**Tech4Dev in Collaboration with Microsoft**

**Women Techsters Fellowship 2021**

**A group mini project by Data Science and AI Tand-Edu Team**

**TITLE OF PROJECT:**

**Effect of Covid-19 on Education in Africa**

**Tandem App Project**

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Dedication

This project is dedicated to all the students out there that were in one way or the other affected by Covid 19.

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**AIMS AND OBJECTIVES**

Amid the current Covid-19 pandemic richer countries were able to transition their educational system to online platforms flawlessly, whereas this was not the case in low-income countries. In this project we aim to explore the effect of the lockdown on education, especially on women. We assume that high income countries were better prepared for online Education. Our Hypothesis states that Covid-19 had a negative impact on Education in low-income countries. Focusing on African women in Education, Covid-19 had more negative impact than on other societal groups. Is there any relation between the wealth of a country and the impact of covid 19 on African women’ education? We also aim to bridge the education gap between developed and underdeveloped countries through a Tandem App.

**THE IDEA OF HAVING A TANDEM APPLICATION**

PRINCIPLES OF TANDEM

Learning in Tandem is a form of autonomous, intercultural learning with a partner.

Principle of mutuality: both partners should benefit equally from the collaboration. The time spent on each subject should be divided equally and the partners must both make a similar effort. At each meeting both languages should be used

Principle of learner´s autonomy: both parties take personal responsibility for their respective part of the Tandem collaboration and determine their own learning objectives and methods. These are rarely the same for both parties. Your Tandem partner can be consulted as an expert in his/her language and culture, can read out texts if so desired, speak about selected topics, correct mistakes, make suggestions for improvement etc. However, s/he will not usually be a trained teacher, i.e. s/he may not be expected to define learning objectives and learning strategies, conduct assessments, or systematically prepare the subject matter (grammar rules etc.)

Tandem partners can:

* Serve as a model: you learn from what your partner tells or writes you in their language
* Help if there is something you don´t understand
* Help if you want to say something
* Correct your mistakes
* Give information about life in their country

SUGGESTIONS FOR TANDEM COLLABORATION:

* Sharing activities, including cooking food from your respective countries, doing sports, visiting theatres and museums, making trips and city tours
* Watching films in the original language
* Visiting cultural events (see "Zitty" or "Tipp")
* Visiting conversational events (see adverts and the internet)
* Playing party games together
* Using various spaces depending on the activity: cooking or watching TV at home; using language courses, reading newspapers and watching videos together in the media library

IDEAS

The following ideas could serve to get you started:

* Exchanging information:
  + - To get to know each other: filling in questionnaires about your respective study, family, leisure activities
    - Describing favourite pastimes: favourite food, music or books
    - Discussing differences and similarities, suprising subtleties, life in general and family life in particular in Germany, feeling German, superstition, studying and working in both countries (work, unemployment, studying, school)
  + Exchanging points of view and discussing them:
    - What is art/love/work? What does …….. mean to you? And to me?
  + Creative activities:
    - Come up with your dream holiday/weekend
    - Describe photos
    - Tell stories, fairy tales, and legends that are typical to your respective countries
  + Talk about language and communication:
    - Idioms or proverbs;
    - Cursing and swearing;
    - Equivalents in the other language;
    - Clarifying differences in regional vernacular

**METHODOLOGY**

The chapter will discuss in detail the various stages of developing the methodology of the tandem application. This includes a detailed discussion of the philosophical background of the research method chosen. In addition to this, the chapter describes the data collection strategy including selection of research instrumentation and sampling. The chapter closes with a discussion on the analysis tools that will be used to analyze the data collected.

Diagram

Description automatically generated

DATA COLLECTION

For a proper functionality of the app and to achieve the desired goal of tandem app we require our students to provide certain information. It is with the information provided that the students get to know if they have a match and then they can proceed once there is a perfect match for them. The major requirements are listed below.

* Name of the student
* Email address of the student
* Level of education
* Subject(s)

With the data collected from the students, the app looks for a match from the database and depending on this data, the student either gets a match which is a confirmation, or the student gets rejected and this comes with a notification on the app. This helps our students from low-income countries to benefit from those from the high-income countries.

**TANDEM APP FEATURES**

|  |  |  |
| --- | --- | --- |
| **No.** | **Feature** | **Description** |
| **1** | Login | A student/teacher must register a profile for the first time |
| **2** | Chat | A student/teacher must be able to interact via the App when from the platform |
| **3** | Buttons | Five different buttons exist for various functions:   * Press 0 to submit a Low-Income Tandem Partner * 1 submit a High-Income Tandem Partner * 2 for displaying stats. * 3 to query via email if you have a match. * 4 to get a list of all matched candidates |
| **4** | Dictionaries | Dictionary1 holds details of low-income students.  Dictionary2 holds details of high-income students.  Dictionary3 holds the matches done. |

**CONCLUSION**

In conclusion, Covid-19 pandemic affected every aspect of the economy including family, agriculture, finance, and education as seen from our analysis.   
  
Remote learning has demonstrated that we are all interconnected. Therefore, Multisectoral collaborations and individual efforts are necessary to breaching this gap.

We acknowlege the efforts made so far in the fight against the covid -19 pandemic and the efforts to bring remote learning onbaord in Africa to assist learning and growth.   
  
From here, we will move to Jupyter notebook to show you how the Tand-Edu App works in helping students from all regions of the world communicate and learn from each other.