A LIVING BEST
PRACTICES GUIDE
FOR INCLUSION,
DIVERSITY,
EQUITY,
ACCESSIBILITY
AND SAFETY
(IDEAS)
WITHIN THE CURRICULUM
DEVELOPED THROUGH THE UNRAVELLING PRIVILEGE PROJECT FUNDED BY THE UNIVERSITY OF ST ANDREWS CENTRE FOR EDUCATIONAL ENHANCEMENT AND DEVELOPMENT

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In short, this guide is a living document that draws on the Justice, Equity, Diversity, and Inclusion (JEDI) team’s workshop attendance, review of our School of Geography and Sustainable Development’s (SGSD) module handbooks, a year of dialogue amongst the JEDIs, wider SGSD EDI committee, and others (Jasmin Hinds of CREDI, iCRAG’s EDIG, Diversity in Geosciences (DiG)-UK), and our own external research to offer some suggestions for teaching staff in designing modules, crafting lectures, running field courses, and engaging with difficult conversations about race, power, and privilege that tend to (and should) emerge in any academic environment. We include a list of references and resources for further reading. We are very happy to receive feedback whether you have suggestions for modifying the guide or questions about any of the material contained therein. This will be an ongoing process, and this living Guide is just one step in that process.

The fuller story: We in the University of St Andrews School of Geography and Sustainable Development are conscious that our disciplines and the institution within which we work are caught up in histories and ongoing power relations that shape the way we see the world. Particular views, experiences, methodologies, and conceptualisations are privileged over others. Within our research and teaching, we draw on theoretical approaches that seek to challenge these processes of privilege and exclusion, but student protests around “why is my curriculum so white?” and, more recently, Black Lives Matter, have prompted us to make a formal commitment to challenging privilege. We draw on approaches that challenge these processes of privilege and exclusion. This means thinking broadly about where knowledge and ideas come from and more specifically about gender, class, and race/ethnicity.

To that end, in 2020, we set up an “Unravelling Privilege” (UP) group to examine how dynamics of privilege and inequality shape our school, in terms of staffing, student populations, research and teaching, and to work towards doing things differently. Some of the UP staff members (Crawford, Hale, Hope, Simpson, Sharp) applied for funding through the Centre for Educational Enhancement and Development’s (CEED) Entrepreneurial Education Funding Competition to progress this work of decolonising the curriculum. With funding secured, our team grew to include two postgraduates (Ewen and Pizarro Choy), and three undergraduate students (Keeping, Park, Tang).

This information in this Guide was compiled by the student members of the project team. Crawford contributed to the Field Work section and all staff members provided guidance and reviewed the document. Our goal in the creation of this Guide was to create a liveable, actionable resource that will help build a more inclusive learning environment for all. This aim of the Guide is to provide a grounding in how to approach JEDI topics in the classroom. This includes thought to course structure (e.g., module design, field courses, lecture development) and the difficult conversations that can arise in the classroom. For ease, resources for further reading are at the end of each section.
This JEDI team’s remit was to:

1. Plan and hold two workshops for SGSD staff and postgrads.
2. Review the SGSD module handbooks [See Appendix A].
3. Conduct independent research.
4. Draw on all of the above to create this living Best Practices Guide.
MODULE DESIGN

This section is a guide to key practices for removing barriers to student participation. Suggestions are made to include ED&I concerns in the planning, running, and assessing stages of a module.

“"There is no advancement of equality where the difference is not recognised and valued." 
(AIE 2011)

EXAMPLE COVID STATEMENTS

Be mindful that students can also be dealing with caring responsibilities, chronic illness/disability, or trauma from the pandemic (and in general). Consider including some sort of statement acknowledging this in your handbook.

1. “Acknowledging the ongoing COVID-19 situation: These are difficult times. Every person in this class has been personally and professionally impacted by this pandemic. In light of this, we must be kind to each other and be patient. If you would like to talk about your experience of the pandemic and how it is impacting your life and/or your academic work, please contact https://www.st-andrews.ac.uk/students/advice/asc. Please also note that staff contributing to this module may be doing so whilst dealing with additional caring responsibilities arising as a result of the pandemic.”

2. “Please bear in mind that the situation remains subject to change and adaptation. Please do not hesitate to reach out to the module coordinator if you require any accommodations related to COVID-19. If you would like to talk about how the pandemic is impacting your life and/or your academic work, please contact the Advice and Support Centre, ‘the Asc’ theasc@st-andrews.ac.uk.”

The Student Wellbeing Officer gsdwellbeing@st-andrews.ac.uk is a point of school-level contact for seeking wellbeing support. Also, information on the GSD Wellbeing Poster can be helpful when students need advice about where support can be found in different situations.
OFFICE HOURS

Be mindful of students who work and/or are engaged with other personal or professional responsibilities. For example, consider having office hours on two different, consecutive days and at different times, so that they are not Monday and Wednesday at noon (not easy for someone working a Mon/Wed/Fri lunch shift) or always at 4pm (not easy for a parent). Also, consider including in your handbook that students can contact you to schedule alternative office hours if they cannot make the scheduled ones.

EXAMPLE DISABILITY STATEMENTS

Be mindful of students who deal with chronic illness or disability, and the impacts this may have on their coursework and participation in lectures and fieldwork. Consider including some sort of statement acknowledging this in your handbook.

“If you have any questions or comments with respect to difficulties you may face (with assessments and/or whilst away in the field), in the first instance, please feel free to discuss with the module staff. Alternatively, you can contact the DDoT & Student Wellbeing Officer at gsddot@st-andrews.ac.uk or Student Support Services at asc@st-andrews.ac.uk.”

