# Web Site Evaluation: Content Analysis of Comments

Mike Lopez
Christchurch Polytechnic
Institute of Technology
130 Madras Street,
Christchurch, New Zealand
+64 3 940 8000
mike.lopez@cpit.ac.nz

David Weir
Christchurch Polytechnic
Institute of Technology
130 Madras Street,
Christchurch, New Zealand
+64 3 940 8000
david.weir@cpit.ac.nz

Luofeng Xu
Christchurch Polytechnic
Institute of Technology
130 Madras Street,
Christchurch, New Zealand
+64 3 940 8000
luofeng.xu@cpit.ac.nzl

## ABSTRACT

In this poster paper, we present a content analysis of open ended comments collected as part of a trial of a new instrument for Web Site Evaluation. The instrument is a questionnaire with 61 questions organised in seven scales. The instrument was trialled with 33 level five computing students. Part of the instrument asked students open ended questions about what they liked best about a site and how it could be improved. We analysed these comments against the key dimensions of the instrument. We found that visual appearance was the most important dimension for students, followed by navigation.

## Categories and Subject Descriptors

K.3.2 [**Computers and Education**]: Computer and Information Science Education

## General Terms

Measurement, Human factors.

## Keywords

Web site evaluation, technology acceptance.

## 1. INTRODUCTION

Our project had its origins in work carried out by a third year computing student in which the student developed an evaluation tool for web sites [Jason Hsiao, personal communication, 2012]. Using this as a starting point, we created a pilot instrument that was more solidly grounded in theory and in extant standards such as the W3C accessibility guidelines. Our instrument has seven major scales.

We tested the instrument in a level five course in a three year computing degree. Students were asked to use the tool to evaluate three major Web sites (Microsoft, Vodafone and Snap).

We then used their evaluations to analyse the psychometric properties of the instrument. The instrument appears to have strong psychometric properties overall, but issues were found with some subscales. We plan to trial the instrument in other contexts and with a wider range of web sites. We also plan to develop the instrument further by refining the questions asked and creating simplified and extended versions.

Once the instrument is validated we will use it to inform the rubrics we use for web site assignments. The instrument may also have a wider use in industry. We plan to use the instrument as a research tool to investigate cultural and gender differences in perceptions of web sites. Finally, a key goal in creating the instrument was to encourage our students to think critically about Web sites and to help them develop professional judgement about what makes a Web site effective. We plan to evaluate how well this goal has been achieved.

There are several parts to this project. This poster paper presents a content analysis of student's qualitative perceptions of the Web sites.

## 2. METHOD

We asked 33 students to evaluate three Websites As part of this evaluation we asked students two open-ended questions:

- What do you like best about this site?
- What could be done to improve this site?

We received 86 evaluations.

For each of these questions, we analysed student responses and coded them according to which aspects of the Web site they mentioned. We then counted the number of times each of these aspects was mentioned.

## 3. FINDINGS

Our findings are shown in Table 1 and Figure 1. It can be seen that appearance was mentioned most often, followed by navigation and content.

A full ranking of the aspects is shown in Table 2.

**Table 1: Content analysis**

|  | Like best | Could improve | Total |
|---|---|---|---|
| Content | 10 | 5 | 15 |
| Navigation | 16 | 23 | 39 |
| Appearance | 48 | 29 | 77 |
| Usability | 4 | 6 | 10 |
| Accessibility | 1 | 5 | 6 |
| Compatibility | 0 | 2 | 2 |
| Performance | 0 | 1 | 1 |
| Total | 79 | 71 | 150 |

**Table 2: Aspects ranked by frequency**

| Rank | Aspect | Percentage |
|---|---|---|
| 1 | Appearance | 51% |
| 2 | Navigation | 26% |
| 3 | Content | 10% |
| 4 | Usability | 7% |
| 5 | Accessibility | 4% |
| 6 | Compatibility | 1% |
| 7 | Performance | 1% |

## 4. DISCUSSION

It is clear that visual appearance is the most important aspect of a web site for these students.

