learning and it educates them in a widely-used professional application. It should be understood that the workshop has been running for three years and is constantly being developed and researched, in order to better understand the associated learning and teaching practices and outcomes.

## The case study: Live Production Projects

In 1969 The Beatles recorded the album version of "Get Back" at Apple Studios; the idea behind this song was that the band was getting back to their roots and just playing songs live in the studio with no production tricks. Live Production Projects places the students in a similar situation. The realization for the students is that the musicians are in a performance mindset, listening to each other, generating one collective performance; they rely on their musicality to perform without error and adapt their playing in real time to what they are hearing,



ensuring they are balancing their dynamics with other musicians in the room, presenting a complete performance of the song. The producer/engineer students are responsible for the real time capturing of that performance, ensuring a true and appropriate sonic representation of what the artist has envisaged. This requires placing the musicians in a situation where the technology of recording does not get in the way of their performance; engineers will adapt sounds and equipment use in response to the performance. The producer will communicate with the artist regarding musical interpretation and ensure all involved are on track. The greatest realization for all is that there is no reliance on technology to fix the performance later, other than a possible edit between takes (just like The Beatles).

The site of this case study is a bachelor of popular music program (BPM) that offers a suite of courses, including music industry studies, song writing, performance, creative music technologies, audio engineering, audio production, and popular music history and analysis. The program has a focus on peer collaboration, peer review, and self-directed learning. With an aim to produce graduates with skills in multiple disciplines, the program's teaching practices are reviewed annually to ensure the BPM adjusts appropriately to shifts in industry trends. Lebler (2007) supports this by proposing that, in order to prosper, learning institutions need to evolve to produce multi-skilled graduates.

This rationale was used in the updating of the course Audio Production 1 in 2012, which resulted in a live studio production workshop being initiated (Live Production Projects). Audio Production 1 is a third-year compulsory course that aims to produce multi-skilled recording artists, record producers, or engineers. During the workshop, the class participates in recording as artist/students, delivering a live performance in the studio, or producer/engineer/students undertaking the recording. The aim is to educate students in various live recording techniques specific to several eras or genres, and to capture the highest level of performance possible using production/engineering techniques. This forces the student to work and react intuitively with no chance to fix things later.

The class is driven by the students' interaction and they learn via application. Peer review and discussion are also important to the learning outcomes of the class; the performers will perform "in the now", intuitively, and then listen to their recording and reflect on the performance with their peers.

The lecturer selects the artist from the entire BPM cohort. This selection process is important, as live recording situations require a performance of appropriate calibre: if the artists are not of a suitable standard, there is little chance of capturing a performance where all involved perform well at the same time. This is a great learning experience for performance-oriented students, as it confronts them with the reality of live recording processes in the studio.

The class is conducted over a four-hour period, and mixing is expected to be part of the live process. This is not often achievable with students, as it is still a learning experience. From the adoption of multi-track recording in the 1960s and onwards, studio producers could mix at a later stage, so this practice is adaptable. However, mixing to analogue tape and the use of many vintage-styled practices are encouraged. There are approximately fifteen students per class plus performers, with some students also acting as video camera operators. The video footage of the class is edited to the track, for example Dave's Pawn Shop Live

(YouTube 2013) and Birdy (YouTube 2012), and this becomes a future resource for students.

Many real world, vintage approaches are discussed the week prior to the class, with demos and reference tracks being analysed. This is pre-production and it is used extensively in all facets of record production. It aids in forming an artistic plan for the recording and, therefore, is integral to the popular music student's study. Twyla Tharp (2003: 118) explores the concept of a creative plan further:

The most productive artists I know have a plan in mind... when they get down to work but there is a fine line between good planning and over planning. You never want the planning to inhibit the natural evolution of your work.

This statement is the constant underpinning message of this paper: the popular music student should understand that the creative process must be free to expand and be explored and have no boundaries set by the vehicle (studio and technology) or the recording practice.

## Performer listening objectives

The class was designed for the performer with three main listening schemas in mind.

### 1. During performances

During a live recording, the player relies on their technique, but does not focus on it. Technique paves the way to playing spontaneously and being at one with the other musicians. The performer must focus entirely on how their creative output is working with the band. Frequently, the student musician responds by overplaying or trying too hard. Some student musicians feel that if they show off their prowess, it adds to the recording, yet experience shows that the professional musician only plays what is needed to fill the creative space that their part is required to fill. Peer review has proven to be a very useful tool in educating the student musician in the live performance production class, and will be discussed in more depth in the following listening rationales.