EXAMPLE INCLUSITIVTY STATEMENTS

“It is of the upmost importance that all participants contribute to maintaining a safe, respectful, and welcoming learning environment. This does not mean that we will always agree; indeed, vigorous disagreement on key points in the assigned texts is encouraged. However, such disagreements must remain respectful towards those with differing views. Discussion should remain focused on the assigned readings. Personal attacks, hostility, or bullying will not be tolerated under any circumstances. Make efforts to lift each other up rather than taking one another down. If any problems or conflicts should arise, please reach out to discuss this with the module instructor immediately.” [Mike Simpson SD4115]

“Some considerations for organisation and remote studying: Do you have other obligations (e.g., caring obligations) and/or need to coordinate with someone you live with to make time for your coursework? A timetable and an agreement with the other person might help with this as well.” [Tobias Bolch GG3210]

“We in the School of Geography and Sustainable Development are conscious that our disciplines and the institution within which we work are caught up in histories and on-going power relations that shape the way we see the world. Student protests around "Why is my curriculum so White?" and, more recently, Black Lives Matter, have prompted us to make a formal commitment to challenging privilege within the School and University working environment. This module explicitly engages different ways of seeing and knowing the world, includes scholarship from diverse geographical locations, and is careful to be gendered balanced. I encourage you consider these principles in your own scholarship, as well as to be attentive to this in
Other modules.” [Jo Hale SD4226]

“Identity and location are complex matters, but for each class and set of readings I shall attempt (for the first class in the handbook and thereafter in class) to identify and locate the authors you will read and do this as part of our ‘unravelling privilege’ agenda. Where do the individuals and groups behind the things you are reading come from? What perspectives do they bring? What conversations and networks are they trying to foster? There are class, nationality, ethnic, and gender as well as locational-geographical dimensions to all of this.” [Dan Clayton GG3227]

“The topic considered by this module is a truly vast and rapidly growing one. As geographers we are well placed to synthesise the many interrelated fields of knowledge that have arisen over the last forty years, to identify and trace the global interconnections between people, places and resources that underlay pandemics, and we can also add some new spatially sensitive interpretations of our own. Nevertheless, there is probably no “right way” to try and embark on this project, and the limitations of the modular degree has meant that choices have been necessary in the planning of the course. Choices are never “innocent” and always have consequences and students should keep an open mind about the silences and biases inherent in my attempt to structure this module. The module has a regional focus on Africa/ southern Africa because this region has been at the epicentre of the global pandemic. However, this regional bias inevitably ignores rapid growth elsewhere such as India and the former Soviet Union. The module will concentrate on heterosexual transmission and thus underplays the long and brave struggles of Gay men in the US/UK as well as risking perpetuating the silence around homosexuality in Africa. It will focus more on prevention and HIV than on treatment and AIDS. Furthermore, my own research interests mean that I may tend to favour emphasis on questions of gender over those related to poverty (although they are often also connected). I have also tended to focus on more sociological issues rather than those related to aerial distribution. This then is not a definitive guide to HIV/AIDS in Africa, much less the Geography of HIV and AIDS. Nevertheless, I propose that working together on the program mapped out below, we can each develop a more informed understanding of a phenomenon that is a defining feature of our times.” [Mike Kesby GG3224]

“Be aware of human frailty. Some sources make claims or reach conclusions based on preconception, slender evidence, inappropriate analysis or lack of intellectual or scientific rigour. The fact that a piece of work is published in a journal or textbook is no guarantee of its intellectual integrity. Be prepared to question everything you read!” [Richard Streeter GG4221]

Be mindful of the amount of work and reading required from the students and make sure it corresponds to the number of module credits in order to prevent burnout and overwhelm. State clearly in TALIS and/or in the module handbook and/or reading list when readings are (in the parlance of TALIS) “essential,” “recommended,” or “optional.”
Interventions designed for meaningful contacts should consider and may refer to (Dovidio et al., 2017; Paluck and Green 2009; Paluck et al., 2021).

KEY RESEARCH FINDINGS

1. The trade of HE across the globe is fundamentally an unbalanced flow of students from lower-income countries to higher-income countries. Such a pattern of flow implies an unequal relationship may also be reflected in cultural and social terms when students arrive at the destination (Adnett, 2010).

2. Language and communication are the predominant and persistent causes of inequality between culture sojourners and culture host, and such inequality gives rise to explicit or implicit prejudice on the former group despite legislation (Olivas & Li, 2006; Schweisfurth & Gu, 2009; Forbes-Mewett & Sawyer, 2016).

3. There is an “expectation gap” laying between the wish to equally communicate with or make connections to native classmates, however language/cultural barriers could negatively impact one’s ability and willingness to participate in classroom discussions (Forbes-Mewett & Sawyer, 2016).

4. The “culture shock” peaks after arriving in the host country and could be eventually adapted through “culture learning” “stress and coping” and “social identification” (Zhou et al., 2008) – implying the importance of constructing socially supportive activates in first year modules.

5. Student support needs are identified in a hierarchy of “social needs” “academic needs” and “practical needs” (Bartram, 2008) (see Appendix B: Categories of student support needs).

6. Without intervention, social inequality can create clusters in class (e.g. White students v. racial/ethnic minorities) despite classroom mixed settings and discussion cues intended to break the boundaries between different groups (Paluck and Green, 2009).

7. The “social categorisation” (Dovidio et al., 2019) between international and native students is “reflected and constituted by unequal relations of representation that are shaped by ideas, concepts, and norms which old-timers inherit and develop in their understanding of others” (Lobnibe, 2009), which may potentially reinforce the colonised mindset in academic works.
Challenges for International Students in Higher Education: One Student Narrated Story of Invisibility and Struggle  
Hsieh Min-Hua, 2007

A narrative study was conducted to investigate why a Chinese female international student keeps silent in her American classes. This study found that because of her silence, the participant internalized a deficient self-perception as a useless person in her group discussions and perceived that a deficient identity was attributed to her. Because the participant’s American classmates’ ideology of cultural homogeneity made her disempowered in her classes, the participant became the victim of the disempowering American higher educational setting. Therefore, this paper suggests that educators of American higher education should not attribute Chinese international students’ silence to only their ethnic culture influences or personalities and should not overlook the possible disempowering nature of higher educational settings.

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The Intercultruality in UK Higher Education  
Michele Schweisfurth & Qing Gu, 2009

The concerns that these inequalities generate led a number of the case study students – even those who went on to prove themselves to be extremely able and adaptable – to have inferiority complexes, especially in the early part of their studies.

“I've decided not to focus on the differences between the groups because that was what I think fed into my inferiority complex … But I've met more people now and I've come to the realisation that they are generally the same.” Rina, Malaysia

“Before they [tutors and classmates] treated me like a foreign student … Although I’m the only one international student in my class, it doesn’t matter. In seminars I don’t mind speaking out and in presentations I can do anything that they want me to do. … I think I see them more friendly than before. I’m a member of my class; but before I wasn’t.” Jiayi, China
... in the first few months, for example, I was reading books and just understanding 10% of what I was reading. And in the lectures I would catch only 20% of what the lecturers were saying. So I was thinking: how am I going to pass this exam and write these papers? Now I understand almost 90% of what I am reading.” Guzal, Kyrgyzstan

“I think I knew my ability from long before but I didn't know it in the context of university life. Because it is so different from A levels I wasn't really prepared for the kind of work that I had to do. I was used to cramming for exams but now it was not like that and it was difficult adjusting to that. But I think I am ok with myself and I know where I am right now.” Terry, Trinidad

MODULE DESIGN FOR POSITIVE INTERGROUP CONTACT

Planning curriculum

- Using interaction among students from diverse backgrounds as a course objective and making this explicit in the subject outline;
- Designing teaching and learning activities that require students to engage with others from diverse backgrounds to gain information necessary for completing the tasks;
- Incorporating assessment tasks that require peer feedback.

