

U5010982 VCUG2001: Creating Knowledge Due date: 8/9/11

## Reflective Writing Task 1 Submitted by: Keiran Walters

### Week 1: Introduction to Creating Knowledge

#### Context

This week Vice Chancellor Ian Young highlighted the kind of framework a university functions within and why it functions the way it does. Dr Aat Vervoorn highlighted the nature of knowledge and what kind of principles it consists of and incorporates.

#### Interpretation

VC Ian Young's talk was useful for me because it gave me insight into thinking about researchers at ANU and the context of their knowledge creation. An interesting idea was the notion of academic freedom, which allows researchers to be critical of current events, while having the back up of university administration. Dr Aat Vervoorn's notion of knowledge being like a compost heap was very interesting and seemed very true in the case of biological and chemical research, which I'm interested in. A lot of the time in science new ideas incorporate and add to old ideas to produce a different, dynamic product which is still open to the same adaptive changing process.

#### Outcome

The main thing I learned from this week was that knowledge isn't as much of a common sense topic as one thinks. It is complicated, multifaceted, quite structured and infinitely dynamic. This knowledge will probably influence how I think about my 4th year of University and how I go about discovering a research topic.

### Week 2: Creativity

## Context

This week's panel consisted of Dr Denise Ferris, who talked about creative education in the arts, Professor Graham Farquhar, who talked about plant science and dance, and Dr Shayne Flint, who talked about creativity in radar engineering.

## Interpretation

One of the main things all 3 speakers mentioned is that it's hard to find time to be creative when one has so many other demands to meet. Shayne mentioned that creativity is more of a means than an end, which made me want to ask how anyone knows they're being creative, or that they are even on a creative path? It seems very difficult to actually know, which makes me wonder how recognition of your creativity by others affects your creativity.

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Another very interesting aspect of the panel's responses was that an interdisciplinary and diverse environment seems to foster creativity. Alongside this, both Dr Ferris and Professor Farquhar mentioned they both previously associated with areas, such as chemistry and dance respectively, which weren't clearly linked to their current areas of work, but did have an effect on how they think.

## Outcome

This panel gave me a very strong sense of the importance of time for being creative and the effect a diverse environment of people and places can have on how you think and the creativity you can construct. In science a lab group can consist of a diverse group of people, so after this panel I feel I will appreciate this diversity

more and understand better how it influences creativity and knowledge.

## Week 3: Critical Thinkers

### Context

During the 2 hour panel Associate Professor Alastair Greig from CASS talk about Karl Marx and Professor Angela Woollacott from the School of History talk about Mary Wollstonecraft. This was in the context of Marx and Wollstonecraft's critical and unique thoughts at the time they existed.

### Interpretation

One interesting thing Alastair highlighted about Marx was the change in how he thought and what he thought as he aged and as times changed. Yet despite this change Marx maintained a strong degree of critical thought across various subjects. It would seem that critical thought isn't restricted by degrees of specialisation, but more that it's an adaptive character inherently important within different spheres of thought. Professor Woollacott highlighted that gender has no bearing on critical thinking ability. This is interesting because some people would say gender roles/influences would have a great effect on thought, but I would say it only has an effect on what they might be more interested in thinking about.

### Outcome

One key thing both speakers indirectly showed to me was that a disrupted life and a disrupted time seem to provide more meat for critical thinkers to attack. A main question I asked was whether it is now harder to think critically in the face of all these established ideologies? I think that Alastair said it was harder to a certain extent. When I study science I always wonder how I'm going to be able to think critically about any of it when it all makes so much sense? This week's panel will hopefully help me address this in the

future.

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## Week 4: Ways of Writing Human

### Context

For week four Ms Mary Kilcline Cody talked about W. Somerset Maugham, Associate Professor Alastair Greig talked about Literary Form and the Modern Condition and Canberra Times cartoonist David Pope talked about cartoons and their ability to convey meaning.

### Interpretation

To me it seems the ability to write in a more human way to convey meaning is a skill that only a select set of people do master. Writers and cartoonist are these people. I asked whether scientists might become better at conveying their ideas if they studied more literature, and I received a kind of mixed response, in that it would help with their expression, but the very nature of what they convey is a difficult one for literature to help with. This lead to discussion of how science fiction can help to convey the scientific world. This helped me appreciate the contextual use and relevance of human literature.

