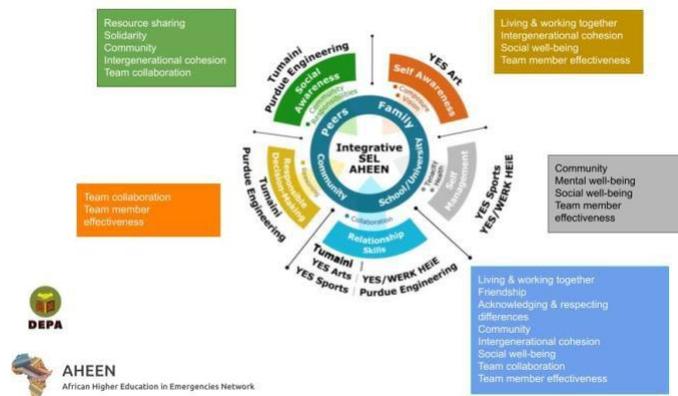




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DEPA: Implementing the Integrative Social-Emotional-Learning Model within AHEEN

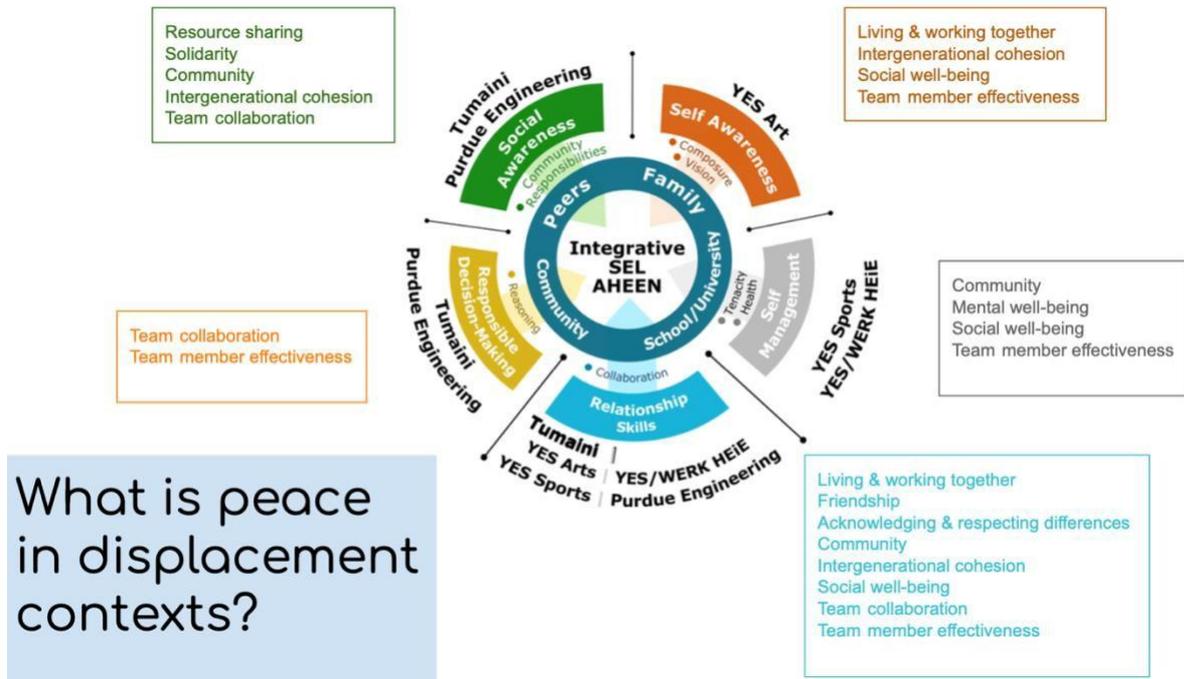


- Brief outline of any teacher training modules, workshops or other educational resources your project has produced – what are the resources, who are the target audience, what are the learning aims and outcomes, for example.
- Any monitoring and evaluation undertaken of the teaching and resources.

The AHEEN model for its cross-cutting elective (athletics, applied arts, community engineering) has been applied to the DEPA project on peace education. Our participatory action research approach included a Problem-tree analysis of the concept of PEACE as seen/experienced by forcibly displaced youth. Based on this we identified skills and competencies that refugees need to have in order to live together peacefully. We then aligned these skills and competencies with those identified for social emotional well-being, the core outcome of AHEEN’s cross-cutting elective “Integrative SEL” and are currently finalizing our data collection to see whether developing the SEL skills can simultaneously develop skills for living together peacefully. Therefore, we do not have what you would call “materials and resources for peace education” as our SEL model has not been specifically developed for peace education. The graphic below illustrates the synergies between skills and competencies required for social emotional well-being and how these overlap with the concept of peace as experienced by refugees and the indicators they developed to measure it:

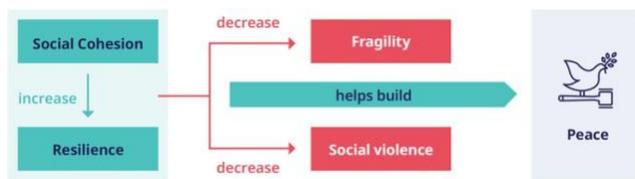


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The above graph summarises the initial phase of the participatory action research where refugee students developed a problem-tree analysis of the concept of PEACE and proceeded to map the skills every refugee would need to have to be able to live together peacefully with others.

