Using the Curriculum From A Resident Perspective: What are Realistic Time Expectations?

David D. Odell, MD MMSc

President – Thoracic Surgery Residents Association

Department of Cardiothoracic Surgery:
University of Pittsburgh Medical Center
No Disclosures
Changing Educational Environment

• Presents unique challenges not present previously

• Increased scrutiny
  – Education
  – Outcomes

• New spectrum of learners
  – Traditional residents
  – Integrated residents

• Evolving specialty

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The Challenge to the Resident

• Competing Time Pressures
  – Education often not the most *IMMEDIATE* issue
  – How to maximize learning efficiency

• Scope of the Material
  – Broad range of knowledge required to be a competent CT surgeon
    • Prior exposure varies
  – Continued expansion of the field
    • Highly specialized/technical
  – Ensuring *HIGH-YIELD* study

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The Challenge to the Program

• Competing Time Pressures
  – Clinical work which needs to be done
  – Work hour limitations
  – OPERATIVE exposure is most discussed

• Scope of the Material
  – Variable knowledge base among residents
  – Institutional practice/expertise varies

• Changing Evaluation System
  – Technical skills
  – Cognitive skills
A Predominant Question

Figure 1. American Board of Thoracic Surgery Scores, 2000 to 2011
For Program Directors: 
A More Complex Issue

How can we best prepare residents for successful ABTS certification?

How can we train a competent CT surgeon?
Nuanced Answer

• **Time**
  – Quantity
  – Quality

• **Resource Utilization**
  – How do residents learn
  – What resources are available/utilized

• **Resident Engagement**
  – What are the motivating forces
  – How can education and interest be aligned
Answers: From a better understanding of resident learning

• What resources are being used?

• How are residents apportioning study time?

• Where do residents learn?
TSRA In-Training Exam Survey

• Mandatory participation in order to sit for the required ITE (416 residents)

• Survey redesigned to serve as a research tool
  – Resident study habits
  – Time, Resource Utilization, Operative Experience

• Data analysis:
  – Demographics
  – Ranking and survey questions regarding time and materials
  – Opinion questions – 5 point Likert Scale
What Resources are Used
## What Resources are Used

<table>
<thead>
<tr>
<th>Resource Platform Utilization (%)</th>
<th>Not Used</th>
<th>1-20%</th>
<th>21-40%</th>
<th>41-60%</th>
<th>61-80%</th>
<th>81-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Textbook</td>
<td>3.1</td>
<td>34.7</td>
<td>28.7</td>
<td>17.8</td>
<td>11.4</td>
<td>4.1</td>
</tr>
<tr>
<td>Online Textbook</td>
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<td>38.9</td>
<td>27.4</td>
<td>11.8</td>
<td>6.1</td>
<td>2.2</td>
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<tr>
<td>eReader</td>
<td>36.3</td>
<td>29.9</td>
<td>16.6</td>
<td>10.8</td>
<td>5.1</td>
<td>1.3</td>
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<tr>
<td>Journal Article</td>
<td>3.5</td>
<td>49.4</td>
<td>30.3</td>
<td>10.8</td>
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<td>1.3</td>
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<tr>
<td>Web Search</td>
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<td>49.7</td>
<td>21.0</td>
<td>9.9</td>
<td>3.5</td>
<td>2.2</td>
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<tr>
<td>TSDA Curriculum</td>
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<td>40.8</td>
<td>19.7</td>
<td>11.1</td>
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<td>0.6</td>
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<tr>
<td>Lectures</td>
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<td>55.1</td>
<td>20.1</td>
<td>9.8</td>
<td>3.8</td>
<td>0.9</td>
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</table>
## Where Residents Study

<table>
<thead>
<tr>
<th>Study Environment</th>
<th>Not Used</th>
<th>1-20%</th>
<th>21-40%</th>
<th>41-60%</th>
<th>61-80%</th>
<th>81-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
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<td>35.4</td>
<td>21.0</td>
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<tr>
<td>Library</td>
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<td>25.5</td>
<td>5.7</td>
<td>3.5</td>
<td>0.6</td>
<td>0.3</td>
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<tr>
<td>Home</td>
<td>0.9</td>
<td>17.5</td>
<td>25.1</td>
<td>31.2</td>
<td>19.7</td>
<td>5.4</td>
</tr>
<tr>
<td>Public Place</td>
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<td>20.7</td>
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<td>5.7</td>
<td>0.9</td>
<td>0.9</td>
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<tr>
<td>Commute</td>
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<td>17.8</td>
<td>1.9</td>
<td>1.6</td>
<td>0.3</td>
<td>0.3</td>
</tr>
</tbody>
</table>
Time Spent in Study
What are reasonable time expectations?

• **Resources**
  – Online utilization is increased
  – Textbook learning remains important
  – Didactic lecture least useful

• **Learning Environment**
  – Increasingly hospital based
  – Home study augments

• **Time**
  – >50% of the time study sessions we <45 minutes
  – Point of care learning
Key Components for Success

• Defined Curriculum
  – Keeps learning continuous – better retention

• Resource Availability
  – WebBrain obviates many of these concerns
  – Internet access/Current literature
  – Point of Care

• Defined Time/Place
  – Makes education a priority

• Faculty Involvement
  – Resident accountability
  – Encourages critical thinking
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