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Incorporating the Aesthetic Dimension into Pedagogy- Enhancing Engagement and Exploration in Teacher and Student Learning

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Abstract: This paper reports on a case study that was undertaken to discover not only the belief and intent behind the everyday opportunities that four exemplary teachers offered their high performing students but what activities they incorporated into their everyday lessons in an attempt to make sense of how aesthetic experiences may enhance learning. The paper explores the importance of understanding the effects of practical aesthetic experiences on learning as identified by pragmatist philosopher and educator John Dewey. It is assumed here that every classroom experience is an aesthetic experience that may be positive (i.e. educative), negative (i.e. miseducative) or benign; it will affect the students in some way. This recognition is crucial to avoid unintended miseducative practices and alternatively embrace positive aesthetic learning practices and rituals. Adopting an aesthetic pedagogy in the classroom does imply taking the 'scenic route' of learning but it does not necessarily compromise or work against the current dominant practice of high-stakes testing and measured outcomes. It alternatively claims to positively enhance these compulsory and measured outcomes for students in that they can critically engage with these practices.

Introduction

One of the dimensions of learning experiences, which is not often given much attention outside of the creative arts, is the aesthetic dimension. Overt recognition and formal articulation of the aesthetic dimension in pedagogy we believe could enhance the teaching ability of pre-service teachers through the ownership and reflective understanding of the importance of what they are actually getting students to 'do' in the classroom as situated and embodied beings. In this paper we report on a study we conducted which explores the importance of learning through aesthetic experiences as identified by Dewey. While there is literature available which engages with the significance of such experiences (Hinchliffe, 2011; Nakamura, 2009) there is little which explores the nexus between this and specific practices in classrooms. Through examining pedagogical practices and beliefs of some exemplary teachers (as identified by their community), our study uncovered some approaches which offer alternate considerations for pedagogy. These have the potential to further enrich the at times benign nature of the 'official' curriculum (Apple, 2000) as assumed by some pre-service teachers who attempt to deliver it *through* experiences.

Learning how to provide learning experiences is central for teacher education. But as John Dewey (2008a, p. 11) has observed, the fact that all educative learning occurs through experience "does not mean that all experiences are genuinely or equally educative." Some

sorts of learning experiences narrow and restrict the capacity of students and so are *miseducative* experiences. It is important therefore, for teacher educators themselves to appreciate the multifaceted dimensions of learning experiences in order to enable them to provide rich learning opportunities that might indeed be educative. John Hattie (2009) highlights that what matters is that teachers' conceptions be understood and "the serious commitment of each educator to a clearer sense of what s/he understands to be of value for particular students and for society as a whole"...which becomes "the inescapably evaluative aspect of education" (Webster, 2009, p. 216) and was of concern in this study. This emphasised the importance of interrogating teacher's perceptions of 'values' and how this in turn may impact on practice and be used as an indicator of *educative* teaching.

This case study was undertaken to identify some of the beliefs and intentions behind everyday opportunities of aesthetic experience that exemplary teachers might provide for their students in order to assist pre-service teachers to better understand their role as providers of learning experiences. The two key research questions we ask are: can we identify pedagogical approaches across diverse domains which engage with the aesthetic dimension?, and; What are some of the actual aesthetic experiences that appear to effectively encourage engagement, deep understandings, including (most importantly) the autonomous desire to inquire in these classrooms? We also pay attention to the importance of teachers' reflections on their own teaching and hope to be able to articulate some helpful guidelines for aspiring pre-service teachers.

This study asserts that rather than focusing exclusively on delivering the official curriculum in order to 'teach to the test', student-teachers should be encouraged to focus on educative pedagogies such as incorporating aesthetic experiences into their daily teaching routines. This emphasis, it is claimed, will indeed increase progressive holistic outcomes for students *including*, as a side dividend, better test results. This collateral benefit has already been experienced in Finland's approach to schooling which primarily focuses upon social justice and equity rather than high-stakes testing and yet has consistently performed at the top of international tests over recent years (Sahlberg, 2011). This study uncovered that experienced teachers do not perceive that teaching to high-stake tests such as Australia's National Assessment Program – Literacy and Numeracy (NAPLAN) is educative and that standardised testing does not give a true or particularly valuable picture of the progress of individual students. However, it also revealed that the surreptitious need to succeed on these tests did indeed impact on these teachers pedagogy in a negative manner; what Lingard (2007) calls the thinning out of pedagogies. However, this is the conception of a false dichotomy and pursuing the holistic engagement of students through aesthetic experience rather than preparation for high-stakes testing should not be considered as an either/or choice as *both* can occur concurrently.