Based on the PTA each of the three components proceeded to focus on those areas that were most likely going to contribute to developing skills and competencies that support social-emotional well-being and peaceful coexistence (the learning outcomes for this Integrative SEL elective), and have been recognized as key drivers of social cohesion in fragile contexts.



Source: Raj Bhari, Christine Hofmann, Helen Kirsch, Joan McGregor, Vincent Samaran, Sophia Schoderer, Nieves Thomet (2021). *ILO: Promoting social cohesion and peaceful coexistence in fragile contexts through TVET.*

Each of the three components, athletics, applied arts and engineering, followed the same principles in terms of implementation in refugee contexts:

1. First, facilitators are trained to work with students. Training is hybrid (remote and on-site), and comprises materials that have either been tailor-made for the elective (applied arts and engineering) or are available on-line (athletics).
2. Facilitators then worked under the supervision of the expert designated for each component and implemented the component on-site with the refugee students. That part is hands-on, project-based in the case of engineering and applied arts, and actual physical exercise in the case of athletics.



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ATHLETICS

Facilitators were trained online on the [World Athletics Coaching Level 1 course](#) and [E-learning World Athletics](#). Two refugee coaches, one in Kakuma and one in Dadaab completed the course, as did the DEPA project PI, and the only outstanding part is the practical supervision by a certified Athletics Kenya coach. Coaches supplemented what they learned on the Coaching Level 1 course with exercises that had been developed by refugees for refugees and can be [viewed here in English](#) and [Arabic \(site still under construction\)](#).

A sample 3-months training schedule can be found below. The Sports component feeds into skills related to:



ACTIVITY	Descriptions	Duration	EXERCISES	FREQUENCY
1 st Month	Fitness workouts for general body conditioning that help the body to adapt to a new norm of sports with minimal risks of sports injuries	Week 1	-Warm-up for 8 Min -Run for 15 min -Cool down 5 min 1. Skipping 2. Hop on one foot 3. Pretend to jump rope 4. Side twists 5. Run in place 6. Low knees 7. High knees -DRIBBLING, -LOW KNEES, -HIGH KNEES, -BUTT KICK -SHORT SPRINT	<p>This programme can be used 3 times a week</p> <p>Each exercise to be performed for 30 secs in 3 sets</p>



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		Week 2	<p>-Warm-up for 8 min -Run for 15 min -Cool down for 5 min</p> <p>Do these exercises after cooling down</p> <ol style="list-style-type: none"> 1. Butt kicks 2. Pretend to jump rope 3. Squats 4. Front kick 5. Jumping jacks 6. Power skips. <p>-DRIBBLING, -LOW KNEES, -HIGH KNEES, -BUTT KICK -SHORT SPRINT</p>	
		Week 3	<p>-Warm-up for 8 min -Run for 20 min -Cool down for 5 min Repeat week 1 exercises</p>	
		Week 4	<p>Warm-up for 8 min -Run for 20 min -Cool down for 5 min Repeat week 2 exercises</p>	
2 nd Month	Building up the body to be capable of effectively distributing the energy in the body uniformly when performing exercises.	Week 1	<p>-Warm-up for 10 min -Run for 25 min -Cool down for 5 min -Do the following exercises after cooling down</p> <ol style="list-style-type: none"> 1. Butt kicks 2. Run in place 3. Squats 4. High knees 5. Side lunges 6. Knee hug <p>-DRIBBLING, -LOW KNEES, -HIGH KNEES, -BUTT KICK -SHORT SPRINT</p>	Each exercise to be performed for 50 secs in 4 Sets



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		Week 2	-Warm-up for 10 min (Exercises) -DRIBBLING, -LOW KNEES, -HIGH KNEES, -BUTT KICK -Run for 25 min -Cool down for 5 min -Do the following exercises after cooling down -Run for 25 min (Moderate pace) -4x100 metres sprint -Cool down for 5 min 1.Squats 2.Front kicks 3.Push-ups 4.High knees	
		Week 3	Repeat week 1	
		Week 4	Repeat week 2	
3 rd Month	A general combination of build up and conditioning workouts culminating in a fast result.	Week 1	Warm-up exercises -DRIBBLING, -LOW KNEES, -HIGH KNEES, -BUTT KICK -SHORT SPRINT -Run for 30 min -Cool down 5 min 1. Calf raises 2. Knee tuck jumps 3. Lateral toe taps 4. Isometric squats 5. Twisting jump squats	
		Week 2	Warm-up exercises -DRIBBLING, -LOW KNEES, -HIGH KNEES, -BUTT KICK -SHORT SPRINT -Run for 30 min -Cool down for 5 min 1. Jumping jacks 2. Wall sit 3. Butt kicks 4. Calf raises 5. Duck walk	
		Week 3	Repeat week 1	
		Week 4	Repeat week 2	



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APPLIED ARTS

Applied Arts facilitator training was conducted both in Kakuma/Kalobeyi and in Dadaab. The training curriculum included the following modules:
The course consisted of the following 3 modules and a practical component for the 4 facilitators who were trained, two for each refugee camp:
Facilitation Theory
Evaluation + Reflection
Practical Component: Project Planning + Delivery
Course Reflection



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The course was designed to build knowledge in the following ways:

- Understanding how theory shapes Applied Arts practice [key concepts, practitioners and theorists in the field]
- A theoretical foundation in Applied Arts pedagogy on which they can build in future
- Arguing pedagogical choices theoretically

