

Assignment 2: Select, develop and use specialist techniques and activities to meet the needs of the learners, justifying how these meet learning objectives.

“Males and females are equal in their common membership of the same species, humankind, but to maintain that they are the same in aptitude, skill or behavior is to build a society based on a biological and scientific lie.”¹

Anne Moir and David Jessel, *Brain Sex*.

The specialist delivery techniques I used at Golden Girls WI encouraged exclusively female learners to engage with music technology and electronic music through using:

- Feminist theory to explore musicological concerns and gender biases in the field.
- Positive discrimination to present female pioneers of electronic musicians as motivational female role models.

I define specialist activities as female only kinesthetic activities, which encourage female learners to take leadership positions that develop assertive and experimental and risk taking approaches to working with electronic music. Michael Gurian defines risk taking as an area that is deficient in female educational participation, but tends to be dominant with male learners.

In order to encourage hands on music making amongst my learners I devised four electronic music activities, which referenced the work of the female electronic music pioneers.

In my workshop activities I wanted women to be in the forefront of making all the electronic sounds. Anthony Recker (a middle school teacher in Kansas City, Missouri) talks about the need for women to take leadership positions in modern classrooms:

“Being a math teacher, I’m very aware of the bias against girls in math. I try to always point out their talents in math, and encourage them to pursue math. I also try to make sure I call on girls an appropriate number of times to answer questions. I showcase them by asking them to take leadership positions. I showcase my girls to make them comfortable in their mathematical achievement.”²

Many of my practical activities and specialist delivery techniques were inspired by brain research. I wanted my specialist delivery techniques to draw less from subjective sociological issues and more from provable scientific gendered brain difference.

Many American schools that have participated in brain research educational programs have seen vast improvements in all aspects of school life. Discipline coordinator Michael Boothe of Hickman Mills School (Kansas City) discusses his participation in a 6-month program by the Gurian Institute of brain research:

"Hickman Mills has noted an appreciable drop in discipline referrals to the principle. In reviewing the middle school discipline statistics from the first semester of the 1998-99 school year with first semester 1999-2000 we can see significant drops. For example we see 35% drops in fights, 25% drops in cafeteria misconduct. As we look at the variables, the only major addition to the mix this year was the district's participation in the Gurian institute"³

Dan Colgan superintendent of the St. Joseph School District noted similar results:

"In St. Joseph, an elementary school, Edison Elementary, was selected to pilot the Gurian Institute for the district. The institute has really changed the way we are doing business at Edison. Students are learning more with less disruptions"⁴

Risk

My activities were designed to facilitate risk taking and experimentation. My research in brain theory had revealed that risk is dominant and natural to men, but needs further encouragement in women.

Shawna Middletree (of Smith-Hale Middle School) noticed a female aversion to risk in her classes, as Gurian explains:

"She continues to have boys and girls separated in her class, with boys on one side of the room and girls on the other. During a particular week, the class was reading 'Island of the Blue Dolphins'. She asked the students to raise their hand if they believed that it was better to seek risks in life than be safe. All but one male student immediately raised their hands in agreement with this statement. Not one girl raised a hand. This became a very interesting topic of conversation for the class, and it led to interesting gender and psychosocial teaching. It was available as a teaching opportunity because having separated the boys and the girls manifested the gender difference so clearly in the room."⁵

The researcher Michael Gurian uses brain research to justify this gendered difference:

"It is important to look honestly at gender strengths and weaknesses in the classroom, from a neurological point of view. Statistics bear this out, as we know: boys in fact suffer most learning disabilities. At the same time, it should also not surprise us that girls may well appear to have weakness in the area of risk taking. This fits their general, inherent, natural difference from boys. Every opportunity we take to encourage a girl towards risk taking in academic learning enriches the individual girl and the classroom too."⁶

Researcher Lucy Green in 'gender, music and education' (1992) interviewed 78 teachers in state secondary Schools in the UK and the results revealed:

“That girls are more interested in ‘getting things right’, better at ‘exercises’ and rather conservative. The boys on the other hand, are said to have more ‘natural ability’; as one teacher noted, ‘much of the creative, adventurous composing comes from boys’...The main features of boy’s success in composition were depicted as their imagination, exploratory inclinations, inventiveness, creativity, improvisatory ability and natural talent. These qualities were explicitly described as lacking in girls, who are instead characterized as conservative, traditional and reliant on notation”⁷

One anon teacher speaking to Green admitted:

“Boys are not so afraid to be inventive, and experiment. Girls tend to stick to set forms.”⁸

The researcher Walkerdine in 1990, looked at gender creativity in schools and concluded that:

“Those estimations that do acknowledge some success in girls attribute it to rule following and rote learning, which are distinguished from and even opposed to understanding. ‘Hence they negate that success at the moment they announce it: girls ‘just’ follow rules- they are good compared with ‘naughty boys’ who can ‘break set’ (make conceptual leaps)”⁹

Eliminating controlling male behavior from my teaching

My research revealed that many female learners didn’t appreciate interference from male tutors who tended to be dominant or controlling. DJ Blondie claimed in 2003 that she was reluctant to learn about music production due to the gender incompatibility of her male tutors:

“There are maybe two women producers out of the thousands of psy-trance producers. No one ever wants to show you how to do it; they just expect you to know. When you go over to a guy’s house and they tell you they’re going to teach you, they DJ the whole time, where a girl would be like, ‘Yeah, cool, now let me hear you try it.’ Guys always table hog because they want to show off. So with the whole technology thing your intimidated because everyone else is trying to show off, especially guys who are dominant, who are very aggressive, [and] want to be in the spotlight”¹⁰

DJ Pamela Z below talks about the male bias of music technology and the need for single sex teaching in this area:

“They were like, I’ve taken these classes and all the men gather around and they won’t let you touch anything, or they make you feel stupid’...The women I taught were so shocked that it could be taught in plain language, and they could understand it. And then I realized that there was a total need for that, to do something specifically for women”¹¹

In my practical activities I wanted to provide support as necessary but tried to intervene as little as possible. I wanted my talk to be a forum for women to explore electronics rather than a podium for my own ego.

In all instances I made sure the audience gave the participant a round of applause after the performance (in accordance with Michael Gurian's gendered approach to teaching). He claims, good teachers should:

"Provide healthy and constant feedback, so that girls get encouragement and have high expectations from teachers."¹²

Practical activity 1: Daphne Oram and translating drawing to sounds

The first practical activity referenced the theories and practical application of Daphne Oram's concept of Oramics. Oram in the late 1950's devised the Oramics machine, which could translate drawings into sound. My practical activity placed Oram's ideas in a contemporary context explaining how Oram's ideas of drawing sounds have become common currency in contemporary computer sequencing and even gaming (most computers now allow you to draw exact pitches and durations).

My practical activity involved drawing sounds on a Nintendo DS Gameboy, which is controlled by a stylus and touchscreen configuration. I plugged the Gameboy into a miniature amplifier to create fluid synth like tones. Volunteers were encouraged to experiment with a musical application called Elektroplankton. See the enclosed PowerPoint presentation in Assignment 4 folder for reference.

Multi-media artist Toshio Iwai conceived Elektroplankton to be a combination of a microscope, a tape recorder, a synthesizer and a NES. The program pays tribute to the things that captivated Toshio as a child.

The dominant determinist masculine discourse of music technology dictates that complexity; power and control are favored above artistic deconstructive concerns. The use of Gameboy as toy was proposed as a liberating tool for feminists, creative limitations can be explored as an alternative to the dominant hard technological male ideal.

