Online Teacher Training Program in Mozambique – Finnish Education Export

Ricardo Turpin
Abstract

Autumn 2019

International Business
Sales and Marketing

Authors
Ricardo Turpin

The title of your thesis
Online Teacher Training Program in Mozambique – Finnish Education Export
Case study: Soprano Plc

Number of pages and appendices
31 + 1

Supervisors
Dr Evariste Habiyakare

This thesis is a study case based on a project executed by Soprano Plc (Soprano). Soprano Plc is the leading Nordic private training company. They are pioneering global online education with an AI learning environment. In collaboration with their qualified partners and universities, they provide Diplomas, Certificates and Vocational Qualifications that are valid in all European Countries. Delivering Finnish world-class education with an AI Learning Environment globally onsite, remote or online.

MIF Academy is part of Soprano Group and its focus is the internationalization of Finnish Education through Education Export. In this thesis the focus is in one of MIF Academy’s first projects in Africa. A Teacher Training Program executed in partnership with the Pedagogical University of Maputo (UP) and School of Professional Teacher Education of JAMK University of Applied Sciences in Mozambique. This project aims to create a Teacher Training Centre in Maputo based on Finnish Pedagogical Methods, and for that a Pyramid model was used to train teachers from UP, then the teachers that got trained prepared a new round of training for the next teachers. First 10 where trained, then 45 in the second round. The program will continue in the future.

The objective of this thesis is to validate the model used in this teacher training program in order to replicate it in other countries. Is also important to understand the details that can help the program to succeed, such as funding mechanisms such as provided by the African Development Bank, the World Bank among others.

The scope of this thesis is restricted to the Pilot project executed by MIF Academy in partnership with UP. Not including other projects nor the development after the pilot. The pilot project includes four steps: Preparation, Trainers Training, Teacher Training and Final Report. The pilot was implemented as a success with great feedback from the participants.

Key words
# Table of contents

1 Introduction .................................................................................................................. 2  
1.1 Research problem and Research Questions ......................................................... 3  
1.2 Stakeholders ........................................................................................................... 3  
2 Mozambique and Educational System ........................................................................ 6  
3 Student-centred approach and Active Learning ....................................................... 12  
3.1 Student Centred Approach: .................................................................................... 12  
3.2 Active Learning ....................................................................................................... 13  
3.3 Different models of active learning: ......................................................................... 14  
3.4 Tools and processes in active learning: ................................................................. 15  
4 The Educational Project ............................................................................................. 16  
4.1 Project Purpose ....................................................................................................... 16  
4.2 Expected results ..................................................................................................... 16  
4.3 Activities ................................................................................................................ 18  
4.3.1 Timetable for activities .................................................................................... 19  
4.4 Project costs and finance ....................................................................................... 20  
5 Project Analysis ........................................................................................................... 21  
6 Research Approach and Methods ............................................................................. 22  
6.1 Quantitative Surveys .............................................................................................. 22  
6.2 Qualitative Interviews ........................................................................................... 22  
7 Data Analysis ............................................................................................................. 25  
7.1 Summary of Results from baseline Survey before the Pilot with Universidade Pedagógica de Maputo (Mozambique) ........................................................... 25  
7.2 Summary of Results from baseline Survey after the Pilot with Universidade Pedagógica de Maputo (Mozambique) ........................................................... 26  
8 Key Results and Discussion ....................................................................................... 28  
9 Conclusions and Recommendation .......................................................................... 30  
10 References ................................................................................................................ 31  

1 Introduction

This thesis is a project based thesis and analyses of the relevance and feasibility of teachers’ pedagogical online capacity building course “Basics of Students-Centred Learning” in the Mozambican context. The course has been designed by the School of Professional Teacher Education of JAMK University of Applied Sciences and is provided through an online platform called Claned. The relevance and feasibility of the course was tested during a five-day piloting programme for ten teacher trainers of the Universidade de Pedagogica in Maputo, Mozambique.

It is important to investigate teacher trainers’ knowledge and views regarding student-centredness as a content in teacher education and their capacities to provide pre- and in-service online courses for two reasons. Firstly, it is crucial to find genuine developmental points for possible further collaboration actions between Finnish and Mozambique higher education institutions. Secondly, it is necessary to listen to the voices of the teacher trainers to get grass-root level information about the development needs in teacher education, in general, and those concerning the online learning in particular. This thesis focuses on an online course planned by JAMK “Basics of Student-centred pedagogy”, which uses Claned as a platform. In addition to the scope of this thesis, more information about the functionality of Claned platform in the Mozambique context is needed (for example: access to learning content, assignments, tests, communication and collaboration tools for students, and course management and assessment facilities for teacher trainers).

The problem in this thesis is how to implement online teacher education efficiently in Mozambique. In a developing country as Mozambique it is important to take into consideration possible infrastructural barriers that one can find while implementing an online course such as “Basics of student-centred pedagogy”. The possible problems can be inconsistent internet access, lack of computers for the participants, participants with difficulties using technology, etc.

In this thesis the author will analyse the Pilot Project between Soprano Plc (Finland) and Universidade Pedagógica de Maputo (Mozambique) in order to answer the research questions. The author participate in the project and created surveys and interviews to understand the participants of the pilot prior and after the project. All the data collection and analysis was made by the author of the thesis, not being part of the pilot project.
1.1 Research problem and Research Questions

Is it possible to implement an online course for teacher training in Mozambique?
What must be taken into consideration while implementing an online course?
Is it possible to replicate the same model used in Mozambique in other Portuguese speaking countries?

The questions will be answered in this thesis based on research and empirical pilot project executed in Maputo, Mozambique in partnership with Universidade Pedagógica de Maputo (Pedagogical University of Maputo).

