**Research Project Proposal**

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| How much time do you have to complete the project? |
| Will start researching and conducting background reading from end of April, submission date is by July 4th 2015(leaving out July & August) 12 months |
| What is the pedagogical strategy/activity you wish to investigate? |
| Utilizing mLearning technology to provide eLearning resources for specific subjects in developing countries and isolated communities. |
| What technologies would your research involve? |
| Tablets/Smartphones and Apps Mobile networks eLearning Solar panel displays Wind turbines Power distribution equipment.  Renewables Biomass Water pumps and purification equipment |
| What area are you interested in? |
| Deliver an eLearning resource devised to help users install, maintain and troubleshoot renewable energy supplies such as solar panel displays, biomass and wind turbines designed to generate power. |
| What aspect are you specifically interested in? |
| The technology involved in solar panel displays, wind turbines, biomass and the power distribution equipment. |
| What’s your research question (general question you want to test in your research)? |
| What are the best applications and technologies that can be used to develop and deliver an eLearning resource, designed to facilitate the installation, trouble shooting and maintenance of the technology involved in solar panel displays, biomass, wind turbines and power distribution equipment. |
| What are the aims of your research? |
| To provide an easily accessible eLearning resource that facilitates communities to install, maintain and troubleshoot solar panel displays, biomass systems and wind turbines designed to generate power. |
| Define the key words and terms in your research question/hypothesis: |
| Solar panel displays. Wind turbines. Tablets/Smartphones and Apps. Mobile networks. mLearning. eLearning. Power generation Biomass |
| Is your research going to be testing an established theory? |
| Yes  What is this? Much of these technologies and methods are up and running  How can it be applied to other disciplines? The use of mobile technologies and techniques to disseminate an eLearning resource of a scientific character (mScience) can be applied to other disciplines. |
| What exactly do you want to find out? |
| How can I develop and implement an eLearning resource that will assist in the installation, trouble shooting and maintenance of the equipment and technology involved in solar panel displays, biomass, wind turbines and requisite power distribution equipment. |
| How are you going to do this? |
| By designing an eLearning resource which will provide the knowledge required |
| What/who exactly is your target population (main group of interest)? |
| People living in remote rural regions and in developing countries |
| What exactly is your sample (group selected from your population that you carry out the research with)? Will contact NGO’s, Overseas development agencies, companies involved in this technology to further select sample group |
| Further research will be required to narrow this down. Yes |
| How big is your sample going to be? |
| Need to do more research before providing a precise estimate. |
| How will you collect data from your sample? |
| Use a variety of sampling, data collection and statistical methods |
| How will you analyse this data? |
| Use both Qualitative and quantitative statistical methods |
| How will your findings be presented? |
| Will need to be presented as the justification for selecting the pedagogical strategy of utilizing mLearning technology to provide eLearning resources |
| How will your data support your research aims? |
| The data collected will support the contention that eLearning using mobile technologies can be an effective pedagogical strategy for teaching of scientific properties of renewable technologies |
| How do your results fit with previous research in this area? |
| This technology is already in situ although from my readings so far, it is not in widespread use. |
| How will your work prompt further study in this area? Will need further reading and research to give a comprehensive answer to this question. |
| I may further modify/ narrow down research proposal to concentrate solely on the area of receiving clean drinking water from solar PV-powered purifiers/pumps. |