The educational researcher Michael Gurian uses brain science to explain the female aversion to gaming culture below:

"The female brain is not so naturally inclined toward the kind of quick, right-hemisphere stimulation that computer games (especially fast-moving ones) generate. We just don't see girls playing these games as frequently as boys, and probably, from a statistical viewpoint, never will"¹³

Gurian claims this aversion to gaming culture, also seemingly applies to computer based activities as well:

“Girls are more inclined, if in a social situation, to choose a verbalizing activity or relationship activity over zone out time in front of a computer screen.”¹⁴

As the program contains competitive gaming elements to activate musical sounds. I was able to develop and encourage more masculine elements of music making not traditionally explored by female learners. This helped broaden my learner’s musical approach and encourage divergent thinking. This tactic was inspired by Michael Gurian, who uses brain research to justify gendered teaching methods, he claims teachers should:

“Encourage healthy competitive learning as well so that girls do not end up disadvantaged compared to boys (who may naturally seek competitive activities in other parts of life)”¹⁵

Encouraging competitive games in class can be seen as healthy in some circles. Gurian explains this as a wider program of aggression nurturance:

“Aggression nurturance is the term I use for nurturance that involves aggression activities such as aggressive physical touch, competitive games, and aggressive nonverbal gestures...this kind of nurturance is as valuable as empathy nurturance.”¹⁶

The activity involved an element of spatial processing, which I utilized to broaden my learners musical approach. Gurian uses brain theory to discuss gendered difference, below:

“For some young women, the spatial and abstract computation elements of the brain may not be naturally as developed as they are in many males.”¹⁷

As many audience members would not be able to see the miniaturized screen, I provided a picture of the user interface on my PowerPoint presentation. I gave a brief synopsis of the concept to the audience, but kept this as a minimum as I wanted my learner to gain fulfillment through discovery learning techniques when completing the task.

Practical Activity 2: Pauline Oliveros’s Deep Listening Exercises

For my second activity I referenced the ‘Deep Listening’ theories of female electronic composer Pauline Oliveros. Oliveros coined the term ‘Deep Listening’ in 1988, whilst recording a CD exploring the natural acoustics of the Fort Worden Cistern; she would later explore cathedrals, caves and other sonic environments. The title referenced the deep acoustics of the site and the philosophical process by which the music was performed.

The Deep listening process later became a philosophy of listening to sound, which referenced new age, Zen and meditation techniques. The program is conceived as a communal activity for all musical abilities (often taking the form of sonic retreats in rural sonic hotspots).

Her concern for Deep Listening came from the observation that many musicians were not listening to what they were performing! There was good hand-eye co-ordination in reading music, but listening was not necessarily part of the performance¹⁸.

My activity involved re-enacting a 1992 'Deep Listening' piece entitled Soundfishes. The piece takes the form of a chance music aleatoric score. I projected the instructions on the wall via PowerPoint and explained the ethos of the piece. See the enclosed PowerPoint presentation in Assignment 4 folder for reference. The instructions are as follows:

"For an orchestra of any instruments.

Considerations

Listening is the basis of sound fishing

Listening for what has not yet sounded- like a fisherman waiting for a bite.

Pull the sound out of the air like a fisherman catching a fish, sensing it's size and energy- when you hear the sound, - play it.

Move to another location if there are no nibbles or bites.

There are sounds in the air like sounds in the water.

When the water is clear you might see the fish.

When the air is clear you might see the fish.

When the air is clear, you might hear the sounds."¹⁹

For my PTLLS practical I conducted a Cage inspired experimental scratch piece by Christian Wolff called 'Stones'. The piece references Cornelius Cardew's conception of the Scratch Orchestra (the idea that musicians and non-musicians can make experimental music without formal hierarchies). I asked my class to consider:

- Using limitations to advantage.
- How to open develop and close the piece.
- How will you evaluate your actions?
- Picking a strategy from the text and act it out.
- Consider their role in the group texture.
- Remove their ego from the process and consider Cage's maxim of 'letting the sounds be themselves'.