This thesis aims to research the possibility to create and implement Online Teacher Training in Mozambique. The objective of the thesis is to validate the relevance of implementing online training for teachers in Maputo using Claned as a platform and JAMK as a content provider. The course is a short course, taking only one week and using contact classes and online material provided through Claned. The secondary objective is to validate if it is possible to use the same model applied in Mozambique to provide online teacher training in different Portuguese Speaking countries, especially in Africa.

Before the implementation of the project the thesis author created a survey to access the participants when it comes to their ICT Skills, Infrastructure for Online courses and their attitude towards an online course for teachers to develop their skills. The results will be presented in this thesis as baseline assessment.

1.2 Stakeholders

Soprano Group’s 6 Business Schools have over 70 years of pedagogical experience, students annually from 2,200 organizations in more than 50 countries. They have validated ISO 9001 quality standard in all their units. Soprano offers services in Helsinki, Tampere, Jyväskylä, Oulu, Stockholm, Gothenburg and St. Petersburg. Their extensive international network covers tens of countries and are able to serve their customers virtually across the globe.

Soprano Plc is listed on Nasdaq Helsinki.

MIF Academy has digitally designed course content, made by industry expert trainers, based on Finnish pedagogy and leading educational psychology in an AI online learning environment. They are able to deliver learning analytics by applying Artificial Intelligence
that reveals what factors impact individual learning. Their combination of content and educational technology results in optimized study motivation, reduced drop-outs and improved learning results.

MIF is part of Nasdaq listed Soprano Plc. MIF Academy and the Soprano Group’s 6 Business Schools have over 70 years of pedagogical experience, students annually from 2,200 organizations in more than 50 countries. We have validated ISO9001 quality standard in all our units.

MIF Academy, Soprano Plc’s education exports department is an official member of Education Finland Programme. The Programme is governed by the Finnish National Agency for Education.

During the project MIF Academy played a very important role, by being the organizer of the entire operation. One of its strengths was the fact that they had a Portuguese speaker in the team. Another important point was to have an experienced Executive Director leading the project.

JAMK is a university of applied sciences in Finland, in the region of Central Finland. There are 4 degree programs offered in English: Logistics Engineering, International Business, Tourism and Nursing. Its campuses are located in Jyväskylä and Saarijärvi.

JAMK was the educational partner in this project, bringing content, expertise and experts. During the project JAMK assigned two teachers for the project and offered all the support during and after the training.

Claned is the easiest way to build learner-centric and cost-effective online courses that engage users. A tool that help teachers in the task of creating online courses that can inspire users to learn more and be in charge of their learning path. Choosing Claned means one truly want to inspire learners and design their learning the Finnish way.

In this project Claned was the platform provider. One of the most important roles in the project, once without the platform it is impossible to offer online training. Their strength is the Artificial Intelligence behind their platform. In the other hand it might be difficult for teachers in Mozambique that have less contact with computers.

Universidade Pedagógica de Maputo: The Pedagogical University is one of Mozambique’s principal universities. The name of the school is abbreviated to UP. Their campuses are located in Maputo and they offer teacher education in many different areas.
Pedagogical University was the customer in this project. They received training for one week face to face and then online for over the remain period. One of the UP’s strengths is the fact that the teachers are very engaged in what they are doing and they do the work in a way that motivate the others.
2 Mozambique and Educational System

For this section of the thesis is important to present background information about the target country and to do so the author decides to implement a PESTEL analysis and a SWOT analysis in order to obtain a perspective of the real situation in Mozambique before the implementation of the project. Please find below the PESTEL analysis:

Political: According with Market Research Report, Mozambique is a democratic country based on a multiparty political system. The Constitution of the Republic enshrines, inter alia, the principle of freedom of association and political organization of citizens, the principle of separation of legislative, executive and judicial powers, and the holding of free elections.

Economical: Independent Mozambique inherited a colonial economic structure characterized by an asymmetry between the North and South of the Country and between the countryside and the city. The South is more developed than the North and the city more developed than the countryside. The absence of economic integration and the extreme oppression of the labour force were the most dominant features of this asymmetry. (Market Research Report)

Market Research Report presents that the development strategy formulated to reverse this asymmetry bet on a centrally planned socialist economy. However, unfavorable regional and international circumstances, natural calamities and a 16-year internal military conflict made strategy unfeasible. Foreign indebtedness (around 5.5 billion in 1995) forced the country to make a radical change to a market development strategy, joining the Bretton Woods institutions and the consequent adoption of a Structural Adjustment Program, starting in 1987. Since then, the country has been experiencing remarkable economic growth. Gross Domestic Product (GDP) has been growing on average over 7-8% per year, even reaching 2-digit levels. Inflation is below 10%. The tendency is to keep it in one digit. In monetary terms, Mozambique has one of the most liberalized foreign exchange regimes in Africa. Foreign trade partners have sufficient reason to inspire a great confidence in the country in the face of the ability of the monetary authorities to maintain adequate volumes of means of external payment. The Central Bank's external reserves have been over six months of imports of goods and services.

The State, through the execution of its fiscal policy regulates and dynamizes the most important socioeconomic areas and creates a good business environment very favorable to the development of private initiative. The legal reforms under the financial, fiscal, labor, commercial and land legislation carried out by the Government contribute significantly to strengthen this good environment with the respective attraction of the national and foreign private investment.
The country's economic potential for attracting investments in agro-industry, agriculture, tourism, fishing and mining is enormous.

Social: According with Mozambique Government Website, Mozambique has a Population of 21 million divided as 9,850,000 are man and 10,520,000 are women. Culture: Mozambique has always affirmed itself as a cultural pole with outstanding international interventions in the field of architecture, painting, music, literature and poetry. Names such as Malangatana, Mia Couto and José Craveirinha, among others, have long surpassed National boundaries. Also in the area of sport they excelled in various modalities, namely in athletics with Lurdes Mutola. Also important and representative of the artistic and creative spirit of the Mozambican people is the craftsmanship that is manifested in several areas, especially the blackwood sculptures of the Macondes of the North of Mozambique.

