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Faculty of Education

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Issue 3

LLITUP NEWS

Sharing all things new in LLITUP



BELOW:
LLITUPIans in their official LLITUP T-shirts



ACTIVE LLITUPIANS, EVEN FROM A DISTANCE

by Annèl van Rooyen

In 2021, as in 2020, it is not often that we as LLITUPIans have the opportunity to meet in person and be in our creative space, the LLITUP lab. The photo at the top, therefore, resembles a great in-person opportunity that we had earlier this year and reminds us of the people-centered nature of a living lab. Yet, this does not slow down our enthusiasm and drive. While working from home most of the time, we have taught several modules in the first semester, including JLT330, OPV312, CTM710, CIT720 and OWT730. Some courses and articles are also flowing from our minds and pens. We will tell you about all these wonderful things as the year progresses.

In this issue, we showcase our first online Coding and Robotics club event for the year. We also share some insights gained from a conference on Learning Experience Design, a workshop on Micro:bit microcontrollers and tools used by CTM students. We end off with Froggy's regular contribution, this time focused on Letsview, a screen mirroring app.

Froggy says, "The pandemic is still with us...so mask up!"



LLITUP NEWSLETTER

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NEWSLETTER TEAM

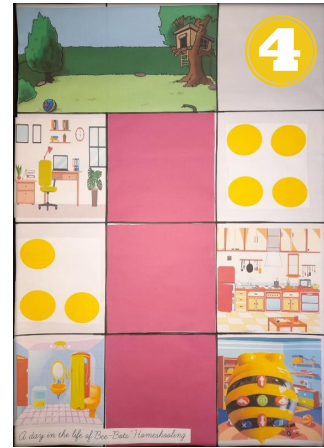
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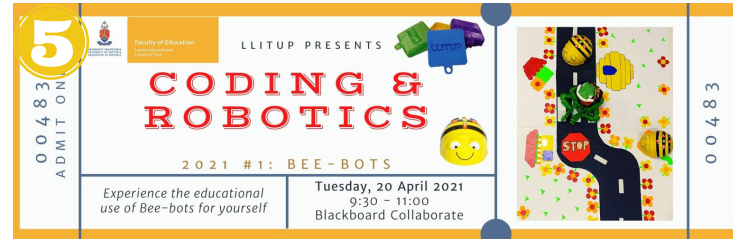
Photographers: Annèl van Rooyen, Jody Joubert, Embeth van der Wal and David Mahapane

DREAM2PLAY



CODING AND ROBOTICS 2021 CLUB EVENT #1 PRE-SERVICE TEACHER CREATIVITY USING BEE-BOTS FOR THE YOUNG ONES

By Annèl van Rooyen



"The session is one of the Faculty of Education's Coding and Robotics club's virtual sessions – the first for this year. The club resides in the LLITUP research unit, which investigates different aspects of Computer-Integrated Education. The club endeavors to introduce our students to the notion of Coding and Robotics in schools, and is linked to the Department of Basic Education's Coding and Robotics Curriculum, but not driven by it. During this session, we focused on introductory Coding and Robotics as applied in the Early Childhood Development phase. The practical illustrations are based on the BeeBot as a concrete tool (robot) to teach coding. The discussion is about how coding can be introduced to the early years, focusing on sequence and repetition, as embodied in the BeeBot robot." Prof Ronel Callaghan

Embeth van der Wal shared her experiences of Coding and Robotics in research, as her Master's study is focused on the earliest years that we focus on, namely 4/5 year old children. She made use of robots similar to the BeeBot in her research, namely the Coding Critters. During the session, she shared a variety of activities that the children engaged in. These included physical movement while following steps and planning and following a treasure map. Learners' creativity was stimulated where they had a sequence of pictures from which they had to build a storyline using the Coding Critters. Embeth shared valuable tips and tricks with our club members as well.

