UNIVERSITY OF NAIROBI INNOVATION FELLOWSHIP

C4DLab
Innovation Lab

MULTI-DISCIPLINARY

PROBLEM-BASED LEARNING

STUDENT INNOVATION CHALLENGE

2018/2019

PARTNERS

PBL EAST AFRICA

Aalto Global Impact

2019 INNOVATION FELLOWSHIP COHORT

PROJECT TEAM

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OVERVIEW

The University of Nairobi has long acknowledged the capacity of its students to innovate, create, and build ideas that would do well to lead the country into the next innovation level. The university therefore has had several programmes that seek to tap into and build up this potential.

Among these programmes, Nairobi Innovation Week (NIW) stood out as the one with the most potential to achieve this ideal.

Nairobi Innovation Week started as an idea to showcase the genius, inventiveness and creativity of the students of the University of Nairobi by enabling them to come up with and exhibit their innovations at the weeklong event within the university.

The biggest player in NIW is the student community. From volunteering, exhibiting, pitching, attending and winning prizes, the "comrade" plays a big part in NIW.

The University has also built some innovation initiatives such as the C4DLab: an incubation hub, located at the School of Computing and Informatics. Established in 2105, it has incubated and graduated several student-based startups some of which went ahead and established themselves in the entrepreneurial ecosystem and even won several awards, and the Science and Technology Park.

The university believes in empowering student innovations, looking at the initiatives it has sprung forth. It, therefore, becomes unfortunate when the general participation of student has been subpar over the years. It is even more unfortunate that there is barely any records or statistics of student participation at NIW. This becomes one of the major stumbling blocks in the process of studying and getting to the underlying causes of poor participation. There has been reliance on speculation and approximation to determine the poor student involvement.

The NIW secretariat therefore engaged three fellows to get to the root cause of such meagre numbers and "come up with" ways to increase students' participation in subsequent NIW iterations starting with 2019.

Three general phases were covered in the course of the project, pLanning and Research,

Concept Developement, and Presentation and Submission

PLANNING AND RESEARCH

This phase involves all the preparatory research and planning that was undertaken and the

subsequent research that followed that sought to find insights into the student innovation ecosystem.

PLANNING

Before embarking on the field research there was planning in terms of;

1. *Understanding the state of the innovation ecosystem within the university.*

2. *Identifying the stakeholders that we needed to engage with to get insights on the nature of*

    student innovation in the university.

3. *Outlining the research objectives, preparing the questionnaires and identifying the*

    information we intended to get from the stakeholders.

4. *Planning the resources and material needed to efficiently undertake the research.*

RESEARCH

The research employed mixed methods approach which used both qualitative and quantitative

research methods. This component involved survey questionnaires, Focus Group Discussions (FGDs)

and Key Informant Interviews (KIIs) among all NIW stakeholders.

Research Objectives

The major objectives of this research was to find out the following:

1. *What challenges do students have with the current innovation initiatives in the UoN?*

2. *What measures would the students want to be implemented to foster and support their*

    innovations?

3. *What measures would the students want to be implemented to encourage innovation with*

    the student population?

APPROACH

RESEARCH: METHODOLOGY

Questionnaires: We shared survey questionnaires to the student population with specific questions targeted at understanding their viewpoint on the innovation environment in the UoN.

Focus Group Discussions: One focus group discussion was held at C4DLab and UoN students were invited from different colleges. There were also representatives from NIW and C4DLab.

Key Informant Interviews: Some stakeholders were identified and then interviewed so as to get more in-depth understanding of student innovations and to attain further insights

RESEARCH: STAKEHOLDERS

From the field research the following were identified as the major stakeholders driving innovation among the student community in the University of Nairobi.

Students	The entirety of this project is based on the student and his innovative potential. It relies on having students passionate about innovation and involved in a wholesome manner. There are approximately 90 000 students just within the UoN
Championing Institution	The innovation champion is very important in this context. This is an established institution that is the vision holder and provides the required resources and infrastructure to enable students to participate in the innovation ecosystem. Within the UoN community the champion is the UoN itself. It supports all the initiatives in several different ways including providing infrastructure and funding.

