Implementing and Critiquing the Higher-Ed. Sustainability Evaluation Tool

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Contents

- Introduction
- Background
  - Sustainability at the University of Worcester
  - The Custom Benchmarking Tool
  - Evaluating a Benchmarking Tool
- Methods
  - Pre-Implementation Analysis
  - Implementation
  - Post-Implementation Analysis
- Results
  - Pre-Implementation Interview Results
  - Implementation Results
  - Module Content Analysis
  - Comparison to STAUNCH
- Conclusions and Recommendations
- Questions
Introduction

- **Project Goal:**
  - Implement and critique a custom benchmark tool to assess the engagement of sustainability in the curriculum and research of the University of Worcester

- **Problem:**
  - Existing sustainability benchmarking tools are not a good fit for the University of Worcester

- **University’s Goal:**
  - Maximize inclusion of sustainability in research and curriculum
Sustainability at the University of Worcester

- Ranked 4th most sustainable university in the UK
- EcoCampus Platinum
- Implemented “Sustainability Tool for Auditing University Curricula in Higher Education” (STAUNCH) in 2010 and 2013
- Sponsored this project and the development of the Higher-Ed Sustainability Evaluation
The Custom Benchmarking Tool

- **The Idea of Benchmarking**
  - Comparing abstract qualities
  - Part of continuous improvement

- **Analysis of Existing Tools**
  - Previous team researched 9 tools

- **Custom Tool for U. of Worcester**
  - Questionnaire format (not a survey)
  - Gradient scaling
Evaluating a Benchmarking Tool

- **Define benchmarking**
  - Ongoing, systematic process

- **Key themes**
  - Measurement, comparison, identification of best practices, implementation and suggestions for improvement

- **External Factors**
  - Administrator bias, community values, and stakeholder agenda

- **Identifying strengths of a tool**
Methods
**Pre-Implementation Analysis**

### Initial Analysis:
- Analyzing the tool’s questions for their usability
- Adjusting questions based on the initial analysis

### Faculty Interviews:
- Interviews are a better format in this case than surveys or focus groups
- Implementing semi-structured interviews

<table>
<thead>
<tr>
<th>Question C10</th>
<th>Is the institution utilizing its campus by having physical locations which specialize in the following areas of sustainability?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem</strong></td>
<td>Not all of the areas listed are best suited by having a physical location for them, some of the areas like purchasing or investment &amp; finance do not need physical locations</td>
</tr>
<tr>
<td><strong>Improvement</strong></td>
<td>This could be resolved by adjusting the question to say “Is the institution utilizing its campus by having physical locations <strong>or policies</strong> which specialize in the following areas of sustainability?” This would allow for the areas that do not have a reason to have a physical location because they are better suited to have written policies and directives to still be included.</td>
</tr>
</tbody>
</table>
Implementation

- Used Previously Developed Guide
  - Revised based on Pre-Implementation Analysis
- Conducted Content Analysis of Website
- Conducted Structured Interviews
- Took Field Notes on:
  - Tool Itself
  - Implementation Guide

Curriculum Tool

1.* Number of courses that include sustainability related topics, themes, or modules, relative to the total number of undergraduate courses offered at the institution, as a percentage.

Location: University of Worcester website > Start Your Journey > A-Z of Courses. The courses are deemed sustainable if they contain one or more of the keywords from the United Nations 2030 agenda. A regex search can be used to scan each course description for keywords.

Median Score: 13.47%
The SustainabiliTool

- **Part 1: Module Analyzer**
  - Over 1200 Modules
    - Each with Title and Description
  - **Keyword search**
    - Difficult to do by hand
  - **Automates the search process**
    - Keywords in title and description
    - Saves time
  - Can be easily run again
    - Useful for future implementation
- **Part 2: Research Analyzer**
  - Analyzes articles from WRaP
Post-Implementation Analysis

Group Analysis:
- Use of field notes
- Ease of use
  - Time for implementation
- Difficulties during implementation
- Results

Follow-Up Interviews:
- Similar to first round of interviews
- Semi-Structured
- Faculty Members and Administrators
- Is the tool an accurate representation of sustainability?
  - Validation of the tool
  - Source of improvement for the tool
Results
Pre-Implementation Interview Results

- Similarities from Interviews
  - 6 Faculty members were interviewed and 1 replied via email
    - 1 Outlier and 6 in consensus
  - Members agreed that:
    - Lacking Time and Money to incorporate sustainability
    - Should do more with the students sustainability competency
## Implementation Results - University of Worcester

<table>
<thead>
<tr>
<th>Curr. Question</th>
<th>0</th>
<th>1-5%</th>
<th>6-10%</th>
<th>11-15%</th>
<th>16-20%</th>
<th>&gt;20%</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of courses that include sustainability related topics, themes, or modules, relative to the total number of undergraduate courses offered at the institution, as a percentage.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Number of modules that include sustainability related topics or themes, relative to the total number of modules offered at the institution, as a percentage.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Number of undergraduate students who have taken a sustainability-related module in relation to total number of students enrolled at the institution, as a percentage.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Number of departments at the university that include sustainability in their curricula in relation to the total number of departments/colleges at the university, as a percentage.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Does the institution contain one or more student organizations with a purpose directly related to sustainability?</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Does the institution maintain a regularly updated sustainability website?</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Does the institution's student union offer at least one university wide sustainability-focused educational program or event at least once a year?</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Does the institution conduct an assessment of the sustainability literacy and knowledge of its students?</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Does the institution have an ongoing program that offers incentives for academic staff in multiple disciplines or departments to develop new sustainability modules and/or incorporate sustainability into existing departments?</td>
<td>No</td>
<td>0</td>
<td>1-3</td>
<td>4-6</td>
<td>7-8</td>
<td>9-11</td>
<td>12-14</td>
</tr>
<tr>
<td>Is the institution utilizing its campus by having physical locations which specialize in the following areas of sustainability?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>41 / 60</td>
</tr>
</tbody>
</table>
Follow-Up Interview Results

● Reached out to same contacts as the first round
  ○ 7 Faculty contacted, 3 responses in total

● Common themes
  ○ Tool yielded a reasonable representation of the University
  ○ Keyword choice could be revisited
    ■ Research analysis: keyword set is not ideal for the University’s research, may not pick up every item
Comparison to STAUNCH

- Compared both results and methodology
- STAUNCH focuses completely on modules
  - 2010: 24% of modules relate to sustainable development
  - 2013: 34% of modules relate to sustainable development
- Higher-Ed Sustainability Evaluation has wider scope
  - Now: 16.57% of modules relate to sustainability
- STAUNCH methodology differs greatly from ours
- Cannot truly be directly compared
Conclusions and Recommendations

- Tool reflects positively on the University
  - Faculty opinion validates the tool
- Suggest updating the keyword list
  - Remove “work” and “employment”
    - Gave false positives
  - Possibility of creating a unique list for different Universities
- Slight adjustments to tool
  - C10 Change “location” to “location or policies”
  - R1 Amount of funding changed to percentage of funded projects
- Suggest integration of a parallel student literacy assessment
  - Ensure students graduate with a good grasp of sustainable ideas
Acknowledgements

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Questions?
Sources


Happy Planet Index. (n.d.). About the HPI. Retrieved February 03, 2018, from http://happyplanetindex.org/about


Sources