### 2. Critical listening in the control room

It is often important to change the perspective the performer listens from. Lebler (2006: 42) writes, "Recording enables students to perform intuitively, and then switch to deliberative thinking when critically evaluating the recording. The shift is between conscious thought and unconsciously guided action".

The live recording environment promotes this process. The artists will perform and then move to the control room to listen, evaluate, and analyse their individual, and the group's overall, performance. Analyses and discussions in this manner with producer/students result in a peer review of the entire process. Armed with this, the student artist is free to perform again, returning to the creative listening mode and making any sound or musical adjustments to deliver an intuitive performance informed by this reflection and discussion.

### 3. Sound analysis listening

The complex communication between producer, engineer, and performer is essential. During the control room listening practice, the artist can be encouraged to listen to the tonal aspects of their sound. Students tend to feel this is solely the job of the engineer, but it is important to remember that most performers will understand their instrument and equipment and have a solid knowledge of the appropriate tone that the recording is looking for with respect to their part. Popular music performers should be encouraged to gain an adequate understanding of basic sound engineering principles. This is one of the premises the BPM was built on, and it continues to grow in importance with the rise of the DIY musician. Following the abundant supply of home recording avenues available to the musician today, in order to become multi-skilled, it is essential that performers begin thinking this way.

In these three schemas, the popular music student is engaging with continual peer learning. Green (2002) discusses the importance of this type of learning, but states that at times popular musicians do not realise they are learning from their discussions and observations of each other. This type of peer review, with onlookers in the classroom, can become unwieldy, and that is when the lecturer (as coach) should take control. This is a learning framework that expresses the importance of peer review in a group situation.

## A leap of faith

### *From assistant engineer to producer*

To capture a quality live performance, the producer needs to place the performers in an environment where they are free to create without hindrance. This performance then needs to be recorded appropriately. By placing the student into an authentic role, the student producer quickly learns that producers require mastery in communication skills, intuitive studio practice, and psychological tact. The producer should listen like an engineer and discuss tones, sounds, blending, balancing, equalisation and compression, and image and depth perception. The producer must be a musician and communicate effectively regarding instrumentation, melodic relationships, feel, timing and tuning relationships, and dynamics and tempo variants in performance. The producer needs to have clarity in all of these concepts whilst ensuring that nothing gets in the way of the performance. All of the above are challenging, yet rewarding, learning concepts for the popular music student, and there are producer listening perspectives that must be practiced.

## Producer listening perspectives

In Live Production Projects, the popular music student is encouraged to adapt and follow their instincts with regard to some important studio concepts.

### 1. Reproduction of the sound in the room

If the performers are in an acoustic space that is conducive to producing the sonic characteristics the recording is looking for, the producer may look to reproduce

the sound in the room. "Get Back" by The Beatles is an example of a similar live recording: a track that was recorded live in the studio – albeit with an edited coda from a different take – with the band set up in the one room recording live. In Live Production Projects, I attempt to educate the students on how the producer may need to communicate with engineers regarding recording techniques that utilise baffles (gobos) to isolate sound for appropriate volume control within the room. Also, the producer may need to communicate to the artists and discuss playing techniques that aid in balancing the mix of sound in the actual recording space. This is particularly tricky as asking players (especially drummers) to alter technique as a volume control can have an adverse effect on their performance. During this process, the student is aiming to present a true replication of what the players are hearing in the recording room.

## 2. Production of a new sound from the performance

In many live recordings, sometimes through studio design or simply the way a band plays, it is often impossible to replicate the sound in the recording environment and be happy with the result. Modern-day drummers hit incredibly hard and balancing an acoustic guitar to a drummer that is flaying away when they are performing in the same room is challenging. The students are encouraged to come up with varying applications that could capture the essence of a recording in these circumstances.

The popular music student quickly learns that the solution to all of these problems in the live recording process is the use of headphones. Headphones allow musicians to be positioned strategically, at times in different rooms, while still allowing performers to hear each other. Headphones also allow the tailoring of specific headphone mixes for particular performers using multiple headphone sends to enhance the performance. What a player hears is a major driving factor behind the quality of their performance. This aspect of recording tends to be one that is brushed over by student producers. The students learn from this process that they must listen to each performer's headphone mix, communicate effectively with the performer regarding what they want to hear, then make appropriate adjustments, producing a cohesive listening environment for the performers.

