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Considerations for Accessible Learning in Low-Resource Contexts

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What is Accessible Learning?

The means or the ability to fully participate, engage and succeed in the process of learning.

An accessible learning experience is designed specifically to maximize access to learners from various backgrounds, demographics or abilities. At its best, an accessible learning experience reduces several barriers to learning.

What is a low-resource context/setting?

- A setting or environment where the cost of resources and infrastructure is a hindrance to access.

- In the context of education, it is the lack of essential infrastructure, resources for for effective teaching or learning. This includes but is not limited to technology. (Access divide)

- Consequently, it can refer to an environment where there is a lack or low level of prerequisite skills to use the resources appropriately. (Use Divide)

THE DIGITAL DIVIDE IN PERSPECTIVE

3 INDIVIDUAL ECONOMIC OR SOCIETAL STATUS

1 DEVELOPED AND DEVELOPING COUNTRIES

2 RURAL AND URBAN AREAS

4 EFFECTIVE VS. INEFFECTIVE USE

Make sure to scope out and understand the nuances in your given context before you begin to design your learning experiences and training programs

Top 5 Considerations for Implementing Accessible Learning Experiences in LRS

- **Learning Outcomes:** To what extent does the use of technology impact learning objectives and outcomes?
- **Learner Profiles (Demographic & Skill Level):** How will learner preparedness and socio-cultural background affect their engagement with tech-supported learning experiences? What existing transferable skills do learners have?
- **Existing Technology:** What infrastructure already exists and how can it be leveraged to enhance accessibility?
- **Systems of Support:** What systems and structures of support will be needed to ensure continuous and successful sustained learning?
- **Project Feasibility**: Cost benefit analysis to the organisation?

Needs Assessment and Eliminating Bias

All LRSs regardless of scope, have nuances that need to be investigated to ensure that the best outcome for learners is achieved. Leapfrogging without adequate research and understanding is costly and ineffective.

This inappropriateness of the OLPC laptops "might stem from [their] being deployed in a context quite different to that for which [they were] designed."[7] When existing technologies are transferred from one region to another, they may be inappropriate because of the new culture in that region. Laptops need to be customized to local traditions and customs, so that they are appropriate in their new context."

- *Namank Shah, A Blurry Vision: Reconsidering the Failure of the One Laptop Per Child initiative*

Practical Tool: The Design Thinking Framework

Stanford d.school Design Thinking Process
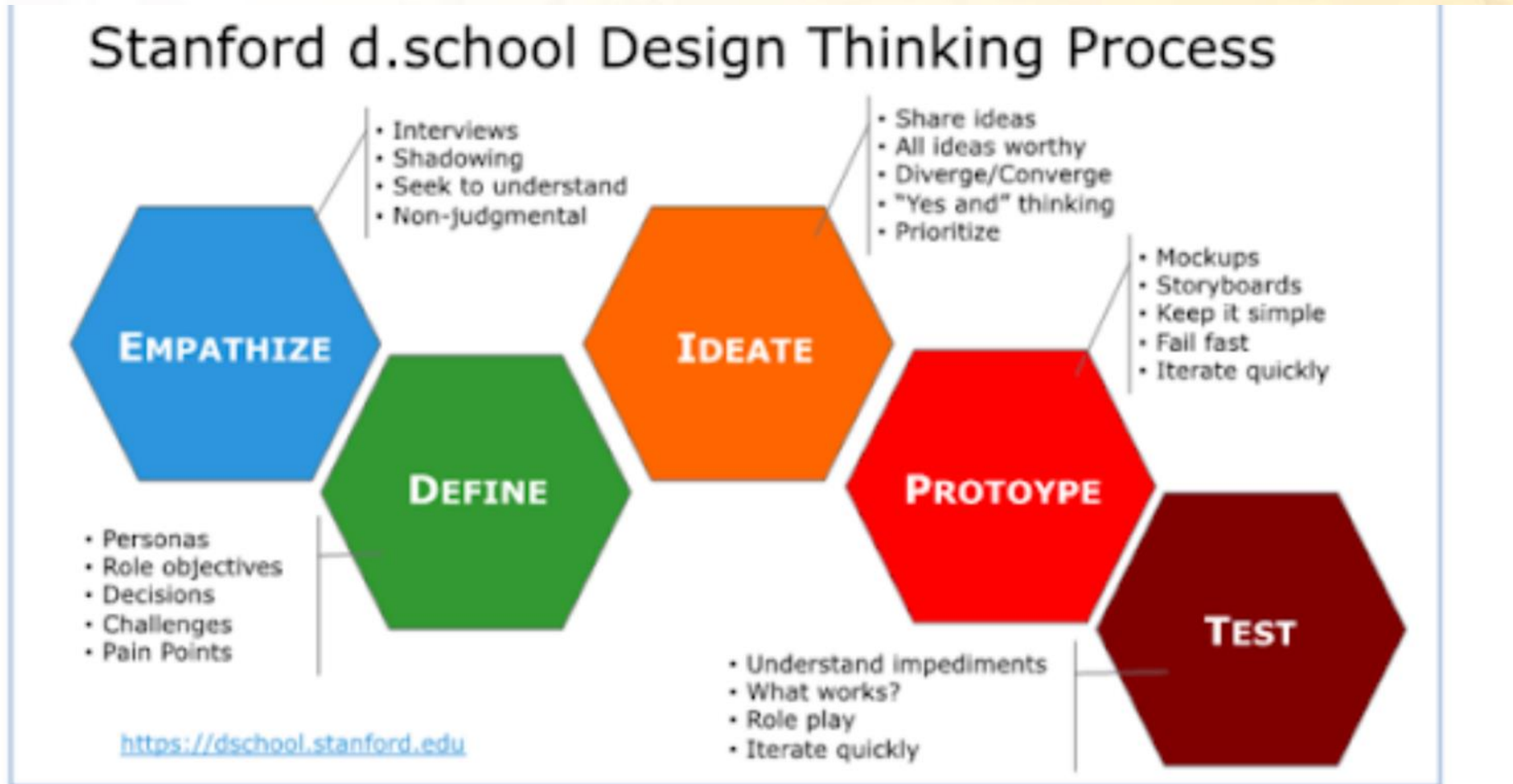
Learning Outcomes