Technological: According to AICA, since July 2003, Mozambique has a science and technology policy. This is a cross-cutting policy with the main objective of stimulating national innovation for development and the fight against poverty. It is based on four pillars: education, research, productive activities and dissemination. It is through strengthening the internal capacity of each of these pillars, as well as improving communication between them, that the policy seeks to promote the desired national innovation, using, on the one hand, resources within the country and, on the other hand, scientific knowledge and technologies developed abroad.

"Most students in the classes have cell phones and have been able to register on the platform and access content. A key challenge has been that a handful of students are not able to access the platform because they either do not have cell phones or because they have very basic devices which are not compatible with the platform." Muva Mexe Project.

Environmental: Mozambique has made remarkable economic progress over the last two decades, with significant growth in the service, light industry, and agriculture sectors. Increases in foreign direct investment, particularly in natural resource projects, suggest there will be sustained economic growth in the future.

Despite positive economic progress, 55 per cent of the country's population lives on less than 1 USD per day. Environmental challenges, including deforestation, declining fish stocks, and loss and degradation of wetlands and rivers, are compounded by climate change and high population growth. The government has embraced green economy in its Five Year Government Plan (2015-2019) as a means to mitigate these environmental challenges while ensuring continued economic growth and promoting inclusive sustainable development. (Portal do Governo de Moçambique)
According with HA University, the coconut trees along the coastline of Zambezia - a province in northern Mozambique - provide livelihood opportunities to an estimated 1.7 million people and are an important source of revenue for the government. A 2011 report by the UN Food and Agriculture Organization (FAO) estimated that Mozambique produced approximately 62,000 tons of dried coconut meat for export, oil production, and local consumption.

Since 2003, as much as 1 million coconut trees have been lost, due to a lethal yellowing disease in the palms. At the present rate, more than 50 per cent of coconut palm trees are likely to be lost in the next years.

The loss of this vital resource has created a ripple effect as communities are now overexploiting local mangrove, which has exacerbated the problem of soil erosion in the area, causing floods that destroy crops and houses. As a result, most villages located by the river have been forced to relocate at least once.

The destructive effect of the disease and the resulting environmental damage have been felt beyond Zambezia, affecting Mozambique’s economy, which is highly reliant on products and services derived from healthy ecosystems. It is estimated that nationwide, over 82 per cent of jobs depend on natural resources and that natural capital contributes up to 50 per cent of the Gross Domestic Product (GDP).

In May 2019, countries met in Nairobi for UNEA 2 – the world's "Parliament for the Environment" – to discuss how to sustainably manage natural resources to benefit the health and wellbeing of people. Finding ways of valuing and sustainably managing natural resources will be crucial to achieving all three dimensions of the 2030 Agenda for Sustainable Development.

Since 2005 in an effort to achieve the national development goals and to reduce poverty, the joint Poverty-Environment Initiative (PEI) of the UN Environment Program and UN Development Program has supported the Government of Mozambique to mainstream environment related objectives into policy and budget processes at the national and provincial levels.

The first step was understanding how healthy ecosystems contribute to the country’s economy and what the financial and environmental impact of their degradation would be. With PEI support, the Government commissioned an economic valuation of the environment and natural resources in Mozambique. The study showed that the yearly economic loss due to environmental degradation and inefficient use of natural resources was 17 per cent of the GDP, equivalent to $1.5 billion lost each year.
Legal: As stated by Training and Resources in Research Ethics Evaluation (TRREE), the legal system is based on Portuguese civil law and customary law. The formal justice system is bifurcated into a civil/criminal system under auspices of the Ministry of Justice and a military justice system under joint supervision of the Ministries of Defense and Justice. At the apex is the Supreme Court, which hears appeals from both systems. The provincial and district courts are below the Supreme Court. There are also special courts such as administrative courts, customs courts, fiscal courts, maritime, and labor courts. Local customary courts, part of the civil/criminal system, handle estate, divorce, and other social and family issues.

Since abolition of the Revolutionary Military Tribunal and establishment of the Supreme Court in 1988, those accused of crimes against the state are tried in civilian courts under standard criminal procedural rules.

The 1990 constitution declares the establishment of an independent judiciary, with judges nominated by other jurists instead of designated by administrative appointment. It is the president, however, who continues to appoint the justices of the Supreme Court. In non-military courts, all criminal defendants enjoy presumptions of innocence, have the right to legal counsel, and the right of appeal; however, the judicial system suffers from lack of qualified judicial personnel and financial resources.

Despite some of the worst health indicators in Africa, the country has made significant progress in reducing mortality rates and improving access to primary health services.
Please find below the strengths, weaknesses, opportunities and threats found with the swot analysis:

## Swot Analysis

<table>
<thead>
<tr>
<th>Mozambique</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td><strong>Weaknesses</strong></td>
</tr>
<tr>
<td>Finnish Pedagogy</td>
<td>Portuguese material</td>
</tr>
<tr>
<td>Co-operation with awarded partners</td>
<td>Portuguese marketing</td>
</tr>
<tr>
<td>Digitalization</td>
<td>Lack of a representative on site</td>
</tr>
<tr>
<td>Artificial Intelligence</td>
<td>Cultural differences</td>
</tr>
<tr>
<td>Education, Agro, Health and Leadership</td>
<td>Network in Mozambique and other PT speaking countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mozambican president encourages co-operations between local and international organizations</td>
<td>Political changes</td>
</tr>
<tr>
<td>Good connections and networking through Jeremiás Ramucesse</td>
<td>Economic instability</td>
</tr>
<tr>
<td>GDP growth</td>
<td>Local and foreign competitors</td>
</tr>
<tr>
<td>UNICEF's programs to develop teacher skills and the management level in the education sector in Mozambique</td>
<td>Passive learning tradition</td>
</tr>
<tr>
<td>Same time zone</td>
<td>Poor access to internet</td>
</tr>
</tbody>
</table>

With the aim to identify Strengths, Weaknesses, Opportunities and Threats, as well as potential partners, local and international competitors, and basic information related to Mozambique and its population, the MIF Academy team conducted a Market Research including Swot Analysis, PESTEL Analysis, conducted interviews and online surveys.
The Secondary Data was gathered from different sources including internet research, local and international articles, governmental reports and other information published by other companies (KPMG, Huawei, etc). In the other hand, the Primary Data was gathered in phone interviews and online surveys.
3 **Student-centred approach and Active Learning**

In this section the reader will find the relevant background information about Student Centred Approach and Active Learning.

