

## LEARNING DESIGN VOICES

### PREPRINT

# Equity is not an add-on: Designing an inclusive training course for EdTech Advisors

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Advance preprint version



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#### ***How to cite this resource:***

Sirkhotte, W., & Vilakazi, V. (2022). Adaptable ABC: Learning Design for All. In T. Jaffer, S. Govender & L. Czerniewicz (Eds.), *Learning Design Voices*.

Advance preprint. <https://doi.org/10.25375/uct.20029163>

# **Equity is not an add-on: Designing an inclusive training course for EdTech Advisors**

## **Abstract**

A key challenge of online learning environments is exclusionary practices that continuously result in some students falling behind academically. As a way to begin to address this challenge, the University of Cape Town is rethinking approaches to redesigning courses in order to improve student learning outcomes. By extending support to teaching staff, the Redesigning Blended Courses (RBC) project trained and deployed a cadre of postgraduate students as Educational Technology (EdTech) Advisors. Universal Design for Learning principles and a commitment to social justice underpinned the training, which was designed by members of the RBC project. The training provided an opportunity to examine the concepts of accessibility and inclusivity, both theoretically and practically through learning scenarios, and to guide the EdTech Advisors in their work with learning designers. What made the design of the training particularly challenging was its ambitious goal of preparing EdTech Advisors for a dynamic role that is emergent and still in flux. In this chapter, we critically reflect on the design and implementation of the EdTech Advisor training. We highlight the importance of collaboration and integrating explicit learning design approaches from the outset, both of which are important elements for equity-oriented course design, as well as thinking about authentic learning opportunities for students. A potential benefit of this study is to improve EdTech Advisors' training, enhancing their knowledge and skills in order to better support course teams in redesigning courses.

**Keywords:** learning design; Universal Design for Learning; social justice

## **Introduction**

In this chapter, we share our reflections on the design and implementation of a training course for Educational Technology (EdTech) Advisors as part of the Redesigning Blended Courses (RBC) project at the University of Cape Town (UCT). The overarching goal of the RBC project is to redesign blended courses in response to the need for accessibility and inclusivity highlighted by the emergency remote teaching (ERT) pivot, through student surveys and personal experiences (Small, 2021). Within this, the need to practically support and empower teaching staff to design inclusive and accessible courses was also identified.

Although university policies have often emphasised inclusivity and accessibility, this obligation was accelerated during the global COVID-19 pandemic lockdown period (starting in March 2020) which necessitated the redesign of many courses. UCT chose to continue teaching through the online course delivery mode with learning designers supporting teaching staff in transitioning their courses initially to emergency remote teaching (ERT) mode then to online mode whilst exploring ways to make courses accessible and inclusive, and to enhance student engagement. In light of the new developments that were taking place at UCT, in our capacity as a team of learning designers tasked to design the EdTech Advisor training course, we believed that course teams should become intentionally inclusive and equity-oriented from the outset when designing courses. This entailed reflecting on our own biases as learning designers and “who” we are advantaging or disadvantaging when storyboarding key themes, selecting and developing resources, and thinking about which pedagogies and forms of assessment to use. Therefore, our understanding of equity is that it entails more than merely making features of a course accessible, but also offering opportunity for students to improve their learning outcomes through socially-just pedagogies (Luckett & Shay, 2020; Rose, 2021).

During the ERT phase, when almost all students were learning from home, teaching staff became acutely aware of student learning needs and challenges. These included unaffordable data costs, lack of time management skills, uneven digital literacy skills, escalating mental health or wellness concerns, inaccessible language and other barriers (Czerniewicz et al., 2020). Additionally, we realised that UCT teaching staff required support with redesigning their courses and resource materials for online teaching and learning, especially in an equity-oriented manner for a diverse student body. Furthermore, some of the teaching staff realised that they needed to be upskilled on how to use educational technology tools and applications for the online course delivery mode. Many of the teaching staff also expressed concern that they were not “connecting” to and actively engaging with their students.

## **Intervention through the Redesigning Blended Courses project**

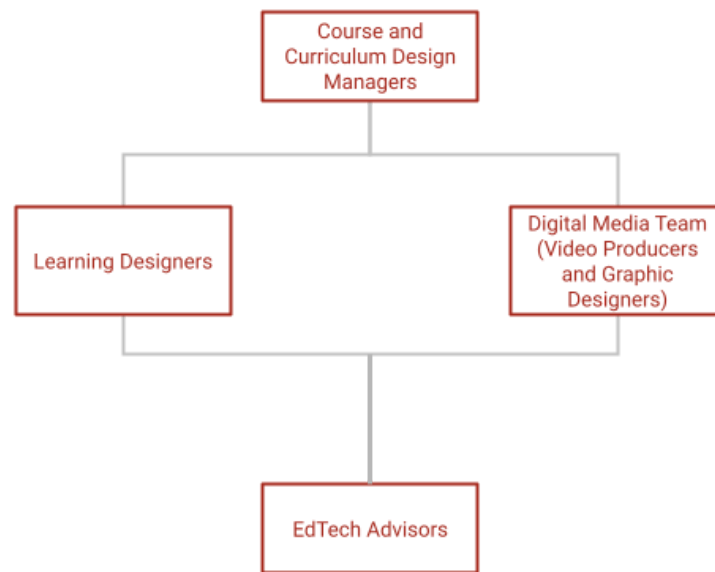
The Centre for Innovation in Learning and Teaching (CILT) at UCT, through the RBC project, recruited and trained a cadre of postgraduate students from different faculties within the institution as EdTech Advisors. As members of the RBC project who work in the area of learning design and have an interest in inclusive learning design, we were tasked to design the training for EdTech Advisors. Our mandate was to ensure that EdTech Advisors received

### *Advisors*

training so that they would be able to assist and support teaching staff with integrating educational technologies, underpinned by tenets of Universal Design for Learning (UDL) as an explicit framework for accessibility in blended courses as well as other models.