Creating interactions

- Start as you mean to continue, with conditions for effective interaction created from the outset;
- Purposefully generate situations, within learning and teaching activities, that require students to interact;
- Actively encourage students to move out of their regular social groups; and
- Support students to develop the confidence in interacting with other peers from diverse cultural and linguistic backgrounds.

Supporting interactions

- Setting clear expectations about peer interaction;
- Respecting and acknowledging diverse perspectives;
- Assisting students to develop rules regarding interaction within their group;
- Informing students how engaging with diverse learning strategies will assist their learning;
- Providing groupwork resources for students.
Engaging with subject knowledge
(“narrative persuasion” re. Paluck and Green, 2009)

- Organising activities that encourage students to draw on the diversity within the group to complete the task;
- Using group tasks to discuss different views around a particular topic;
- Incorporating peer feedback to support learning.

Developing reflective process

- Organising activities that encourage students to draw on the diversity within the group to complete the task;
- Using group tasks to discuss different views around a particular topic;
- Incorporating peer feedback to support learning.

Fostering communities of learners

- Structuring activities to specifically build learning communities;
- Incorporating online discussion boards to create an online community of learners;
- Including mentoring programmes within subject specific context.

Useful self-assessing questions (Schweisfurth & Gu, 2009)

- **Equality**: is the contact taking place in a situation where the different groups of students have equal status and feel equal to each other?
- **Common goals**: do the groups of students have a meaningful shared purpose that they are working towards?
- **Intergroup cooperation**: to what extent does the in-class/general context encourage cooperation between different groups of students?
- **Authority support**: do the perceived authorities – administrators and the teaching staff in the school – explicitly encourage positive intercultural contact?

REFERENCES

CORE READINGS


REFERENCES cont.


RELEVANT READINGS


INSTITUTIONAL-LEVEL REPORTS

Equality Challenge Unit (2012) Attracting international students: equitable services and support, campus cohesion and community engagement, Link, accessed 05/03/2022.


It is important to make sure all our students feel welcome, comfortable, and motivated to learn. Small gestures can make a huge impact to our student body. Within the lectures delivered by this School, there are many options to respect diversity and stimulate inclusive thinking. Creating such an inclusive environment not only rests upon the content of the lectures but all aspects of teaching.

**GENERAL**

Inclusivity statements within the handbooks can set the tone for an inclusive classroom throughout the semester and/or academic year.

There are various interpretations and thus practices towards inclusivity in teaching (Stentiford & Koutsouris, 2021). Generally, it is important to recognise the importance of equity, whereby students may have different needs based on various circumstances and it is vital to recognise and accommodate those needs. It is similarly imperative to practice equal treatment of all students in order to counteract potential marginalisation within the classroom of such students. These approaches are not necessarily contradictory; it is possible and important to recognise the diversity within the student body respectfully without putting any single person in the spotlight, leaving them feeling exposed.

**LANGUAGE**

Language plays an important role in this approach. It is possible to use inclusive language so that everyone’s needs are catered for, without targeting and exposing any particular student, i.e., promoting equality through language within the classroom. A large part of inclusive language relies simply on the avoidance of any discriminatory language, including jokes, colloquialisms or sayings that can be offensive or are based around protected characteristics. However, there are further nuances.

Using simpler language within lectures and any additional materials can help create a more inclusive learning environment. This can accommodate any non-native English speakers as well as students with disabilities. Any regional references should therefore also be avoided wherever possible, or else explained so the whole student body may be included in this aspect of the lecture. If it is not possible to use simple language, or else the lecture relies heavily on subject-specific terminology, a glossary of terms that students can research independently as is suitable to their needs could prove a valuable addition to the lecture material.

In addition to using simple language wherever possible, it is also important to use inclusive language. For example, avoid using heteronormative terms, e.g., rather than
our curriculum covers a wide range of subjects, some of which may centre on protected characteristics, or else on characteristics that may upset those present, cause discomfort or even lead to marginalisation. therefore, it is important to use people-first language. an example of people-first language is using “people with disabilities” rather than “disabled people”[2]. this is a small change with a huge impact because it puts the person before the characteristic, they are not defined by the characteristic. another example is “someone with obesity” rather than “an obese person” (palad & stanford, 2018). use descriptive terminology rather than labels, for example[3][4].

in creating an inclusive learning environment, it is also important to consider the presentation of lectures and lecture materials. any media used throughout lectures can pose problems for students with disabilities and must be accessible. some recommendations follow:

1. for many students, it is valuable that lectures are made available in digital formats; word documents are particularly favourable since this format is most suitable for e-readers, though pdfs are also widely supported. this information is likely to shift over time, as more software becomes attentive to accessibility issues.

2. within handouts in lectures and tutorials, double line spacings and appropriate margins should be used.

   additionally, in all lecture materials sans serif fonts (for example arial or calibri) should be used to increase accessibility.

3. for any material shared with students, alternative text added to pictures and graphics are an important aid to students with visual impairment.

4. during lectures, flashing images and loud sounds (e.g., certain videos) should be avoided where possible to be mindful of sensory overload.

monthly, two-part digital accessibility courses are offered through ceed as additional resource to any interested audience.
The content of the lectures taught within SGSD and other schools is incredibly diverse and includes many topics that are globally important and need to convey inclusivity. Again, small additions and changes can have a significant impact.

In general, critical analysis and acknowledgement of issues is key. What are the biases within the material? For instance, discussions around climate change can be problematic – are examples of climate change leaders varied, or are they mostly from high-income countries? Are the experiences, adaptations, etc. mentioned within the lectures diverse; do they reflect the global problem? Is fair transition mentioned? Another important aspect of Geography and geographical knowledge is colonialism; is this acknowledged, critically reviewed? Particularly where geographical history is concerned, this is vital.