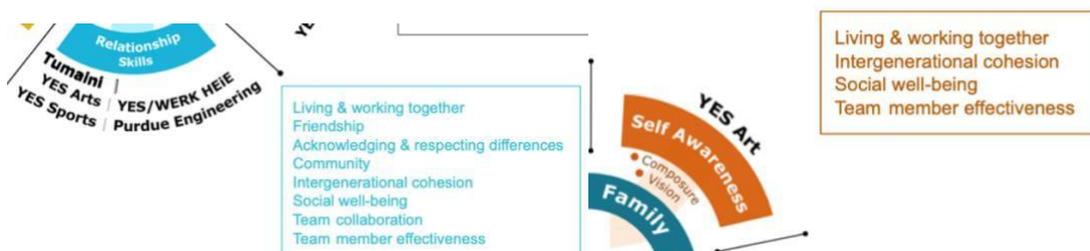
At the end of the Applied Arts Practitioner Training course, participants had built the following **skills**:

- A reflexive praxis using a sound methodology of reflection and evaluation
- Argue pedagogical choices pragmatically based on a methodology of reflexive praxis
- Translate theoretical understanding into educational practice
- Communicate pedagogical decisions to colleagues and academic hierarchies

At the end of the Applied Arts Practitioner Training course, participants had developed the following **competencies**:

- Develop local Applied Arts Projects according to a well-defined framework
- Deliver local Applied Arts Projects
- Evaluate Applied Arts Projects (of peers and self) according to established methodologies
- Ability to use budget, timeline and other key templates effectively in communicating with colleagues and academic hierarchies.

The Applied Arts component covered the following skills and competencies as linked from the SEL competencies to peace-building competencies through PTA:



Among the themes explored for the workshops were the following:

1. Encourage good neighbourly relations
2. Making the world a better place; Nurture the spirit of togetherness
3. Defining peace through storytelling

Workshop plans for the above three topics follow below.



Workshop Plan

**TOPIC: Encourage each other on good neighbourhood relations
(Ethics)**

What are we like, is a question that reverberated through the ages - are we, humans, though imperfect, essentially kind sensible, good- creatures? Or deep down are wired to be bad, blinkered, idle, vain?

Session Aims
AIMS: <ul style="list-style-type: none"> • To Encourage Ethical Nurtured communities. • To instill Trust among YOUTH • To create Strong ties between different communities

Session Objectives
<ul style="list-style-type: none"> • Use of drawing to explore where we came from, where we are, and where we are going. • Use of drama to display characters and inspire change • Use of still images, to explore how we arrived at certain values and beliefs. • Use of <i>debates</i> to challenge one to think, to provoke even to disturb, in a constant search for the truth

Exercise Name & Timing	Facilitator	Instructions	Materials Required	Learning Outcome s/Outputs



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<p>Warm-Up</p>	<p>Christine</p>	<p>chance of participating.</p>		<p><u>OUTPUT</u></p>
<p>Day2</p>	<p>Clément</p>	<p>Participants will then get into groups of two to introduce each other using verbal communication and later go back into the same groups to introduce themselves nonverbal. This happened as they write their names, likes, and don'ts, in the air as others were given the task to observe what they mean. Standing in the circle, The facilitator will give chance to everyone after all have shared their likes and don't like then practitioners will give one at a time to explain what they know about one person who has shared two postures.</p>		<p>Different styles of gam</p> <p>Participants will become sensitive and kin.</p>
<p>Focused warm-up</p> <p>Day 1</p>				<p>Refreshment of body.</p> <p>Creating ties</p>
<p>Day 2</p> <p>Focused warm-up</p>	<p>Chris</p>	<p>Participants will create still images into threes where they will be asked to share their hobbies or something they like in their life in 30 seconds This is when the practitioner ask questions like; get into pairs and greet your friend and take time to explain to them about yourself, what you like about yourself.</p>		<p>Understanding of applied arts and their importance in teaching.</p>
<p>Main Session</p>				



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		<p>then after 5 minutes, they will switch to a different person whom they haven't massaged with yet to dance together from one end to the other end each group will participate then at the end one style will be selected and all will dance together as one.</p> <p>Focused warm-up Participants will be told to create a still image of something good they have witnessed done to someone after each group will present it to the whole team, and one group will be observing what is happening. After that, they will be asked to say what they have seen from the picture or image.</p> <p>All groups will have to come in and show their still image so that the other groups may comment and at the end of the performance, the group will now tell the observing group what they were trying to show in the image. These images will be mixed as improvised to make one big still image of good deeds. I will get them to sit</p>		
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		<p>down in pairs and reflect on how good deeds make us feel or look.</p> <p>Participants will choose a partner they have never worked with and prepare a dance and perform it as others will follow the same style up to when all have done it.</p> <p>Participants will split into groups of 5 to share the Important of arts in the community. Each group managed to come out with a written full flip chart that depicted the importance of arts in everyday life in the community or youth activities as others were facilitated into the session. All groups shared their experience in their everyday life.</p>		
<p>(Main session Day 2)</p> <p>Group Discussion</p>	<p>Clement</p> <p>Chris</p>	<p>Participants will discuss and prepare a session of about 30 minutes to prepare for the final representation on the stage where each group was demonstrating how to use arts in teaching. These groups will be divided into three different categories whereby group one will make something</p>	<p>Flip charts and marker pens, and cello tape.</p>	<p>Gathering</p> <p>Final performance, drama, drawing and still images, put together as a play</p>