In describing the roles of EdTech Advisors, we followed a shared decision-making process through consultative meetings with members of the RBC project who are key stakeholders across UCT. For example, the Disability in Education in Africa (IDEA) research unit provided expert input on UDL and social justice aspects. We also involved the UCT Disability Service around accessibility standards for online and blended learning. Further, we partnered with the Education Development Unit in the Humanities Faculty, which provided us with an opportunity to collaborate and pilot UDL training with their tutors and teaching assistants. Following wider consultation, we delineated EdTech Advisor roles such that they differ from those of tutors and teaching assistants, in that they are not directly involved in working with students or the teaching of courses.

The role of EdTech Advisors under the RBC project is also different from that of learning designers in that they predominantly provide practical assistance in building course sites and components under the guidance of learning designers and in consultation with teaching academics. Figure 1 shows the leadership structure within the RBC project and how EdTech Advisors fit into it. In the conceptualisation of their role during the ERT period, where student learning needs and challenges were foregrounded, it was envisioned that they would be more involved in advising teaching staff about accessibility and inclusivity concerns, hence their title "EdTech Advisor" rather than "EdTech Assistant". However, learning designers at CILT soon realised that redesigning accessible and inclusive courses means that the entire team needs to be involved, rather than assigning this to a particular person. In addition, learning designers who are often involved in course design processes that involve conceptualisation, development and implementation of course components would need to take the lead on this but would require the support of EdTech Advisors to implement further. Furthermore, we anticipated that the course team would benefit from EdTech Advisors' input, as the first-hand experience of these postgraduate students in the ERT and online learning modes could help bring about significant course improvements. At the time of writing, UCT learning designers, EdTech Advisors and RBC project members continued to explore accessibility and inclusivity approaches in course redesign.

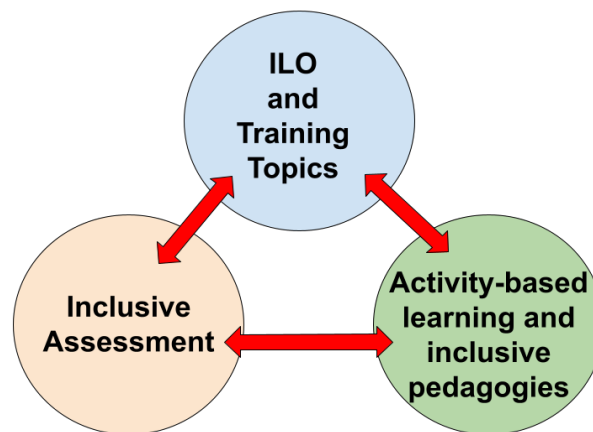


**Figure 1:** Course and Curriculum Design team organogram

## **The EdTech Advisor training course process**

To prepare EdTech Advisors to support teaching staff, we designed a fully online training course so that they could become adept at their supporting roles. Furthermore, the intent in the design was to foreground accessibility within a social justice agenda in higher education, which we envisaged to be a driving factor for the work that EdTech Advisors would be doing. We included opportunities for experiential learning in socially-just pedagogies, such as by including a session where EdTech Advisors could actively experience the pedagogy of discomfort and ethics of care. The intention was to make EdTech Advisors aware of biases, the importance of diverse views and to enable critical reflection beyond simply learning how tools worked. On a technical level, we designed the training to equip EdTech Advisors on how to use the institutional learning management system (LMS), Vula, so that they could assist teaching staff with their courses.

Drawing on Bigg's concept of constructive alignment (Biggs, 1996), we expanded on the training needs by specifying and aligning intended learning outcomes (ILOs) with the content, learning activities and inclusive pedagogies, and assessment. These key training course design features, depicted in Figure 2, will each be discussed in the next section.