### 3.1 Student Centred Approach:

For centuries the teacher and student relationship was seen with the teachers perspective and point of view. This is changing rapidly when more and more teachers are adopting a learner-centric approach, where the student is the centre of the attentions and all the teaching methods are focused on the student. “In a student-centered class, students don’t depend on their teacher all the time, waiting for instructions, words of approval, correction, advice, or praise. They don’t ignore each other, but look at each other and communicate with each other.” (Jones, L. 2007. The student-centered classroom).

Prior the relationship between teacher and student was like in the image below (Fig 1). With the teacher being the center of the attentions, some students didn’t get engaged by this methodology.

![Teacher-Centered Model](https://mystudentvoices.com/what-exactly-is-student-centered-learning-358f01b37600)

With the new approach the changes are enormous in the engagement of students and participation during the classes. The students became more active and more responsible for their own studies and development. The method is a success when well implemented and the role of the teacher changes into something more of an advisor and guide than the owner.
of the knowledge. According to Mystudentvoices.com, “True student-centered learning must also be determined by success criteria. The instructor and student need to clearly articulate the criteria of success when given an assignment. This ensures that students can identify, understand, and track the quality of their work with the support of their educational community. This process of formative assessment allows the student to essentially ‘grade’ themselves and discover exactly what to do to improve their work.” As one can see in the image below even the family takes part in this perspective.

Fig 2 – Student-Centered Model

Source: (https://mystudentvoices.com/what-exactly-is-student-centered-learning-358f01b37600)

3.2 Active Learning

This method takes the student to the next level, where they are the owners of their learning outcomes. Therefore, they are also the responsible for their study path. There are several different ways to apply active learning, one of them being the Gamification of classes. Creating educational games is a great way to engage students and make them more active and give them the ownership of their own study path.

According with the Center for Educational Innovation, “Active learning refers to a broad range of teaching strategies which engage students as active participants in their learning during class time with their instructor. Typically, these strategies involve some amount of students working together during class, but may also involve individual work and/or reflection. These teaching approaches range from short, simple activities like journal writing,
problem solving and paired discussions, to longer, involved activities or pedagogical frameworks like case studies, role plays, and structured team-based learning.”. “Active learning is any learning activity in which the student participates or interacts with the learning process, as opposed to passively taking in the information. When given the opportunity to actively engage with the information they’re learning, students perform better. It nurtures the brain, giving it an extended opportunity to connect new and old information, correct previous misconceptions, and reconsider existing thoughts or opinions.” (Smartsparrow.com). According with queensu.ca “Active learning is an approach to instruction that involves actively engaging students with the course material through discussions, problem solving, case studies, role plays and other methods. Active learning approaches place a greater degree of responsibility on the learner than passive approaches such as lectures, but instructor guidance is still crucial in the active learning classroom. Active learning activities may range in length from a couple of minutes to whole class sessions or may take place over multiple class sessions.”

Is possible to see that the definition does not change much between the sources and the scenario is normally more positive when compared to the passive learning approach. In this thesis the author supports the utilization of active learning approach once it shows better results and more engagement in the students compared to the passive approach. Is important to note that applying active learning do not require technology nor structural change in the content. Is only a matter of providing the students with the necessary tools to actively learn by doing.

As stated by Cohn et al, “By active learning, we mean any form of learning in which the learning program has some control over the inputs on which it trains”. According with R.M. Felder “Active learning consists of short course-related individual or small-group activities that all students in a class are called upon to do, alternating with instructor-led intervals in which student responses are processed and new information is presented.”. Still according to R.M. Felder “Students retain much more of what they reflect on and do than of what they receive passively through their senses (such as the content of traditional lectures), which is one reason active learning is as effective as it has repeatedly been shown to be.”. Which supports the idea of having Active Learning as a subject in the course for the teachers in Mozambique.

3.3 Different models of active learning:

Active learning can be applied with different methods during a learning experience. Some examples of it are brainstorming, debating, discussing, teaching, etc. For the present thesis
is relevant to present more information about two methods used in Mozambique during the teacher training.

**Brainstorming:**

Brainstorming is the collective of thoughts of a group of people in order to generate new ideas. In Mozambique it was important to brainstorm about the new concepts of student-centred approach and analyse in groups what could be applicable in their own reality.

**Discussing:**

Discussing was part of the daily activities during the training in Mozambique once the teachers participating would have to work in groups to develop their own material about the subject. They created a new course based on the discussions during the training which was a success.

### 3.4 Tools and processes in active learning:

There are several different tools and process that can be used for active learning, however in this thesis we will focus in one Finnish tool. Seppo is a gamification platform and it is used in different countries around the world. With Seppo is possible for teachers and students to create educational games where one can be assessed, collaborate with others, collect points and earn badges.

“Seppo is a tool for adding game mechanics to any lesson or training. Gamification motivates students and gets them engaged in the topic at hand, sparking the joy of learning. Gamification means adding game elements such as humor, creativity, points, levels and competition, to a lesson. These external motivators let students succeed at schoolwork and help spur intrinsic motivation towards the topic. With Seppo a teacher can turn a lesson into a fun mobile game, with no coding required. Building games is easy, anybody can do it. Seppo is created by teachers for teachers, understanding the reality at school. A small game can be created very quickly. There is also a vast game library that has over 3000 ready-to-play games created by the global Seppo teachers' community. The game library helps anybody get started with gamifying their teaching.” (Seppo.io).