In re-enacting Soundfishes I decided to incorporate the sound above ego approach of 'Stones', as well as the limitations of the sound source. Both pieces utilized a democratic Scratch music aesthetic and hence fusing the two pieces did not seem problematic. Using stones to make sounds allowed

everyone in the audience to join in regardless of musical ability. All members of the group were able to focus purely on sounds rather than musical concerns. My aim was for participants to find inspiration through limitation and to tap into a primitive form of music making. In my first practical activity I used gaming elements to encourage competitive ways of making music. In this activity I was interested in encouraging co-operative music making skills. Brian Currey uses brain research to justify an equal amount of co-operative and competitive learning in the classroom:

“Humankind would certainly never have attained its place on the evolutionary ladder if it had not evolved through cooperative as well as competitive learning. Brain-based research indicates that the ultimate classroom be based in both.”²⁰

Pauline Oliveros conceived of ‘Deep Listening’ as communal music, she encourages music makers to make music in groups without egotistical hierarchies (or individuals striving for dominance over the other). Her concept of deep listening seemed appropriate to the feminist aesthetic of the WI (As many hard-line feminists are apposed to hierarchies and advocate co-operative collective structures).

Practical Activity 3- Using Christina Kubisch as an influence to find hidden everyday sounds

Using female electronic pioneer Christina Kubisch as inspiration, I encouraged my learners to find hidden everyday sounds using an electromagnetic pick up (hooked up to an amplifier).

Christina’s work explores electromagnetic sounds. She often uses wireless headphones to explore the hidden sounds around us. Her pieces take place in galleries and sometimes take the form of site-specific sound walks.

A concern with the environment plays a significant role in her work. Her work could be seen to be a comment on the effects of exposure to harmful microwaves and sonic radiation.²¹

For this practical activity I encouraged women from the audience to find hidden sounds in everyday items such as laptops and mobile phones. See the enclosed PowerPoint presentation in Assignment 4 folder for reference.

This activity fused Kubisch’s electromagnetic aesthetic whilst taking simultaneous inspiration from a piece by Nathan Davis called “Crawlspace” (in which he places a telephone coil pick up over strategic parts of the laptop, capturing an array of unexpected and hidden sounds). I accepted a request from the audience to capture the hidden sounds of a mobile phone (which also produced an array of unexpected and bizarre sounds, when amplified in close detail).

Practical Activity 4- Voice manipulation workshop inspired by the works of Laurie Anderson

I started this activity by playing the class an extract from Laurie Anderson's 'Home of the brave' where she slows down her voice to evoke the male voice of authority. I subsequently showed my learners how to re-create such effects through using a low cost pitch shifter and microphone/amp combination. See the enclosed PowerPoint presentation in Assignment 4 folder for reference.

My PEL primary Research revealed that many female learners preferred singing to playing louder more aggressive instruments such as the electric guitar or drums.

Extract from Primary Research conducted at Popular Music College (alias), Norfolk.

Do certain gender groups favour certain instruments?

"I have noticed a trend toward guitars and drums for the boys and vocals on the girls side." (Anon male student)

"Yes girls seem to wanna sing more" (Anon male student)

The researcher Lucy Green claims that singing at an early age can be a direct emotional outlet for women to express feelings and aspects of femininity.

The workshop showed female learners how to create subversive gendered identities through electronics and how gender norms can be re-invented through sound.

Lucy Green argues that "when we see a woman performing or listen to the work of a female composer her femininity becomes part of the musical delineations"²². Through giving my female learners a platform to evoke a male identity I was able to provide my learners with alternatives to traditional forms of representation (so they could explore there own themes of power and control).

I was careful to handle this workshop sensitively; so all participants were willing and comfortable. The emphasis was on lighthearted sound making rather than making people look silly!

Conclusion

"Our brain has always defined the education profession, yet educators haven't really understood it or paid much attention to it...Our Brain is at the edge of understanding itself!"²³

Robert Sylwester, A celebration of Neurons

To conclude, the varied breadth of activities and techniques were an attempt to directly reference feminist theory, gendered difference and brain theory. Although current teacher training manuals stress universal learning styles above gendered difference, there is still a viable need for mainstream educational acceptance and research in this area. I hope my project has played a small part in highlighting the potential value and need for a gendered approach to teaching (especially in gender dominant subjects).

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