## The sound engineer

Not many popular music students want to be sound engineers, but good sound engineering is a process all popular music students should be aware of. I try to instil a little bit of understanding of the dedication, practice, and hours upon hours of sessions a person must work on to become a great engineer. I try to help them understand how and why engineering is vital to the balance of a recording session and the delivery of a performance.

### *Recording setup importance*

The recording setup is specifically designed by students to deliver an appropriate sonic representation of the performance. The setup must reflect any historical sound objectives and can be a major positive influence on the performer. Students learn that appropriate equipment selection is integral to achieving the desired

sonic outcome. The student engineer (due to eagerness) tends to fall into the trap of planning an overly-exuberant setup, utilising every piece of gear in the studio's arsenal. The professional would argue that, in live recording practice, appropriate microphone placement and preamplifier choice can aid in the elimination of processing sounds with equalisers, and that electronic dynamic manipulation<sup>2</sup> should only be utilised when the situation requires it.

The popular music student soon learns, via practice and peer review, successful and unsuccessful processes in this area. Engineering a live recording is delicately balanced between capturing the appropriate sound and over-engineering a performance. The student engineer can benefit from having specific reference material to source sound influences and aid in the direction of the overall sonic footprint, and we must remember the artist often feeds off the quality of their sound.

## Communication

For the student, one of the toughest studio practices to grasp is quality communication. During classes, I make sure we discuss the importance of various forms of communication. I promote communication in every session and teach how communication can be used to aid in running a session. There is a wide scope of studio communication that students learn through experience, such as musical and sonic communication, which have been discussed above. Sometimes the method of communication needs to be public to all participants, while at other times the subject matter may be more private or sensitive, requiring a more individual approach. The studio setting permits various methods of communication and these are demonstrated to students. These include:

1. Talkback systems: communicating to one or many performers;
2. Listen microphone: the band communicating to the producer;
3. Face-to-face communication (one-on-one).

Student producers need to learn that at times the producer will have to discuss sensitive issues with performers. When you discuss something face-to-face with another person, it becomes more personal and has more meaning. Performance in live recording is all about communicating subtleties. Student producers need to practice this and develop psychological strategies that accomplish communication objectives.

4. Face-to-face communication (group)

This mode of communication is integral to the critical listening phase in the control room. It is a great tool to get a comprehensive message or understanding to the recording personnel as a whole. It also allows the producer to approach any sensitive issues of performance to the band as a whole, eliminating the perception by any one player that they were at fault. The producer can often ask questions like, "Why does the track not feel right in this section?" knowing too well that the bass is out of time. The band, as a collective, will listen and identify that the bass is out of time. This allows the band to feel that they, in fact, have

identified the problem and the producer has no need to single out any musician for blame.

The popular music student, through experience, learns that quality communication is integral to achieving a top-class performance. During the workshop, we often stop and have communication review discussions. This peer-review discussion informs students about communication applications that should be happening. It places them in a position to talk about what they may have been avoiding talking about. Through this flexible learning practice, the popular music student soon learns the importance of appropriate communication.

## Creativity and artistic interpretation

Various producers have their own individual way of working, but the majority will agree that the primary goal is to deliver to the artist a suitable artistic interpretation of their music. What percentage of this interpretation is the producer's compared to the artist's is not important: it is the outcome that is critical. The student producer needs to understand that there are methods that can deliver this goal. There is no set formula, but an instinctual process based on solid communication and listening: listening for appropriate playing dynamics, feel, expression, balance, and, as it is called in the industry, "the vibe". Virgil Moorefield (2005: xv) describes this as "a mood, an atmosphere, an unusual combination of sounds; these are generally enhanced by good production".

Earlier, I discussed Lebler's (2006) research on critical listening in the control room. This environment is integral to the popular music student as the teacherless design adapts slightly to a teacher-as-coach model and these processes can be developed and discussed openly among students. This does not force shy or intimidated students to communicate, but rather involves them in a process of decision making where they are present when ideas are put forward. It is a most powerful learning experience, yet the teacher must guide this experience as there is usually one producer making decisions in the professional environment. In a class environment, having fifteen differing creative opinions is common and encouraged but can be detrimental to the creative outcome. Many artistic decisions need to be made (possibly an edit may be required) and, as creative individuals, one popular music student's vision may be slightly different to that of the next. Artistic interpretation is crucial to the process and the group context presents other opinions to learn from and decisions, including editing a performance, which are integral to the process.