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		<p>they will present to the other groups to show them how art can be used in Academics. The second group will draw images that are worth learning which they will use to also facilitate the other groups. The last group is to use drama as part of art in teaching.</p> <p>Outcome: tableaux and still images</p> <p>Output: Final performance of one drama made from those three different groups.</p> <p>Evaluation</p> <p>In a circle, the facilitator will welcome the participant to share their views and experiences gained during the two days of training.</p> <p>Participants will also share what they are taking away as output from the training.</p> <p>Outcome: happiness, expression, and greater understanding and willingness to use art in their respective community.</p> <p>Closing!!</p>		
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Workshop Plan

TOPIC: Making the World a Better Place

Session Aims
AIMS: <ul style="list-style-type: none"> • To create the spirit of togetherness • To instill Trust among youths • To instill creativity

Session Objectives
<ul style="list-style-type: none"> • Through music, dance and game activities, participants will get to know each other well. • Through Drama and still images participants will share their understanding of how to make our world a better place.

Exercise Name & Timing	Facilitator	Instructions	Materials Required	Learning Outcomes/Outputs
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DAY ONE Introduction: Ground rules and Expectations:	Grace Nyalat	As Participants arrive, there will be a slow music that will be played as the practitioner hands them a sticker note to draw or write an animal that represents them and why they chose that animal to represent them. Then we will form a circle and each participant will introduce themselves by the animal they chose. i.e. My name is Grace the animal that represents me is a lion. I chose the lion because of its character of conquering other animals. I like to lead people. Then in pairs participants will be given 3 more sticky notes each and this time	Music and Bluetooth, Sticker notes, pens, marker pens.	<u>OUTCOME</u> Knowing each other's name.
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<p>Icebreakers</p>	<p>Grace and Nyalat</p>	<p>round they will share with their partner on questions of:</p> <ol style="list-style-type: none"> What are their likes Dislikes and Expectation <p>After they have shared they will then stick the stickers on the wall for everyone to have a look at it before we move to the next activity. With music we will all pass to the wall and read either an expectation, like and dislike until all are over.</p>		
<p>Warm-Up</p>	<p>Fabrice</p>	<p>With a mingle exercise, participants will be divided to form a group of 3. Then in their groups, facilitator will give out a flipchart. The first half of the activity is the Shared part. Instruct a note taker for each group to create a list of many common traits or qualities that members of the group have in common. E.g generosity, loving, devoted, self-control, loyalty....</p> <p>Then allow about five or six minutes to brainstorm and share with the rest of the group. On a second sheet of paper have them record unique traits and qualities; that is, items that only apply to one person in the group. Instruct the group to find at least two unique qualities and strengths per person. While in their groups participants will find 2 people to share their ideas with the rest of the team.</p>		
<p>Focused Warm-up</p>				
<p>Main Activity</p>	<p>Nyalat</p>	<p>Warm-up Day 1 Prepared by Fabrice Bahati</p> <p>This one will be done in a music style</p> <p>The DJ will be playing music while the participants will be enjoying it the chairs will be range in minus so that the ones will be getting chairs the remaining one will be a loser.</p>		



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<p>Closing</p>	<p>Grace</p>	<p>While moving behind the chairs when the music stops all the participants will rush to the chairs the one who will be missing will pick a chair and go out the circle and sit while the others will keep the same movement. We will keep the same move till we remain with only one and the remaining one will be a winner.</p>		
<p>DAY 2 Workshop:</p> <p>Ice Breaker:</p> <p>Warm-up:</p>	<p>Grace</p>	<p>JUMBLED WORDS</p> <p>:we come up with words that define peace and jumble them up and pair the participants in groups then they rearrange the words</p>		
<p>Focused Warm-up:</p> <p>Main Activity:</p>	<p>Grace.</p> <p>Elly</p>	<p>Using the words in the Jumble game, participants will maintain their groups as they chose one of the words from the jumble that they will focus on. After selecting the word, they will then have to brainstorm and create a one paragraph story of not more than 6 lines. Then in 5 minutes prepare a tableaux of the story. A tableaux is a static scene containing one or more actors representing a scene from a story. They are stationary and silent. Still images or frozen images.</p>		
<p>Closing (Focused Group discussion)</p>	<p>Fabrice</p> <p>Elly</p>	<p>Each group will present their tableaux to the audience. After one group presents, the rest of the group will be the audience and will tell us what story they can throw from the photo. When they are all done presenting we will then sit in a circle and everyone will share one last word before we leave.</p>		



APPLIED ARTS WORK SHOP FOR 23TH JUNE 2022

Title: Defining Peace through Storytelling Project by : Ely, Nyalat and Fabrice

Session Aims:

- To empower participants to make their own meaning / write their stories of what they understand by peace
- Share their own narrative (implicitly challenging the accepted narrative they've had no part in scripting)
- To strengthen the connections between students

Session Objectives:

- To give them storytelling tools for connecting with others – by using story as a vehicle to define themselves and articulate their values to others.
- To value their voices by doing activities that give them authorial power