APPROACH

RESEARCH: STAKEHOLDERS

Facilitators	These are persons that engage the students and take them through the necessary steps to build them and get them ready to launch into the innovation space and even beyond. Currently, there are several kinds of facilitators, mainly the lecturers within the UoN and other personnel within the different initiatives in the UoN.
Sponsors and Partners	Sponsors and partners are crucial in ensuring the sustainability of the entire innovation initiatives. They support and collaborate with the championing institution and/or individual innovation initiatives in envisioning a business model that sustains them.

RESEARCH: FINDINGS

There was quite an interesting find while interacting with the students about innovation and Nairobi Innovation Week. Below are some responses:

"*In the long term, my suggestions would be:*

To incentivize students - not necessarily by financial means. For example, the possibility of gaining extra credit may be enough of an incentive for certain students. Additionally, if participation is perceived as part of a career-building activity, more students may end up taking part

Foster an innovation-driven learning approach in the university. This would serve to break the monotony of learning-to-pass and help students view their course in a much wider perspective."

"*Promote awareness among the students about the importance of NIW and how they can actively take part, they should also encourage the students to come out and showcase their innovations*"

RESEARCH: FINDINGS

Knowledge

Lack of timely communication about NIW, inadequate knowledge about innovation
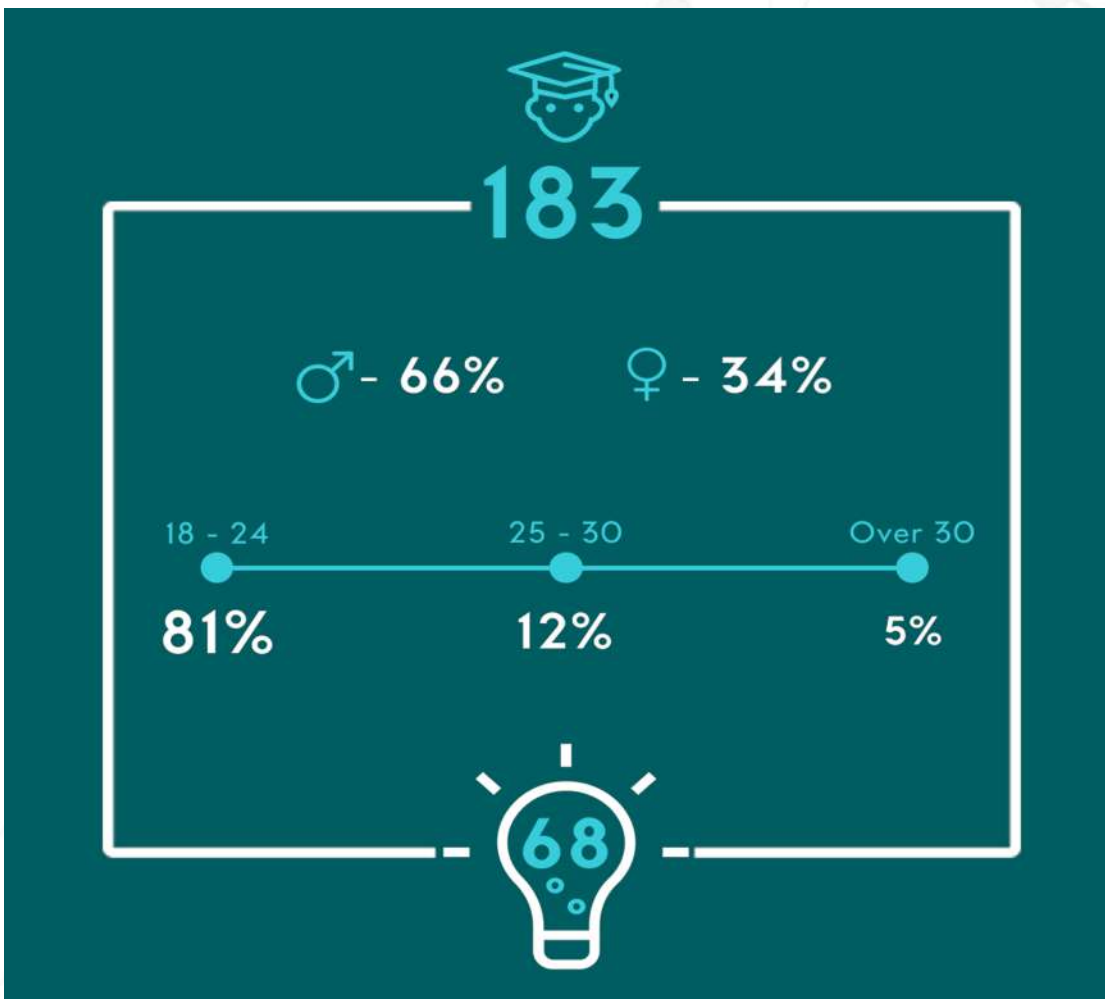
Participation

