

1. How can UDL principles be used in low to middle income countries?

To help teachers understand how to support children with diverse learning needs using multiple ways of learning, presenting and assessing learning.

To ensure a systems approach to learning through a learning ecosystem thereby removing barriers at different levels

Include UDL training in formal curricula (Initial Teacher Education Programmes) so that pre-service teachers can be empowered to use UDL in how they teach.

To help educators to think beyond the methods and means of teaching that they are used to, and consider other ways to build effective inclusive environments through the implementation of UDL principles.

Contextualise examples

Link the practice to local situations - not using US based videos in LMICs for example.

Develop learning expertise in students to help them learn optimally throughout their school and tertiary careers

To ensure inclusion of all learners in learning. UDL is especially important for previously marginalised groups eg those with disability, from low resource setting or rural areas, girls etc

Thought of the day: Focus on principles rather than the framework - UDL is not a checklist - rather a set of key principles - take the context into consideration to support inclusive environments.

Connect UDL principles to the country's philosophies so that teachers and the community can make the connections to why UDL is important. Eg: Ubuntu

Partner a low/middle income school with a high/global north school so that methods and resources can be shared

2. What research needs to be conducted to support this implementation?

What training do mainstream teachers need to be able to learn and apply UDL approaches in their classrooms in LMIC? What formats might be best,? What mentoring can be applied for ongoing supervision and support?

Differences in challenges and degrees of UDL implementation at different education levels - including differences in learner needs.

implementation?

Concrete examples of where UDL has been used - where there are limited resources, but using materials from the local environment; how are we organising our classrooms?.

How to incorporate UDL in formal teacher training curricula to form part as both an experience and knowledge base they can draw on

What are the resources available in various LMIC to support variation of instruction? Materials? Training availability? Etc.

Research into what is required for students in LMIC to perceive themselves as learning experts; how do students in LMIC become expert learners

Observing how pre-service teachers are taught about inclusive education - noting what is missing and how UDL can be brought into the curricula

Involving LMIC education researchers and teachers to list challenges and possible solutions

Research can start with exploring what resources are already available that can be built upon and also exploring current understanding of UDL among educators and other stakeholders and then build from there

To know how pre-service teachers are currently being trained to teach 'inclusively' (there are efforts done, but not termed 'UDL' specifically)

How student teachers can best learn to implement UDL

Looking at low tech, no-tech solutions (and less expensive) for implementing variation in instruction, in comparison to UDL using more high-tech supports for implementation

Need to do a lot of work on teacher education - both in-service and pre-service teachers

3. What common barriers to research exist in low and middle income contexts and how have researchers overcome them?

Lack of facility and knowledge about research in general, and lack of understanding of UDL in particular.

Association of UDL with the need for technology, however whilst technology is there and is developing, there is a need for looking at the local context and utilising materials and resources available locally.

this is not the traditional way of doing things in some LMIC settings eg in rural areas where parents may not be involved at all with their child's schooling. The gap between the school and the home may hinder success of

Not including parents and community members enough in training. Parents especially need to be included in training, provision and advocacy .

teachers and how they understand the principles of UDL and how they cannot be used in the classroom. This can only be done by interaction and learning about the context. Western materials don't transfer easily to the reality of the

Research capacity and leadership - also funding.

- 1.Changing mindsets from the traditional ways of teaching.
2. Funding
- 3.Many other challenges like lack of political will, poverty, language barriers

Funding! Make funding available especially for LMIC teachers to do research as they are the REAL experts to the LMIC context

misunderstanding of the UDL framework as a checklist of things to do, rather than a way to understand how variation of instructional goals, methods, materials and assessments can support the widest range of learners through design.

Funders sometimes favor researchers from the global North as they appear well-known/established. UDL researchers from LMIC are left behind

4. What measurement tools might be useful to research the effectiveness of UDL?

Qualitative analysis of actual data from educators re: how they understand UDL, how they are or are not using it, and what they perceive as their needs.

Use basic research skills - consider how we can link with local NGOs and Universities / teacher training?

Need to look at learning environments as well - not just individual learners

How do we measure UDL effectiveness? e.g. Early Grade Reading Assessments (EGRA) - We need to be creative in the way we measure it - how do we measure it? Classroom observations can be a possibility.

We need more evidence - even if simple, or basic observations - they need to be able to encourage others and develop better research.

For students at the University of Cape Town: use Q methodology to get an idea of how students perceive their own learning expertise

How teachers themselves have shifted in terms of their teaching strategies.

Monitoring and evaluation have to be part of the process through formal research and feedback from stakeholders

Survey questionnaires - whether available or created. Action research by educators in the classrooms. Observational research, looking at specific aspects of UDL needs and implementation.