RECOGNISING THE IMPORTANCE OF ROLE MODELS

Role models are of immense importance to learners. As lecture content is often prepared and presented by a single individual with whom not all attendees can identify, it is important to showcase multiple perspectives, narratives, and experiences. One example for this is during the discussion of historical geography or case studies. In discussing discoveries, expeditions, research etc., consider using guest speakers or multimedia content to include a diversity of voices. This will create an overall more inclusive and motivational environment.

5. For any videos or online lectures, virtual field trips, etc., it is important to enable captioning where possible.

6. Use Microsoft Office to explore Accessibility options in Powerpoint, Adobe and Word

7. Another important aspect for accessibility are the colours used throughout the presentation and materials[5]. There are many online guides available for this. Furthermore, students may be encouraged to consider accessibility in coursework, particularly exercises such as the creation of infographics, posters, videos or any other outputs.

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The Intergovernmental Panel on Climate Change

In the case of the IPCC, and indeed many other important publications on a range of policy issues from climate to health, the research is predominantly written by male authors from higher-income countries (Chakraborty et al., 2021). Therefore, valuable Indigenous knowledges and lived experiences from those from lower and middle-income countries are often excluded. This is an artefact of science and the publication industry and is reflected in the IPCC, which is responsible for the collation of high-level, robust scientific information. Discussing such knowledge biases, as displayed in the IPCC, can help build critical awareness in students, generating an overall more inclusive learning environment. This increased awareness portrayed through lectures will translate into other aspects of student life.

REFERENCES


5. http://web-accessibility.carnegiemuseums.org/design/color/
Field courses are an important and often highly-anticipated aspect of the undergraduate curriculum. The points compiled in this section will help to ensure that field courses are accessible and safe for all participants. Early and frequent communication, individual planning measures, consideration of group diversity and protected characteristics, and the sharing of detailed trip plans are key actions that are valuable for the comfortable and full participation of the trip participants.

**PLANNING FOR ALL CONSIDERATIONS**

Develop clear learning objectives for your lesson or activity. Ultimately, we aim to allow students to focus on these learning objectives. By developing clear objectives, you can plan around barriers that may impede individual students so that they are also able to meet the earning objectives without concern or distraction due to uncertainty or concern. (Hendricks et al., 2017)

Early and continuous communication is essential. This will allow you to provide the opportunity for students to self-advocate by disclosing their individual, diverse needs well in advance of a field trip (Atchison et al., 2015, Hendricks et al., 2017; Stokes et al., 2019; Houghton et al. 2020).

Expect diversity within your participant group. Consider the needs within the group, including those of individuals with protected characteristics (“age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation” under UK law (Prior-Jones et al., 2018). Some example considerations from Prior-Jones et al. (2018) include:

- Consider how “laws, culture and attitudes” at the locale you are visiting could impact an individual’s safety, even if you do not know in advance the protected characteristics of the individuals within the group (Prior-Jones et al., 2018). Will you need a local guide to help navigate the trip? Are there laws (e.g., regarding smoking or alcohol, sexual orientation, and/or absence of anti-discrimination or accessibility laws?), culture (e.g., dress), attitudes that the trip participants need to be aware of?

- Revise risk assessment forms to include consideration of protected characteristics. An example field trip risk assessment that does so is included as Appendix C: Inclusive Risk Assessment.

- Is the trip accommodation composed of single-sex dormitories? Connect with the university’s LGBTQ+ organisations to advise how this could impact the inclusion and safety of a trans trip participant. Eldridge (2020) provides more information regarding issues for trans people within academia.
**PLANNING FOR ALL CONSIDERATIONS cont.**

- What racial and/or religious prejudices / tensions exist? What measures should be taken to ensure the safety of the trip participants?
- What are the dominant religious and cultural beliefs and expected behaviours?
- What religious observances or philosophical beliefs (e.g., dietary) need to be considered?

Expect neurodiversity within your group. If there is an autistic trip participant, you can take helpful measures as indicated by Kingsbury et al. (2020) including the following:

- Develop a plan with the trip participant for a) communication and check-in needs, b) identifying signs of overwhelm and shutdown and c) safe mitigating strategies. The latter may include taking a break from the situation.
- Understand if the additional sensory information, including complex scenery and weather, could challenge the student’s participation. To reach learning objectives, consider shorter trip stops and planning stops so that there is minimal distraction.
- Communicate clearly, without rush or sarcasm, and with plain body language. Ask one question at a time. Understand and plan for needs for alternative communications devices.
- Provide opportunities to practice field techniques, donning field gear, etc. before going on the trip. Consider sharing past photos of the trip.
- Share expectations and detailed trip plans. This may include meal plans, accommodation details, weather, clothing and the trip schedule. Note the need for the schedule to be flexible. Co-developing a planner and schedule for the student may be valuable (see Figure 2 and Table 1 of Kingsbury et al. 2020).
- Share that there may be changes to the trip schedule and that each stop.
- Provide space for atypical body language and free body movement. This can be necessary for understanding and processing information. By not working to suppress this behaviour the student can focus on the content being shared.

What are the costs of the trip? What is the necessary kit (e.g., raincoats, walking boots) or specialist equipment? Consider socio-economic situations of your student body and ensure that everyone has the opportunity to obtain this kit or join the field trip. (Giles et al., 2020). Also ensure that the provided kit is equally well fitting for all participants, as outdoor gear is often primarily designed for males (Prior-Jones et al., 2018).

Are there cultural rituals (e.g., prayer brakes, fasting) to consider for any of your students? Are you planning to travel to a location where it would be dangerous for
students based on their sexuality or gender identity? (Giles et al., 2020).

Try to select field locales that are accessible by all in your group (Gilley et al., 2015). Is it possible to provide multiple means of access to a site to allow students to choose which access route they will personally use (Stokes et al., 2019)?

Scout the field trip stops well in advance of your trip to ensure the safety and full inclusion for trip participants (Atchison et al., 2015). Some questions to consider include:

- How will your students reach each locale? Will there be unstable terrain?

- Are there access barriers for individual students? Will there be use of an accessible bus or wheelchair, or other device, and how will that impact the participant’s access to the locale (Gilley et al., 2015)?

- Have you discussed the field plans 1:1 with a concerned participant so that you know if you need to provide back-up or specific help? (Hendricks et al., 2017)

Will the instructor always be able to monitor the wellbeing of a concerned participant? Will a 1:1 assistant accompany the participant and how will they be prepped for the trip? (Hendricks et al., 2017). Provide a detailed plan and instructions for the day (Houghton et al. 2020). Consider developing daily handbooks with all the daily information, site descriptions, and briefings of tasks.