Lack of proper participation avenues and lack of knowledge about these avenues [if they exist]

Incentives

Lack of student-oriented incentives to participate

Structure

Clash of time between class activities and NIW

PROBLEM DEFINITION

From the research findings several questions arose on how those challenges could be addresed:

- *How might we make the students more aware of NIW and how they can participate?*

- *How might we create an avenue for students to participate at NIW?*

- *How might we incentivize students to participate at NIW?*

- *How might the NIW be re-structured to be more sensitive to student timetables?*

- *How might we increase student innovative participation at the NIW?*

These 'How Might We' questions served to guide in the concept developement stage of ideation

that would help develop a wholesome and efective solution.

IDEATION

In this stage, through brainstorming among other techniques several ideas were put forth that could

potentially address the problem. Among these ideas, three of them stood out and they are:

STUDENT

DRIVES

NIW.STUDENTS

STUDENT-BASED

INCUBATION

APPROACH
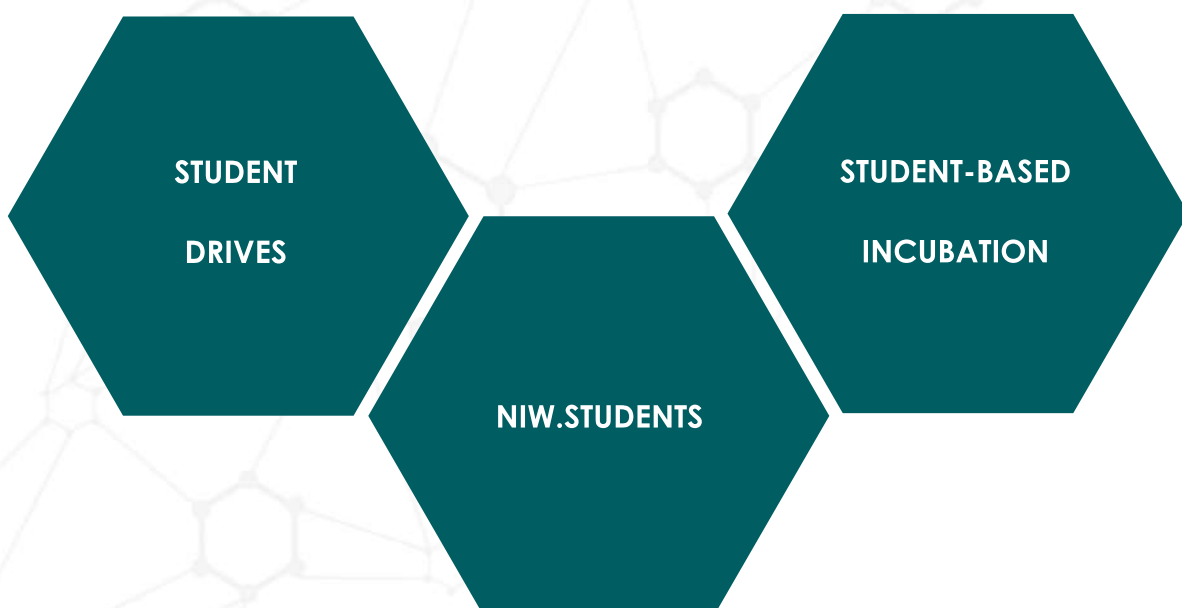
IDEATION

STUDENT DRIVES

This was one of the initial ideas that was explored. It involved hosting student drives in the main UoN campuses prior to the NIW.

