

Audiences' Judgments of Speakers Who Use Multimedia Technology as a Presentation Aid: A Contribution to Educational and Training Institutions

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Abstract

Now the days the Multimedia technology may help speakers to deliver more effective presentations. The study examined what effectiveness might mean in terms of audience satisfaction regarding using multimedia technology. It help educators to use multimedia more effectively themselves and to help their students to do so for creation new visual aids. Many presenters were rated using the scales, with the scales presented in one of two different random orders. The order did not appear to affect the ratings. A factor analysis suggests that three factors may be most important in describing the audiences' responses. The first describes audience assessment of how well researched and informative the presentation seemed. The second concerns the design of the multimedia, including how creative and imaginative it was. The third reflects how entertaining and how much fun the audience felt the experience as a whole to be. The results suggest a three-factor model that might be useful when designing multimedia-supported presentations, for providing proactive guidance and feedback when training speakers, and for assessment purposes.

Introduction

Audience delivering is an important part of the work of lecturers and teachers in every educational institution. It is also an important feature of the occupations that many of their students will be entering, and those students need to learn the skills involved during the presentation. Making presentations at a meeting, an exhibition, a conference, a classroom are common examples. A survey found that almost a quarter of the company directors surveyed gave a formal presentation to clients at least once a week on average, suggesting the importance of the skills involved. The majority of

the survey respondents believed that communication skills were more important for career success than intelligence or financial aptitude, Presentations can often be more effective if they are supported by presentation aids, and the use of such aids is standard practice in educational contexts. Traditional presentation aids, such as overhead projection materials, have been giving way to more modern aids, including the use of multimedia technology. In Presentation nowadays often used to generate the equivalent of power point slides or overhead projection acetates. However, modern PCs and overhead projection systems can do much more than that. They allow for more ambitious use of sound and vision in support of the person speaking. Increasingly, speakers are able to use full multimedia. The use of modern multimedia systems to support communication in the lecture room, especially if used in conjunction with some conventional modes of communication to exploit the communication potential of multimedia fully, whether in the lecture room, the management meeting, or in distance learning, we need to understand the communication processes that are involved. Much of the discussion of multimedia and multimedia literacy to date has focused on the potential nonlinearity of multimedia compared with traditional media. In particular, much interest has focused on the interactivity that can be associated with nonlinear architecture, especially interactivity that is controlled by the user. One approach to addressing this question would be to define a set of dimensions that might simply be intuitively plausible or that might be suggested by relevant theory. Attentively interesting questions, including how much they liked particular lectures and how much they felt they learned from them. The lectures were either supported by a software-based presentation aid or by traditional overhead transparencies. The aim of the present study was to allow audiences themselves to define key dimensions of their experience of live presentations in which speakers made use of multimedia as a presentation aid. The study focused on professional students who in their work later would need to be able to use multimedia technology effectively in making presentations to clients, Management, colleagues, and others peer-peer group.

Classification of Study Methods

It was identify words that audiences found natural to apply to presentations of the type concerned, rather than imposing a predetermined set of descriptors on them.

The words identified were used as a basis for constructing a set of rating scales that would enable responses to presentations to be quantified. That would enable the interrelationships among the different descriptors to be examined. This part of the study was also concerned with whether the order in which the scales were completed would affect the ratings.

The correlations among the rating scales were factor analyzed in order to identify a set of factors that might be useful in providing a succinct description of responses to presentations of the type concerned.

The Presenters

There were 56 speakers in total, in three groups (of 17, 19, and 20). In all cases, they

were Professional students. They researched, developed, and delivered their presentations as a key part of their work in one of the units making up the course. They understood that the presentations were “for real” because, as well as being assessed, they formed a key part of the way that topics covered in the unit were considered.

The Presentations

Each presentation was on a topic in the field of multimedia technology facilities management and technical support. The topics were agreed with the course tutors so that a good range of topics suitable for the unit was covered.

The audiences

The audience consisted of those Professional students concerned, together with at least two members of the academic staff in their capacity as internal examiners and observers; a technician was also present from time to time.