Provide learning materials and field activities in multiple formats so that the teaching is accessible to all participants. This is especially relevant if a student has a sensory impairment, though incorporating multi-sensory engagement opportunities has benefits for all learners (Stokes et al., 2019).

These additional formats, or alternative engagement opportunities, may also be important to provide a learning opportunity to a student who isn’t able to make it to a particular locale (Atichson et al. 2015). If this will be the case at a certain locale, ensure that there is an opportunity to engage with topics related to the learning objective regardless if the student can make it to main site with the rest of the group (Atchison et al., 2015; Houghton et al. 2020). Further ideas for why and how to plan alternative engagement opportunities are found in Houghton et al. (2020).

Conservatively plan your itinerary to ensure adequate time for all to access trip locales, and that all students have the time they need to fully engage with the activity and meet the learning objectives (Stokes et al., 2019; Houghton et al., 2020).

Toilet stops are needed for a variety of reasons. Ensure to plan regular toilet stops into a field trip itinerary and include details of toilet stops (e.g., timing, free vs coin operated?) in the daily group briefing. Pack a supply of pads and tampons and other necessary products. More details and example itinerary are in Green et al. - Apendix A.
DURING THE FIELD COURSE

- Prior to departure, discuss trip expectations and learning objectives. Set the tone for a supportive field environment.

- Consider that students who experience learning difficulties may find it challenging to simultaneously absorb information through multiple sensory systems. For example, it could be important to not ask students to listen to instructions while they finish making field observations. (Stokes et al., 2019)

- Continue practising open communication so that students can self-advocate for changes that would increase their participation and/or note concerns (Hendricks et al., 2017)

- Be comfortable with modifying trip plans as necessary.

- Monitor student engagement and the inclusion of those with accessibility needs. Think about complementary pairing of students to enhance inclusion and collaboration, as well as facilitate knowledge-sharing and transiting. Also consider the ease of communication within student pairs/groups, familiarity with working with those with accessibility issues, and other preferences that a student may hold (Hendricks et al., 2017).

POTENTIAL ACCOMMODATIONS

- If a student uses sign language, ensure that an interpreter comes on the trip and that the signs for content-specific terms (e.g., “moraine”) are known ahead of time (Hendricks et al., 2017).

- Ensure that students and assistants are aware of the learning objectives. The assistant should feel comfortable to modify instructional resources as necessary and on the fly to improve the learning experience for the student (Hendricks et al., 2017).

- Maintain eye contact (Hendricks et al., 2017).

- Use a transcription device. You may need multiple (e.g., phone, laptop, tablet) based on how many environments you pass through (Hendricks et al., 2017).

- Have multiple forms of communication technology available (e.g., pen, paper, phone), and ensure that students, instructors and assistance are all briefed in the use of technology such as transcription devices (Hendricks et al., 2017).

- To enhance inclusion, have an interpreter or peer sign or transcribe conversations between other students (Hendricks et al., 2017).

- Set up a live feed system (e.g., Skype or FaceTime) for those who can’t make it to a particular site (Houghton et al., 2020).
POTENTIAL ACCOMMODATIONS cont.

- Using a device, such as an iPad or tablet, can allow some students to more easily take notes, conduct mapping. Be familiar with the technology beforehand (Houghton et al., 2020).
- Talk slowly and clearly (for everyone’s benefit!) (Hendricks et al., 2017).
- If travelling by bus, consider securing (and properly insuring!) a second, smaller vehicle (e.g., an accessible van) if a student uses a wheelchair or scooter (Atchison et al., 2015).

IDEAS FOR MULTI-SENSORY INSTRUCTION

- Provide tactile maps (Hendricks et al., 2017), maps using textures to represent landscape variations (Atchison et al., 2015).
- Provide audio and visual field guides (Hendricks et al., 2017). The audio version can be recorded in “chapters” that correspond to each field stop (Atchison et al., 2015).
- Consider setting up an audio-tour style site visit so that students can all clearly take in information despite weather or other challenges (Houghton et al., 2020).

ADDITIONAL RESOURCES

- AdvanceGEO
- Geological Society Higher Education Network
- Autistic Self-Advocacy Network
- Academic Autism Spectrum partnership in Research and Education (AASPIRE)
- International Association for Geoscience Diversity (IAGD)
- Diversity in the Geosciences (DIG-UK)


Green, S., Ashley, K., Dunne, E., Edgar, K., Giles, S., Hanson, E. Toilet stops in the field: An educational primer and recommended best practices for field-based teaching. University of Birmingham. 3 pp


Difficult Conversations

Discussions around difficult and sensitive topics will inevitably arise in classrooms due to the varied and diverse nature of the subject. Although sometimes planned, we can never fully know or anticipate when such conversations will arise. These challenging moments can occur within all classes and sometimes staff may feel that they could have responded better to a situation. The resources and advice provided in this section of the handbook aim to support you in facilitating difficult conversations so that they can be learning opportunities. These conversations may be uncomfortable, but if handled well, will be beneficial for all involved and are opportunities to foster students’ empathy of perspectives which differ from their own.

Why Difficult Conversations Must Not Be Avoided

It can be tempting to avoid difficult conversations because staff may feel underprepared to lead these conversations or are worried about causing offence or escalating a situation. However, avoiding these conversations suggests to students that sensitive topics should not be discussed or that offensive comments which were raised in the classroom are acceptable. Although discomfort cannot be avoided, students and staff both need to be protected in these discussions to enable learning and growth.

Establishing Ground Rules

It is important to establish ground rules for difficult conversations at the start of a semester so that when tricky situations emerge, they are responded to appropriately and in a way which respects both students and staff. These ground rules can be co-developed with students, but some suggestions from existing studies are listed below.

- All students’ perspectives are encouraged in discussions, but students do not have to feel pressured to speak or share their views if they are not ready to.
- Personal attacks are not permitted.
- Critique ideas not people.
- Listen respectfully, without interrupting.
- Avoid assumptions about other students or staff and generalisations about social groups.
The role of staff is to actively facilitate these difficult conversations, rather than passively observing them. As a facilitator you might reword students’ questions, reference relevant reading material, review main points and ask for clarification.

A key challenge of facilitating difficult conversations is to manage ourselves and our emotions to enable productive discussions. It is important to understand and acknowledge your own worldview, assumptions, values, and biases to feel secure in these difficult conversations. Furthermore, this models reflexivity and openness to students and may encourage them to reflect on their own biases.