Seppo was not used in the present project but is about to be used in the next project with Universidade Pedagógica de Maputo. The tool is easy to use and brings great results with kids, youngsters and adults. A fun way to study and with clear goals and results. Motivation is key in this tool, and it gets a great result with motivation once it uses game mechanics. The same mechanics that keep people playing games for long hours, can make a student to engage in studies for long hours as well.
4 The Educational Project

The current chapter is to present the project that was the basis of this thesis. In the current chapter the reader will find information about the project purpose, expected results and activities of the project. The following information was extracted from the project plan created by the author. All the text was produced in collaboration with other colleagues but the main inputs come from the author.

4.1 Project Purpose

Purpose of the project was to build capacity of UP to run a training programme named “Basics in learner-centred pedagogy” to a pilot group of 40 Mozambican teachers during 2019. Secondly, the pilot aimed to pre-evaluating the feasibility of the concept for the “Mozambican-Finnish Education Quality Development Programme”. The concept aimed to improve quality of Mozambique education system by educating multitude teachers of secondary, vocational and higher education institutions in a cost-effective teacher education programme in basics of modern pedagogy, and by building capacity of UP to become a recognized teacher education institution in Africa with high impact online learning programmes.

The project was initiated after a meeting between the CEO of Soprano Plc and the Rector of Pedagogical University. Soprano have financed half of the project and received funding for the other half from Finnpartnership, a program that offer support for companies trying to do business abroad. During that period Soprano and UP were the only stakeholder, then Claned appeared into the picture and JAMK was invited to offer their educational expertise. In the Soprano side the project was coordinated by Timo Juntunen, Executive Director. Ricardo Turpin and Päivi Kunttu-Wichmann were the project managers.

Below one will find a piece of a project document from Soprano Plc. The document was written by Timo Juntunen, Executive Director of Soprano.

4.2 Expected results

UP has the capacity to deliver a new teacher education programme, use next generation online learning platform and educate a pilot group of 40 teacher in Mozambique. Ten UP’s teacher trainers are educated in modern pedagogy that is neither learning content nor school specific, but applicable for all teachers.

New pedagogical training programme, “Basics of Learner-centred pedagogy” that consists of online studies and 2-day workshops for secondary, vocational and higher education
teachers. Study or training material for pilot group prepared (in Portuguese). Next generation online learning platform is in use of UP teacher trainers with locally relevant learning content in Portuguese and English.

Relevance of ToT and teacher training programme plus feasibility of Mozambican-Finnish Education Quality Development Programme evaluated. Research report responds to following research questions:

- Is the pedagogical approach and content of an online courses (Basics of Learner-centred pedagogy) relevant in Mozambique education system and socio-cultural context? Could these courses be part of core pedagogical studies for all UP’s teacher students and useful for all teachers of secondary, vocational and higher education institutions in Mozambique?

- How to build UP’s capacity to provide relevant, efficient and effective teacher education programmes over the country by exploiting possibilities of online learning and UP’s networks around Mozambique? In what sense a close partnership between UP, JAMK, ELE and Soprano Plc can support UP to become internationally recognized teacher educator?

- What are the possibilities and limitations of Soprano’s next generation online learning platform to become a national learning platform in teacher education in collaboration with UP?
4.3 Activities

The following information is part of a Technical proposal between Soprano Plc and Pedagogical University of Maputo.

Activity 1.1. Delivery of workshop “Understanding Learning & Basics of High Impact e-pedagogy 1”

Finnish teacher trainer(s) from School of Professional Teacher Training at JAMK and/or ELE conduct 2 day-workshop in Maputo for 10 UP’s teacher trainers in English facilitated in Portuguese by a native Portuguese speaker. Rest of the week will be devoted to preparing study and teaching material in Portuguese for course “Basics of Learner-centred pedagogy”, and planning content and methods for workshops that UP’s teacher trainers will conduct in UP’s campus in Maputo during 2019.

Workshop and intensive train-the-trainers programme is arranged in Maputo in premises of UP between April 22 and 26.

<table>
<thead>
<tr>
<th>Input: Finnish Expert(s) – 2 x 5 w/d in Mozambique</th>
<th>Output:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• study &amp; teaching material in Portuguese for course “Basics of Learner-centred pedagogy”</td>
</tr>
<tr>
<td></td>
<td>• content &amp; methods for workshops for 40 teachers prepared</td>
</tr>
<tr>
<td></td>
<td>• new teacher education programme for UP’s training portfolio</td>
</tr>
</tbody>
</table>
Activity 2.1 Collection of research data

UP’s experts collect research data by interviewing their colleagues participating in Train-the-trainers Programme, and local teachers, who are potential participants of the teacher education programme. They collect data by using semi-structured feedback forms.

<table>
<thead>
<tr>
<th>Input:</th>
<th>Output:</th>
</tr>
</thead>
<tbody>
<tr>
<td>local Team Leader – 5 w/d</td>
<td>• research data collected by interviews of teachers and UP’s trainers, and</td>
</tr>
<tr>
<td>local Evaluation Expert – 10 w/d</td>
<td>by submitting a questionnaire</td>
</tr>
</tbody>
</table>

Activity 2.2. Analysis and reporting research findings

Analysis and writing report is done as a team work of evaluation experts from JAMK/ELE and UP. The report responses to the research questions explained in the section “Expected results”.

Preparation of report includes 3 day intensive analysis and report writing session in Helsinki, Finland.

<table>
<thead>
<tr>
<th>Input:</th>
<th>Output:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Leader – 5 w/d</td>
<td>• report on relevance and feasibility of the Quality Development project</td>
</tr>
<tr>
<td>Finnish Expert – 10 w/d</td>
<td></td>
</tr>
<tr>
<td>Local Team Leader – 5 w/d</td>
<td></td>
</tr>
<tr>
<td>local Evaluation Expert – 20 w/d</td>
<td></td>
</tr>
<tr>
<td>Experts – 5 w/d in Finland</td>
<td></td>
</tr>
</tbody>
</table>

4.3.1 Timetable for activities

Total duration of the project is 2 months starting April 1, 2019. The table below indicated plan for realisation of the project activities.