We plan to test the instrument with students who are at a later stage in their study to see if this pattern changes as they progress with their study.
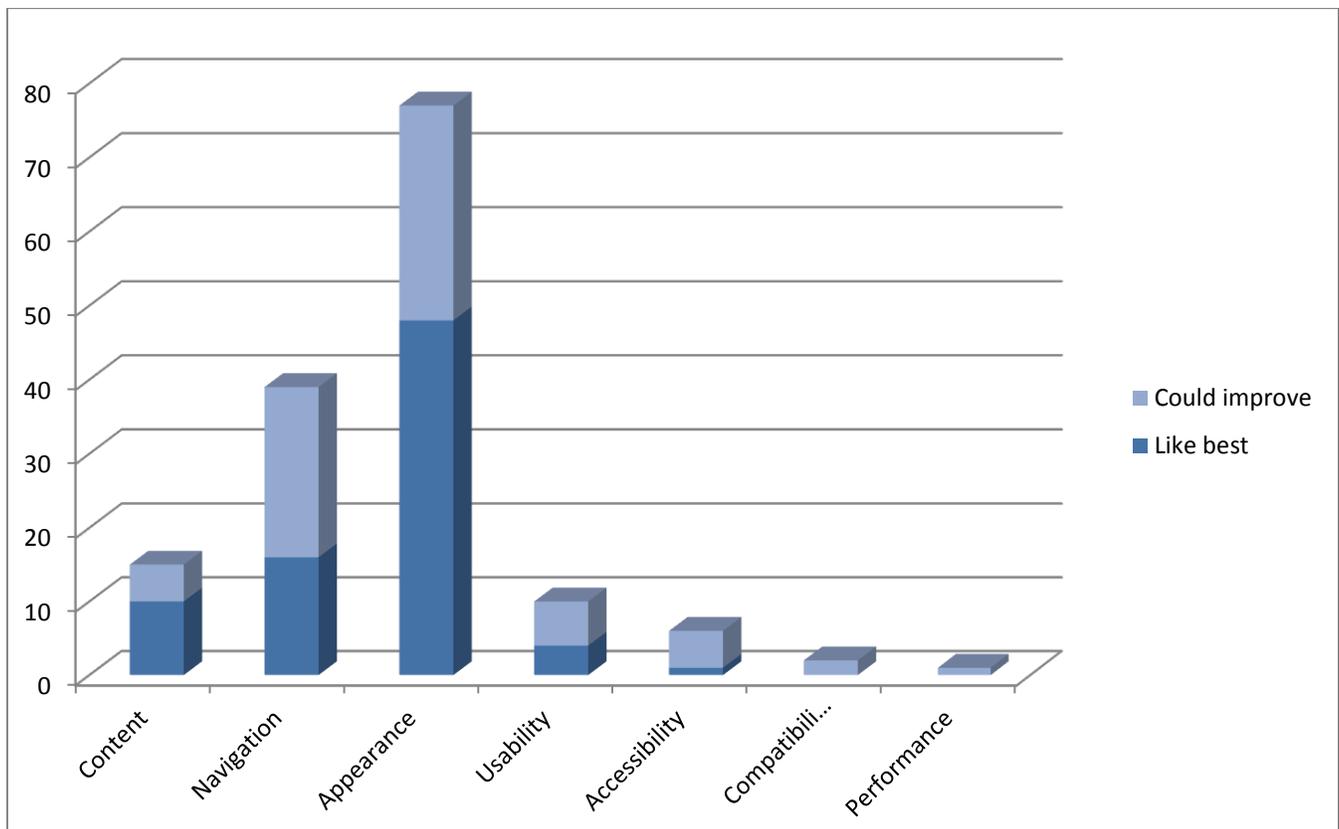


**Figure 1: Frequency of mentioning each aspect**