The Student Drives involved having structured events a few months before Nairobi Innovation Week. These events would be in two general phases.

Phase I

The outreach phase was designed for sensitization, awareness and knowledge sharing. This phase would be executed in the form of making the students aware of Nairobi Innovation Week, innovation and ways in which they can innovatively participate at the event. This in turn would make them more knowledgeable and likely to participate at the event.

Phase II

The engagement phase involved finding out students who had ideas, products, concepts and/or startups that wished to showcase at Nairobi Innovation Week. After identification, these students would be mentored and coached in business development, intellectual property, pitching skills and other need-to-have ken to bring their innovations to an industry-competitive level.

During the Nairobi Innovation Week, the students would then pitch and exhibit for free or at substantially subsidized rates.

IDEATION

Challenges

This idea hit a stumbling block soon after conception. The initial management of NIW, subsequently

the vision-holder of the problem, transitioned to a different docket. This posed challenges of;

1. *Misalignment of the project objectives with the objectives of NIW.*

2. *Uncertainty of if or how the project concept would fit in with the NIW programme.*

NIW.STUDENTS

Similar to the NIW.Startups [now NIW Innovation Challenge] subcategory of NIW, this would be an exclusively student-focused facet of NIW that would dedicate its interests to having a call for student innovators to participate in a highly-competitive process that would culminate in their pitching, exhibition and awarding at NIW.

Challenges

This idea also experienced the same challenges as the Student Drive concept and was thus shelved.

Problem Re-Definition

It was at this point that re-defining the problem statement became a likely path to enable the fellows

to somewhat achieve their objective. After countless meetings and guidance from the mentors and

other stakeholders, a new problem statement was made; "***How might we increase student***

participation in the innovation ecosystem within the university?"

Basically the scope of the problem was broadened to beyond just the Nairobi Innovation Week event

but still limited to University of Nairobi students in its initial phase.

CONCEPT DEVELOPMENT: IDEATION

STUDENT-BASED INCUBATION

After several ideation sessions, a student-oriented incubation programme was settled on. This is a thematic six-month incubation programme where each six-month counts as one cohort.

