

# Development and Implementation of Computed Tomography Software

## Upgrade Training Program for CT Technologists

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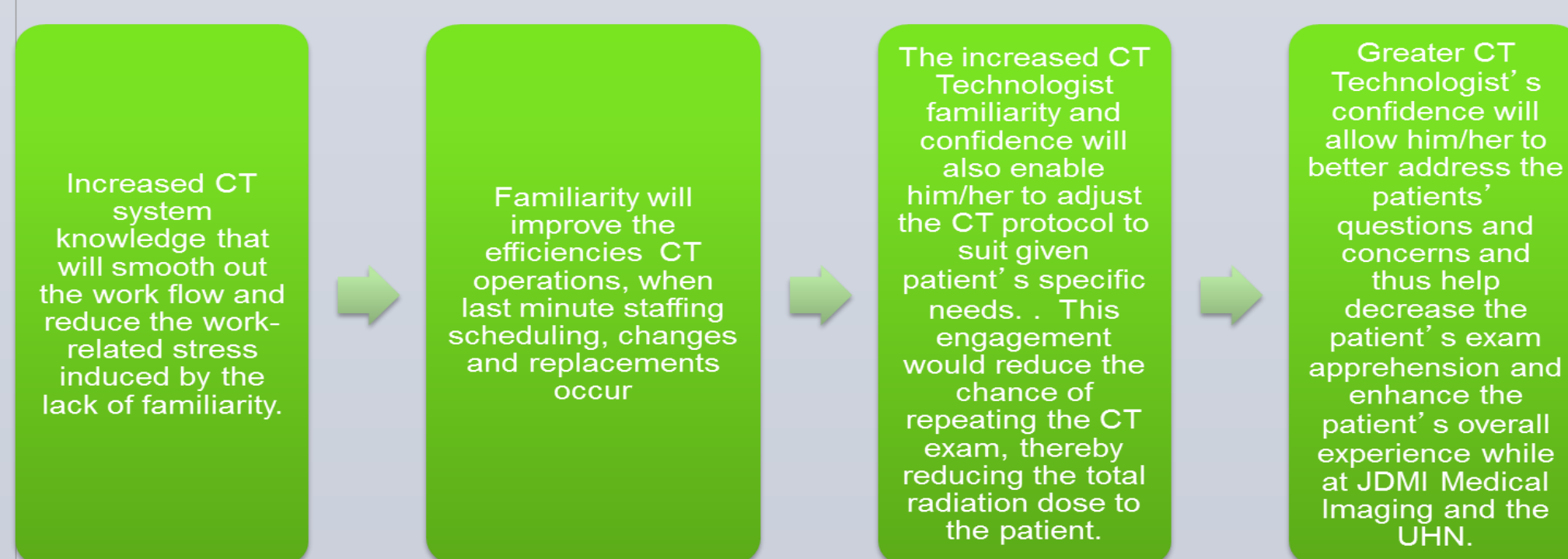


### Background

- New advances in CT technology, both in hardware and software has transformed much of medical imaging.
- The cross-sectional images afforded by CT scanning have allowed visualization of anatomical structures with improved detail.
- The need for the CT Technologist to balance high patient centered care skills and maintain competence with the latest CT scan software has become an increasing part of the CT Technologist's professional life

### Objectives

- Bridge the gap between new CT Software and it's clinical use by the CT Technologist
- Develop new CT Software Training Program, incorporating Adult Learning Styles, and include
  - didactic sessions
  - discussion sections
  - hands-on training sessions
- Increase the CT Technologist's familiarity and confidence with the new software, to improve patient care



### Improvements

Changes that this project implemented are:

- Ensure protected time is provided for CT Technologists for training
- Facilitate communication between CT Technologist to share experiences using the new software and interesting cases

Action taken to address this issue:

- Ensure schedule provides release time at least six weeks in advance, so the CT Technologists can receive dedicated time to participate in upgraded training program
- Collect and centralize the information about the new software, utilizing the AIM Server (an online storage server that can be access on any JDMI PC )

Table 1: CT Technologist Opinion on Training Template

This type of learning format is useful	85%
Satisfied with the Overall Training Format	71%
2 hour Session	71%
Timing of Session(s) – 2wks prior to New software installation	71%

- Results: From the Post-Session evaluation the CT Technologists found that the Upgraded Training Program would be useful and the overall training format satisfactory (Table1)
- Qualitative feedback from staff on the post-session evaluation included:

“Have regular meeting to keep us all on the same page...going through software updates and sharing experiences learnt from case studies”

“Good program and idea to start with”

“Have 1-2 sessions with the 3D Cardiac Lab Tech..so the CT Cardiac Technologist know what is required for good 3D post processing”

Summary: From the quantitative and qualitative results of the Post-session evaluation this Upgraded Training Program and the future potential of expanding the content to include other speakers is a valuable resource.