We consider that this research is important as it provides insights regarding the role of the affective dimension in education where, according to Massumi (1995, p. 16) "[a]ffect's contribution to the empirical unfolds as an aesthetic or art of dosages: experiment and experience. Feel the angles and rhythms at the interface of bodies and worlds." In particular, it highlights specific aesthetic classroom practices and enacted routines and it is "these affective moments – at once all –powerful and powerless-do not arise in order to be deciphered or decoded or delineated but, rather must be nurtured...into lived practices of the everyday..."(Massumi, 1995, p. 21). This study investigates these insights by inquiring into how teachers reflect, scrutinise and value their own inclusion or exclusion of the aesthetic in their teaching practices. The emphasis is on the use of aesthetic experience in order to identify the potential positive affective impacts this may have on student engagement with learning and in becoming a certain sort of inquirer. This is based on the understanding that classroom life is *always* an aesthetic experience – which could involve aesthetic abuse or aesthetic fulfilment for which the pre-service teacher should begin to discriminate between.

Why Aesthetic Experiences?

It is contended here that positive aesthetic experiences in the classroom are essential if lessons are to be educationally valuable for students. We base this argument on Dewey (1989, pp. 18, 24, 47 & 109) who argued that unity of experience *requires* an “aesthetic quality” which makes us “fully alive” because of the “sensuous material” involved along with our “appreciative, perceiving and enjoying” which together enables us to better *understand*. According to Highmore (2010, p.21) aesthetics “is primarily concerned with material experiences, with the way the sensual world greets the sensate body, and with the affective forces that are generated in such meetings” and therefore include the emotions which result from affect, both positive and negative. Seyfert (2012) also asserts, extending Jean Marie Guyau’s affect theory, that affects emerge from situations of the encounter and interaction between bodies (human and non-human) and not as belonging to a particular body. Such a holistic, non-reductionist, approach is key to understanding Dewey’s approach to education, which also includes the involvement of desires, interests and purposes.

A learning experience involves both the embodied presence of the student, her activity of meaning making and her desires. This is important to recognise as it is not the experience itself which ‘teaches’ the students but rather it is the personal sense and the meaning which the students give to it through the ‘undergoing’ of that experience and which results in their learning. This ‘undergoing’ is the aesthetic experience which is ‘felt’ and ‘interpreted’ personally by the student. This affect can be positive, negative or benign. This important perspective explains how it is possible that different students can learn different things in the same lesson. Also any given experience which an individual has had already, can be reflected upon and even given different meanings through time. Thinking, reflection and meaning making are all considered by Dewey to contribute to the process of educational experiences. Not that Dewey should be restricted to only having an interest in our cognitive development but rather he was far more interested in our transformation as people in a holistic sense and argued that we should *be* artistic inquirers over and above just acquiring an array of knowledge and skills (Dewey, 1988, p. 150; 2008b, p. 274; 1989, p. 139)

By giving our consideration to experiences we are able to transcend the ‘false dichotomy’ (Dewey, 1990; Pring, 2004), which is often assumed to exist between the objective subject matter or the content of the curriculum on the one hand, and the subjective individual student on the other. An understanding of experience is able to incorporate both the subject matter *and* the student as they interact with each other in a holistic sense. The advantage of this approach over other learning theories typically located within education psychology (Schwab, 1958), is that students are considered in total and are not fragmented into their cognitive, intellectual, emotional and physical dimensions which only ever allows us very restricted understandings of persons and how they learn, ignoring the unity of purpose that is necessary for all educative learning. Students require a ‘why’, a purpose, and a desire in order to commit themselves to inquiring and to the construction of meanings.

The very activity of a positive aesthetic experience in the classroom spurs intellectual, emotional and possible moral changes to take place. The learners are incited to progress forward, through the vacillation of thought, and seek more experiences which in turn expand their knowledge which prompts new interests in perpetuation. They are affected by and get pleasure from the situational aesthetic experience. This is why experiences which are educative, affect the learners in such a way that their capacity to learn and their desire to learn are enhanced. Educative experiences don’t just provide the commodities of information and skills for learners to acquire via transmission, but rather they merge with and transform the student and promote desires to investigate the unknown and re-evaluate what is already assumed to be known. The aesthetic experience moves beyond the transmission of information into understanding and the creation of new knowledge in relation to the learner.