Train-the-trainers programme took place between April 22 and 26 of 2019 in Maputo and a visit of UP trainers to Helsinki is scheduled for May 13 and 17. Otherwise the realisation of activities is conducted as a deskwork.
<table>
<thead>
<tr>
<th>Activities</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity 1.1.</td>
<td>22.4-26.4</td>
<td></td>
</tr>
<tr>
<td>Activity 3.1.</td>
<td>22.4</td>
<td>17.5</td>
</tr>
<tr>
<td>Activity 3.2.</td>
<td></td>
<td>13.4-17.5</td>
</tr>
</tbody>
</table>

4.4 Project costs and finance

Each project party covers salary costs of their employees, local travelling and facilities.

Soprano Plc / Ministry of Education and Culture is in charge of international travelling costs of 2-3 Finnish experts from Finland to Maputo (and back) and international travelling costs (flights and accommodation in Finland) of 3 UP faculty members and 2 officers from the Ministry of Education, Sciences and Technologies.
5 Project Analysis

The project was executed as planned and the results were positive according with the feedback of the teachers participants in the pilot. During the pilot the biggest barrier was the internet connection. In the beginning the internet was crashing often and that was fixed by having a dedicated WIFI only for the classroom in use by the project.

During the project the platform (Claned) showed to be easy to use and helped engaging the participants in the learning process. The feedback about the platform was positive and even the teachers that were not used to online learning platforms were able to use Claned with no problems.

It was clear during the pilot that it is possible to implement online teacher training in Mozambique in a larger scale, although there are several barriers, they can be overcome with a good plan and project implementation. The teachers participants in the pilot were able to implement a larger online training, using the knowledge and tools that they received, to their colleagues in the Universidade Pedagógica de Maputo. The second training (implemented by the teachers participants in the pilot) was for a group of 45 teachers and the final result was positive, which shows the quality of the pilot project and the applicability of the Student Centred Approach in online format.

Mozambique as well as other developing countries are in need of pedagogical tools and methodologies that are used and developed in Finland. Having projects partnering Finnish organizations and universities with educational institutions in developing countries is not only possible but needed in order to develop the wellbeing of millions of people in countries like Mozambique and many others. Student Centred Learning is one of the most important methods to develop a better education in countries such as Mozambique, used to have a Teacher Centred Approach.

Having a partner in a developing country can be a challenge when it comes to pricing, however, there are many funding mechanisms that can be used in order to enable cooperation between a Finnish party and a partner in a developing country, Finnpartnership being one of them. It is important to understand how this funding mechanisms work and how one can use them in case of a pilot project for example. In the case of Soprano Plc and Universidade Pedagógica de Maputo Finnpartnership was used to cover part of the international traveling costs. That allowed Soprano to offer the pilot with no costs for Universidade Pedagógica de Maputo.
6 Research Approach and Methods

With the aim to identify Strengths, Weaknesses, Opportunities and Threats, as well as potential partners, local and international competitors, and basic information related to Mozambique and its population, the author conducted a Market Research including Swot Analysis, PESTEL Analysis, interviews and online surveys. The survey and interviews were conducted by the Author with the help of the Pedagogical University of Maputo.

The Secondary Data was gathered from different sources including internet research, local and international articles, governmental reports and other information published by other companies (KPMG, Huawei, etc). In the other hand, the Primary Data was gathered in phone interviews and online surveys. The research was conducted by the author. (See questions in appendix)

6.1 Quantitative Surveys
The surveys were developed to understand the infrastructure, ICT Skills and Attitude towards Online Learning from the perspective of teachers, students and professionals in Mozambique. The survey was created and administrated by the author. Before the beginning of the pilot project the survey was sent by email to the participants and other teachers in the University. It was an Online survey.

The surveys were sent to their target groups using several different strategies: Facebook groups with specific target audience, networking with Soprano’s partners in Mozambique and Contacts in Universities in Mozambique.

In order to reach the number of responses needed it was necessary to start sharing the surveys in the last week of February and the process took 4 weeks until there was enough data to be analysed.

The questions are available in the appendix.

6.2 Qualitative Interviews
The interviews were conducted with a group of teachers participants in the Pilot project between Soprano and Universidade Pedagógica. The group of participants in the Pilot Project is made of teachers from the University and they were invited by the rector. Before starting the Pilot the teachers participant in the project were invited to answer the questionnaire in order to obtain more information regarding the possibility to apply online teacher training in Mozambique. The participants were invited to respond the following questions before the training:
## Questions Before the Pilot

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you and your peers have smartphones with access to internet?</td>
</tr>
<tr>
<td>2</td>
<td>Do you and your peers have access to a computer and internet at home?</td>
</tr>
<tr>
<td>3</td>
<td>Is the internet connection normally fast (3Mb?) and stable?</td>
</tr>
<tr>
<td>4</td>
<td>Do you and your peers use or have used any online teaching tool/platform?</td>
</tr>
<tr>
<td></td>
<td>Do you and your peers have tasks involving technology such as videos, blogs, social media, etc?</td>
</tr>
<tr>
<td></td>
<td>Please give examples.</td>
</tr>
<tr>
<td>5</td>
<td>Are you active in social media? Which ones?</td>
</tr>
<tr>
<td>6</td>
<td>Are you and your peers studying about or using ICT tools? Which ones?</td>
</tr>
<tr>
<td>7</td>
<td>How do you feel about the traditional teaching methods?</td>
</tr>
<tr>
<td>8</td>
<td>Normally your classes are more traditional or innovative? Please give examples.</td>
</tr>
<tr>
<td>9</td>
<td>Do you use smartphone for learning purposes?</td>
</tr>
<tr>
<td>10</td>
<td>Would you prefer to write and essay or create multimedia content about certain subject? Why?</td>
</tr>
<tr>
<td>11</td>
<td>Do you have homework? What could make it more interesting?</td>
</tr>
</tbody>
</table>