- Try to hold steady when you are emotionally provoked by a student’s comment. This will help students feel like the discussion is controlled and a safe environment for them to share their views.
- Respond rather than react: Try not to let your personal reactions to a comment determine your response as this may limit discussion of such comments and what they represent in the classroom and society more broadly.

**KEY QUESTIONS**

1. Are you personally upset by a student’s comment?
2. Do you feel pressure to make a difficult moment ‘go away’?
3. Are you concerned about doing something wrong?

If you sense that students feel discomfort, acknowledge this and ask them to reflect on why they might be feeling that way.

Encourage open discussion which considers varied perspectives through asking students to argue their view respectively and responsibly.

**KEY LANGUAGE**

1. Many people think this way. Why may they hold such views? What are their reasons?
2. Why do those who disagree hold other views?
If a student makes an offensive remark, raising their points as a topic for general discussion to protect the student and to encourage other students to understand views which they disagree with. This can be approached using the key language below.

When discussions get heated, take a short break and ask students to write down what they are feeling and questions which the discussion raises for them. This gives students and staff time to reflect and will foster a more constructive discussion. Students to argue their view respectively and responsibly.

Ask questions about students' experiences and views and encourage students to ask each other questions. This promotes listening, understanding and critical thinking rather than defensive arguments.

SUGGESTED QUESTIONS

1. That is an interesting idea, can you explain it further?
2. What assumptions inform that idea?
3. What experiences does that idea leave out?
4. Are there any points of agreement or assumptions in common among these different positions?

A short silence can seem very long to the class leader, but it is sometimes important not to leap in fill gaps in conversation: embrace silences and pauses. This can encourage students to reflect and contribute to the discussion.

Validate, encourage, and facilitate the discussion of feelings through expressing appreciation to students who demonstrate courage to participate in difficult conversations and express their feelings. Studies have shown that talking about feelings or anxieties can help students to understand their own, and others’ views, promoting empathy.

If students raise issues which sidetrack a discussion from its topic, instead of being defensive, acknowledge that the student makes good points and their concerns are valid and important, but that the topics currently under discussion are also important. At the end of the class, recap these as topics for students to think about in their own time.

Use the tools of academic thinking to depersonalise the discussion.
KEY LANGUAGE

1. What is the evidence for and against this position in the research?
2. What data supports this view?
3. What more would we need to know in order to deal with this question in a balanced way?

If a discussion becomes extremely polarised, ask students to write down all the support they can think of for a position that they disagree with.

If a difficult moment emerges at the end of a class, begin the following class with a discussion of what happened and ask students to reflect on why the tension emerged.

REFLECTION

At the end of a class, it is important to build in time for reflection.

Staff may ask students to summarise what has been discussed in the class and how it relates back to the module goals and aims.

Staff could ask students to write down responses to questions such as those below.

KEY QUESTIONS

1. What is the most important idea or insight that came out of this discussion?
2. What is one idea, fact, or viewpoint that you would like to learn more about?
3. What wasn’t discussed that should have been discussed? (or that should have been discussed in more detail?)
4. At what moment were you most engaged as a learner?
5. At what moment were you most distanced as a learner?
6. What surprised you most?

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FEEDBACK

We welcome comments and suggestions on this document, including for additional references or resources, as well as the opportunity for people to submit case studies to be included in future versions of the document.

Feel free to submit comments directly to Jo Hale at jo.hale@st-andrews.ac.uk or using the anonymous feedback form here: https://forms.office.com/r/0VqGtKZDdM
This citational analysis was carried out by Alejandra Pizarro Choy (PhD student), Bahrathi Keeping (undergraduate), and Mike Simpson (lecturer) as part of wider work reviewing module handbooks. We selected two sub-honours reading lists in order to provide a snapshot of our School’s citational practices and develop and test a methodology to assess gender, race and where knowledge is produced. We hope that our initial findings will highlight the need for further analysis of reading lists across the School, while also encouraging further conversation and discussion within the School about why our reading lists are constructed the way they are, and what immediate and more medium- to long-term steps we can take to increase the citational diversity on our individual and collective reading lists.

To conduct this analysis, we compiled a list of all required and supplemental readings from one sub-honours Sustainable Development module, and one sub-honours Geography module. For each reading listed on the course reading list, we looked up the authors’ online profiles, and sought to determine their gender and racial identities. In many cases, these identities were not explicitly stated, in which case we had to make certain assumptions based on names and the way people presented in images (which may have resulted in slight inaccuracies in our findings). Gender identities were recorded as either “Male,” “Female,” “Non-Binary.” Racial identities were recorded as either “White” or “BIPOC.” In some cases, where gender or racial identities could not be determined, we recorded them as “Unknown.” We additionally recorded the country where the authors’ institutional affiliations were based, to obtain a sense of the geographical diversity of authors. In the case of multi-authored papers, we recorded identities and affiliations of the first three authors.

Taken together, we analysed a total of 219 readings and resources and 447 authors from two sub-honours modules. Of these, 336 authors were from the Geography module, and 111 were from the Sustainable Development module (see Table 1, next page).
We found that of the 447 authors, 304 were identified as male (68%), 139 were identified as female (31.1%), and none were identified as gender non-binary. The gender of 4 authors was unknown (0.9%). We additionally found that 392 authors were White or White-presenting (87.7%), and 35 authors were BIPOC or BIPOC-presenting (7.8%). One resource was identified as being produced by an Indigenous movement (0.2%). The racial identity of 21 authors was unknown (4.7%).

53.24% of authors were affiliated with institutions located in the UK, while 22.82% of authors were affiliated with institutions located in the USA. Only 0.89% of authors were affiliated with an institution located in Africa and 0.67% of authors were located in Latin America (Figure 1).

![Figure 1: Location of Institutional Affiliations](image-url)
Decolonising the university and including JEDI (justice, equity, diversity and inclusion) in our curriculums remain a crucial task, especially in fields such as Geography and Sustainable Development that study space, place and the ways people interact with such concepts and their material realities. This analysis aimed to develop and test our methodology in two modules, and is thus limited in scope due to the amount of reading lists analysed and the assumptions detailed in the Methodology section. However, some patterns can be drawn.

It is clear that there is a White and male bias in both reading lists, which is consistent with other reading list analyses and supports the calls for diversifying the curriculum. Overall, authors affiliated with institutions based in the UK were over-represented in the reading lists, while scholarship produced in regions such as Africa, Asia and Latin America constituted a very small proportion of the sample. The Sustainable Development module was slightly more representative of non-male gender identities and BIPOC than the Geography module, though this was too small of a sample to draw wider conclusions about differences between Geography and Sustainable Development reading lists. Perhaps Sustainable Development, being a "newer" field of study has yet to develop an established White, male and North-Atlantic canon literature. in Latin America (Figure T1).