The Importance of Aesthetic Experiences

For educators, the importance of aesthetic experiences becomes apparent as we recognise that *thinking* is essential to educative settings (Dewey, 1985, p. 170) and thinking is more of an art than a science. All thinking, because it is *situated* within the embodied student, has some phase of originality to it, as the individual deliberates about the viability of various ideas that she has either been presented with or is creating herself or hypothesising about. Thinking is the mind vacillating trying to understand the world through aesthetic and affective means; as a body interacting with other bodies. Inquiry for Dewey is a creative artistic activity, involving an interest to satisfy some desire – some *eros* – to address some situation which is unresolved or unknown (Garrison, 2010, p. 24, 88). The manner or the *way* in which one inquires is fundamentally artistic and cannot be reduced to a scientific or hyper-rational ‘method’ (Dewey, 1989, pp. 139 & 218).

In order to enhance learners capacities for investigating Dewey(2008a) argued that teachers should provide aesthetic experiences, particularly those which use open-ended problems and situations to engage students with the ‘process of thinking’ and reflecting rather than learning fixed data as if it were essential to acquire some cultural literacy or even ‘truth’. This is because perception or understanding requires more than mere recognition (Dewey, 1989, p. 24). Dewey argued learners should be encouraged to stray from singular ‘correct’ paths, even if it is only to return to them later in order to appreciate the warrants behind various assertions. Mistakes are to be made and calculated risk-taking encouraged if students are to be enabled to have the agency to expand further from what is already known.

As Dewey (1989, p. 33) argued “reasoning without imagination cannot reach truth” because imagination is vital for the expansion of the student’s horizon of understanding. According to Garrison;

Imagination, for Dewey, explores alternative possibilities for action within a selected context of ongoing activity. Imagination enables the search for ideas that can possibly reconstruct the situation. It takes the context and its ‘data,’ including emotional sympathetic data, as intuited and determined by selective interests and transforms them into a plan of action, an idea that if acted upon might allow the agent to achieve the desired ideal in reality. (Garrison, 2010, p. 96)

Imagination, as encouraged through aesthetic experiences, tends to be responsive to the present moment. It is therefore instinctive in nature and reactive to affect. The instinctive dimension of our being is sensuous, immediate and poetic and ought not to be dismissed in teacher education as a lower cognitive function but is to be encouraged. The journey of learning requires making meanings and this often in turn requires the learner to make creative ‘leaps’ to various possible ways of knowing. Dewey (1989, p. 33) asked “Does not the reasoner have also to trust his ‘intuitions’, to what comes upon him in his immediate sensuous and emotional experiences”? Learning new things often requires creating ideas as possibilities of meaning to discover what ‘makes sense’ in light of empirical data and personal insight, in a holistic sense where everything else that one knows, feels and believes.

Learning can be enhanced via what could be referred to as choosing the ‘scenic route’ of experiential learning. Such a route is not a detour which excludes or even depreciates the current required incessant testing of students but is the appreciation of the *significance* of things that we argue will actually increase test scores due to enhanced student engagement. Aesthetic pedagogy allows students to create connections through imagining ideas and exploring how they relate to everything else one understands and feels. Such a ‘scenic’ appreciation is not a luxury which teachers may indulge in as ‘an extra’ but rather we contend that these aesthetic aspects are essential for learning experiences in order to help assist students to make important connections. As Dewey (1985) has argued, “the best type of

teaching bears in mind the desirability of affecting this interconnection. It puts the student in the habitual attitude of finding points of contact and mutual bearings.” Such experiences he described as being ‘intellectually thorough’ because they help students form “a unity of purposes” by which everything is interconnected with everything else – including their own embodied situation (Dewey, 1985, p. 186).

Every integral experience needs to have an inception, development and an activity in order to be valuable. Each experience needs to move towards an inclusive and fulfilling close and also lead to new experiences and new meanings, and continue to be a reference point for future situations. If we restrict the sorts of experiences for our students we may also be limiting the development of their conceptual possibilities. We can therefore appreciate Ken Robinson’s (2001, p. 92) argument that “our ideas can enslave or liberate us”. Learning through aesthetic experiences is time consuming and involves taking the ‘scenic route’ for both the teacher and the student. Dewey (1989, p. 48) highlights the importance of “doing and undergoing” in the experience and how this is an active act which involves aesthetic perception. It changes the learner in a way which moves her forward in a positive motion of growth. The student instinctively and perpetually seeks to learn as she embarks on a fulfilling journey to an ever-expanding individual horizon of understanding and interest.