Live recordings have many variables. The rules are: there are no rules, it is a flexible process, and it comes down to what is best for the song. Does this have an adverse effect on the way a performance feels? The key here is to understand that regardless of what the producer feels, the tools are now part of the popular music landscape (Farinella 2006), but the song's artistic interpretation should always come before the use of technology.

Throughout Audio Production 1, I promote the idea that technology should be used in all of its sophistication to achieve the outcome of delivering a great recording. However, it needs to be utilised by a producer who understands that in a live recording environment it can never interfere with the freeness of the

performance and the interpretation that live recordings have. They are organic by nature and need to be treated so. The popular music student learns this by letting go of their inhibitions, leading to the development of a flexible production practice that nurtures their creative instincts.

## Pedagogical breakdown

Live Production Projects benefits from a range of pedagogical practices. It builds on foundations laid in earlier courses, including recording and performance tutorials teaching techniques (formal learning). Then, during the Live Production Workshop, application of teacherless practices generates informal and practical experiences. Finally, in a reflective Audio Production 1 tutorial peer review is promoted.

DIAGRAM 1 shows a pedagogical breakdown utilised by the Live Production Projects workshops and associated lectures and tutorials.

DIAGRAM 1: Pedagogical breakdown. Pedagogy use rated from 0-5: 0=Never used, 1=Very little use, 2=Some use, 3= Moderate use, 4=High use, 5=Extensive use.

<i>Pedagogical Breakdown</i>	Audio Production Lecture	Studio Based Tutorials	Performance Based Tutorials	Live Production Workshop	Audio Production Reflective Tutorial
Formal Learning	5	4.5	4	0	2
Informal Learning	0	1	3	5	1
Teacherless design	0	0	0	4	1
Practice-led	0	3	4	5	0
Peer review	1	3	4	4.5	5

## Assessment practices

Audio Production 1 assessment items consist of:

*Group Video Presentation – 20%*

Working in (ideally) groups of three to five, students are to research, prepare and upload a ten-minute video presentation profiling a successful record producer. Live recording frameworks are often researched within this assessment item, but this depends on the producer the students choose to research.

### *Recording Portfolio – 50%*

The Final Portfolio submission consists of two lecturer-directed recording projects. Students must complete assessment item 1 and choose one option from assessment item 2.

Assessment Item 1 (compulsory): Group work (Max six people). Students are to supply a video presentation of one of the live recording performances from the Audio Production tutorials: week 5 and week 8 (there are four to choose from). The video must be edited from multiple cameras and include appropriate syncing to a professional audio mix for the genre of the project. This assessment item connects directly to the live production workshops.

Assessment item 2 (compulsory), students must choose one of the following:

1. Produce and record a remix of any pre released work. This remix may be in any style but must be of contrasting production to the original.
2. Produce a cover of any pre released well-known single. This must be of single length and suitable for radio airplay.
3. Produce an original song utilising production styles from either the 1940's, 50's, 60's, 70's, or 80's. The recording must be suitable for radio airplay and professional release. This assessment item allows the student to incorporate a live recording framework should they feel it appropriate.

### *Written Exam – 30%*

The exam is based around lecture content and contains some questions related to live recording frameworks and rationales.

These three assessment items help contextualize the pedagogical framework used in Audio Production 1 at the BPM. Live production is a technique that students learn about in the lecture, experience in the tutorial and focus on within the assessment framework while producing a marketable product. This integrated framework transforms theoretical knowledge in to practical experience and this improves graduate outcomes and broadens the educational horizons of the BPM.

## Conclusions

Performance in popular music can be an intensely creative practice, which opens an avenue to a less restrictive interpretation. Live recording can enhance the creative process for the performer who may feel limited by overdubbing techniques that must leave space for what may come later. Live performance is a practice that lives specifically in the moment; it has realness to it. It contrasts with the jigsaw puzzle-like process of editing and overdubbing, and simply allows the artist to play. Musicians can hear and feel a definitive difference that is communicated via this process. It creates a different vibe in a recording and is a powerful tool in the popular musician's arsenal. Live performance is driven by the primary use of creative thought and action; the human psyche can find this application thrilling or, at times, confronting. Like anything we encounter, it is important to embrace change and to consider development and new ideas, even if these ideas come from a process that was present at the very inception of popular music production.