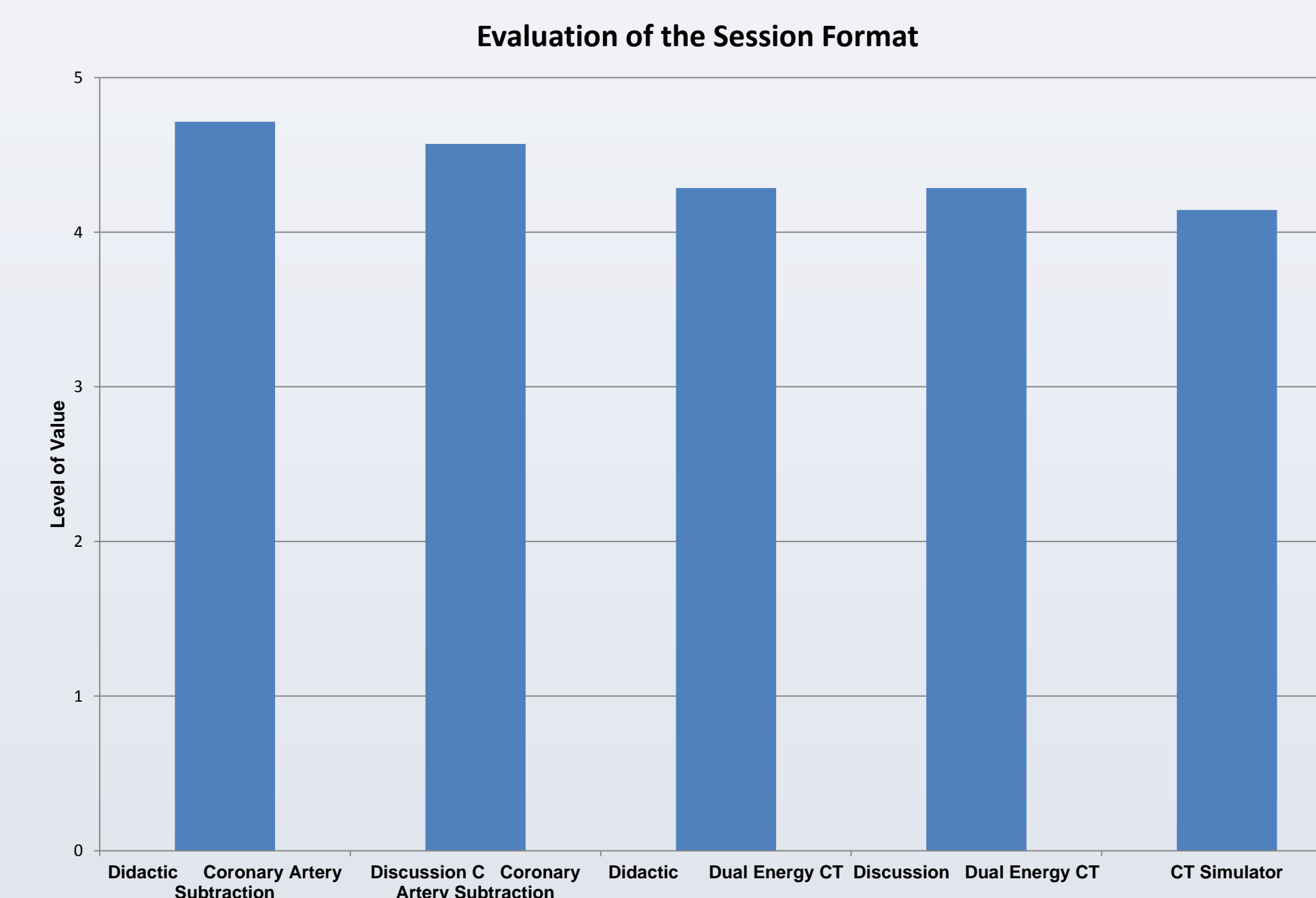
### Project Impact

The Upgraded Training Program has

- Allowed CT Technologists the protected time to focus on learning new software
- Provided necessary support for CT Technologists to grasp concepts of new software
- Increased CT system knowledge has potential to increase confidence of CT Technologists, allowing them to increase engagement with patients and improve patient care
- Provided an opportunity for communication and knowledge sharing between CT Technologists about clinical experience and best practice