The methodology proposed was useful to analyse the reading lists, but it required a considerable effort. Searching for alternative resources from a variety of geographies and perspectives that can broaden our reading lists is no easy task either. Some questions can help us put this information to best use:

- Why is it important to diversify reading lists?
- What would be considered ‘ideal’ in terms of representation of racial identities, gender identities and location of institutional affiliations?
- How should module coordinators go about selecting publications from more diverse authors?
- How can the School of Geography & SD support module coordinators to do this?
- How can students be supported to seek out publications from diverse authors despite White, male and Global North academics’ privilege?
APPENDIX B: CATEGORIES OF STUDENT SUPPORT NEEDS

Discussions around difficult and sensitive topics will inevitably arise in classrooms due to the varied and diverse nature of the subject. Although the following is the unmodified table showcasing the hierarchical needs of student support (the primary support is considered for "Social needs") contribute to a more equal, diverse and inclusive host cultural environment. This example is found in Bartram (2008).

<table>
<thead>
<tr>
<th>1. Social needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-arrival contact with peers</td>
</tr>
<tr>
<td>• Regular personal tutoring</td>
</tr>
<tr>
<td>• Support with social networks</td>
</tr>
<tr>
<td>• Cultural and social integration</td>
</tr>
<tr>
<td>• Peer support</td>
</tr>
<tr>
<td>• Contact with students across the cohort</td>
</tr>
<tr>
<td>• Personal and emotional support</td>
</tr>
<tr>
<td>• Using the VLE for social contact</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Academic needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Academic and study skills support</td>
</tr>
<tr>
<td>• Language support</td>
</tr>
<tr>
<td>• Supportive learning environment</td>
</tr>
<tr>
<td>• Assessment guidance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Practical needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-arrival information</td>
</tr>
<tr>
<td>• Information on accommodation</td>
</tr>
<tr>
<td>• Clear information sources</td>
</tr>
<tr>
<td>• VLE – practical direction</td>
</tr>
<tr>
<td>• Induction-concise but comprehensive</td>
</tr>
<tr>
<td>• Financial advice</td>
</tr>
<tr>
<td>• Careers advice</td>
</tr>
</tbody>
</table>
## APPENDIX C: INCLUSIVE RISK ASSESSMENT

The following is the full, unmodified example of a risk assessment that considers diversity and protected characteristics within a field trip group. This example is found in Prior-Jones et al. 2018 where it was shared under the Creative Commons Attribution

<table>
<thead>
<tr>
<th>Category</th>
<th>Associated problems (note these are examples, not a prescriptive list)</th>
<th>Risk level before mitigations</th>
<th>Mitigations - measures you are taking to reduce risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime</td>
<td>street crime, local scams, theft, hotel room security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terrorism</td>
<td>bombgings, security alerts, terror attacks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict</td>
<td>localised tensions or fighting that could result in outbreak of hostilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td>civil unrest, strikes, riots, political demonstrations, upcoming elections or significant events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kidnap</td>
<td>abduction/kidnapping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure: Transportation</td>
<td>airport collection, local driving standards, hazardous terrain, roadworthiness, safety belts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical capabilities</td>
<td>hospital proximity and standards, methods of payment for treatment, access to local doctor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contaminated food</td>
<td>allergies, Hepatitis, dysentery/diarrhoea, severe stomach upset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contaminated water &amp; Drinking water</td>
<td>dysentery/diarrhoea, legionella, leptospirosis, polio, cholera, typhoid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>compatibility of equipment, voltage, safety standards, power cuts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Risks: Climate conditions</td>
<td>extreme heat or cold, high humidity, monsoon /storms, altitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural disasters</td>
<td>typhoon, tornado, tsunami, avalanche, earthquake, flood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact – with insects etc</td>
<td>bites/stings, Lyme’s disease, malaria, yellow fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contact – with animals</strong></td>
<td>Allergies, asthma, bird flu, bites, dermatitis, rabies, stings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cultural Risks:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local culture</td>
<td>customs, dress, religion, behaviour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal differences</td>
<td>local codes/guidance, local statute</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attitude towards Protected Characteristics:</strong></td>
<td>LGBTQ, age, disability, sex, race, marriage and civil partnership, pregnancy and maternity, religion or belief.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hazardous Activities:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>Skiing, white water rafting, bungee jumping, diving etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazardous substances/chemicals</td>
<td>Usage, available antidotes, transport requirements, spillage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field work/research ********</td>
<td>permits to work, safe systems, tides and water conditions, medical back-up, remoteness of work site, lab hazards</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other:</strong></td>
<td>any unusual risks, or risks specific to this trip and associated activities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


APPENDIX D: TOILET STOPS AND FIELD COURSES

The following is the full, unmodified document regarding toilet stops in the field developed by Green et al. at the University of Birmingham. It is shared under the Creative Commons Attribution 4.0 International License.

Toilet stops in the field: An educational primer and recommended best practices for field-based teaching

Sarah Greene, Kate Ashley, Emma Dunne, Kirsty Edgar, Sam Giles, Emma Hanson, University of Birmingham Earth Sciences Department.
Questions? Suggestions for additions or improvements? Please email s.e.greene@bham.ac.uk

Purpose
Many institutions do not have guidelines surrounding toilet stops on field trips, and the topic is rarely discussed. This document is intended to educate staff and students about toilet stops and menstruation in the field. This document also contains a set of recommendations for field work and field trips with the aim of minimising stress and anxiety for all parties.

Educational Primer

- Many students will never have urinated outdoors before, and may not know this is expected on some fieldtrips. For people who squat to urinate1, there is a ‘technique’ to master and no one wants to learn in front of their peers and lecturers.
- Inadequate (or inadequate communication about) toilet stops causes stress and discomfort. Do not underestimate how much staff and students worry about toilet facilities on field trips, or how much energy staff/demonstrators may be already spending trying to anticipate and prevent problems.
- It is not uncommon for people to manage their fluid intake to avoid needing to urinate outdoors. This choice is not unique to students – some highly experienced staff do so as well. It is particularly common for people who need to squat to pee, on trips with minimal toilet facilities, on trips with large groups, or in landscapes that provide little cover. Restricting fluid intake is dangerous, and can lead to dehydration and urinary tract infections. Managing fluid intake is not a sign of ignorance, but reflects how much anxiety and stress is associated with field urination for some people.
- Toilet stops are not just for urinating. Menstruating individuals need to change pads/tampons at least every 4-8 hours, depending on their flow. Leaving a tampon in longer, using super absorbent tampons to compensate for infrequent toilet stops, or changing tampons with dirty hands all increase the risk of toxic shock syndrome. Some people may want privacy to take medicine or injections. Some medical conditions, stress, or having your period can also affect the urgency and frequency with which one needs to defecate.
- “This problem seems to be getting worse every year.” No – it isn’t. Awareness of the problem is getting better as there are more field scientists who are feeling more able to voice their experiences and concerns publicly.

