

# ENGINEERING FOR HUMAN RIGHTS WITH DR DAVIS CHACON-HURTADO

## TALKING POINTS

### KNOWLEDGE

1. What types of infrastructure exist within a city?
2. What is peripheralisation?
3. What challenges did Davis and the team face when constructing latrines in Thastayoc, Peru?

### COMPREHENSION

4. Why is interdisciplinary research important for ensuring engineering projects address social issues?
5. What is meant by a human rights-based approach to engineering?
6. How can inadequate transport services cause social exclusion and inequality?

### APPLICATION

7. How would you investigate the availability of public transport in your neighbourhood?
8. When working in Thastayoc, Davis' team faced linguistic barriers. How would you ensure good communication if you were working on an engineering project abroad?

### ANALYSIS

9. Why was it important that the Peru Sanitation Initiative was community-led?
10. Why is it important that engineers 'enact socially and environmentally responsive technological solutions that advance human dignity'?
11. How do you think Davis' engineering students benefitted from participating in the Peru Sanitation Initiative?

### SYNTHESIS

12. What policies would you implement to improve transportation and access to opportunities in Cusco?

### CREATIVITY

13. How would you persuade engineers to ensure their work promotes human rights? How could you inspire them with Davis' projects or organisations like Engineers Without Borders?

## ACTIVITIES

Investigate how a human rights-based engineering approach could improve your neighbourhood.

- Identify an area of infrastructure that could be improved, e.g., roads, drainage, public transport links. It might be helpful to use a map of your neighbourhood to plot where this infrastructure is lacking.
- Plan an engineering project that could address this problem. What infrastructure needs to be built? How will the project benefit everyone, including those on the periphery or from any other underserved or disadvantaged area of your neighbourhood or city? How will you involve the community in the planning and implementation of your project?
- Consider the broader impact of your project. How will it improve the day-to-day life of residents in your neighbourhood or city?

## MORE RESOURCES

- Find out where Engineers Without Borders work around the world:  
[www.ewb-usa.org/our-work/where-we-work](http://www.ewb-usa.org/our-work/where-we-work)
- The American Association for the Advancement of Science provides information about how engineers and scientists in all fields should address human rights:  
[www.aaas.org/programs/scientific-responsibility-human-rights-law](http://www.aaas.org/programs/scientific-responsibility-human-rights-law)
- In this article, human rights lawyer Jessica Wynham discusses why we need more engineers working in the field of human rights:  
[www.asme.org/topics-resources/content/where-human-rights-and-engineering-meet](http://www.asme.org/topics-resources/content/where-human-rights-and-engineering-meet)
- 'The Promise and Peril of Human Rights Technology' by Molly Land and Jay Aronson discusses the benefits and risks that technology brings to humans rights:  
[www.doi.org/10.1017/9781316838952.001](http://www.doi.org/10.1017/9781316838952.001)