Exercise Name & Timing	Facilitator	Instructions	Materials Required	Learning Outcomes/Outputs
Introduction: (Name Story)	ELY	As participants gets in, Facilitator will hand over 2 sticker notes to write on. Participants will grab the stickers and find a place to sit and answer the following: What is your name? Were you named for someone? (a relative? A movie star? A character from a literary or religious work?) <ul style="list-style-type: none"> • Do you know how and why your name was chosen? • Does your name have meaning in your language? • Does your name reflect a particular origin? • Do you have any nicknames that come from your name? • How have you felt about your name? 	Sticker notes and Pens	
Ground rules & Expectations	FABRICE	Ask students to think about the best group discussions they have been a part of, and reflect on		



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		<p>what made these discussions so satisfying.</p> <p>Next, ask students to think about the worst group discussions in which they have participated and reflect on what made these discussions so unsatisfactory.</p> <p>For each of the positive characteristics identified, ask students to suggest three things the group could do to ensure that these characteristics are present.</p> <p>4. For each of the negative characteristics identified, ask students to suggest three things the group could do to ensure that these characteristics are not present</p>		
Ice breakers	GRACE	<p>Remember a place that was important to you when you were Younger. It can be outdoors or indoors, a place you lived in a Long time or a place you only visited for a short while. It should Be a special place where you felt secure.</p> <p>Give your partner a tour of your special place. Don't tell them About the place, take them through it literally, describing things as you see them in your mind's eye. The guest can ask guiding questions that make the space even more vivid but they are not to add details of their own invention.</p> <ul style="list-style-type: none"> o After the tour, guests share with their guide the most vivid Moments from their shared experience on the tour. o Additional follow-up: From the memory of a place often comes The memory of character and incident. What story comes to Mind after taking your guest on a tour of your special place. 		



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Warm-up	NYALAT	<p>Sit in circle and one person begins with a true short story about peace.</p> <p>one can follow it with their own story by beginning with the phrase: <i>That reminds me of a time I... or I've had that same feeling...</i></p>		
Focused Warm Up	NYALAT	<p>Walking question game :</p> <p>In this game one practitioner stands up and distribute writing pads and pens to the participants so that they can all sit in a cycle. In this cycle the practitioner have each person write</p> <ul style="list-style-type: none"> • What is peace ? • Why Peace ? • when Peace ? <li style="padding-left: 20px;">and • How Peace ? <p>After writing this definition of peace, Participants will sit together as a group and prepare a short play to illustrate the constraints of peace using the definitions that they will have prepared. They will also prepare 4 tabloux or still images that responds to those questions.</p>		

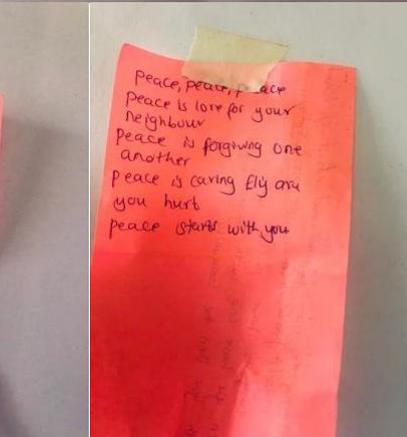
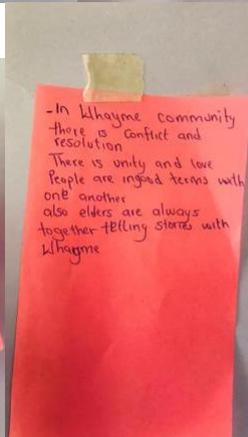
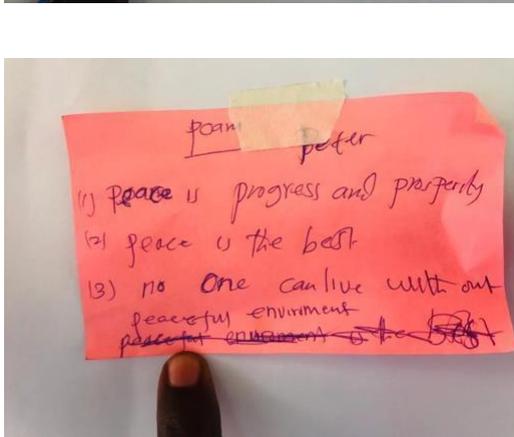
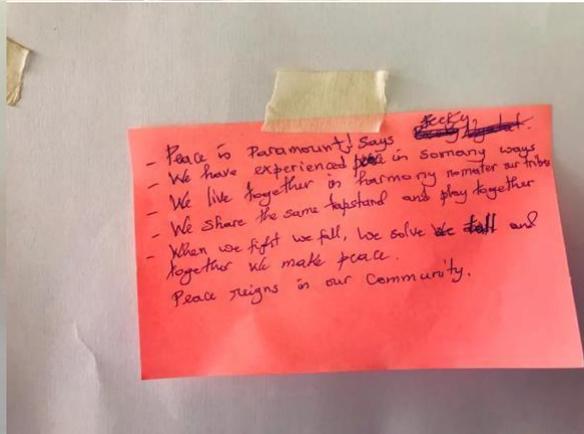
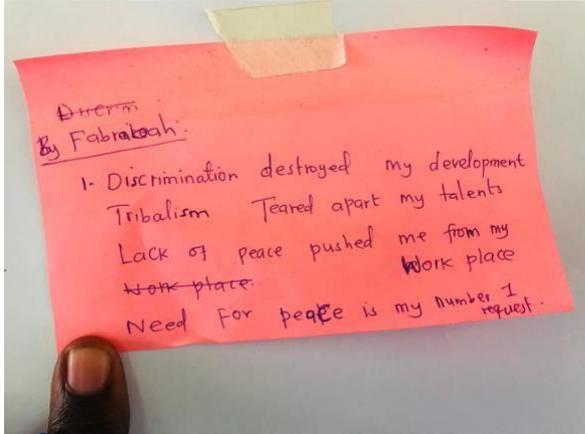