The club members also participated in the session by planning their own lessons using BeeBots and story maps. Tegan Fourie designed an educational game aimed at the development of learners' knowledge of sounds like sn-, st-, tr- and others. While she gave the instructions, the LLITUP team illustrated Bee-Bots' movements. Tangy Goba was unable to attend the session, but also planned a lovely story called "A day in the life of Bee-bot's home schooling"

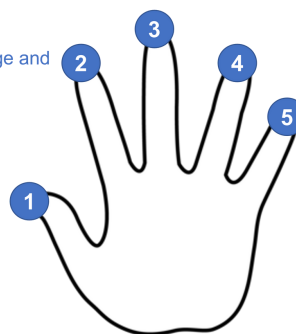


The teacher must only act as facilitator to allow for learner creativity

Provide time for learners to engage and explore with resources

Incorporate a variety of resources with different levels of difficulty

Encourage a theme or a storyline



For the young ones, concrete apparatus and gross motor activities are crucial



1. LLITUPIans
2. Ms Tegan Fourie
3. Tegan Fourie's educational game
4. Ms Tangy Goba's story map
5. Club invitation
6. Ms Embeth van der Wal
7. Children following instructions
8. Children following a treasure chest map
9. Children using Coding Critters
10. Embeth's tips for coding

LXDCON'21

TAKEWAYS FROM THE LEARNING EXPERIENCE DESIGN CONFERENCE

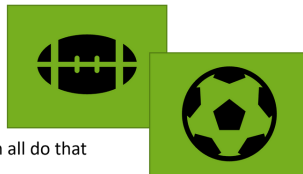
By Annèl van Rooyen

LLITUP's discussion on whether or not we create learning experiences, lead the team into a variety of exciting directions. While LLITUP, under the guidance of Professor Callaghan, is currently working on UP module design, Annèl grabbed the opportunity to learn more about what Learning Experience Design really entails. She attended the online conference on Learning Experience Design. From 20 - 23 April 2021, various presenters shared their insights of learning experiences within the conference theme of *Space to learn*. Some of the most intriguing presentations are summarised here.

Kick off: 20 April 2021 by Niels Floor

Defining a 'learning experience'

- Like a soccer ball and a rugby ball, things can look the same on the surface but have fundamental differences
- Definitions include:
 - "Designing an **experience to learn from**"
 - Not unique; IDs, trainers, teachers, coaches and others can all do that
 - Offer a **memorable experience** (special; different)
 - Singers, waiters and game designer want to do the same



Takeaway: ANYONE can design a learning experience, but WHO you are determines the kind of learning experience you can design

Niels Floor opened the conference by defining the term 'learning experience'. The takeaway from this is that a learning experience is literally *an experience from which one can learn*, while being a memorable one as well.

The key elements of his introductory session are captured in the diagram to the left.



Wrapped in story

20 April 2021 by David Phipson (RSA)

- Use storytelling as a powerful tool
 - Way to **communicate ideas**
 - **Capture** your audience
 - Set the stage for **memorable experiences**
- Audiences **associate** better with stories
- Stories have the potential to help learners **assimilate new information** more easily
- The storytelling helped to **create connections**
- "Stories bring people together" – it connects people

Storytelling: A natural experience
Collect stories because you never know when **the story might spark a learning experience**

"I feel like stories allow the learner to relate to the content. Once a learner can relate...they will understand and comprehend."
Karen Stevenson (LXDCon'21 attendee)

"The most important thing to remember about storytelling: it's all about transformation."

What is the value of storytelling in LXD? It is a natural experience and helps people to relate to learning content. Stories create memorable experiences and increase connections in learning.

David Phipson from South Africa explained that the inclusion of stories in LXD design can be truly powerful. His presentation is summarised in the diagram to the left.

Evert Hoogendoorn introduced the conference goers to *Ludodidactics*. This entails design for learning while game-design principles are incorporated. Within the realm of ludodidactics, the designer will design for the learners' perspective, behaviour and objective. Overall, the learner-centeredness of the approach is vital. A summary of the key points of Evert's presentation is contained on the next page.

On the LXD website (<https://lxd.org/>), a canvas for the design of learning experiences is provided. Netguru, a software development company, used the LXD canvas to plan an online training. Interactivity within an online training environment was one of their key criteria. Some gamification elements (i.e. challenges and badges) were also included in the design. A summary of the design elements is provided on the next page under the heading *You, your screen and your headspace*.