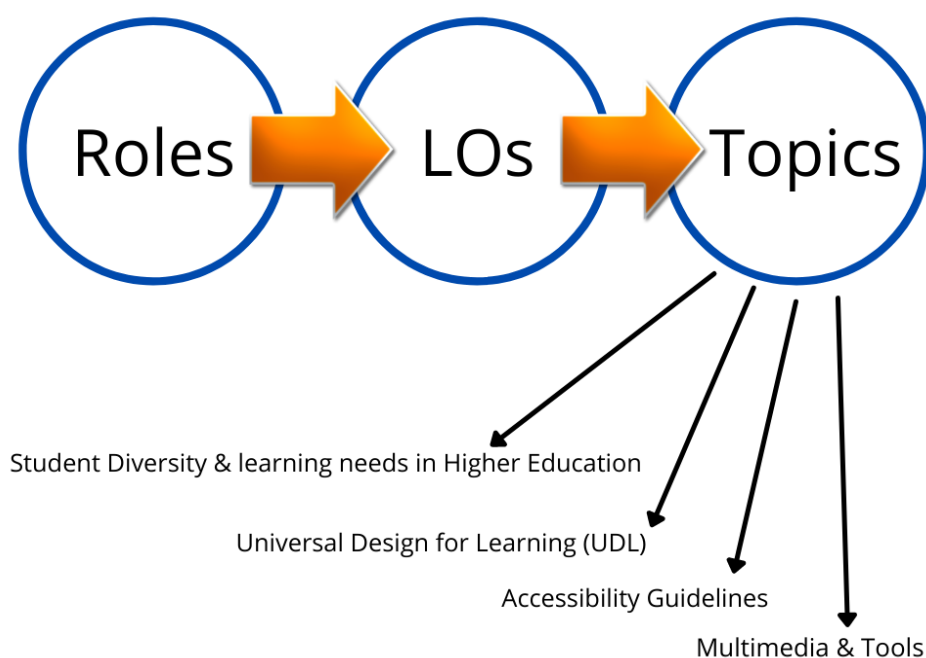
**Figure 2:** Course design features

### **Translating job-oriented roles to intended learning outcomes and training topics**

We envisioned the EdTech Advisor roles as a form of graduate development with targeted graduate attributes to be attained over time. For example, through initial training and ongoing practical guidance of learning designers, we conceived the roles as follows:

- Identifying student learning needs, as well as gaps in catering for the identified needs in existing learning materials.
- Helping with the creation of learning materials to be aligned to UDL principles in order to meet standards for minimum accessibility.
- Promoting mindset changes among teaching staff towards using educational technologies to enhance inclusivity within various academic disciplines.
- Advising and assisting in the re-organisation of courses and learning materials to enhance the student learning experience.
- Assisting with surveys and data analytics to support learning.
- Advocating for inclusive learning and teaching in the wider UCT institutional context.

We delineated EdTech Advisor roles, translated them into intended ILOs for the entire training course and mapped out the requisite training session topics (see Figure 3).



**Figure 3:** Roles to topics

### **Designing for inclusive, competency-based assessment**

Once roles were delineated and translated into ILOs with training topics, we designed various competency-based assessments in order for EdTech Advisors to demonstrate their competencies. In this instance, we used the backwards design approach to ensure that the ILOs were not only linked to EdTech Advisor roles but also supported authentic learning.

We further planned for the mini-assessments under each of the topic sessions to culminate in a capstone assessment, in the form of an integrated e-portfolio task. EdTech Advisors had to demonstrate cumulative knowledge building, skills acquisition and embody values through creating artefacts that capture their reflections on critical learning incidents, as well as any shifts that may have occurred towards equity-mindedness. The artefacts entailed designing infographics to capture how diverse students demonstrate learning together while thinking about the accessibility of the text, colours and images. In addition, we provided padlets<sup>1</sup> with guiding questions for EdTech Advisors to reflect on lessons and skills learnt.

### **Activity-based learning and inclusive pedagogies**

#### ***Course storyboard development***

The storyboard process of capturing key themes for the EdTech Advisor training course took place gradually. To stimulate our thinking, we used a version of Laurillard's Arena Blended Curriculum (ABC) design methodology that CILT learning designers had adapted and inserted into a storyboard template (CILT, 2020). This methodology makes use of six

<sup>1</sup> Padlet (<https://padlet.com/>) is a digital noticeboard, allowing for participants to share a range of media, including text, audio and video.

learning types – Acquisition, Discuss, Produce, Investigate, Collaborate and Practice – to visually represent the type and order of learning activities and assessment.

We adapted the CILT storyboard template to make it applicable to the EdTech Advisor training course by adding a focus on UDL and accessibility. We added a specific “UDL and accessibility” column (see Appendix), as the aim of the course was not only to teach about these concepts, but also to model embedding UDL principles during course design. In this column, we aligned each learning activity, one row at a time, to incorporate UDL principles and accessibility protocols whilst also specifying additional requirements. In the UDL and accessibility column, we thought about how the selected multimedia content would enable multiple means of representation as well as the kinds of opportunities (engagement and expression) it provided for EdTech Advisors to share, reflect and build relationships. Such alignment ensured that, from the planning stage, we designed the course to maximise the opportunity for inclusive learning and accessibility during the actual training stage.

By using the CILT storyboard template, each learning activity could be considered and detailed. This allowed us to align learning activities in relation to the ILOs and tools, as well as to think about the flow and pacing of activities, resources needed, duration, mode, UDL principles and accessibility protocols.

