Audio Description for Individuals with Visual Disability: Enabling Participation in Cultural Events

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Participation in Cultural Events
Audio Description (AD)

- Audio Description is a systematic method whereby visual information is made accessible to individuals with visual impairment during cultural events such as: conferences, events, parades, movies, TV shows and theater.

- The primary component: Descriptive Narration is added to the soundtrack/dialogue of an event describing supplementary visual information that cannot be understood from the main soundtrack/dialogue alone.
Accompanies the listener throughout the event via a headset system and verbally presents content related to the display, scenery, clothing, body language, and any other important visual elements of the production

- Timing
- Relevance
- Concise
Live Theater AD Protocol

Arrival

Headphone distribution

“Touch Tour”

“Pre show Notes”/ “Play Trailer”

Performance accompanied by Simultaneous Auditory Description
24,000 people are registered as legally blind.

Estimations indicate that over 200,000 people have low vision.

60% live in the outlying communities, less services
The Audio Description Project

In 2014 The Israel National Insurance Institute took up the challenge to develop the AD service for live theater productions

- First Course In Israel to train professional Audio Descriptors
- Providing equipment to 11 theaters
- Research

The Central Library For the Blind was the preferred NGO to operate the project
Main Aims of the Research

- To assess the satisfaction from Audio Description during the live theater productions

- To evaluate the effect of the Audio Description on the quality of the experience:
  - Spatial presence
  - Narrative perception
  - Engagement

- To understand patterns of participation in theater productions: barriers, challenges, etc.
Interdisciplinary Research Team

Occupational Therapist: Vision Rehabilitation

Representative from Israel's Library Center for the Blind

Occupational Therapist: accessibility

Social worker: accessibility

Research Specialist from the field of Psychology
ICF Model for Participation

Health Condition

Body function & structure

Activities

Participation

Environmental Factors

Personal Factors
Participants

- $N = 83$
- Gender: 58% Women
- Age: 54 ($\pm 14$); 40% Over 60
- Status: 44% Married / sig. relationship
- Education: 90% high-school education+
- Working: 57% (public settings)

Vision ability

- Blind 37
- Large Objects 36
- Shades 23
- Tunnel Vision 4
5 plays, each play was performed once with AD and once without.

Each participant watched two different plays
  - one with AD
  - one without
Research Tools

- **Quantitative questionnaire:** satisfaction from AD, end of each play with AD, scale 1-5
- **Quantitative questionnaire:** quality of experience, end of each play
  - Spatial presence (3 Items, scale 1-5, α=.81)
  - Narrative perception (3 Items, scale 1-5, α=.79)
  - Engagement (3 Items, scale 1-5, α=.80)
- **Quantitative questionnaire:** patterns of participation in theater productions, at outset and one year later
- **Qualitative interviews** for in-depth understandings of the AD process as whole
Results
### Results: Satisfaction from AD

<table>
<thead>
<tr>
<th></th>
<th>% Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction from the AD device</td>
<td>67</td>
</tr>
<tr>
<td>Satisfaction from the “Pre Show Notes”</td>
<td>85</td>
</tr>
<tr>
<td>Satisfaction from the “Touch Tour”</td>
<td>77</td>
</tr>
</tbody>
</table>

### Satisfaction from the AD characteristics

<table>
<thead>
<tr>
<th></th>
<th>% Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression</td>
<td>93</td>
</tr>
<tr>
<td>Intonation and pitch</td>
<td>86</td>
</tr>
<tr>
<td>Pace and speed</td>
<td>84</td>
</tr>
<tr>
<td>The amount of text</td>
<td>80</td>
</tr>
<tr>
<td>Integrated into the content of the play</td>
<td>72</td>
</tr>
<tr>
<td>Contributed to understanding</td>
<td>90</td>
</tr>
<tr>
<td>Contributed to the experience</td>
<td>94</td>
</tr>
<tr>
<td><strong>Overall satisfaction from the AD</strong></td>
<td><strong>87</strong></td>
</tr>
</tbody>
</table>
### Results: Quality of the Experience

Comparison between plays with vs. without AD

<table>
<thead>
<tr>
<th>Domain</th>
<th>AD</th>
<th>No AD</th>
<th>Effect Size</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial presence</td>
<td>4.3</td>
<td>3.6</td>
<td>0.84</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Narrative Perception</td>
<td>4.3</td>
<td>3.6</td>
<td>0.96</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Engagement</td>
<td>4.3</td>
<td>3.8</td>
<td>0.55</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

![Bar charts showing comparison between AD and No AD for Engagement, Narrative, and Spatial domains.](chart.png)
One reaction as an example

“Once again I am amazed at how easily the appropriate access makes me forget all about my disability, on this occasion at the play `The Handicapped`.

Wearing the headphones, with the narrator from the Library for the Blind whispering to me what is taking place on stage, I laugh, I cry, I identify, and above all enjoy this wonderful service.

It is just a shame that I can’t keep the headphones on permanently, and listen to the audio description of life.”

Iris Ratzabi ‘s reaction to the play The Handicapped, Performed at the theater in Rishon Lezion, Israel February 9, 2016
## Results: Patterns of Participation

<table>
<thead>
<tr>
<th>Considerations, Challenges &amp; Obstacles</th>
<th>Much / very much (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of the play</td>
<td>82</td>
</tr>
<tr>
<td>Availability of an escort</td>
<td>71</td>
</tr>
<tr>
<td>Quality of the actor's performance</td>
<td>65</td>
</tr>
<tr>
<td>Available transportation</td>
<td>61</td>
</tr>
<tr>
<td>Difficulty comprehending content</td>
<td>56</td>
</tr>
<tr>
<td>Distance of theater from residence</td>
<td>46</td>
</tr>
<tr>
<td>Accessibility of the theater</td>
<td>46</td>
</tr>
<tr>
<td>Accessibility of box office</td>
<td>40</td>
</tr>
<tr>
<td>Overall expense of theater outing</td>
<td>39</td>
</tr>
<tr>
<td>Price of theater ticket</td>
<td>37</td>
</tr>
<tr>
<td>Scheduling of the performance</td>
<td>22</td>
</tr>
</tbody>
</table>

"What really affects the possibility to attend plays is the ability to find and pay for an escort. We cannot walk without an escort. It's very hard to manage by ourselves."
Conclusions: AD in Live Theater

- Overall high satisfaction from AD
  - Enhanced the quality of the theater experience
  - Particularly enhanced understanding

- The Pre Show Notes and Touch Tour are valuable components to AD in the theater

- Other Important factors to enable participation:
  - physical accessibility
  - companion required
  - maintenance of the assistive devices
Occupational Therapist’s Pivotal Role within the Team

- To provide a broad perspective on accessibility and assistive technology

- To identify and measure the variables of the person, their environment, and the interaction between them
Thank you
Toda Raba