The goal of the questions is to make sure they have the infrastructure (Computer and Internet), ICT Skills and their motivation/attitude towards Online Learning.
After the training they were invited to answer to a new set of questions. Find them below:

<table>
<thead>
<tr>
<th>Questions After Pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Did you have any difficulties related to infrastructure during the course?</td>
</tr>
<tr>
<td>2. Was internet connection a challenge during the course?</td>
</tr>
<tr>
<td>3. What would you suggest to be improved related to infrastructure and internet connection?</td>
</tr>
<tr>
<td>4. Was it difficult to use the Learning platform? Why?</td>
</tr>
<tr>
<td>5. How did you feel while using an Artificial Intelligence learning environment?</td>
</tr>
<tr>
<td>6. Was it your first online/remote training? How would you describe the way you interacted with the platform?</td>
</tr>
<tr>
<td>7. Was this course any different than your previous studies? How?</td>
</tr>
<tr>
<td>8. Do you feel more motivated and engaged to study using this methods and platform or you prefer the traditional way of teaching?</td>
</tr>
<tr>
<td>9. What are the most important aspects that you liked in this training?</td>
</tr>
<tr>
<td>10. What are the aspects that you do not like in this training?</td>
</tr>
<tr>
<td>11. What feedback can you give about the training? Would you like to have more like this in the future?</td>
</tr>
</tbody>
</table>

These second interview aimed to understand the how the students interacted with the learning environment and what could be adapted/improved in order to fully satisfy them with the learning experience.
7 Data Analysis

In this section the author will present the most important results and findings during the pilot project in partnership with Universidade Pedagógica de Maputo. The results from the surveys, questionnaire and interviews will be summarized in order to present a concise point of view on the issue.

7.1 Summary of Results from baseline Survey before the Pilot with Universidade Pedagógica de Maputo (Mozambique)

In this chapter we will cover the most relevant questions and summarize the answers.

There were 8 participants.

1- At work, are you able to access internet to prepare classes and activities for your students?
   According to the teacher participants more than 87% of them have access to the internet.

2- Is your internet connection Fast and Stable?
   75% said yes, over 3mb.

3- During your classes do the students have activities related to videos, blogs, social media, etc?
   Only 25% would have it often. Most of them using youtube videos.

4- Do you use or teach about any ICT tool in your classes?
   Only 50% of the teachers use or teach about ICT tools in their classes.

5- Do you like the traditional teaching methods used in Mozambique?
   62,5% of the teachers participating like the traditional teaching methods used in Mozambique.

6- How do you try to innovate in your classes?
   Most of the teachers try to innovate with Active Learning and Activities outside of the classroom.
7. Do you give homework to your students?
100% Of the teachers give homework and the feedback is mostly positive.

7.2 Summary of Results from baseline Survey after the the Pilot with Universidade Pedagógica de Maputo (Mozambique)

In the survey the UP teachers participants in the Pilot were invited to answer a few more questions in order to improve the collaboration between the stakeholders. The data collection was made by the author during April 2019. First before the pilot with questions regarding ICT Skills, Internet Infrastructure and attitude towards online teaching. After the pilot another survey was sent now approaching the Claned Platform, Active Learning and Student Centred Approach.

The teachers pointed that Claned would increase Collaboration between students (100%), Students Performance Follow up (87,5%), Capacity to improve the content of the course (100%), Efficiency in content production (87,5%), and The amount of work of the teacher during the course (37,5%).

Would you recommend Claned to other teachers?
87% Of the teachers would recommend Claned to other teachers.

Give Claned a grade:
75% Of the teachers gave grade 5 (Max) for Claned.

With regard to the training of teachers in Pedagogical Methods such as the Student-Centered Approach, how relevant and important would these qualifications be for teachers in Mozambique?
100% of the teachers answered that it is relevant for the teachers in Mozambique. Below a few comments:

participant 1: The training will improve teachers' knowledge and pedagogical skills in this methodology. However, it is necessary to take into account the current working conditions of the teachers, who still do not have computer resources, as well as the student teacher ratio.
Participant 2: Teachers would be able to develop hidden abilities in their students.
Participant 3: Very important because in Mozambique the teaching is centered on the teacher and many future teachers, until now they learn in this strands. So this platform and trainings would make the student-centered approach better known.
Participant 4: Because it explores different learning styles and adjusts teaching strategies.
Participant 5: It would meet the requirements for innovations in the curriculum of basic education with student-centered teaching, since many teachers do not feel yet prepared for this approach.
Participant 6: This would allow students to better assimilate the content.
Participant 7: They help students to learn by doing, discover their learning style and to better organize their learning process.
Participant 8: It would be of great importance to our teaching style as it would allow for a shift in a paradigm. however, attention must be paid because the methodology is quite rich, but the Mozambican reality may be a barrier for its adoption.
8 Key Results and Discussion

The most important result is that it is possible to implement online courses in Mozambique. However, there are several challenges to face while implementing a project with online teaching in the country. Implementing the project using Active learning methods and Tools it is possible to improve quality of Education in Mozambique and other developing countries. All and all, it is clear that Student Centered learning, active learning and other Finnish methodologies can be used with success in developing countries.

A secondary key result is that it is important to have a local partner while implementing a project in Mozambique. There are several cultural differences and the fact that Mozambicans deal with business in a different way than Finnish people. Having a Mozambican partner can help even to arrange a meeting or in the simplest tasks like organizing a transfer from and to the airport, among others.

Besides having a local partner is important to have someone in the Finnish company that understand the Mozambican culture or that is Mozambican themselves. Again, this is due the fact that understanding the culture of the country one is doing business with can help in the most different matters such as agreeing on deadlines, having a meeting, etc.