Ludodidactics

22 April 2021 by Evert Hoogendoorn

Didactics
Design a **learning space** using the **tools of game designers**

- Educational design from the perspective of a game designer
- What do you design? A game / something that doesn't look like a game, but is designed like one
 - Leads to a satisfying, even addictive educational experience

Design for the learners' <i>perspective</i>	Design for the learners' <i>behaviour</i> (Games are designed to manipulate behaviour (e.g. medical simulation))	Design for the learners' <i>objective</i> (What does the learner really want?)
<ul style="list-style-type: none"> • Be the superhero in the game (active / trust / tools) (Play F1 game, not only watch it) • <i>The Batman effect</i>: 6yr olds do a more challenging task with superhero masks (More successful; hold on for longer) • Epistemic framework: Identity, then values, skills and knowledge 	Room for mistakes / Trying again / Constant and immediate feedback (value of formative feedback) / Clear goals / Learners determine own strategies and make choices / Make mistakes on purpose to learn	Create unnecessary, but clever obstacles that learners would like to overcome (Creates curiosity / Overcoming = celebrate the win)

- Design an experience where learners want to learn!



21 April 2021 by Karolina Roziewicz and Tomasz Sobierajski

You, your screen and your headspace – Workplace LXD in the times of virtual (dis)connectivity



- Used LXD Canvas to plan for a virtual context
- Design included:
 - Inspirational keynote talk
 - Interactive online quest
 - Discussion panel
- Format: Not just a lecture; interview/guest host format (dialogue with speaker) (Interactivity of speaker, crowd and team; people became part of the presentation)
- Quest in 4 missions with a variety of interactive activities with practical challenges; every mission finished with a badge (Achievement; progress-marker) (Maximum engagement and buy-in)

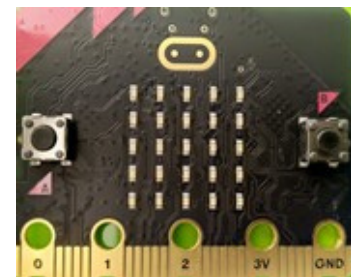
- Create some hype** (activities in remote settings to get people engaged before activities happen)
- Online game
 - Treasure hunt
 - Personal letter
 - Ideation / brainstorming
 - Case study
 - Quiz
 - Challenge
 - Short video

Tool to get to know your learners:
<https://garticphone.com/>

MICRO:BIT FOR CODING AND ROBOTICS HARDWARE AND SOFTWARE FOR INTRODUCTORY CODING AT SCHOOL LEVEL

By Annèl van Rooyen

Currently, teachers interested in Coding and Robotics are attending a variety of workshops on the subject. A workshop hosted by Solidarity's Skoleondersteuningsentrum focused on the use of micro:bits, small pieces of hardware. These microcontrollers can be coded using Microsoft's MakeCode software. In this way, it allows learners some hands-on coding and robotics experience. Annèl is exploring micro:bits' potential for learning in the literature. A coding club event in the near future will focus on micro:bits, so watch this space!



TOOLS FOR LEARNING

Compiled by Annèl van Rooyen and Corrie Smuts

At the start of their CTM course, Computer-Integrated Education students from all over the country (but mostly Gauteng and Western Cape) identified core tools that assisted them in their teaching and learning journeys. Corrie Smuts made a summary of the trends and some interesting finds.