The Study

To obtain some insight to our research questions we chose to explore the practices of four teachers working in one school site in Melbourne that was readily accessible to our research team. In addition it is a school which is publically recognised as a ‘good’ school in the sense that most students achieve well in high-stakes tests.

Both teachers and students were very aware of the assertions about ‘successful teaching and learning’ by which they are judged in this particular year of schooling (Year 9). The results of NAPLAN are quantitative and allow only the dominant academic types of learning (Maths and English) to be examined and thus valued (Kirylo, 2010). Our study explored the importance of classroom routines and aesthetic experiences which cannot be measured in the same way. These include notions of affect that enhance engagement, creativity, innovation and an exploration through thinking. The investigation of affective and aesthetic learning in the classroom cannot be quantitatively measured and so the gathering and interpreting of qualitative data from teachers and students was considered to be necessary to explore our research question.

As perceptions regarding learning are paramount in this study unstructured but considered interviews with participants was highly appropriate and valuable. Participants in the presence of the researcher were able to tease out concepts of pedagogies of aesthetics and how these were actually applied in the classroom. Students were also given a brief survey to provide them with an important voice in this process. Hattie (2009, p. 116) observed that little emphasis has been placed on students’ opinions of their teachers and so we specifically designed a means to obtain their views because a “A key is not whether teachers are excellent, or even seen to be excellent by colleagues, but whether they are excellent as seen by students”. It has also been argued that the student’s perceptions’ of classroom instruction, especially what teachers do and say, are associated with their motivation and behaviour (Ames, 1992) and that “Constructivist theories of development propose that positive social interactions can instigate intellectual growth” (Wentzel, 1999, p. 81). It is also possible that students who believe that teachers do not like them might perceive and interpret adult relationships in ways that are biased (Wentzel, 1999).

Some observations of the actual classrooms were conducted. The purpose of these observations was not an attempt to validate the interview or survey data received regarding how lessons were conducted, but was a means to better understand the sorts of experiences to

which the teachers referred and an opportunity to observe first-hand the interactions and engagement between students and their teachers. Both the aesthetic and affective responses that engaged students were of particular interest as was the classroom ambience. These observations used the structure of the four dimensions of productive pedagogy put forward in the Classroom Observation Manual in the Queensland School Reform Longitudinal Study, 2001 (Lingard, 2001, p. 2) to qualify classroom interactions. These observations provided some snapshots regarding the types of experiences, which were being offered to these particular students and if they were the type of experiences that the teacher participants had described in their interviews.

It is acknowledged that this type of research is interpretive due to the many factors and the changing contexts which influence learning situations and how these are perceived by the participants.

Teacher Participants

Four teachers were selected to participate in this study – Ms History, Ms Science, Ms Design Technology, and Ms Maths. They were all esteemed to be *good* secondary school teachers. The reason for selecting ‘good’ teachers rather than obtaining a random sample was because we were keen to discover whether the role of aesthetic experiences emerge with teachers who apparently have been able to promote good learning outcomes over a number of years and as such be able to offer some richer guidance for our pre-service teachers. These teachers held senior positions in the school and are at the top of their salary scale. Three of the participants were classified as ‘Master Teachers’ and one was the Head of Year 9. They are highly regarded as expert subject specialists by the administration of their school and their peers alike. These teachers often run professional development activities in their subject areas for other teachers from within and outside their home school. The students of these teachers are historically successful on external assessments, such as NAPLAN.

The one hour teacher interviews were semi-structured and simultaneously employed a Likert scale questionnaire (see table 1) which participants received before the actual interview commenced to enable them to consider the questions prior to the interview date. Participants responded to the questions on a scale, which were verified through a recorded discussion to ensure that their views were accurately reflected and understood by the researcher. These questions were designed to highlight the teachers understandings (or lack thereof) of aesthetic experience, aesthetic engagement and to reveal their personal belief systems.

The Students

In addition to studying the teachers, some data was also obtained from year 9 students regarding their perspective on their teachers and educative measures and values. The domains of Design Technology (23 students), Humanities (18 students), Mathematics (12 students), and Science (18 students) were included in this study to consider the possible similarities of pedagogies across the domains that may be relevant to both a practical based subject as Design Technology and a traditional academic based subject like Mathematics. These particular domains were included, as they all had recognised excellent teachers at Year 9 level. The students of Year 9 were selected because this is the year that they sit NAPLAN and they completed a Likert scale questionnaire which required them to specify their level of agreement or disagreement. A final open question regarding their perception of the teacher’s value system was also included.