The questionnaire

Each member of the audience was asked to complete a simple questionnaire following each presentation. The aim was to elicit descriptors that the respondents felt natural to apply to the presentations. They were informed that the data were being collected for research purposes and might also be used as part of the academic assessment of the presentations.

Identifying the descriptors

The responses to each of the three questions in Part 1 were analyzed separately from each other and from the responses to Part 2. Spelling mistakes were corrected where possible, but invented words (of which there were very few) were left unchanged. Hyphens were added to form hyphenated words where appropriate in order to avoid counting hyphenated and non-hyphenated versions as separate words. In the case of Part 1, responses that were clearly combinations of separable components were split into their components. For example, “creative and exciting” was treated as two descriptors, “creative” and “exciting.”

The rating forms

Two forms were constructed. Each was made by listing the 42 words, with each word followed by a row of ten boxes. The instruction at the top of the form was as follows:

Please tick one of the boxes 0 to 10 for each word, according to how well the word applies to the presentation. Tick the “0” box if the word does not apply at all. Tick the “10” box if it applies perfectly.

The factor analysis

The data for the factor analysis was obtained by asking members of an audience to complete the 42 rating scales for each of a number of presentations. The method used was as follows:

Results

Descriptor	Interform reliability	Difference in position in the list
Animated	0.66	14
Clear	0.80	8
Colourful	0.76	4
Comprehensive	0.73	30
Concise	0.71	21
Creative	0.68	20
Detailed	0.89	34
Dynamic	0.66	27
Engaging	0.68	1
Entertaining	0.70	34
Excellent	0.82	4
Flowing	0.74	8
Fluid	0.83	14
Focused	0.73	7
Formal	0.59	8
Fun	0.77	17
Good	0.74	5
Imaginative	0.74	41
In-depth	0.78	10
Informative	0.84	11
Informed	0.87	4
Innovative	0.52	25
Interactive	0.62	10
Interesting	0.75	6
Lively	0.69	6
Multimedia	0.70	5
Musical	0.76	15
Nice	0.78	4
Planned	0.79	4
Professional	0.74	1
Relaxed	0.82	19
Slick	0.69	34
Smooth	0.65	0
Static	0.58	32
Structured	0.73	11
Stylish	0.83	27
Succinct	0.89	2
Thorough	0.86	34
Visual	0.73	5

Well-designed	0.81	8
Well-presented	0.72	21
Well-researched	0.88	1
Maximum difference		41
Average difference		14
Minimum difference		0

Discussion

The study suggests that three factors may be most important in describing audiences' responses to live presentations made by speakers who use multimedia as a presentation aid. These factors describe the way that perceptions vary from one member of an audience to another and from one presentation to another. They seem to be concerned with:

- The knowledge content of what is presented;
- The creativity and imaginativeness with which it is presented; and
- The fun factor.

Table 2: The factor structure matrix (the simple correlations between the rating scales and the factors; values cannot exceed plus or minus 1.00).

	Factor		
	1	2	3
Descriptor	Knowledge content	Creativity	Fun
Animated	0.658	0.852	0.627
Clear	0.915	0.649	0.723
Colourful	0.671	0.794	0.636
Comprehensive	0.838	0.646	0.643
Concise	0.803	0.661	0.805
Creative	0.638	0.914	0.642
Detailed	0.889	0.605	0.552
Dynamic	0.720	0.843	0.804
Engaging	0.759	0.848	0.845
Entertaining	0.767	0.796	0.871
Excellent	0.855	0.774	0.735
Flowing	0.871	0.733	0.776
Fluid	0.871	0.770	0.799
Focused	0.883	0.620	0.692
Formal	0.707	0.546	0.576
Fun	0.716	0.787	0.831
Good	0.906	0.713	0.756
Imaginative	0.566	0.833	0.674

