

GENDERED DESIGN IN STEAM (GDS) - PROJECT TEAM POSTERS

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GENDERED DESIGN IN STEAM



Edo, Nigeria

ID65

Design and Construction of Gender and Eco-Friendly Fuel-Less Generator for Female Artisans in Nigeria



African civilization has traditionally been patriarchal, and this male-centered inclination permeates all facets of daily life, including the way we think about product design. Most of the user-centered design framework is very generic and lacks the inclusiveness that is expected to address specific related design issues. Gender-centered design, a particular user-centered design paradigm, has recently risen to the forefront of product thinking. This idea ensures that men and women receive the same benefits from policies and programs while preventing the continuation of inequality. The study used a descriptive and inferential statistical analysis for the questionnaire, and it used the House of Quality (HoQ) tool to map the engineering qualities with the Voice of Customer (VoC) that was retrieved from the participant's recorded utterance. The HoQ was later used to explore the design of a fuel-less generator prototype.



Poster invite to the local interactive meeting with stakeholders

Team

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Outcomes

- The final House of Quality (HoQ) mapped the Voice of Customers (VoC) identified in the study with the suitable engineering characteristics used for the development of the fuel less generator.
- A proposal to incorporate a gender centered design component in the curriculum of design study course offered by engineering students in our Polytechnic Edo state Polytechnic has commenced. The research team is already working on the enrichment programme in the curriculum of design study course in our Polytechnic (Edo state Polytechnic) with gender centred component offered by engineering students in the Polytechnic.



Media report of the stakeholder workshop on Gender Design in Science, Technology, Engineering, Arts, and Mathematics

Methods

- The first phase of the research involved stakeholder consultations that started with meetings with various artisan associations. This created awareness about the project and disseminated vital information to those who practice their trade in this area.
- The team also held a local town hall meeting, bringing together various key stakeholders such as artisans, Head of Government Parastatals and representatives from the general public to discuss the project.
- A User Study was conducted for the purpose of identifying gender problems experienced by the participants recruited for the study. This phase addressed the identified issues by way of re-designing the product.
- Five (5) research questions and twenty-one (21) sub questions were raised in a questionnaire.

- The ranked VoCs were thoroughly examined by the expanded design team using Quality Function Deployment (QFD) tool and solutions. This process highlights the areas where priorities were to be assigned in product development.



The local town hall meeting in action with a presentation from the project team

"Before now I thought everything gender has to do with the gender based violence and gender abuse, gender intimidation. I actually did not align my mind to designs."

— Ese Esther Oriarewo

Lessons & Future Directions

- Organize a future stakeholders meeting to discuss findings and research insights with the community.

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