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Main session	ELY	<p>Creating Story Worlds</p> <ul style="list-style-type: none"> ♣ Stream of consciousness web – begin by writing a word at The center of your paper (e.g. Peace). Then spend 3 minutes write as many word Chains coming out of that central word. <p>A word chain is created by writing down the first word that comes to mind when you hear the central word and then the next word This second word reminds you of, continuing on until you run dry or get bored of it. Then start a new chain.</p> <p>After participants have written the word chain, allow them to choose a partner.</p> <ul style="list-style-type: none"> ♣ Read your chains to a partner. Allow your partner to tell you what images were particular powerful or intriguing to Them. ♣ Write a free verse poem or short story or song based on One of your strands. The poem/story does not need to Contain all of the words in the chain. 		
Ending	FABRICE	<p>Participants will present their art work to each other and then together we will share the experience of the workshop as we end the day.</p>		



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(NB: There are also videos of poetry readings and drama, not included in this file)

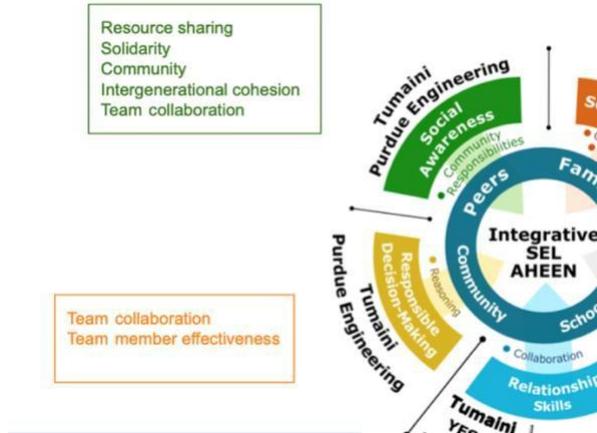
LOCALISED ENGINEERING (ENGINEERING IN DEVELOPMENT)

The [*localized engineering in displacement \(LED\) model*](#) was specifically designed for displaced settings by the instructional team from Purdue University in 2015 (DeBoer, Radhakrishnan, and Freitas; also Dridi, M. A., Radhakrishnan, D., Moser-Mercer, B., & DeBoer, J. (2020). Challenges of Blended Learning in Refugee Camps: When Internet Connectivity Fails, Human Connection Succeeds. *The International Review of Research in Open and Distributed Learning*, 21(3), 250-263.). The keystone to the program is partnership with local learning spaces to invest in the long-term implementation of solutions in the community. The *localized* engineering curriculum examines where the local community boundaries are and where the obligation to solve the problem lies. The idea of ‘localization,’ building off of authentic learning and participatory design, is central to the contextualized design we use, tailored to local assets, and showcased in capstone projects at the end of the course. The capstone projects developed in the course are realistic design solutions to problems that refugees face in their daily lives in the contexts they live in.



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The engineering component addresses the following skills and competencies in the Integrative SEL course:



The curriculum covers a 3-month period with on-line and on-site classes. Facilitators are trained to support the on-site classes which are hands-on and accompany students on their journey to using assets from their community to design and develop sustainable solutions.