How the Teachers Described an Aesthetic Experience

Three of the four participant teachers found it difficult to articulate a definition of what an aesthetic experience actually encompassed and needed to clarify what the researcher meant by this term. The explicit and articulate “theory of experience” recommended by Dewey for all educators, was found to be lacking in these *good* teachers. For example Ms Science asked, “Aesthetic experiences, okay, well, do you mean by creating lots of stimuli around the room like posters?” and Ms Maths laughed and announced, ...“ah, okay I’m really going to have to be a dumb Maths teacher...you will have to explain that!” This in itself is an interesting finding which indicates a lack of understanding of what it means to explicitly address the aesthetic dimension in pedagogy for *expert* teachers and also raises the possibility of misunderstanding the terminology which may restrict the outcomes of mentor teachers trying to provide such experiences for student teachers. Aesthetic experiences were predominantly understood in a limited sense to a visual experience, which encompassed art and beauty. For example Ms History explained that “I’m really visual; I’m really tactile, and so I, wherever possible I have photos, paintings, whatever, just to connect with the topic.” This misrecognition of how aesthetic experiences can be defined was not due to an absence of their tacit understanding of how they perhaps unknowingly incorporated aesthetic experiences in their classrooms but rather that the teachers were not able to initially articulate their pedagogies using such terminology.

The teachers did explain that they designed their lessons to engage the students to help them create and experience personal and deep understanding and these sometimes involved very sensual and ‘unconventional’ activities. Ms Maths for example used singing, dancing, storytelling, visuals and drawing to invite the interest of the students to engage with the learning situation but she had no idea that this was an example of directly incorporating the aesthetic dimension of pedagogy. This is significant because for teaching to be educative we contend that teachers ought to be able to reflect on their own experiences in terms of theoretical knowledge to identify themselves as a part of a professional community along with the researchers who theorize about such approaches.

Interestingly and perhaps obviously, it was the Design Technology teacher who had the seemingly innate understanding of the aesthetic dimension that leads to the idea that hierarchal traditional pedagogies may need to be re-thought through the lens of the often disparaged creative arts; “Well because kids like touching and doing, and they like creating and... I think they learn from doing more than they do from just reading about it, they actually do it, so whether its, you know, learning about a song or singing a song, they prefer to sing the song than learn the words in the song” –Ms Design Technology. It was in her class that the researcher observed the most dramatic shift away from traditional pedagogical approaches. Students entered the room without any formalities and immediately started work on their projects without the need of supervision. This teacher barely looked up as the students entered but busied herself with individual students who had set themselves on task. She did conduct a demonstration mid class but students worked on busily without encouragement...only referring to the teacher when puzzled. Students worked independently often conferring with other students.

These four teachers all consider aesthetic experiences to be important. They all agreed that, once identified and discussed, practical aesthetic experiences were integral to successful individual student outcomes and were something that they already employed to various degrees. All four teachers agreed that aesthetic experiences improved student learning through affective engagement despite some initial ambiguity around the terminology. These teachers claimed that first-hand aesthetic experiences were used wherever possible as a means to engage students with learning and engage deep understanding. This was also verified by student survey response, which mostly agreed or strongly agreed with the

statement that in all subjects most of their learning was based on practical experiences. What became increasingly visible was that these experiential and reflective teaching and learning practices were perceived as time demanding by the teachers, which then became an inhibitor to enacting this productive pedagogical practice.

How these Expert Teachers Provided Aesthetic Experiences

The main intent of these four teachers was to engage students in the learning process that they appreciated was in direct response to the aesthetic classroom environment, which by definition includes interrelations. Students also responded by acknowledging this 'care'. As Garrison (2010, p. 101) also stipulates, "all inquiry for Dewey, whether quantitatively or qualitatively focused, depends on how the inquirer originally feels, intuitively, and selectively frames non cognitive qualities". This engagement was achieved primarily through a good relationship with the teacher and positive emotional aesthetic experiences, which created situational interest (Tsai, Kunter, Ludtke, Trautwein, & Ryan, 2008). This 'care' and engagement was verified in the observation of interactions within the classroom when students entered the class and were welcomed in a warm and friendly way. It was obvious that classroom rituals concerning relations were entrenched. The teacher engaged students using an inviting voice to reiterate the tasks at hand. Students were spoken to by name and expected to actively participate both cognitively and somatically in the undergoing of experiences. In the case of the Mathematics class, students actively and excitedly solved quadratic equations in a multiplicity of ways as a group on the whiteboard, becoming more and more engaged as they understood the implications of various methods; In Science students showed increasing engagement to abstract theory as they used mirrors to engage in knowledge of angles of incidence and reflection; In History a comparative map evoked total engagement of students in border changes since World War 2 as they pondered on who was at war with who and why; and in Design Technology students were already deeply engaged in the middle of garment construction, only pausing to watch a practical demonstration. At the end of each class students did not just leave...they had further questions for their teachers and lingered in the classroom to discuss their understandings and interests.

