Integration of Audience Response System in the Radiology Residents’ Conferences

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• Authors have no disclosure
The objective of this exhibit is to educate audience about the audience response system (ARS) and its usefulness into the radiology residents' conferences.
**Introduction**

**What is it**

Audience response system (ARS) is a unique program where the audience participates in the conference by selecting their answers.

**Advantages**

- Interactive
- Instant Feedback
- Increased effectiveness of the conference
- Off-site (not in the lecture hall) residents can also participate
How can we do it?

Software programs

• Poll everywhere
• Turning point
• Google forms
• Etc..
How is it done?

1. Make knowledge-based relevant questions in the program
2. Create 4 or 5 answer choices
3. Program gives a unique link to answer
4. Integrate the questions into the lecture
5. Residents select answer choices by polling online
How did we measure the effectiveness?

The authors have been using integrated ARS in the radiology conferences for about 3 years.

The surveys were done to check the effectiveness of ARS. A total of 6 surveys were sent to the residents after 6 random conferences (3 without and 3 with ARS).
Survey Questions after each conference

- How would you rate this conference on a scale of 1 to 10?
- How long was your attention span during the conference?
- How many new knowledge pearls you learned today?
Questions on Final Survey

1. Do you think conferences with ARS are better than traditional conferences?
2. Do you think the conferences with ARS are more interactive than traditional conferences?
3. Do you think you were more attentive in the conferences with ARS versus traditional conferences?
4. Do you think you learn more from conferences with ARS vs traditional conferences?
5. What is the best part about conferences with ARS?
6. What percentage of current conferences should be replaced by conferences with ARS?
Results: Head to Head Comparison

Traditional Conference

ARS Conference

Conference Rating

Number of responses

Conference rating (out of 10)

Conference Rating (out of 10)
Results: Head to Head Comparison

Traditional Conference

- How long was your attention span during the conference?
  - <15 minutes: 8.0%
  - 15-30 minutes: 44.0%
  - 30-45 minutes: 40.0%
  - >45 minutes: 8.0%

ARS Conference

- How long was your attention span during the conference?
  - 15-30 minutes: 24.2%
  - 30-45 minutes: 42.4%
  - >45 minutes: 33.3%
Results: Head to Head Comparison

Traditional Conference

ARS Conference

How many new knowledge pearls you learned today?

- 10-20: 76.0%
- <5: 4.0%
- 20.0%

How many new knowledge pearls you learned today?

- <5: 15.2%
- >20: 12.1%
- 10-20: 27.3%
- 5-10: 45.5%
Result of Final Survey

Do you think conferences with ARS are better than traditional conferences?
24 responses

- Yes: 100%
- No: 0%
- Maybe: 0%

Do you think the conferences with ARS are more interactive than traditional conferences?
24 responses

- Yes: 91.7%
- No: 6.3%
- Maybe: 2%

Do you think you were more attentive in the conferences with ARS versus traditional conferences?
24 responses

- Yes: 100%
- No: 0%
- Maybe: 0%

Do you think you learn more from conferences with ARS vs traditional conferences?
24 responses

- Yes: 83.3%
- No: 10.4%
- Maybe: 6.3%

What is the best part about conferences with ARS?
24 responses

- Instant feedback: 70.8%
- Use of technology: 16.7%
- Interactive nature: 8.3%
- Off-site students can also participate (who are not in the class and using remote log in): 0%
- Prefer not to answer: 0%

What percentage of current conferences should be replaced by conferences with ARS?
24 responses

- All: 50%
- Most: 25%
- Some: 12.5%
- None: 12.5%
The average rating was higher (8.78) for the conferences with ARS (audience response system) vs conferences without ARS (7.16).

Student t-test showed that there is a statistically significant difference (p-value <0.05) between the mean of these 2 groups.

The attention span was >45 minutes in 33% of residents during the conferences with ARS versus 8% during the conferences without ARS.

This clearly shows that the ARS is better as it is more interactive and the audience stay focused longer than the traditional conferences.

Residents learned more from conferences with ARS with 39% learned >10 new knowledge pearls from the ARS conferences versus 4% from the traditional conferences.
Conclusion

The integration of ARS has been very successful in the conferences as shown by the residents' feedback.

This is mainly due to interactive nature of the conferences with active participation and instant feedback.

We highly recommend integrating ARS into the radiology conferences.