Week	Class/Exam	Content delivery method	Course ILO Code	Topic	Learning Objectives	Assessment	
						Formative	Summative
1	Class	Q&A/Zoom	EDP1	Introduction to Technology and Overview of Engineering Design Process	Describe Engineering Design Process	Class quiz on Q&A (next class)	Final presentation & report
	SART1		Summarize the basic steps of EDP		Design Notebook: Final Submission		
	Class		PC1	Teamwork and Communication	Explain the characteristics of an effective team and member roles	Class tasks (DIE activity, characteristic lists)	Peer evaluations on team assignment
Class	PC2	Develop your team's core goals	Design notebook: descriptions		Final presentation and report		
2	Class	Q&A/Zoom	PS1	Problem identification	Identify problems in the existing system of water access at your school	Assignment: problem identification	Attribution to final assignment/report
	Class			Problem evaluation	Investigate the underlying causes of the problems identified	Design notebook: Class Assignment	Contribution to final assignment
3	Class	Q&A/Zoom	PS1	Problem statement	Categorize problems on a list of defined evaluative criteria	Design notebook: Class Assignment	Contribution to final assignment
	Class				Scope the problem based on the analysis performed	Design notebook: Class Assignment	Contribution to final assignment
4	Class	Email/Google Drive	SART2/PC2	Feedback and revision to problem analysis	Use feedback and articulate a problem statement	Revisions made in Design notebook	Design Notebook Final Submission
	Class		EDP1	Idea generation	Generate wide range of solutions for the problem identified	Design notebook: Class assignment	Contribution to final assignment
5	Class	Q&A/Zoom	EDP2	Idea evaluation	Apply more than one idea generation technique	Design notebook: Class assignment	Contribution to final assignment
	Class				Apply an evaluation strategy to filter the ideas	Design notebook: Class assignment	Contribution to final assignment
6	Class	In-person at the Learning Center/Zoom	STEM1/STEM2	Teamwork and Electronic Components	Describe what makes an effective team and reflect on the teamwork in your class	Biography of a water source assignment	Teamwork on the Assignment
	Class				Code of Cooperation and Breadboard	Describe the functions of certain electronic components	Class quiz on Q&A (next class)
	Class			Multimeter Practice	Apply code of cooperation in your teamwork	Class quiz on Q&A (next class)	Design Notebook: Final Submission
	Class			Arduino	Create a simple circuit on breadboard and write its functions	Design notebook - Integration into the problem solution	Contribution to final assignment
8	Class	Q&A/Zoom	STEM1/STEM2	Sensors	Describe the purpose of multimeter	Class quiz on Q&A (next class)	Design Notebook: Final Submission
	Class				Solar Energy	Measure current and voltage using multimeter	Design notebook - Integration into the problem solution
9	Class	Q&A/Zoom	EDP1/SART2	Idea Refinement	Recall electronic and programming concepts	Class quiz on Q&A (next class)	Design Notebook: Final Submission
	Class				Evaluate and select appropriate sensors for the final project	Design notebook - Integration into the problem solution	Contribution to final assignment
10	Class	Q&A/Zoom	EDP2/SART2	Prototype development	Calculate the size and power of solar photovoltaic system to meet your building's electricity needs		
	Class				Integrate technical knowledge into their final design solutions	Develop design solution statements	Revisions made in Design notebook
11	Class	Q&A/Zoom	EDP1/STEM1	3D Modelling	Communicate your ideas through prototypes	Class assignment: Prototype design	Contribution to final assignment
	Class				3D Modelling	Draw detailed plans for their final design	Class assignment: Prototype design
12	Class	Q&A/Zoom	EDP1/STEM2	Prototype evaluation	Identify and create isometric projection view sketches	Class assignment (sketching exercise) + Class quiz (next class)	
	Class				Recap to idea evaluation and revisions based on feedback on prototype	Model real-world objects in 3D form	Class assignment (sketching exercise)
13	Class	In-person at the Learning Center/Zoom	SART2/PC1/B2	Project development	Describe various evaluation strategies used in engineering design	Class quiz on Q&A (next class)	Design Notebook: Final Submission
	Class				Use the lessons learned to design and develop prototype	Design notebook: Class assignment	Contribution to final assignment
14	Class	Q&A/Zoom	PC2	Communication	Assemble and connect parts using constraints	Revisions made in Design notebook	Contribution to final assignment
	Class				Employ appropriate strategies to communicate the design solution for the final presentation	Class assignment: Planning for presentation	Contribution to final assignment
15	Exam				Recognize and interpret evaluation criteria used for the final presentation	Class assignment: Planning for presentation	Contribution to final assignment
16	Exam				Communicate technical aspects of the design solution	Peer evaluation/practice presentation	Contribution to final assignment



African Higher Education in Emergencies Network – AHEEN

Students in Kakuma/Kalobeyei focused on solar power solutions to problems they had identified in their community. They presented their final design solutions and examples for the following projects can be found below:

Josias Ntirampeba is presenting

Group 4. SOLAR SYSTEM YES CENTER PROJECT (1) [Protected View] - PowerPoint (Product Activation Failed)

Project Development (CONTINUATION)

Solution

- Since we started the interpretation course where YES Center was facilitating us to attend the course, we had enough power since we other programs have not started.
- Today we have shortage of power simply because other programs were introduced like Entrepreneurship course, education course, the students are many and have many electronic devices which consume power.
- As engineering students who gained a lot of knowledge and skills in engineering course, we wish to come up with our project of increasing power at YES center for a better learning.

NO	NAME	SIZE/W	PIECES	PRICE IN KSH	PRICE IN USD
1	Solar panel	300W	4	54000	\$ 450
2	Charger Controller	60A/12V	1	3000	\$ 25.11
3	Battery	12v/200Ah	2	55000	\$ 467
4	Inverter	MULTI 1212V	1	5000	\$ 45.74
5	Cable	6mm	80m	2800	\$ 23.28
6	Bulbs	9w	10	1404	\$ 12.45
TOTAL				123,204	\$ 1,027.88

Josias Ntirampeba is presenting

Group 4. SOLAR SYSTEM YES CENTER PROJECT (1) [Protected View] - PowerPoint (Product Activation Failed)

Prototype

HINT: PICTURES, DIAGRAMS, AND DRAWINGS ARE ALWAYS GOOD WAYS TO COMMUNICATING YOUR IDEAS.

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28°C Rain showers 10:54 13/09/2022



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Josias Ntirampeba is presenting

Slide 1: SOLAR SYSTEM FOR DRY AREA PROJECT (Protected View) - PowerPoint Product Activation Panel

PROJECTED VIEW: Be careful—files from the Internet can contain viruses. Unless you need to view, it is safer to stay in Protected View. Enable Linking

1. PURDUE UNIVERSITY | DENNER | AHEEN

Introduction

- In the Kakuma community we have the problem of electricity and it has many bad effects on the refugees, especially the students as they don't have a way to revise their courses. Apart from that, without electricity in the community it's very hard to make any development. I can say for example, the refugees who want to put ads on a business, wedding, and other businesses that require electricity.
- In general, the refugees in Kakuma are mostly using candles but this is of course not expensive but also not lasting. Generators are used by some refugees because generators are expensive and can not be helpful for many refugees. As a team we came up with a solar system which is affordable and clean for refugees.
- Shortage of electricity is what is affecting many households here in the camp due to lack of generators to supply power, however not all people are facing the same problems. Some phone flashing shops use small generators which last for three houses during morning hours and six hours in the evening till midnight.
- Some communities have come up with ways of lighting their house using one man generator that operates for eight hours starting in the afternoon till midnight. In addition, they use power to run daily activities such as cooking soft drinks and water for drinking.