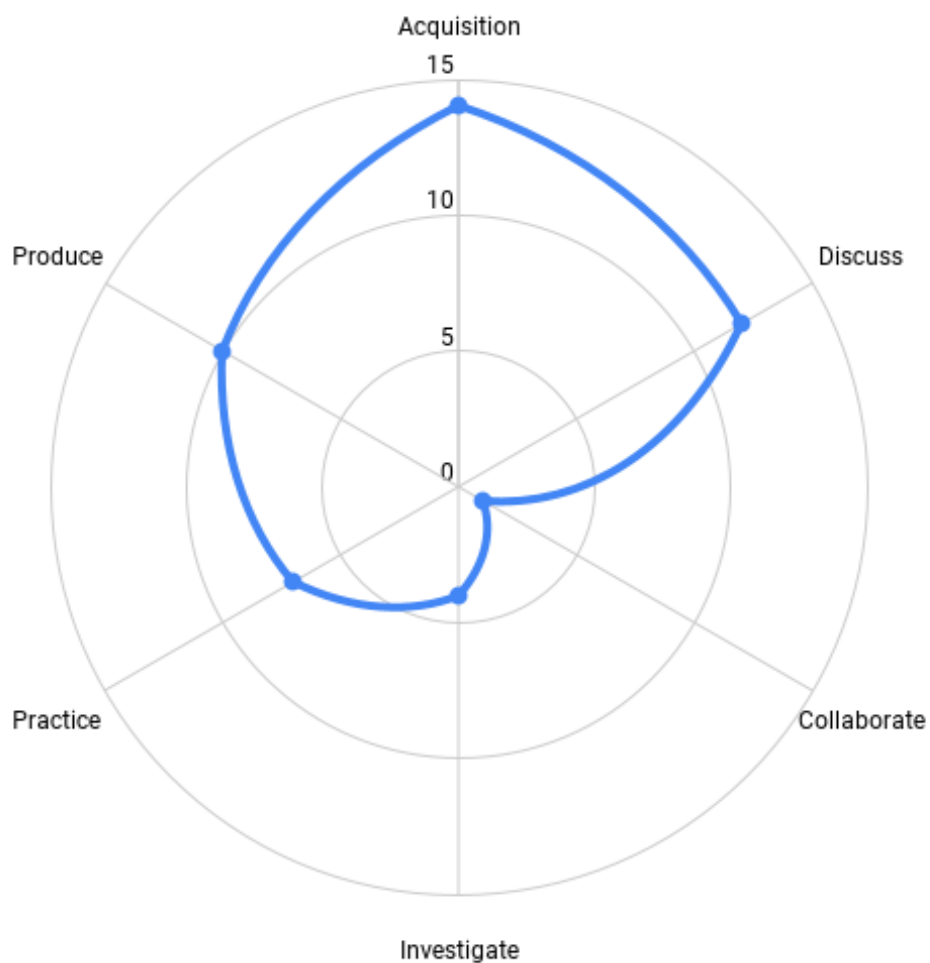
We added a column (column G in Appendix) to the template to indicate which person would be responsible for developing or facilitating that particular learning activity or would lead in presenting the live webinar component. By doing so, we aimed to ensure diversification and representation of *voice* among the trainers involved in the course. The trainers for the EdTech Advisor training course were diverse in terms of expertise, gender, race, religion and nationality.

For continuous feedback, we added feedback columns for RBC project members who are specialists in their own fields (disability inclusion, learning design) to review and provide continuous feedback as the storyboard developed (See column L in Appendix A for an example). The expert feedback captured in these columns ensured that requisite knowledge and skills were well integrated for the necessary experiences and learnings to be achieved.

Having the column on “Learning Type” (column C in Appendix) provided a visual representation of the learning types EdTech Advisors would experience in the course at specified moments. This was helpful when taking a big-picture view of the course design. It showed which learning types were dominant through colour visualisation as well as through the course shape that was simultaneously forming as the template was being populated. The course shape, a feature that the CILT learning design team made possible through automation within a spreadsheet, is helpful to reflect on course design features, by supporting planning conversations. Figure 4 is a screenshot of the final course shape that developed for the EdTech Advisor training course.



Course Shape: Radar diagram



**Figure 4:** Course shape for EdTech Advisor training course

**Table 1:** Number of times each learning type appears in the storyboard

ABC learning types on CILT storyboard template:	
Acquisition	14
Discuss	12
Collaborate	1
Investigate	4
Practice	7
Produce	10

The dominant colours in column C of the spreadsheet (Appendix A) and the shape of the course design in Figure 4 allowed us to reflect further on the learning activities. We thought about the shape in relation to the pedagogical approaches identified as critical. In noting the

number of collaborative learning type elements in the course (Table 1), we were a bit concerned as this element was reflected only once, despite the interactive webinar sessions involving several collaborative activities. The collaborative learning in this course was not necessarily captured in this template, as one could not put two learning types in a single row. This was one of the limitations of this approach, as many other activities planned tended to overlap with other learning types. In this regard, we adjusted the storyboard by providing more description in a learning activity as well as breaking down the activities into parts to capture the dominating ABC learning types.

Another concern with the automatically generated radar diagram was the time calculation component. The radar graphic captured the number of learning activities that were to occur in the training course, but not how long each would be. This was problematic because it appeared that the training course included more acquisition-based learning activities (reading, viewing and watching) than collaboration and practice, even though more time was allotted for these learning activities. As a means to resolve this, we did manual calculations to assess whether learning types and time aligned.

### ***Sequencing of topics and learning activities***

As the storyboard developed, we began to think about how the four identified topics were to be sequenced. For example, should EdTech Advisors first learn about *UDL* and then *Accessibility Guidelines*, thereafter *Student Diversity and Learning Needs*; or vice-versa? According to the course ILOs, it did not matter which topic came first as the ILOs were not structured in a linear order, but were based on the roles that EdTech Advisors would perform.

After discussion with RBC project team members, we decided that it made sense for the topic of *Student Diversity and Learning Needs* to be featured first to activate prior knowledge of EdTech Advisors through their lived experiences and understandings of diverse student learning needs at the university. We also thought that this focus would be strategic during the induction phase of the training to develop motivation from the start regarding their roles as EdTech Advisors. This provoked further consideration regarding “what” and “how” much information should be covered under the topic of *Student Diversity and Learning Needs*. and “by whom”. Thereafter, EdTech Advisors would explore topics pertaining to *UDL* and *Accessibility Guidelines* as strategies to address the identified student diversity issues covered in the first topic which would then lead them to the topic on *Multimedia and Tools*. Table 2 captures the sequencing of topics for the EdTech Advisor course.