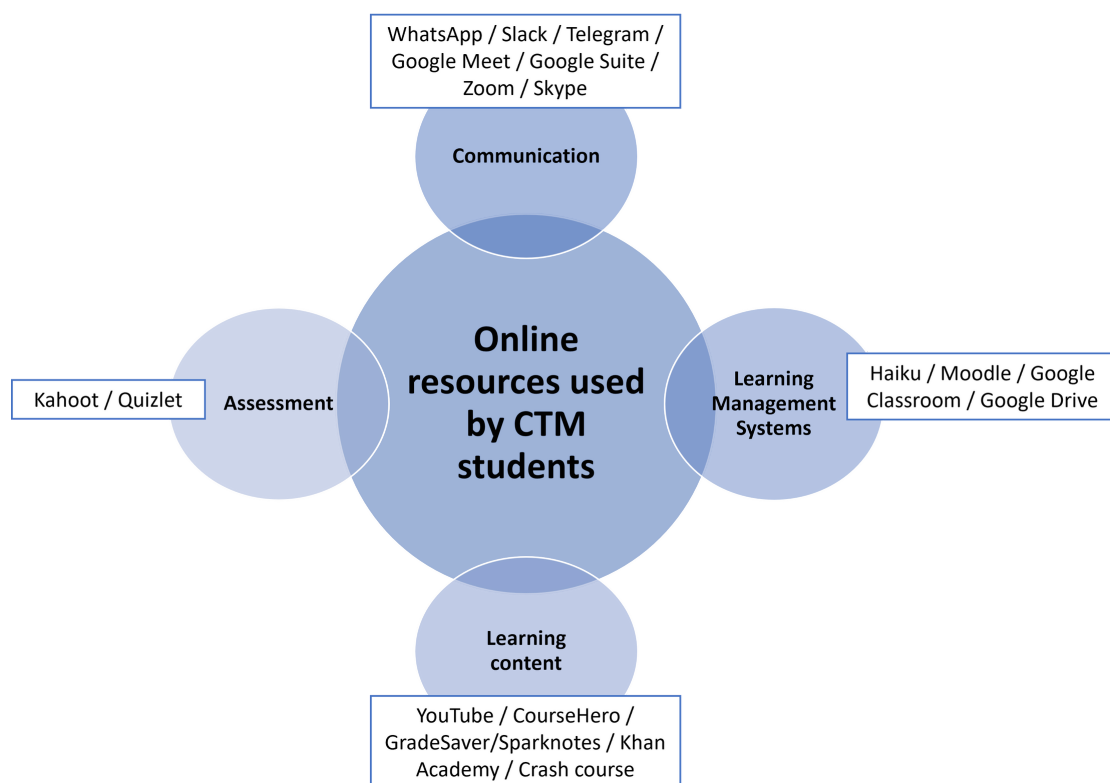
Corrie saw a clear pattern among students' work: Across a wide variety of tools that were identified, students' and teachers' needs tend to be the same. These needs, for which tools are used, include communication, Learning Management Systems (LMS), content resources, and tools for assessment. A summary of examples of such tools are included below.

What was even more informative, was the new resources that students presented.

The first was Pecha Kucha, a presentation tool available from <https://www.pechakucha.com/>. With 20 slides that are each displayed for 20 seconds, learners are enabled to create their own content.



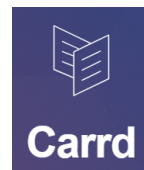
BELOW:
Resources used by CTM students



Wakelet, available at <https://wakelet.com/>, is a web-based tool and app that makes bundles of content, including videos, links and worksheets. Users can also add their own topics.



Scratch is a basic coding tool. Users can create images and animate these using basic coding. The software is easy to use and the products can be shared. Scratch can be accessed at <https://scratch.mit.edu/>.



Carrd.co enables users to make single page websites. It is also a free tool which is beneficial. Visit the website at <https://carrd.co/>



Avaya is an online meeting app that integrates with all other apps. It allows for cloud sharing and has a greater variance of tolls compared to a normal LMS. Access Avaya here: <https://www.avaya.com/en/>



Reading eggs is a website that offers gamified English reading activities. It is well structured and will encourage even teenagers to read. Visit it at <https://readingeggs.co.za/>.

FROGGY'S TECH CORNER

A review of useful software for teaching

Compiled by Fariyah Jaffer



There are many exemplary screen mirroring and screen recording software out there on the world wide web so what makes Letsview so different? Letsview allows you to mirror any screen wirelessly, thus, allowing any user to use this software without having to carry around endless tangled cables and adapters to make it work effectively. As their vision states, "where there is a screen, there is Letsview", and they have accomplished that vision by making their software compatible with Windows, Mac, Android, iOS, and even your TV. It is exceptionally easy to use, just download the application, which downloads within seconds, on your preferred reading screen and on your presenting screen and make sure both devices are connected to the same Wi-Fi or network connection and let the mirroring begin. And the bonus of Letsview is that it is free and there are no hidden costs trying to catch you off guard as soon as you start getting used to the software. The possibilities are endless with just a quick push of a button!

Jody Joubert regards Letsview as "an absolute unicorn" because "for the first time, we can show a phone screen on BlackBoard's *Collaborate*." He is optimistic about no extra cost implications that would have been necessary if extra dongles were purchased for class demonstrations. He also enjoys the app's ability to be used over PowerPoint slides.

In terms of technicalities, Jody cautions that a stable Wi-Fi connection for the phone and the computer is required. The app also needs to be downloaded on both the computer and the phone. Both devices need to be on the same Wi-Fi network as well.

One practical aspect, related to security, is that once the phone's screen goes off, the display is lost and has to be re-shared. This can be easily overcome by adjusting the phone's screen down-times in the phone's settings. As usual, working with two screens, one for the projected phone and one for the PowerPoint, is more beneficial.

