

Cultural diversity in engineering



This paper will look at the importance of cultural diversity within the field of engineering, why it's important and what the positive impacts or diversifying your work-place are.

Cultural diversity is immensely important within every country throughout the world. Although due to Australia being such a new country, and the history of the country the importance of communicating with Indigenous communities is especially important. Maintaining a strong relationship throughout the consultation and development phase always needs to be of the utmost importance. This obviously extends beyond communicating with the Indigenous communities within Australia and can extend to foreign works or clients.

Making sure everything is handled in a culturally respectful way needs to be ensured by any professional engineer; from the first meeting until the last.

Due to Australia being such a highly diverse country it will be very common to work in a culturally diverse workplace. This means that within engineering although being aware of cultural differences will not only assist a professional engineer within consultations but within the workplace as well. Different cultural backgrounds and upbringings different problems can be solved in different ways.

Whenever looking at Aboriginal culture it is important to note “ Aboriginal and Torres Strait Islander cultures are complex and diverse.” (Australian Government 2015) Due to this it is very important to understand when going into one community their beliefs, and the way they do things may be completely different. There is no blanket statement when it comes to

communicating with Indigenous communities, they all communicate differently with many even speaking different languages. The Australian Government (2014) has stated that over two-hundred and fifty Australian language groups were spoken in 1788, today approximately one-hundred and twenty are still spoken. This is a simple example of how culturally diverse Australia is.

2. 1 Communication and protocols

“ Protocols exist as standards of behavior used by people to show respect to one another.” (Supporting Carers, 2010) Protocols of Aboriginal communities, much like communication are diverse and extremely important. As every community is unique it is always important to do research and consult with an expert before entering a community and risking disrespecting an elder, or the community.

“ The Indigenous cultures of Australia are the oldest living cultural history in the world – they go back at least 50, 000 years and some argue closer to 65, 000 years” (Australian Government 2015) Due to this some communities have extremely strong beliefs, other communities may have contradictory beliefs but it is important to respect both when communicating with them.

One of the main differences between not only the Aboriginal communities, but within general Australian culture is eye contact. Although in a general conversation eye contact may be okay, within Aboriginal cultures it has very different meaning. Depending on the community eye contact may be a sign of disrespect, or quite the opposite. Another reason it is important to speak with someone with greater knowledge of the community, or do research.

Some general tips to overcome language barriers (Queensland Government, 2015)

- Avoid using complex words.
- Explain why you need to ask any questions.
- Always check you understood the meaning of the words the person has used and vice versa.
- Use diagrams, models, DVDs and images to explain concepts, instructions and terms.
- Be cautious using traditional languages unless you have excellent understanding

2. 2 Elders/Leaders

“ Elders are generally respected for their cultural knowledge and leadership abilities and for making decisions on behalf of the community” (CFCA 2014)

It is very important to be extremely respectful when speaking with elders, as they are usually the most respected within the community. Remember they are also generally making the decision on behalf of the community, respecting them will help a lot. It is important to note that the elders are usually a small group, and although elderly members of the community have a lot of respect they are not the ones making the decisions.

In the western world diversity, has been shown to improve productivity within some workplaces. This is because people from different backgrounds will generally have different perspectives on solving the same problem, thus meaning finding an effective, safe, sustainable, cheap and respectful product can be achieved in a more efficient manner.

Anything developed with or for local indigenous communities are generally affected by several things regarding the community; the needs and culture of the community, how they live and their location. If and only if the engineers understand this completely will the project be able to be completed within a respectful way.

4. 1 Consultation

It is important to note that the consultation process will also be very different with Aboriginal communities. Depending on the community, how it is set out and the elders of said community every consultation will be different. It will also need to be presented in a different way minimalizing difficult language to avoid any language barriers and using diagrams, tables and/or media wherever possible. One of the main problems that may come up past this phase is due to positioning of a project, it may coincide with one or more of the following: Sacred trees, burial grounds or any places that have spiritual or social significance. It is important to consider these when speaking with the elders.

In this section respond to the following:

- How could culture and diversity affect any engineering solutions you develop for/with local indigenous communities in Australia and the location of the Major EWB Project? *Include reference to appropriate engineering solutions in your response to this.*

HINT: For engineers to develop appropriate engineering solutions for a community they must understand the community, their needs, how they

live, their culture, their location etc. By understanding the community, Engineers can develop solutions that are appropriate and will be used. One solution is not appropriate for all.

- Why it is important that the decisions and recommendations you make in the Major EWB Project and also as a professional engineer clearly uphold the Institute of Engineers Australia Code of Ethics?

The conclusion is a summary of important points already raised in the report and how they fit together. Do not introduce new information here.

CFCA

Please note, this is not 100% complete and I'm aware that references are not completed correctly. More references and facts will be included in the final.