**Table 2:** Sequencing of topics

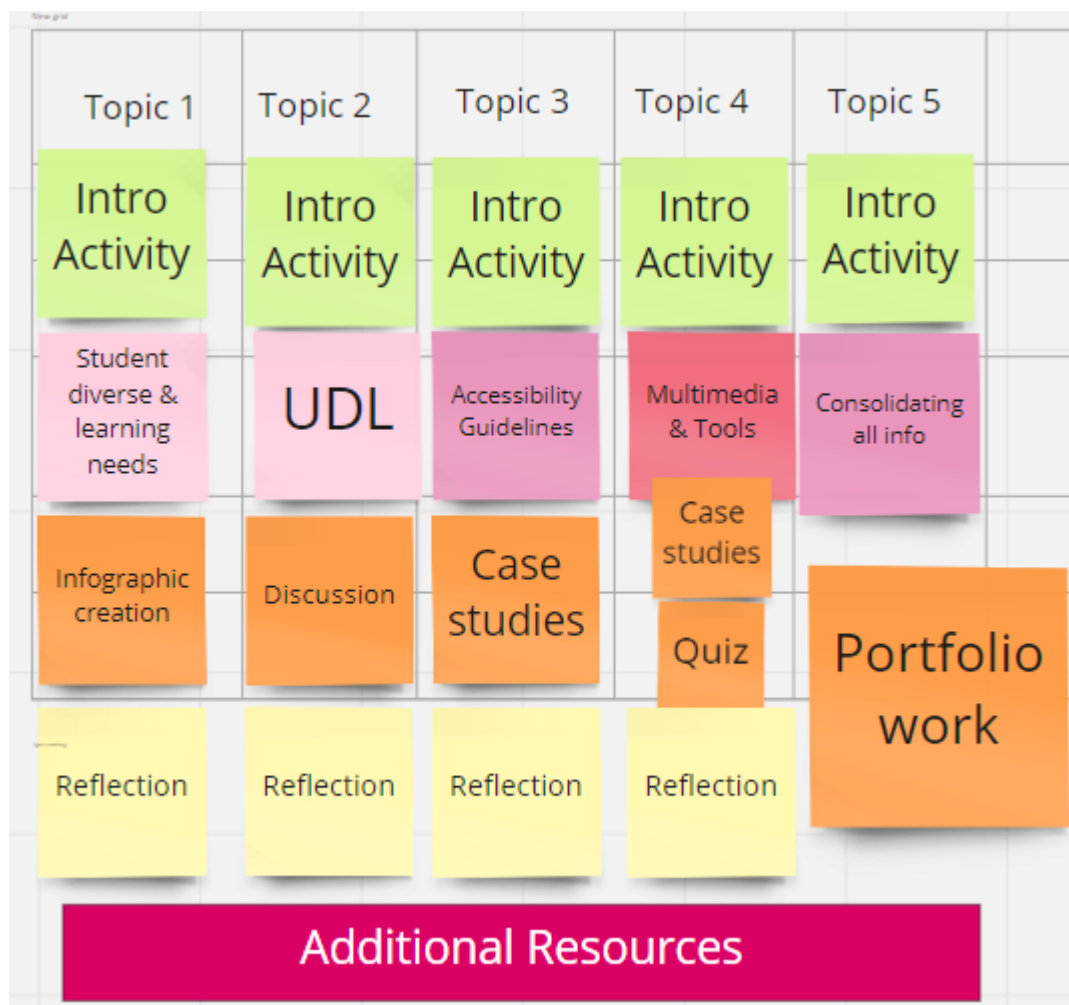
Topic 1	Topic 2	Topic 3	Topic 4
<b>Student Diversity and Learning Needs</b>	<b>UDL</b>	<b>Accessibility Guidelines</b>	<b>Multimedia and Tools</b>
EdTech Advisors to become aware of student diverse learning needs.	EdTech Advisors to learn about UDL as a means to address the varied learning needs of students.	EdTech Advisors to learn about how accessibility is possible, as underpinned by one of the UDL principles and using accessibility guidelines/protocols.	EdTech Advisors to learn about multimedia and LMS tools and how to use them to create inclusive, accessible and equitable learning and teaching environments.

We hoped that the sequencing of topics in this manner would allow them to build upon each other, while simultaneously developing the skills and knowledge of EdTech Advisors.

As the development of the storyboard continued, the ABC learning types in each topic could be visibly tracked through the colour codes that were programmed as part of the CILT storyboard template. Although there were many of the same colours (learning types) in each topic, they were not in the same order. This led us to think about re-sequencing the activities in ways that would form a *learning pattern*. We thought about how the use of learning patterns would enhance the learning experience for the EdTech Advisors, for instance by creating familiarity with how to access and approach content and activities in each topic. It was through re-sequencing the activities that we noticed more gaps in how EdTech Advisors would possibly engage with the content. For example, some topics did not have introductory or practice activities. Furthermore, topics such as *Student Diversity* and *Accessibility Protocols* had too many activities. Eventually, re-sequencing ensured that each topic had:

- An introductory activity that would activate EdTech Advisors' prior knowledge and experience.
- A core webinar session that would comprise various parts and be two hours long each.
- A practice opportunity for EdTech Advisors to practice skills learned.
- Space for EdTech Advisors to engage in a reflection.
- Additional resources related to the topic for EdTech Advisors to access and explore.

Figure 5 provides a visual overview of the re-sequencing. A fifth topic was added to consolidate what was to be covered in the training course as well as the capstone assessment.



**Figure 5:** Visual overview of the re-sequencing of learning activities

### **Choice of mode and tools**

We considered two course delivery modes for the training course: online or blended. In this context, “blended” would imply delivering some components in online mode and others in face-to-face mode. However, given the uncertainties of the pandemic, we decided on a fully online approach based on technical, educational and social affordances we deemed necessary to provide various forms of student support during the COVID-19 pandemic. The intention was for EdTech Advisors to become familiar with how different educational technologies can be used for different learning delivery modes. It further became clear that online asynchronous learning activities would be suitable for reading and commenting on readings and forum posts, the content of which would supplement what had been covered in the live, online synchronous sessions.