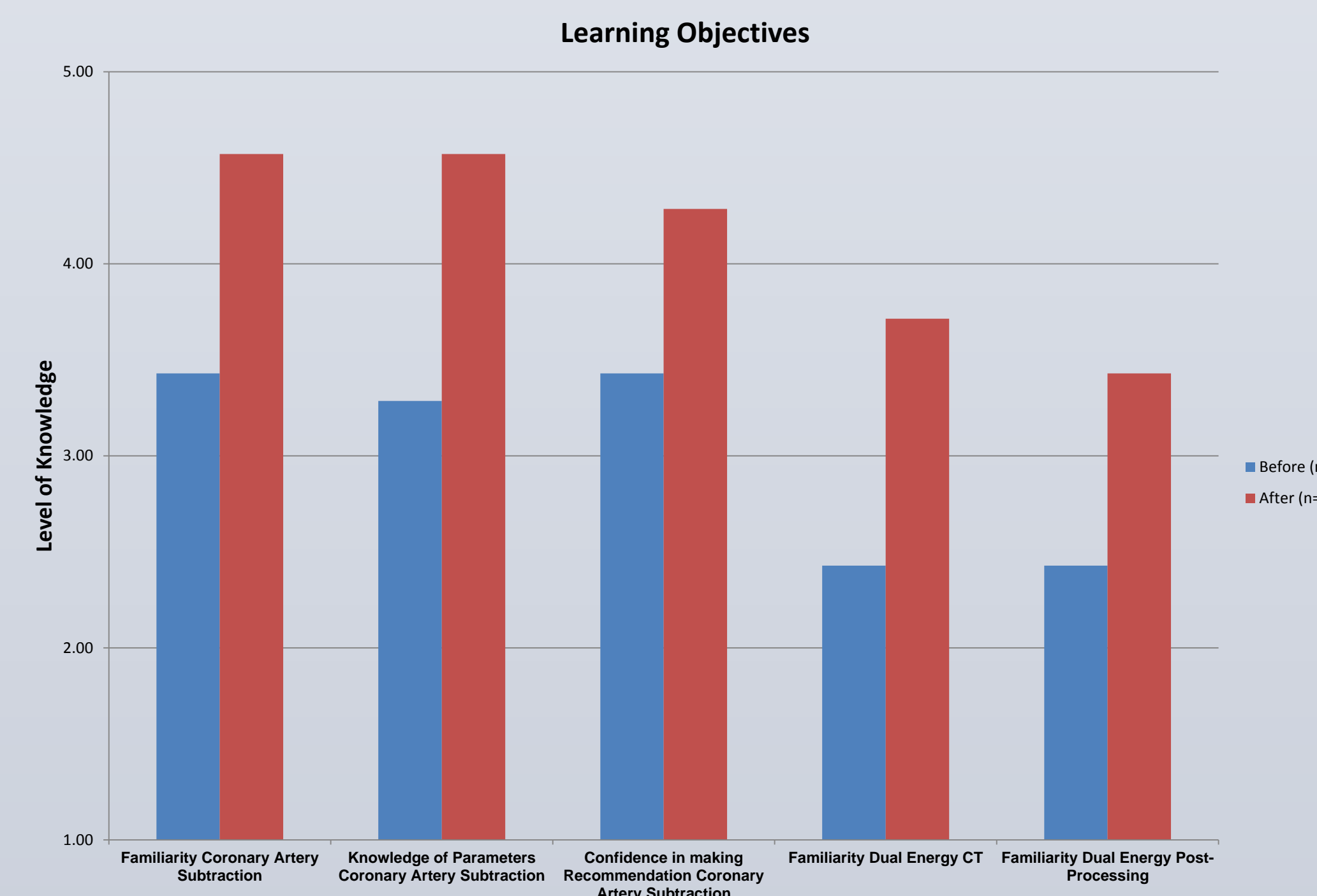
### Results

Table 2: Evaluation of Session Format



Result: CT Technologist value all aspect of the training, from the didactic to communication between Technologist and hands-on training on the simulator. (Table 2)

Table 3: Learning Objectives



Result: Increase in knowledge from before the Session to after the session(Table 3)

### Sustainability

- To sustain the Upgraded Training Program, the Joint Department of Medical Imaging can:
- Ensuring that the CT Technologists continue to receive their training session(s) prior to the release of new or upgraded CT software.
- These session(s) should be geared toward the CT Technologist.
- The resources and reference material should be collected on the AIM Server which is easily accessible by the CT Technologist.

### Next Steps

- Implement formal role responsibility for collecting and posting essential information on the AIM Server going forward
- Establish a biweekly/monthly meeting to enable the continued communication of shared clinical experiences

### References

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As Low As Reasonably Achievable (ALARA) principle

Collecting Evaluation Data: End-of-Session Questionnaires  
Ellen Taylor-Powell and Marcus Renner  
Program Development and Evaluation  
University of Wisconsin-Extension  
Cooperative Extension  
Madison, Wisconsin  
September 2000  
avi

### Acknowledgements

- Collaborative Academic Practice (CAP Fellowship Program)
- Joint Department Medical Imaging (JDMI)
- Joint Department Medical Imaging Research
- JDMI Cardiac CT Technologists
- Mentors: Catherine Wang, Executive Director JDMI  
Tuula Kalliomäki, Ph.D.  
Narinder Paul, M.D.  
Patrik Rogalla, M.D.  
Paul Cornacchione  
Jerry Plastino
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