The learning environment of Live Production Projects is flexible while at the same time using proven popular music learning approaches. This framework encourages the students to rely on a solid theory base that they can adapt intuitively in performance and recording situations. I believe there is a need for this type of practical course to educate popular music graduates, nurturing creative individuals who strive to capture a performance utilising technology for the most appropriate artistic result. If successful, the term popular musician is in no danger of changing to popular technologist, and the creative essence and infinite boundary of the expression of music will be a viable option for many years to come.

## Endnotes

<sup>1</sup> “In the box” refers to software applications inside the computer.

<sup>2</sup> “Dynamics” as a term in audio circles refers to the use of compressors and expanders. These are pieces of equipment that control volume levels of audio.

## References

- Biggs, J. and Tang, C. 2007 *Teaching for Quality Learning at University*. 3<sup>rd</sup> edition. Berkshire: Open University Press.
- Brook, A. 2009. The Potentiality of Authenticity in Becoming a Teacher. *Educational Philosophy and Theory* 31 (1): 46–59.
- Burnard, P. 2007. Reframing Creativity and Technology: Promoting Pedagogic Change in Music Education. *Journal of Music, Technology and Education* 1 (1): 37–55.
- Buskin, R. 1999. *Inside Tracks: A First-hand History of Popular Music from the World’s Greatest Record Producers and Engineers*. New York: Avon Books, Inc.
- Claxton, G. 1997. *Hare Brain Tortoise Mind*. London: Fourth Estate Limited.
- Csikszentmihalyi, M. 1996. *Creativity: The Psychology of Discovery and Invention*. New York: Harper Collins.
- Farinella, D. J. 2006. *Producing Hit Records: Secrets from the Studio*. New York: Music Sales Corporation.
- Folkestad, G. 2006. Formal and Informal Learning Situations or Practices vs. Formal and Informal Ways of Learning. *British Journal of Music Education* 23 (2): 135-145.
- Full Sail University. 2012. Grammy-Winning Mixer/Audio Engineer Chris Lord-Alge at Full Sail University. <https://www.youtube.com/watch?v=BGUcBhbyoF4>. Accessed: 5 March 2013.
- Green, L. –  
2002. *How Popular Musicians Learn: A Way Ahead for Musical Education*. Surrey: Ashgate.  
2006. Popular Music Education in and for Itself, and for “Other” Music: Current Research in the Classroom. *International Journal of Music Education* 24 (2): 101–118.

Lebler, D. –

2004. Personal Correspondence, May.

2006. The Master-less Studio: An Autonomous Education Community. *Journal of Learning Design* 1 (3): 41-50.

2007. Student-as-master? Reflection on a Learning Innovation in Popular Music Pedagogy. *International Journal of Music Education* 25 (3): 205-221.

McNiff, S. 1998. *Trust the Process: An Artist's Guide to Letting Go*. Boston: Random House.

May, R. 1975. *The Courage to Create*. New York: W.W. Norton & Company, Inc.

Macedo, F. 2013. Teaching Creative Music Technology in Higher Education: A Phenomenological Approach. *Journal of Music, Technology and Education* 6 (2): 207–219.

Mixerman. 2010. *Zen and the Art of Mixing*. Milwaukee: Hal Leonard Books.

Moorefield, V. 2005. *The Producer as Composer: Shaping the Sounds of Popular Music*. Cambridge: MIT Press.

Young, Neil. 2014. Record! The Red Button's Not That Scary. *Guardian Music*, 22 January. <http://www.theguardian.com/music/musicblog/2014/jan/22/neil-young-record-red-button-transcript>. Accessed: 10 February 2014.

Robinson, N., Bell, C. and Pogonowski, L. 2011. The Creative Music Strategy: A Seven-Step Instructional Model. *Music Educators Journal* 97 (50): 50-55.

Tharp, T. 2003. *The Creative Habit: Learn It and Use It for Life*. New York: Simon and Schuster.

Tolle, E. 2004. *The Power of Now: A Guide to Spiritual Enlightenment*. Novato: New World Library.

YouTube. 2012. Birdy – Live.

<http://www.youtube.com/watch?v=LRSmMv32m6U>.

Accessed: 25 March 2015.

YouTube. 2013. Dave's Pawn Shop.

<http://www.youtube.com/watch?v=q1xDEDgQI18>.

Accessed: 25 March 2015.

## Discography

Beatles, The. 1969. "Get Back" / "Don't Let Me Down", Apple, UK.

Foo Fighters, The. 2011. *Wasting Light*, RCA, USA.

Gotye. 2011. *Making Mirrors*, Eleven, Australia.

Winehouse, Amy. 2006. *Back to Black*, Island, UK.