In terms of choice of tools, we considered a variety of tools used at UCT, which the EdTech Advisors could familiarise themselves with and assess in terms of how they could be adapted to create inclusive and accessible blended learning and teaching environments. We opted, however, to focus on for tools that would enable specific learning activities instead,

such as LMS blogs, LMS forum discussions and Padlet<sup>2</sup> (a real-time collaborative bulletin board) for reflection, discussion and collaborative learning. The tools supported the process of reflection in the course, the aim of which was to provide a space for EdTech Advisors to deeply engage with topics in relation to themselves and others, guided by the ILOs (Conole, 2015). In these reflection activities, EdTech Advisors were encouraged to share their learnings in their chosen medium (voice, text, image or video).

In order to explore and compare which of the above-mentioned tools were most suitable, we used Bower's (2008) affordance analysis e-learning design methodology which focuses on tool affordances. As part of this process, some of the key social, educational and technical affordances considered were:

- Share-ability: EdTech Advisors must be able to share a variety of media files and manage the quantity of posts.
- Comment-ability: EdTech Advisors must be able to comment on reflections made by peers.
- View-ability: Although EdTech Advisors must be able to view peers' reflections, these must not be publicly accessible.
- Relate-ability: Reflections should be grouped under each session or topic so that there relationships are established between each topic and what is shared.
- Navigate-ability: As there are several EdTech Advisors on the course, it should be easy to find specific peers' posts and to navigate to different reflections.
- Size-ability: As EdTech Advisors are sharing a variety of media files, the tools should allow large files to be sent.
- Permission-ability: Reflections should be restricted to only the group and reflections should not be editable by others, only by the author).

In the end, we embedded Padlet boards in our LMS as the main tool for reflective activities in each topic. Since Padlet offered similar features to forum discussions and blog tools, we agreed on having the same tool in each topic to create familiarity. Having used the tool-affordance approach, it also became clear why only using Padlet was more suitable than using a variety of tools. While this approach limited tool exposure for EdTech Advisors, the skills acquired through the use of Padlet could be applied when using similar tools.

In terms of equity considerations regarding tools used in the course, we selected institutionally-supported tools, as this would enable full access to the EdTech Advisors. We opted for tools such as Google Jamboard and Google Docs for collaborative tasks. We also considered tools that would provide EdTech Advisors with multiple means to express themselves. This meant tools with rich text editor functionality, allowing for text, audio and video sharing. As the advisors were not familiar with all the tools provided, we added step-by-step instructions on how to use each tool to scaffold their participation.

### ***Building the course on the university LMS***

On the LMS course site, we arranged for each topic to begin with an introductory activity to activate EdTech Advisors' prior knowledge and experiences. To enable such engagement, we used Padlet to provide a space for the advisors to express themselves. This was

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<sup>2</sup> <https://padlet.com/>

### *Advisors*

accompanied by instructions on how to use the tool as well as an instruction that EdTech Advisors could respond in a format of their choice. In addition, we used instructional text to encourage them to engage with peers' responses, with the aim of building community, trust and a sense of belonging.

We invited guest presenters with specialist knowledge to lead some of the interactive webinars and provided short biographies about them to increase credibility and reliability regarding content to be covered. We set up the webinars using MS Teams; educational tools such as Padlet or Jamboard were also used in some of the sessions.

On the course site, we embedded reflection activities called "Takeaways" for the EdTech Advisors to express themselves on what stood out for them in each topic, what they still wanted to learn more about and what they felt confident doing. Through having this activity in the training, EdTech advisors shared their knowledge and experiences. In addition, we could track their learning progress to a certain extent. We further provided resources on each topic for EdTech Advisors to explore on their own or for quick reference when working on tasks.

### ***Inclusive pedagogical strategies***

In line with backward design principles, we began with the end in mind by specifying what the capstone assessment would entail. The next challenge was to ensure alignment with how the EdTech Advisors experienced inclusive learning themselves. To do so, we used scenario-based and job-related training activities, with aligned pedagogical strategies to ensure coherence for the core components of the course. For EdTech role readiness, the training included learning how to adapt LMS tools to enable the attainment of ILOs, as well as how to support experiential learning through inclusive pedagogies and opportunities for interaction and engagement.

We included a dedicated session titled "Pedagogy of discomfort and ethics of care" for in-depth discussion on moments of discomfort and care in the online class related contentious issues such as language, gender and race, and on how to navigate these issues in a critical yet balanced manner (Hunma et al., 2019). During the training webinar session, EdTech Advisors addressed moments of implicit bias through various scenarios in a bid to surface deeply entrenched race, language and gender inequities. We deemed the creation of discomfort followed by care as transformative by enabling a learning community to challenge some power dynamics. Through open discussion and sharing of experiences, EdTech Advisors and RBC project team members also discussed different perspectives on race, gender and other topics that affect learning in higher education. Providing a space such as this is necessary to challenge students, educators and training facilitators to engage with each other in authentic ways (Adams, 2020). Another potential benefit is openness to learning from one another, which can also foster a sense of belonging in the academic community. As RBC project team members who were involved in the design of the training as well as facilitators in the webinar sessions, we felt the need to examine our own assumptions and biases by being intentionally inclusive and equity-oriented towards all students (as far as possible) and to challenge our assumptions regarding class, gender and race.