Examples cited of using aesthetic experiences to engage students with knowledge in a positive way include the following examples which we have listed in such a way as to retain some of the authentic voices of the teachers as they are considered as sorts of practical mentors for our students:

Ms Maths

1. "Everywhere possible we do that in terms of models, graphs, technology as well. I don't know about you but when we did circumference of circles many years ago, we used to take our trundle wheels out and we'd giggle and girt around. One of the best lessons I do in measurement is using geometry sketchpad for the kids to see that when you take the circumference and you measure the radius...everyone in the whole class will use this program and they all will get different circumferences and different radius and when they divide the circumference by the radius...and they have measured it all out and it is all up there and the minute you start moving the circle in and out they see the circumference changing, the radius changing but the ratio stays the same...so they *see* it. They have to *see* it. You just don't go in and say the formula for the circumference of a circle is this, you know having those tools, that visual cuing is amazing. And you should be in the class when I say, "What did you get?"...6.28 and they are going "I got that too!!!" "I got that too!" (Laughing)...really...we all got the same" (laughing) you know what I mean (laughing)"

2. “It is really funny to watch the kids, they see their teachers in a certain role don’t they? When we do expanding out a perfect square I get out the front and say girls I’ve made a number one top song! They are actually not quite sure if I am being serious or not and then I start singing and dancing the tune “Square the first, Square the last... “(Sings and clicks fingers) And the kids look at you, but you know what it sticks...they have to stand up, they have to sing it, they have to click it, and the other one is when they’re completing a square they go “half it, square it, add it, subtract it”, and some of the kids will go...”oh we can do actions to that!” and those were things that were never taught to me, we were taught this is the rule. If you were a person who could see the rule really well then you did really well at schooling when we were at school.” –Ms Maths

In these two examples the teacher has engaged her students with aesthetics, which have resulted in the affect of surprise and delight. She is not just writing formula on the white board for them to rote learn but is actively engaging their minds and bodies to “undergo” the experience of discovering the workings of the formula in an active participatory manner...as she said “they need to do it”. As one of her students stated, I think Ms Maths values more the journey than the end result.”

Ms Science

1. “Touching and actually doing things is very important you know for their learning and we try to get them up and actually doing something to consolidate the theory that you are teaching, um whether it is just using the light box and the lens you know, look at marine we go snorkelling we have all the tanks and you know there are lots of little activities you can do...just a ten minute activity within a lesson or take the whole lesson.”

2. “With refraction and light, ...when they are in the pool, or down at the sea picking up a sea star it’s not actually where they think it is because we think light travels in straight lines and as the light is coming out of the water it refracts so it’s not in exactly the same spot so things like relate it to their everyday experiences they engage more in their knowledge”.

These two examples show the teachers understanding of using aesthetic to not only engage but to enact abstract ideas such as the behaviour of light. She has made the knowledge of light refraction through water as opposed to air a concrete concept in her student’s minds as they pick up starfish from the beach. They can associate the abstract with the real world that they feel, see and touch. One of her students commented, “I feel that I am an enthusiastic, diligent and willing student. I find Ms Science’s class welcoming and so always try my very best. I think Ms Science values understanding the concept of things, doing practicals to make our learning more (ironically!) practical. Also, I think she values, making our learning environment fun, welcoming and involved with modern technology.”