It is also important to follow the political situation in the country, once business in happening according to the political matters in the Mozambican society. This was shown in during this project once the president of Mozambique got involved in some minor case of money laundry. The whole university stopped, and no one was able to communicate with the vice rector nor the rector himself. Although there are several barriers to implement online teacher training in Mozambique the author still strongly believe that it is possible and needed in the county.

After all, by having online teacher training available in Mozambique it is possible to increase the quality of the education of many students. Once a teacher in Mozambique teaches classes with more than 40 students the impact of the teachers is relevant. Indeed the normal student would benefit from the project as well when the teacher starts applying the new knowledge in the class room and with it engage their students in a more technological way, more suitable for the class rooms of the 21st century.

One substantial barrier for the online teaching is the fact that many teachers are still too connected to the traditional way of teaching where the teacher is the center of the attentions and not the students. This was present in the pilot where a couple of the teachers where quite uncomfortable.
The projects conducted by the Government of Mozambique in digitalization could be one accelerator for this project, once they will have funds to invest in the digitalization of the teacher training programs they already have. It would be important to keep close relations with the Ministry of Higher Education as well as the Ministry of Education in order to get information about the digitalization program they have planned.

All and all, having a Portuguese speaking member in the team is a facilitator once he is able to communicate more efficiently with Mozambique, and also get information in different Portuguese sources available. The fact that Soprano has a Portuguese speaking member participating in the project is a substantial facilitator.

Answering the research questions:

1- Is it possible to implement an online course for teacher training in Mozambique?
   Yes. It is possible to implement an online course for teacher training in Mozambique.

2- What must be taken into consideration while implementing an online course?
   All the recommendations above, based on the research, PESTEL and Swot analysis, must be taken into consideration.

3- Is it possible to replicate the same model used in Mozambique in other Portuguese speaking countries?
   To answer this question more research would be needed.
9 Conclusions and Recommendation

The author initially concludes that it is possible to implement online teacher training in Mozambique and overcome any possible challenges to do so. The teachers and students in Mozambique, in the university level, are connected to the internet most of the time with their cellphones and tablets. They have the ICT skills needed to use the online platform Claned. Besides that, their attitude towards the online teacher training is positive and curious.

One important recommendation is to study the changes on the market and specially the political situation in the country. This can be a deal breaker when it comes to doing business in education with Mozambique. This year the Mozambican president was reelected and this will grant a few years of calm political scenario in the country, but for the next elections is important to prepare and follow the changes in the market in order to overcome any possible barriers resultant of the changes.

However, it is important to keep in mind the cultural differences while implementing projects in Mozambique. The Mozambican way of doing business is more relaxed than the Finnish way. Emails take time and meetings are longer than normally in Finland. People are less concerned about the deadlines and things can take days while in Finland it would take maximum a couple of hours to be done.

The internet connection is one of the biggest barriers for the online teacher training. The connection to the internet was not constant and stopped working a couple of times while the pilot project was being executed. It is important to have a backup plan in case of bad internet connection and that would be a privat internet point with Wi-Fi rooters in the classroom. With it is possible to guarantee that the course will not be affected because of problems with the internet.
10 References


Queen S. “What is Active Learning?”. Teaching and learning. Active Learning. 


## Appendix

### Questions for students

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you and your peers have smartphones with access to internet?</td>
</tr>
<tr>
<td>2</td>
<td>Do you and your peers have access to a computer and internet at home?</td>
</tr>
<tr>
<td>3</td>
<td>Is the internet connection normally fast (3Mb?) and stable?</td>
</tr>
<tr>
<td>4</td>
<td>Do you and your peers use or have used any online teaching tool/platform?</td>
</tr>
<tr>
<td>5</td>
<td>Do you and your peers have tasks involving technology such as videos, blogs, social media, etc? Please give examples.</td>
</tr>
<tr>
<td>6</td>
<td>Are you active in social media? Which ones?</td>
</tr>
<tr>
<td>7</td>
<td>Are you and your peers studying about or using ICT tools? Which ones?</td>
</tr>
<tr>
<td>8</td>
<td>How do you feel about the traditional teaching methods?</td>
</tr>
<tr>
<td>9</td>
<td>Normally your classes are more traditional or innovative? Please give examples.</td>
</tr>
<tr>
<td>10</td>
<td>Would you prefer to write an essay or create multimedia content about certain subject? Why?</td>
</tr>
<tr>
<td>11</td>
<td>Do you use smartphones for educational purposes?</td>
</tr>
<tr>
<td>12</td>
<td>Do you have homework? What could make it more interesting?</td>
</tr>
</tbody>
</table>

### Questions for teachers

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you have access to internet in your work facilities?</td>
</tr>
<tr>
<td>2</td>
<td>Do you have access to internet at home?</td>
</tr>
<tr>
<td>3</td>
<td>Is the internet connection normally fast (3Mb?) and stable?</td>
</tr>
<tr>
<td>4</td>
<td>Do you use any online teaching tool/platform in your classes?</td>
</tr>
<tr>
<td>5</td>
<td>Do your students have tasks involving technology such as videos, blogs, social media, etc? Please give examples.</td>
</tr>
<tr>
<td>6</td>
<td>Are you active in social media? Which ones?</td>
</tr>
<tr>
<td>7</td>
<td>Do you use ICT tools in your classes? Which ones?</td>
</tr>
<tr>
<td>8</td>
<td>Do you use traditional or innovative teaching methods? Why?</td>
</tr>
<tr>
<td></td>
<td>Question</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>9</td>
<td>How do you innovate your classes?</td>
</tr>
<tr>
<td>10</td>
<td>How do you keep your students motivated and engaged?</td>
</tr>
<tr>
<td>11</td>
<td>Do your students use smartphones for educational purposes?</td>
</tr>
<tr>
<td>12</td>
<td>Do you give homework? What is the feedback from the students?</td>
</tr>
</tbody>
</table>