In-depth	0.884	0.519	0.494
Informative	0.916	0.598	0.597
Informed	0.916	0.599	0.582
Innovative	0.646	0.859	0.674
Interactive	0.563	0.844	0.584
Interesting	0.824	0.827	0.799
Lively	0.690	0.820	0.820
Multimedia	0.609	0.870	0.627
Musical	0.321	0.403	0.691
Nice	0.870	0.692	0.688
Planned	0.875	0.728	0.716
Professional	0.896	0.703	0.753
Relaxed	0.754	0.416	0.678
Slick	0.738	0.794	0.781
Smooth	0.835	0.693	0.784
Static	-0.046	0.368	-0.088
Structured	0.865	0.763	0.704
Stylish	0.774	0.849	0.689
Succinct	0.812	0.565	0.755
Thorough	0.875	0.597	0.468
Visual	0.701	0.832	0.588
Well-designed	0.796	0.843	0.661
Well-presented	0.870	0.627	0.753
Well-researched	0.915	0.604	0.554

Table 3: The factor pattern matrix (the correlations between the rating scales and the factors, taking account of the correlations among the factors themselves; values can exceed plus or minus 1.00).

	Factor		
	1	2	3
Descriptor	Knowledge content	Creativity	Fun
Animated	0.116	0.804	-0.047
Clear	0.863	-0.075	0.143
Colourful	0.199	0.631	0.027
Comprehensive	0.764	0.084	0.019
Concise	0.471	-0.027	0.478
Creative	-0.013	0.964	-0.055
Detailed	1.042	0.033	-0.239
Dynamic	0.079	0.517	0.368
Engaging	0.124	0.447	0.427

Entertaining	0.167	0.277	0.545
Excellent	0.574	0.287	0.103
Flowing	0.606	0.122	0.241
Fluid	0.545	0.191	0.258
Focused	0.847	-0.082	0.129
Formal	0.604	0.034	0.107
Fun	0.092	0.349	0.507
Good	0.739	0.059	0.169
Imaginative	-0.157	0.793	0.208
In-depth	1.182	-0.116	-0.291
Informative	1.064	-0.064	-0.139
Informed	1.080	-0.043	-0.181
Innovative	0.024	0.779	0.086
Interactive	-0.070	0.926	-0.043
Interesting	0.368	0.379	0.251
Lively	0.005	0.472	0.472
Multimedia	-0.026	0.897	-0.010
Musical	-0.380	-0.076	1.026
Nice	0.747	0.119	0.051
Planned	0.692	0.173	0.080
Professional	0.726	0.048	0.184
Relaxed	0.733	-0.456	0.473
Slick	0.199	0.403	0.340
Smooth	0.545	0.045	0.350
Static	0.346	-0.788	0.234
Structured	0.645	0.288	0.019
Stylish	0.345	0.611	-0.012
Succinct	0.646	-0.223	0.444
Thorough	1.110	0.122	-0.439
Visual	0.292	0.753	-0.178
Well-designed	0.439	0.604	-0.104
Well-presented	0.735	-0.120	0.300
Well-researched	1.105	0.022	-0.260

Table 4: The correlations among the factors.

Factor	1	2	3
1	1.000	0.717	0.736
2		1.000	0.732
3			1.000

Table 5: The academic grades awarded and average factor scores.

Presentation	No. of judges	Factor			Sum	Grade
		1	2	3		
		Knowledge content	Creativity	Fun		
15	8	0.72	1.1	1.08	2.90	
16	8	0.59	1.11	0.7	2.40	D
11	8	0.89	0.72	0.78	2.39	
18	8	0.66	0.53	0.56	1.75	
9	14	0.63	0.48	0.52	1.63	
3	16	0.11	0.4	0.78	1.29	D
1	14	0.43	0.21	0.18	0.82	
12	8	0.32	0.26	0.11	0.69	
2	17	0.15	0.27	0.16	0.58	
8	14	0.33	0.14	-0.21	0.26	D
20	7	0.17	0.13	-0.08	0.22	
5	15	0.01	-0.11	0.08	-0.02	
13	5	0.19	-0.17	-0.1	-0.08	
14	6	0.13	0.24	-0.45	-0.08	
19	7	-0.52	0.06	0.3	-0.16	
4	13	-0.25	-0.72	0.25	-0.72	
7	16	-0.11	-0.6	-0.37	-1.08	
6	14	-0.34	-0.14	-1.11	-1.59	
10	13	-1.38	-1.81	-1.26	-4.45	F
17	8	-2.63	-1.01	-1.61	-5.25	F

Note. The academic grade is Pass except where shown as D for Distinction or F for Fail.