Ms Design Technology

“I introduce screen printing to my year 9 students, and some will want to do multiple prints, some will want to do them in colour, some will want to stitch over them, some will want to put gold foil on it. Just the way they want to use it and where they want to use it on what they’re making. The sharing of ideas between all the students, that’s really enriching because the students get to see 24 different ways; rather than me showing them one way they now have all different ways of using that process” The student engagement in this class was blatantly evident during observation and Ms Design Technology commented “... you can’t keep them out of the classroom, they’re in there the whole time, (laughs) they’re tripping over each other trying to do what they have to do, and they, there’s never enough time in the lesson to achieve what they want to do.” The teacher put the level of enthusiasm to “most of

the classes are practical because that's what they like, that's the part of the subject they actually want to do it, and explore materials and learn to do the process and apply it to the idea that they have..." and she was committed on the importance of "a passion to want to continue exploring what they're learning". In fact while our interview was taking place students were trying to access this teacher to voluntarily continue their projects after school.

This example illustrates the diversity and flexibility that is enabled when teaching with aesthetics in mind. It involves experimentation and choice for the student, which positively engages the student through ownership and tactile interest. The process rather than the end result is highlighted as the important learning task and students are 'allowed' to explore and produce individual results. "I think the teacher values most is getting us to explore other ideas and think outside the box in order to create something better than average and to push our creative learning." And another student commented that this teacher valued, "That we have an enjoyable time learning different things. I think she wants us to have good overall results but thinks the process is more important."

Ms History

1. "I do it mostly through audio visual, I show them films or film clips or I bring things to show them or I just put up photos or paintings. I think I try and design my slides interestingly, the way I animate them... The way I design worksheets I try and use colour a lot, so that they're stimulated by colour. I know I am, I just hate black and white, and everything has to have an interesting font. I do actually take a while to design my sheets because I want them to go oh that looks interesting! I'll read it! Ms History has used all nice colours. I try and use visual sources. I use PowerPoint a fair bit; I try not to have death by PowerPoint but even if it's just 2 slides to keep them going. Documentaries, film clips; it's hard you want to transport them geographically but you can't always so you do what you can do. I used to bring in these memorial boxes from the war memorial in Canberra, and it would have a whole lot of artefacts... it was really good it was that tactile? Looking at fabrics and looking at little buttons that were made from pearl and all those sort of things and that's what they need because sometimes kids live in these modern homes without any sort of older stuff to show them craftsmanship or just interesting details on the back of things "

2. "We'll be looking at WORLD WAR 1 and I have this lovely photo of people, this black and white photo of all these people and they're looking up at the sky and they're all looking concerned, a bit worried, and I ask the kids, 'what are they looking at?' 'Oh it's a plane' you know and then I eventually feed in a little bit of information, and I say 'well you know, it's actually 1918 and there are not many planes then and they deconstruct the photo until they actually realise that they're looking at people coming down the gang plank from a big troop ship coming back from the war, and that explains why people are looking a bit unsure, and a bit worried, but a little bit excited but at the same time really concerned. So it's to just prick their curiosity. I just want them to go 'what the? Why is that photo like that? What's happening?' You know, so just choose something like that, or an unusual quote, a riddle, we do the Murray river in Year Eight Humanities; this wonderful riddle... What has a mouth but doesn't speak, what has a bed but does not sleep?"

"it's a great topic and I love teaching it, and it's about observing and then they have to respond, like 'do you like that photograph' so we do this whole unit on use of portrait's, and have a portrait of Captain Cook and his standing there with his gear, and I have Dame Nellie Melba in her beautiful finery- a painting as well, and a lovely photograph of an indigenous man in all his warrior stuff, and they have to observe, respond, and interpret. And this is an Idea I got from the National Portrait Gallery in Canberra, I thought 'ooh I want to do that in my classes. It's teaching them those steps, so you know, because you have to observe and you have to respond and decide whether it's an important photo or painting or what, and why

was that painted like that and does the artist bring some bias to the way he or she had represented that person, and then finally, what does that tell us? Is that person important? Or are they married to someone who's important? Or did they achieve something? Or did they do something terrible or wonderful? Or like, why do people get photographed? You can actually teach quite a lot only through that first Unit, and it doesn't really matter if you're not doing things chronologically. You can jump around from Cook to Nellie Melba and, you know, they don't have anything in common necessarily, you're just teaching the skill, and to me that's important, much more important, and you're teaching concepts because you're looking at what's a primary source, what's a secondary source, and all the pros and cons of using both types of sources so it's very concept skill based"

These three examples illustrate the use of aesthetics to engage the students with curiosity and to widen their perspectives by imagining the past in a first-hand way. It engages history with affect and emotion and intense curiosity. It demands students use and apply their imagination to aesthetic stimuli. As Ms History states in her interview, "teaching History isn't just about knowing facts, it's about developing skills and developing critical thinking. It is about being able to look at an event from different perspectives, because no one event will be responded to, and written about by different people in the same way. They have to be different because everyone has a different agenda about something that's happened"

Results and recommendations

The interviews of these four teachers revealed that their beliefs about teaching, student learning, and education were similar and this was also demonstrated through the student survey results. Although they taught in quite different subjects they employed similar approaches to involving the aesthetic dimension in their pedagogies but without necessarily understanding the power of this dimension. This finding in itself we believe warrants a greater emphasis on explicitly addressing the aesthetic dimension in the classroom practices of teachers to articulate and situate aesthetic pedagogy wherever possible.