The training drew on the tenets of a situative pedagogical approach where interaction was intentionally designed “to be as close to, or identical to, the situation in which the learner will eventually practice” (Beetham & Sharpe, 2019). Some of the compelling reasons for EdTech Advisors learning in the same environment they would be working in included being able to:

1. Build familiarity with the kinds of tools and resources they would be working with,
2. Provide exposure to the problems typically encountered,
3. Provide clarity on envisaged supportive roles, and
4. To model equity-mindedness and attitude change in order to foster social change.

We linked these benefits to the specified ILOs for the training and the anticipated dynamic roles of an EdTech Advisor. We used authentic case studies to deepen problem-solving and to foster engagement with equity issues through dialogical and reflective learning activities. Furthermore, we drew upon other pedagogical approaches based on constructivism as an underlying learning theory, through “learning-by-doing and the importance of feedback” (Mayes, 2019). The EdTech Advisors also engaged in collaborative learning by sharing and solving cases with peers while being simultaneously guided by expert facilitators. Besides working collaboratively on tasks to co-create knowledge and act on feedback on a range of topics, they also engaged in individualised learning tasks to consolidate a range of knowledge sources on multiple topics without being scaffolded. As a final assessment, EdTech Advisors created mini e-portfolios which allowed them to showcase their skills and to reflect on individual learning progression.

## **What actually happened: Design versus implementation**

Not all our plans materialised. In this section, we reflect on what changed and why. The first item that was not implemented was the competency test. This was not used as initially planned because we realised that when the postgraduate students applied for this position, we had given them a similar task. Instead of another test, we analysed how the appointed EdTech Advisors had completed the task and used the data to plan what to cover during the training. For example, the data provided input for the content to be covered on tools and accessibility protocols.

Secondly, the LMS tools that we had planned to use for certain activities could not all be used. Although it was important for EdTech Advisors to be exposed to as many tools as possible, we found that certain tools (such as Google Jamboard ) used in the live webinar sessions were not accessible to one of the EdTech Advisors who had a visual impairment. In this instance, we changed the activity so that there were both verbal and written responses so that all advisors could participate equally and optimally. For this training course, it was paramount that both the training facilitators and designers exemplified inclusive teaching practices. There were many critical learning incidents for us all. It also helped the RBC project team advocate for the UCT Vision 2030 goal “to leave no student behind”; thus, even though there was only one EdTech Advisor who could not access the tool, it mattered a great deal.

Thirdly, we had to modify how the EdTech Advisors navigated reflective learning spaces. For the “Take Away” reflections in the first topic, a few EdTech Advisors requested specific questions to guide their reflections rather than keeping the task open-ended. This made us

change the instruction for the rest of the topics so that EdTech Advisors could extract optimal learning from the training course. Amongst the RBC project team members, it was often a debate: whether to keep guidelines broad or to make them specific. As a course team with diverse skills and backgrounds, we also realised that there is no right or wrong answer to this, as we all have our own learning preferences. What is important is to provide the different options.

Fourthly, we found that the time element posed a constraint. Time in the online space seems to go “faster”, as there was not always enough time to do all the activities planned in the webinar sessions. This was partly due to explanations and activities taking longer than anticipated. The lesson that is to be learned from this was that activities should be planned in the storyboarding phase by taking into account the time needed for explaining or reading the instructions. We cannot assume that everyone knows how to use the tools, how to approach the activity or what to do.

## **Lessons learned**

### **Equity is not an add-on: Designing for equity from the outset**

Equity-oriented higher education provision post COVID-19 entails intentional redesign of blended learning environments. There is a benefit to approaching such redesign from an explicit learning design perspective, such as the one offered by the UDL framework, and complementing this with other models. For example, UDL provides a framework for redesigning learning experiences for students to have options in terms of how they learn, what materials they use and how to demonstrate their learning. Nevertheless, it is when UDL in course redesign is implemented through a lens of equity that the framework can offer ways to describe interactions likely to maximise opportunity for improved student learning outcomes, especially for those who have been historically marginalised (Indar, n.d.; Novak, 2021). What matters is why and how students learn through engagement with learning materials, facilitators and with each other, as well as how they then demonstrate their learning. What then becomes impactful is to redesign courses for equity, diversity and inclusion through leaving deliberate gaps in the course design narrative for the students to fill in. For example, some argue that course redesign for equity presupposes an inclusive mindset from the perspective of accommodating student views in order to negotiate values attached to shared goals. As a result, the course redesign should specify instructional strategies that are oriented towards interactivity, participant engagement, humanisation and adaptability for social justice. The ILOs should then also be aligned to learning activities that are oriented towards context-sensitivity, equity and justice driven by student learning needs.

### **Inclusivity and our own practice**

It has been a challenging yet rewarding process working with a diverse team to develop a training course. There has been iteration on so many levels, such as through designing the course on inclusion and accessibility, while we ourselves have been trying to be inclusive in how we work by inviting others to work with us. We often had to be agile in redesigning certain components to be more accessible and inclusive to visually impaired and other disadvantaged students. Another critical aspect was learning to accept criticism by involving different experts to review our work-in-progress course design while engaging with others to



lead sessions. When running the planned training course, we learned about flexibility by not rigidly following what was planned and designed by adjusting tasks and scaffolding content, where needed. In such instances, the EdTech Advisors themselves played an active role in co-designing the course to make it work for them and the trainers. We realised that the various levels of training design iteration and collaboration went hand-in-hand with providing opportunities for inclusion of multiple perspectives through providing a space in which the voices of teaching staff, learning designers, EdTech Advisors as well as disability and social justice experts could be heard.