### Outcome

I think the main thing this part of the course will help me with is to write background introductions for lab reports, because these are meant to convey the information that is required to interpret the report. In effect it has been an exercise in understanding how someone else could think about what I write.

## Week 5: Science-Humanities Gap

## Context

Week 5's panel discussion was led by Professor Aidan Byrne, who talked about science and Professor Toni Makkai, who talked about the Humanities. This panel mostly explored the nature of characterising the two areas as different disciplines.

## Interpretation

The main thing I learnt in this panel is that science and the humanities sound very similar to each other even when two very different people talk about them. Their methodologies are the same, but their contexts are different. One major idea we tried to demonstrate in my tutorial was that given the same problem, science and humanities would solve it in similar ways. I believe this is the core element, that the only difference between them is their material. A question was asked about which tackles the bigger issues in society and my interpretation of the response was that both do, in their own ways, but their synthesis is required to really solve the biggest issues.

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## Outcome

This week really blurred the lines between the two disciplines for me. One argument against science has been that we don't communicate our ideas and that we don't take full responsibility for the implementation of our work. I think this week has taught me the value of one day trying to communicate the science I may discover and trying to influence how it is implemented. I will also better appreciate the longer time required to complete humanities research and the importance of proper implementation of humanities research.

## Week 6: Indigenous Ways of Knowing

### Context

This week's panel wasn't a panel; it was a cultural experience of Pacific Knowledge, facilitated by Dr Katarina Teaiwa and Reverend Latu Latai.

### Interpretation

Ancestry and kin were two of the major factors influencing people of the Pacific. This maybe prompted the question of whether the West could learn from this Pacific ideology. It was highlighted that Pacific cultures think as a collective and we think as individuals, which may inhibit our ability to solve problems requiring significant population change. Interestingly, Pacific cultures have the ability to adapt our ideologies, in the form of modern status associated with PhDs/degrees. It seems they are much better at adapting and absorbing than we are. This is probably a bi-product of their cultural inclinations.

### Outcome

This topic is probably the hardest for me to understand, but I do see the benefits of Pacific Knowledge methods for instigating change. I don't yet know how I could try to use such knowledge in the future, however I think this idea of collectivity could help to remind me that I do science to help society.

### Tutorial Facilitation Reflection

The most interesting part of the process was trying to give an activity a purpose and link it to the discussion, and I think our Mr Squiggle exercise did a good job. Trying to organise and actually physically run the tutorial wasn't hard, but steering the discussion was a challenge. We managed to get everyone to talk, but steering them towards a deep conclusion about the topic was hard. I think if

I did it again, I would focus more on how to steer a discussion, probably by trying to think more like the participants. Defining clear goals for the tutorial was also an essential component.

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## Tutorial Tickets Week 2: Creativity

I think the key thing that helps creativity flourish is a good degree of skepticism. It seems exceptionally creative as extraordinary, possibly because their view is at least partially ordinary. This view could then be expressed in how they act and what we see through their extraordinary character. In this case they possess no mystical ability; they simply have a perspective that can oscillate fluidly between the boundaries of skepticism and a certain openness. It is important to realize that what we see as creativity may not be so clear to the creator. The recognition (or without the promise of status relating to the outcome of their work) can become diminished, or not actually exist at all. It begs the question as to whether this recognition? We could say yes, but society's view on things does seem to matter. Different individuals and different groups within our human society appreciate a certain extent this recognition regulates the fruition

or destruction of creative possibility.

## Week 4: Ways of Being Human

I particularly found Dostoevsky's piece interesting this week, for a number of reasons. The character's views are somewhat alien, yet strangely justified. But the interesting part about the character, it's more the fact that despite this content, I understand what they're trying to say. One of the main strengths in human writing is that we can more easily understand and experienced similar feelings and experiences, yet in the case of Dostoevsky's piece, it's more the fact that despite this content, I understand what they're trying to say. I think how we interpret human writing is heavily reliant on contrast with what we know of our own similarity of our experiences. Because it does seem that a person with certain experiences can understand the experiences of someone else and gain a better view of their own experiences by

two. Sometimes we simply can't define something, so we define it as what we know. It is through this sort of method that I think human writing addresses major issues in psychology, not so much by directly attacking the issue, but by contrasting it.