Implications for research

Those leaving university in the future will be expected to be skilled in using multimedia to communicate effectively, just as those leaving in past years have been expected to be able to use conventional media. That skill must depend to some extent upon an under-standing of the audience experience.

Conclusions

The study suggests that, in the type of situation studied, there may be three main dimensions of audience reaction to presentations given by speakers who use multimedia as a presentation aid. They seem to be concerned with:

- the knowledge content of what is presented;
- the creativity and imaginativeness with which it is presented; and

- how entertaining and fun the audience finds the overall experience.

The three-factor model and associated set of rating scales developed provide a basis for giving learners feedback concerning the extent to which they are achieving the kind of audience experience they are aiming for. They also provide a practical basis for incorporating audience reaction into the framework for assessing student presentations.

References

- [1] Balcytiene, A. & Svirnickiene, D. (2002). Cognitive processing of multimedia documents. A Lithuanian study. In P. A. Bruck (Ed.), *Understanding the European Content Industries: A Reader on the Economic and Cultural Contexts of Multimedia* IOS Press, Amsterdam, 135–153.
- [2] Bobrowicz, A. & Christie, B. (2003). Usability and emergent properties of multimedia creations. Paper presented at the Europrix Scholars Conference 2003: Information Society and Digital Media For All, in Tampere, Finland, November 13–14.
- [3] Bull, M., Christie, B. & Collyer, J. (1995). Multimedia in business. *Electrotechnology* October/November, 18–20.
- [4] Celentano, A. & Gaggi, O. (2002). Schema modelling for automatic generation of multimedia presentations. Paper presented at SEKE '02, July 15–19, 2002, Ischia, Italy. ACM 1-58113-556-4/02/0700.
- [5] Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*. San Francisco, CA: Jossey-Bass.
- [6] Freeburn, R. (1995). Speaking in public, part III: let your body speak for you. *Executive Development* 8, 12–14.
- [6] Guo, S. (2003). Art and dream. *British Journal of Educational Technology* 34, 243–254.
- [7] Haigh, J. (1994). Fear, truth and reality in making presentations. *Management Decision* 32, 58–60.
- [8] Hawkrige, D. (1999). Thirty years on, BJET! And educational technology comes of age. *British Journal of Educational Technology* 30, 293–304.
- [9] Heller, R. S., Martin, C. D., Haneef, N. & Gievska-Krliu, S. (2001). Using a theoretical multimedia taxonomy framework. *ACM Journal of Educational Resources in Computing* 1, Spring 2001, Article #4, 22 pages.
- [10] Khine, M. S. & Lourdasamy, A. (2003). Blended learning approach in teacher education: combining face-to-face instruction, multimedia viewing and online discussion. *British Journal of Educational Technology* 34, 671–675.
- [11] Laurillard, D. M. (1966). Multimedia and the learner's experience of narrative. Keynote speech for Ed-Media, Boston 1996. Retrieved November 25, 2003, from <http://meno.open.ac.uk/meno-pubs.html>.
- [12] Laurillard, D. (2002). *Rethinking university teaching: a framework for the effective use of educational technology, second edition*. London: RoutledgeFalmer.

- [13] Laurillard, D., Stratfold, S., Luckin, R., Plowman, L. & Taylor, J. (2000). Affordances for learning in a non-linear narrative medium. *Journal of Interactive Media in Education 2000*. Retrieved 25 November 2003, from <http://www-jime.open.ac.uk/00/2/laurillard-00-2-paper.html>.
- [14] Marks, L. S., Penson, D. F., Maller, J. J., Nielsen, R. T. & deKernion, J. B. (1997). Computer-generated graphical presentations: use of multimedia to enhance communication. *Urology 49*, 2–9.
- [15] Mayer, R. E. (2001). *Multimedia learning*. Cambridge: Cambridge University Press.