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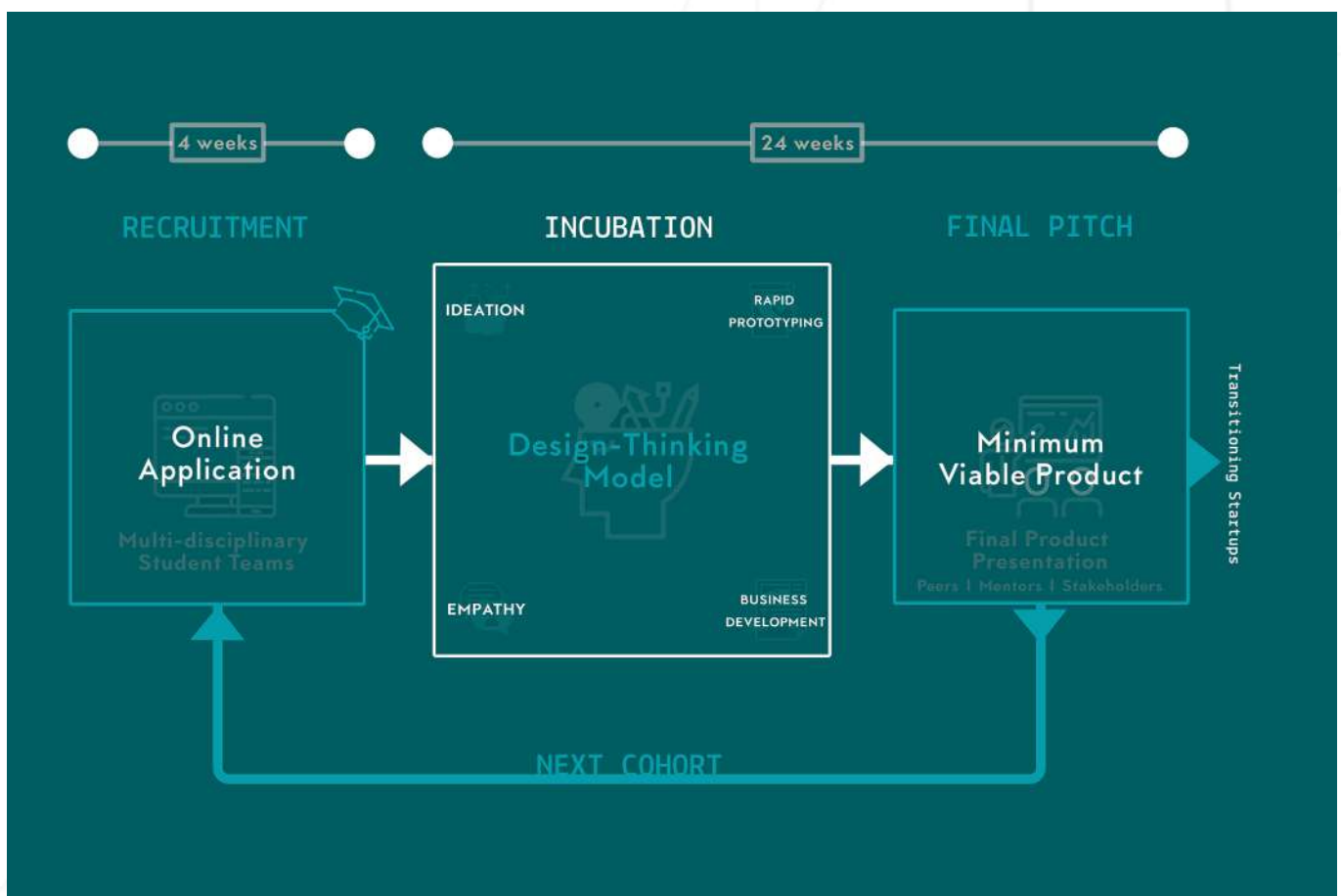
CONCEPT DEVELOPMENT

After considering all the ideas the team decided to work with the Student Incubation Concept considering it was the most feasible of the three main ideas. The student incubation consists of these three main facets;

Operational Model

There will be an operation structure that will outline the timelines, structure, management and day-to-day running of the student incubation programme.

It would involve Call for Applications, Incubation, and Transition

CONCEPT DEVELOPMENT

Business Model

The business model would establish the means of sustainability for the student incubation programme.

Partners and sponsors will be crucial for the sustainability of this program. They will work hand-in-hand

with the championing institution to provide resources that will help in the day-to day-running of the

programme.

Web Platform

The web platform will be the portal through which the students will apply and be selected to take

part in the student incubation programme. It will involve a simple form that captures the students

details and a back-end where an administrator would go through the applicants and vet.

As the concept continues to improve and develop, the team works towards making it a reality and subsequently improve the innovative atmoshere within the university.

VISION

The ultimate goal of the student-based incubation program is that it would be;

Multi-disciplinary: The incubation programme will be a melting pot of multi-disciplinary student teams, working together and learning form each other

Sustainable: The programme will be able to be sustained in the far future and evolving to greater heights. It will also seek to birth students businesses that transform the country

Fun: This will be a happy place, for all the innovative students out there!

STAKEHOLDER ENGAGEMENT

To able to achieve all this, stakeholder engagement is really important. They are the force that will keep the student incubation wheels moving. In regard to that there is ongoing discussion with different potential partners that will support different parts of the student incubation programme;

Championing Institution: C4DLab throught the University of Nairobi to implemement the incubation programme, and provide the infrastructure

Resources: Such as learning materials, online learning platforms, prototyping materials, facilitators , and mentors to be provided by CISCO and University if Nairobi through the C4DLab

Outreach: AIESEC UoN, a student oriented organisation within the University of Nairobi to reach out to student and engage them for the incubation programme

Awards and Miscellaneous: QWETU to award the most outstanding and innovative student teams.