### Week 5: Science Humanities Gap

I am the facilitator.

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### Week 6: Pacific Ways of Knowing

So when I started reading the Hau'ofa piece, I firstly felt kind of bad because I saw one of these macroeconomist stereotypes, which seemed like the enemy in the article. It hit me.

Hau'ofa clearly highlighted why I think like this, because of my education back home. I have a similar view on how teaching about the hopeless state of the Pacific influences how Hau'ofa said that Pacific culture's worlds were so big, because she spoke in terms of islands. I wonder whether their worlds are still so big, or whether this big world has been

Wendt's article highlighted the significance of Pacific language and understanding what it means to be clothed in certain Pacific cultures and in non-Pacific culture. This article also reminded me of visiting NZ, and having a Maori group explain tattoos. The key element I found was Wendt's comment that people try to interpret

without understanding the culture behind it, which I think is a grave and foolish

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## Tutorial Instruction

Hello Everyone, Week 5's tutorial on the Science-Humanities Gap will be facilitated by:

- Keiran Walters, Bachelor of Science, studying biology and Chemistry

- Samm Cooper, Bachelor of Arts and Science, studying (whatever you want here Sam) There are a number of pre-required readings, here is the link: <http://vc-courses.anu.edu.au/class/creating-knowledge/ways-of-seeing> As well as looking at the readings, we would like you to ask your friends and family etc about whether they find Science or the Humanities more useful. Please try to pick unbiased people, i.e: Not the Head of the Research School of Chemistry. You don't need to record their responses, however come to the tutorial with an impression of which one most people said was more important. Also, if you would like to, ask about why they like one more than the other. For the tutorial ticket and the tutorial itself, you may like to consider the following questions:

- Is there a real divide, and what is the nature of this divide if it exists?

- How is research conducted with each discipline?

- What may be the practical implications for knowledge due to the divide?

- What kind of actions and motives may help to facilitate such a divide and what can be gained or lost due to the division? (Insert part about the video, if you want Sam, I'm not sure how to integrate it into the tutorial). Hope you all have a great week and enjoy the panel, we'll see you all next

week. Regards, Samm and Keiran Tutorial Plan Pre Activity  
– 8:45-9.00 (Samm and Keiran)

- Make the room into two distinct tables one with science things on it and one with arts things on it
- Write up quotes from the text to be used in the discussion
- Nations all over the world will soon be producing generations of useful machines, rather than complete citizens who can think for themselves, criticise tradition, and understand the significance of another person's sufferings and achievements.' – the Australian
- 'Professor Nussbaum argues that universities play an important role in nurturing good citizens, but that is at risk as the arts and humanities are dumped in favour of technical and scientific disciplines.' – The Australian

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- 'We have a very mobile economy and we don't know what the jobs will be 20 years from now.' – The Australian
- "I christened to myself the 'two cultures' for constantly I felt I was moving among two groups – comparable in intelligence, who had ceased to communicate at all." – Two Cultures
- "I should be the last person to suggest the two can at the deepest level be distinguished" – Two Cultures
- "As my model for how the sciences and humanities should interact because I believe that neither pre strategy can work" – Hedgehogs and Foes

- Flyvbjerg is professor of planning at Aalborg University in Denmark and the author of a series of hands-on case studies of regional redevelopment in that country. His own work has been intensely practical, a matter of advising Danish politicians and civil servants about urban planning schemes and evaluating those schemes against the background of democratic ideals.

- (Note the practical application of the humanities, a common argument is that they achieve nothing useful)

- Quote from text; They have made it clear that using the term “science” to cover everything from string theory to psychoanalysis is not a happy idea, because doing so elides the difficult fact that the ways in which we try to understand and deal with the physical world and those in which we try to understand and deal with the social one are not altogether the same. We will decide at the time who facilitates discussion around particular quotes. Introductory Activity – 9:05-9:10/9:15 (Both introduce)

- Be split into groups dependent on whether they are science or arts – interdisciplinary kids can choose. Facilitate an even number on each side.

- Show Sheldon video.

- Now that we have some trivial perspective on how someone may think of the divide, we’re going to look at the characteristics of the two areas. Science and the Humanities Gap 9:15-9:20/9:30- Keiran Introduce.