Recommendations

General departmental policies:

- Plan your itinerary. Include regular toilet stops on your field trip. If you think this is impossible on your trip, re-read the educational primer and consider carefully whether your preferred itinerary is worth the resulting anxiety and distress. Keep in mind that students who are preoccupied worrying about toilet stops will not be active, engaged learners.
- Field guides and field trip briefings should address urination and menstruation ‘kit’ in the same level of detail that you cover field gear like boots, compasses,

1 Note that people who squat to urinate includes most women, but also may include trans men, non-gender binary, or intersex individuals. Likewise, ‘women’ and ‘people who menstruate’ are not synonymous.
warm clothing. Young people may still be experimenting with options for managing their periods. Field guides can mention period products such as Diva Cups, Wuka/Thinx, as many students will not be aware of them. Sherwoods are an option for field urination while standing, although anecdotally, very few field scientists recommend them. There is a technique to master and, understandably, few will wish to engage with trial and error on group field trips. These products should not be used as an alternative to regular toilet stops.

- **Field guides and field trip briefings should state general policies about toilet stops.** General policies should include encouraging people to ask if they need an unscheduled toilet stop and a protocol for peeing in remote localities. For remote localities, our informal suggestion in house is to take a buddy or two to keep watch and find somewhere discreet to pee. Students should inform a member of staff when they peel off and when they return. This is preferable to group ten-minute-peen-breaks, which may leave people squatting in front of dozens of other people, which may be distressing. Students should also avoid splitting groups by perceived gender when announcing toilet stops (e.g., ‘women to the left, men to the right’), as this can cause discomfort to trans and non-binary students.

- **Field guides and field trip briefings should highlight strategies for hydration.** Strategies to ‘complement your hydration regime’ besides drinking water might include rehydration sachets, eating fruit, avoiding salty foods, but students should consult with medical professionals for more specific advice.

**To do ahead of time for each field trip:**

- **Itinerary.** Include a detailed itinerary in your field guide. List which stops have toilets (and approximate arrival time at each stop). At any stops where toilet availability is ‘iffy’ (e.g., seasonally closed or need to call ahead to ensure permission) this should not be left to chance. Call ahead and make sure the field guide is accurate. List coinage for coin-operated toilet facilities. Schedule ample time at toilet stops such that those that ‘could pee, but don’t need to’ or wish to change a tampon or pad don’t feel pressured to abandon the queue or skip the pad/tampon change. Flag supermarket stops so students know when they will have a chance to purchase (e.g.) sanitary supplies. A sample field stop itinerary from our Year 1 trip to Co. Antrim, N.I, is at the bottom of this document.

- **Coach hire.** Hire coaches with toilets whenever possible even if you have planned toilet stops. Coach drivers sometimes discourage use of these toilets because they need to be emptied. You may wish to stipulate with the coach company that the drivers are dispatched with information on nearest sites for waste disposal.

- **Field trip briefing.** Explicitly discuss the toilet situation at each day/locality and lay out contingencies (e.g., whether you will be in easy driving distance of an emergency toilet or protocol for peeing in the field).

- **To bring.** As with medical or first aid kits, staff should carry a supply of pads and tampons (particularly important in places where students can’t simply make their own way to a drug store or supermarket), toilet paper, rehydration sachets, hand sanitizer or wipes, and plastic bagsgies to dispose of tampons/pads/toilet paper if there are no rubbish bins. On trips with coin-operated toilets staff should bring proper coinage.

**To do on each field trip:**

- **Attitude/environment.** Students must never be made to feel remotely ashamed or guilty if they ask for an extra toilet stop or if they get dehydrated. Based on the experiences of ourselves and our colleagues across multiple institutions and in multiple countries, this is often not the case and likely the single most important and effectual change you can make.

- **Each stop/each day.** Field trip leader announces toilet situation and, where applicable, reminds students of the protocols for peeing in remote localities. Field trip leaders remind the students to continue to hydrate through the evening.

**To do post-field trip:**

- **Solicit feedback.** Often undergraduate students will be more comfortable approaching demonstrators/PhD students, so academic staff may be unaware of issues that arose. Ask them what they picked up on.
## Sample front page for one stop on our Yr 1 field trip:

### Day 1 - Location 2: Portrush Sill

<table>
<thead>
<tr>
<th>Location</th>
<th>Ramore Head, Portrush, Grid ref: C 85538 41276</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main rock types/features</td>
<td>Dolerite, mudstone, hornfels, chilled margin, igneous layering, ammonites</td>
</tr>
<tr>
<td>Objective</td>
<td>Understand contact relationships between igneous and sedimentary rocks and consider the structure of igneous bodies</td>
</tr>
<tr>
<td>Activities</td>
<td>Examining igneous rocks focusing on mineralogy, grain size and texture. Also examining sedimentary rocks and considering the effect of magma emplacement.</td>
</tr>
<tr>
<td>Assessment</td>
<td>Observations and interpretations will feed into a model that will include other localities on this trip, so an evening sum up session will consolidate the observations of today</td>
</tr>
<tr>
<td>Logistics</td>
<td>14 miles (29min) from accommodation. 20 miles (40 min) from previous stop. Toilet facilities at locality: YES</td>
</tr>
<tr>
<td>Safety notes</td>
<td>Rock surfaces will be slippery when wet. Coach stops in a car park.</td>
</tr>
<tr>
<td>Relevant modules</td>
<td>Earth Systems, Structural Geology, Petrology, Volcanology and Geochemistry, Igneous and Metamorphic Petrology</td>
</tr>
<tr>
<td>Economic/ applied</td>
<td>Magmatic systems carry metalliferous ore deposits. Sills in sedimentary basins affect the hydrocarbon system. Igneous bodies control geothermal systems while the magmatic system is active and form major structures in hydrological models.</td>
</tr>
</tbody>
</table>

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