The students in this study explicitly recognised in their open written responses that their teachers valued their personal growth as people which may well impact on student motivation and cognition (Meyer & Turner, 2006). The students used the term 'good' and 'best' to evaluate their teachers and their teacher's value of their own efforts respectively. In the open ended question which asked 'What do you perceive this teacher to value most when teaching you?' the students responded with the word "understanding" forty-one times and "learning" forty-one times, but only incorporated the term "imagination" once and "creative" twice. This, we believe, is because the terms "understanding" and "learning" are privileged dominant terminologies when discussing learning experience and they are often used in the classroom to emphasise what is important in cognitive learning situations. We would suggest that greater use of the terms "creative" and "imagination" ought to be encouraged to enable students to grow through the aesthetic dimension.

It was also evident that these students believed that their teachers cared about them and their learning and made an effort to make lessons engaging, in return, they trusted and respected their teachers for their due diligence. They felt safe in their learning and were allowed and even encouraged to make mistakes and understood that process was important. These teachers recognise, like Dewey (1989, p. 53) that enhanced learning will not occur when "it involves no stir of the organism, no inner commotion" If the student does not care, she has no stake in her learning. She is disengaged "where everything is already complete, there is no fulfilment"(Dewey, 1989, p. 17). In order for experiences to have greater educative value students need to embark on an exploration of knowledge rather than simply learn the 'answers' and facts provided by others.

Another finding was the underlying covert discourse of ‘teaching to the test’ especially in the current climate in Australia where teachers’ pay is now being considered by some politicians as potentially being related to the success of their students. All four teachers in this study claimed in the first instance not to be influenced by the requirements of testing or published test results but under closer scrutiny all recognised that testing did actually influence their teaching and that although tests were not in the forefront of their mind the expectations of their standing in the community, peers, and students all revolved around testing. The students themselves revealed in their survey that they perceived that testing was important to their teachers, themselves, and their parents. Further, in observing these classes many references were made by students regarding the fast approaching examinations which disrupted learning underway. These successful teachers subsequently claimed that the results of standardised testing were not a reliable indicator of a particular student’s value as a good student, learner, or person. In fact Ms Maths went so far as to claim that most of her time is spent deconstructing tests so the students will gain understanding of the result to reduce the risk of damage to their self-concept.

Conclusion

Pre-service teachers are not to be reduced to technicians and they even might be considered more like artists at times. We have revealed in this study that experienced teachers who creatively, intelligently and passionately work closely with their students often have difficulty obtaining a ‘critical distance’ (as per Aronowitz and Giroux, 1985) to be able to articulate explicitly their expert knowledge to the student-teachers they supervise and mentor and this is a great loss.

The aesthetic dimension is complex and involves emotions, social relationships, doing and undergoing (Dewey, 1989), feedback and further undergoing and is a pragmatic constructive discourse we believe is worthy of further investigations. We claim that when pedagogies directly incorporate the aesthetic dimension, these experiences do in fact appear to impact positively on student outcomes. Aesthetic learning, thinking and understanding take time and effort and this important inclusion will take extra time to organise and execute in the classroom to ensure progressive outcomes. Importantly this should not be viewed as reducing the capacity of students to achieve well in standardized tests but seen as positive enhancement.

We believe that overt recognition and a formal articulation of the aesthetic dimension in pedagogy could enhance the teaching ability of pre-service teachers, and indeed teachers in service, through the reflective understanding and ownership of the importance of what they are actually getting students to ‘do’ in the classroom as situated and embodied beings. The need to demand time for this process is important in order to provide some necessarily critical distance for reflection and re-evaluation of teaching practices and can be justified by current ‘measured’ student outcomes. Learning through aesthetic experiences is time consuming and involves taking the ‘scenic route’ for both the teacher and the student. However, we believe that this is one of our important challenges if learning experiences are to become more educative.

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