- In the 2 groups depict on the opposing whiteboards what you see as the major

characteristics of science or humanities. Specifically focus on how they each do research, what kinds of knowledge they create and the nature of the research that they conduct.

Group Discussion – 9:30-9:55- Samm Introduce.

- Exploration of the nature of the divide between science and humanities.
- What are the distinctive differences between the two areas? (K)
- Did anyone find their family/friends favoured one side? (S)
- Did anyone have a more unique reason why they favour one side over the other? (K)
- Bring in the tutorial reading quotes (top) and tutorial tickets(below)
- Empowering Aristotle Article ○ Interesting comparisons that are highlighted in the text (make sure people read it, if no give a brief explanation, or put up on the board)
- The Two Cultures ○ He suggests some very brash things about scientists and artists do people agree or disagree with these generalisations? (If time, do tickets first)

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- Foxes and Hedgehogs ○ Do we think that in determining that there needs to be a fix it is reinforcing the divide?

(K)Alicia Gall – “Research in the humanities is mostly history based, while science research involves experiments. Science requires its researchers to understand terminology, and go forth

with their own experiments. Humanities requires researchers to come up with their own idea, and fit that in with what has already been done.”

- Examine how similar ‘going forth with an experiment’ is to ‘come up with their own idea’ etc. Also note the historical longevity of science and how in class one learns the “classical laws” for modern application. –Just ask her to elaborate and ask others what they think.

(S)Min Tan – “For future benefits and problem solving purposes, knowledge from two

disciplines should be merged.

- Examine whether the two can be merged, possibly try and draw out some kind of example of where merging would be best. Highlight the effect of contrasting the two by trying to integrate them, thereby leading to more visible differences?

(K)Alexandra Gill- “Within science, research is typically conducted through experimentation to collect data. Such data is then analysed and compared with hypothesis based on previous experiments. It is this comparison and repetition that forms theories and models within the discipline of science.

Within humanities, research is conducted often through real-life comparisons and peer analysis. The continuing critique, analysis and drawing upon various sources form the basis of findings and research.”

- Note the peer review method of science, and how much new work can be based on previous comparisons and peer analysis etc'

- Maybe mention the idea that humanities develops the socio-political framework that the framework implements.

This section will mostly be time and user interest driven, topics will basically be taken from this list as they become relevant, or they will be excluded if they won't lend anything to the current mode of discussion. At least one tutorial ticket will be mentioned.

BREAK- 9:55 TO 10:05

Group Activity 10:05 – 10:35 Sams Introduce

- Now that we've looked at differences between the two and why one side may be more favoured etc, we're going to do an activity involving Mr Squiggle.
- Each group is given copies of the same Mr Squiggles, from which they must create an identifiable image.

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- The goal of the activity is to highlight that despite their inherent/distinct differences, the sciences and humanities are still composed of people who can react and achieve similar outcomes in similar ways by similar processes.
  - Activity if necessary
- How would your area solve the issue of Climate Change? ○ How would the other area solve the issue? ○ Do we need to bring them together to solve it?

Individual question time, then sharing with the group – 10:35-10:45  
Keiran Introduce

- Consider since you will have the two heads of departments some questions that you would like to pose.
- 5 mins question thinking, 5 minutes sharing some questions and discussing them.
- Try to encourage those who may not have shown as much of an active participation. Because the room will be divided for a long time, it may be hard for all to get in and evidently contribute.
- Room will possibly be reformed into one big group near this time, depending on time constraints etc, and whether we feel it is required/valued/useful.
- Maybe a small vote at the end to finish off as to whether there is a divide or if it's just a perceived divide lacking true substance. Other Group Explanation of their Tutorial - 10:45-10:55 Goals:

- Firstly highlight the differences between S and H.
- Design discussion to explore these differences and how and why people perceive them, and whether people do actually take a side.
- From highlighting the differences, it is hoped people will start to realise the inherent similarities alongside these differences.
- Have a practical activity to highlight the objective achievement possible on both sides and the fundamental normal people behind them.
- Facilitate development of challenging questions and a

passion for constructive argument, criticism and elaboration.

- Attempt to give everyone equal ground to provide their ideas, facilitating this such that nobody competes for constructive input.