Key Questions	1. What are your learning outcomes? 2. Is the use of technology absolutely necessary in achieving these outcomes? 3. How will I measure these learning outcomes?
Examples	A Diversity, Equity and Inclusion Training Program vs. A Salesforce/Payroll System training program.
Practical Application	Always weigh which mode of learning is most essential to the learning outcomes. In some cases, human interaction may be most effective form of delivery.

Learner Profiles

Key Questions	1. Who are the target learners and how do the socio-economic and socio-cultural background affect their learning? 2. What are their learning styles and/or their special needs? 3. What is their skill-level re: technology and do they have some easily transferable skills?
Examples	1. ADOORE Project and the role of gender in school attendance. 2. Use of multimedia and learning aids for learners esp. when using tech-assisted programming, gamification for engagement 3. The use of Whatsapp to create communities of practice
Practical Application	Create learner profile questionnaires and gather data on all your learners. Interviews on their learning environment and the larger context.

Existing Technology

Key Questions	1. What infrastructure or technology is widely available, already accessible in those contexts to your learners?
Examples	1. [Teach For Nigeria Radio School](#) 2. SMS and Mobile-Based learning for community health worker training programs in Uganda. 3. Key community members and partnerships can facilitate learning.
Practical Application	No need to reinvent the wheel. In some cases there is already functioning technology you can leverage. World bank and ADB report that there are [650 million mobile phone users in Africa](#). More mobile phone users than those with electricity or access to clean water.

Systems of Support

Key Questions	1. What systems exist to support continuous and effective learning? 2. What complementary infrastructure is required to make delivery of the learning experience smooth? 3. What support systems exist to ensure learners reach desired outcomes?
Examples	Communities and Forums, Electricity, Safety and Internet Access, Resources for further learning and practice.
Practical Application	Using iterative feedback systems to continuously improve and assess the learning experience. Do not stop after delivery or a one-time evaluation.

Project Feasibility

Key Questions	1. What are the **true** costs and benefits to the organization?
Examples	Buying all employees based in rural areas laptops and internet access vs. creating hubs with fixed amount of resources that can be accessed by all in batches. Using low-bandwidth resources that also help organizations to scale their training programs.
Practical Application	This is the last step before implementation (even in the design thinking process) because sometimes the benefits of inclusivity and creating equal and accessible opportunities cannot always be quantifiable. However, overtime you can measure trained staff contribution to the overall vision and progress of the organization.

RECAP OF CONSIDERATIONS FOR ACCESSIBLE LEARNING IN LOW RESOURCE CONTEXTS

- **Learning Outcomes**
- **Learner Profiles**
- **Existing Technology**
- **Systems of Support**
- **Project Feasibility**