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prosper tuisenge is presenting

Slide 2: PRIMARY SCHOOL DIGITAL LITERACY TRAINING - PowerPoint

PROJECT TITLE: PRIMARY SCHOOL DIGITAL LITERACY TRAINING

PREPARED BY: Group Three
 2770 Aungmye, #4023
 At youth Education Center
 location: kakuma g, zone, Block

Name: KOCHO ADUDI
 PROSPER TUISENGE
 YONG DENG JURKUCH
 HUDA

prosper tuisenge is presenting

Slide 3: PROJECT DEVELOPMENT (CONTINUATION) - PowerPoint

N	NAMES	SIZE/WATT	QUANTITY	PRICE IN KSH	PRICE IN USD
1	Solar panel	300w	4	54000	\$ 650
2	Charger controller	60A/12v	1	3000	\$ 29.11
3	Battery	12V/200ah	2	57000	\$ 475
4	Inverter	mult + 1212v	1	5500	\$ 45.74
5	ICT HUB	25 by 10	1	100000	\$ 831.60
6	Tablets	ipad Gx lab	10	87500	\$ 709.2
7	Cables	1.5mm	5	30000	\$ 250
8	Internet router	UBRM5-23	1	7500	\$ 62.5
9	Extensions	5-way socket	5	6000	\$ 50
TOTAL				351000	2923.16

prosper tuisenge is presenting

Slide 4: Digital literacy project is as a result of engineering class under design thinking process that help us to identify the lack of digital literacy in primary schools which is the main problem need to be solved.

The purpose of this project idea is to transform the learners into digital learning skills where they can access e-learning program since the current curriculum encourages digital literacy. Apart from e-learning they will be able to acquire online job skills and become self-reliance.

prosper tuisenge is presenting

Slide 5: Executive Summary - PowerPoint

kakuma camp has more than 20 primary schools, none of them has ICT program while in other schools in host community learners are able to access digital literacy, therefore our project aims to solve that problem.

Our vision is to provide digital skills to learners in the Kakuma camp.

Objective: we expect digital learners in future doing online businesses after accessing e-learning programs.

Vision: expanding our project both in Kakuma and host community settlements reaching at least 75% of learners within a period of three years.



African Higher Education in Emergencies Network – AHEEN

People

- Mute all
- Add people
- Writing a water meter reader
- Felicien nyamukama
- Josias Ntirampeba
- Michel Mamba Lwabonga
- ritihabose violette
- Nbigira Roger Guy
- gham machar
- prosper tuyisenge
- Ruragira Bernard

Zechariah Mark is presenting

Prototype

Executive Summary

- Kakuma refugee camp is home to 150,000 refugees from different diversity. The camp is located in Turkana County, one of the poorest counties in Kenya. Many Turkana residents are pastoralists living semi nomadic. Many live in small huts in villages without running electricity. Energy access is low in both the camps and the settlement, and often supplied through expensive and unreliable informal diesel generators and alternative generators. This lack of sustainable and reliable energy supply restricts the businesses.
- The business types included dukawoko (small restaurants, grocery stores, and other small businesses that provide services such as bathing, phone charging, shoe repair, and mobile money services, and products such as clothes, fruits and vegetables, approximately 94% of forcibly displaced people living in these settlements do not have access to electricity to heat or cool hospitals, schools and dwellings, or to light, so the team see that Solar Energy will boost learning in Refugee Camp. The business has safe to come to study at night. Without this project, it would be impossible for this to happen.

PROJECT DEVELOPMENT

- This is container used by all students (20 liters per day) for 40 students because of lack of water, we decided to get solution through the project.
- Here in the center, we don't have a water tap, so that we can get water, we have to move outside the center.

PROJECT DEVELOPMENT

REQUIREMENTS

- Solar panel: This is used to provide the system with the required power.
- Well: This acts as the source of water.
- Water pipes: Used to draw water from the well to the water tank.
- Motor: Used to control the amount of water from the well to the water tank.
- Controller: Used to control the whole system during operations.
- WATER tank: Used for storage of water from the well.
- Water taps: Used to distribute water to the people.
- Battery: Used to convert direct current the solar panel to Battery Load. Used to store charge from the solar panel.

Continuation

NAME	QUANTITY	PRICE	PRICE IN KES
1. Solar Panel	1	100000	100000
2. Well	1	20000	20000
3. Water pipes	100	200	20000
4. Motor	1	10000	10000
5. Controller	1	5000	5000
6. WATER tank	1	10000	10000
7. Water taps	10	2000	20000
8. Battery	1	10000	10000
TOTAL			170000

PROJECT DEVELOPMENT

Prototype

HINT: PICTURES, DIAGRAMS, AND DRAWINGS ARE ALWAYS GOOD WAYS TO COMMUNICATING YOUR IDEAS.

prosper tuyisenge has left the meeting



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The Kakuma students at work, supported by the three trained facilitators.



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