We found storyboarding helpful as a process and an efficient way to visualise the design of the training process, particularly when approached from an underpinning explicit UDL framework for accessibility and inclusion. It helps when there are guidelines to provide a degree of structure and more organised ways to think about important aspects, and to reveal gaps and misalignment. Moreover, collaboration is key in redesigning courses for accessibility and inclusivity, as this facilitates ongoing critical reflection.

## **Conclusion**

Although it is still too early to assess the impact of the training on Edtech Advisors, it is likely that this will be a role that many more universities will consider as educational technologies continue to develop and influence higher education, as well as shape our world in general. The need for suitable training for these budding higher education practitioners is therefore important.

It is not enough to merely design topics where accessibility, inclusivity, social justice and student diversity issues are taught conceptually. We need to design for training teams to embody those concepts in terms of change in attitude, disposition and mindset. One of the most important lessons we learnt during the implementation of the Edtech Advisor training course is that meaningful change entails undergoing a process of discomfort combined with readiness to examine assumptions and biases. Thereafter, it is necessary to become a caring practitioner by continuously reflecting on underlying motivations in a bid to resolve prejudice and become exemplary advocates for inclusive learning and teaching practices.

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## Appendix A: Partial example of the course storyboard

A	B	C	D	E	F	G	H	I	J	K	L
Date	Activity #	Learning Type	Learning activity title	Learning activity description	Materials/ Resources needed	Person (presenting, facilitating, creating)	Mode (Asyc, Sync)	LOs	UDL & Accessibility	Time (mins)	Feedback (RBC Member 1)

Topic 1: Orientation and Student Diversity and Learning Needs in Higher Education											
	1.1	Produce	Pre-task: Introductions	EdTech Advisors introduce themselves through the Padlet. They are also to view posts from peers and to comment as optional.	Sample of what to do; instructions; guided questions	Widad and Thomas	Async	LO1	<b>Engagement and representation</b> - EdTech Advisors will be sharing about themselves (in text/video/ audio) as well as viewing and interacting with each other's posts (liking, asking questions, responding). Networking, community building.	30	Maybe ask them about a time when they have felt excluded
Day 1	1.2	Acquisition	Interactive webinar (Part 1): Intro to topic	An introduction to student diversity and how this impacts learning needs. <a href="#">Dimensions of a student</a>	Presentation slides; Models	Aditi/ Thula / Widad	Sync	LO1	<b>Representation</b> - Visual models to be explained when shown	15	
Day 1	1.3	Discuss	Interactive webinar (Part 2): Pedagogy of Discomfort in Higher Education and Ethics of Care	Using case studies to talk about student learning issues, exclusion and 'what can be done about it'	Cases	Aditi	Sync	LO1	<b>Engagement and representation</b> - using 'real' and 'relevant' case studies to talk about issues and solutions	60	

Day 1	1.4	Discuss	Interactive webinar (Part 3): Share and discuss	EdTech Advisors share their lived experiences of learning at university	Discussion in webinar	Aditi	Sync	LO1	<b>Engagement</b> - involving EdTech Advisors through asking them to share their experiences of discomfort prompted by a scenario	15	
Day 1	1.5	Investigate	Delving deeper into student diverse learning needs	EdTech Advisors identify and investigate diverse student learning needs. Draw on live webinar components.	Activity instructions	Widad	Async	LO1; LO6	<b>Representation and expression</b> - EdTech Advisors to become aware of diverse student learning concerns and related issues in the university context.	60	
	1.6	Produce	Capturing and representing student diverse learning needs and issues	EdTech Advisors work in groups/pairs to create an infographic that captures student diversity, assets and concerns as investigated in previous activity. This will be shared.	Activity instructions; Provide space on LMS to upload infographics; Due date	Widad and Thula	Async	LO1; LO2	<b>Action and Expression</b> - EdTech Advisors express how they think about student learning needs in university spaces. Relationship building between EdTech Advisors as they work together sharing their findings and creating an infographic. Not to be prescriptive with choice of tools/applications to create infographics - EdTech Advisors to choose.	60	
	1.7	Discuss	Peer viewing and commenting on infographics	EdTech Advisors to view and to be encouraged to comment on each others' infographics	Activity instructions	Widad and Thula	Async	LO1; LO2	<b>Action and Expression</b> - EdTech Advisors' voices encouraged; become familiar with different means for action and expression (text, infographic, voice) on LMS.	15	How will they engage with the infographics? These will not be accessible for people with Visual Impairment - so this is something that the group can think about. How does the use of the

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											infographic include and exclude? How can it be adapted to be more inclusive?
<b>Day 2</b>	<b>1.8</b>	<b>Discuss</b>	Feedback from facilitators/ course team	Facilitators/Course team to provide feedback on infographics that culminated to EdTech Advisor consolidating their learning through a visual on: " <a href="#">Leaving no one behind infographics</a> " as well as " <a href="#">Yosso's asset framing</a> " model	Models: <a href="#">Leaving-no-one-behind</a> ; Yosso's Asset framing	Widad and Thula	Sync / Async	LO1; LO6	<b>Representation</b> - Visual model to be explained when shown	15	
	<b>1.9</b>	<b>Produce</b>	Takeaways / Reflections	EdTech Advisors to reflect upon what they learnt and what stood out for them in this topic	Questions	Widad and Thula	Async	LO6	<b>Expression</b>	15	
	<b>1.10</b>	<b>Acquisition</b>	Additional Resources	List of additional resources relating to the professional roles that EdTech Advisors can explore further in their own time	Models, infographics, literature	Widad and Thula	Async	LO1	<b>Action and Representation</b> - A personalised plan for ongoing professional learning through CILT webinars		