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Increasing return on investment for standardized patient training programs through the development of cost-effective instruction

Paul Perea, Data Services Manager, Assessment & Learning

Abstract

Higher stakes now exist for standardized patient programs to deliver student performance success in light of the required USMLE Step 2 Clinical Skills exam. Identifying and increasing the educational return on the financial investment for these programs is critical as programs are challenged to demonstrate their value to the organization. Rising expectations and finite budgets create an impetus to provide quality outcomes in the most efficient way.

Implementing the instructional design process creates systematic training through a scientific approach to training and evaluation. A structured training methodology provides an effective means to interpret the outcomes of a training cycle. This method permits the trainer to identify and adjust for the multitude of variables influencing a standardized patient’s performances within a typical training cycle. After conducting an analysis of training materials, it was apparent that there are no documented benchmarks for training standards or evaluation of various training practices. An instructional design approach was selected to standardize the training process and allow for continued evaluation and improvement. This structured training process is in development, and soon will be implemented as a pilot study.

Why We Chose the Instructional Design Approach

- Have a high rate of trainer turnover
- Have variations in training practices within our training group
- Need a way to evaluate and standardize our training outcomes

Benefits of the Instructional Design Approach

- Training consistency – Facilitates the creation of internal standards of practice & knowledge retention of effective training practices
- Cost savings – Decreases cost per training by reducing the time and resources needed to prepare instruction for each case
- Time saving – Streamlines training so that trainers can deliver effective instruction with the most efficient use of time
- Improved learning strategies – Assures that the instruction delivered is successful in helping the learners to meet the instructional objectives
- Goal integration – Allows the training department to align with the goals and objectives of the School of Medicine
- Improved evaluation & revision of training practices – Enables evaluators to determine the true value of the instruction and revise according to measurable outcomes

The Phases of our Instructional Design Process

Phase 1: Define instructional goals
Phase 2: Conduct a task analysis
Phase 3: Identify learner characteristics
Phase 4: Develop performance objectives
Phase 5: Choose an instructional method and strategies
Phase 6: Assemble instructional material
Phase 7: Formative evaluation
Phase 8: Summative evaluation

### Standardized Patient Instructor’s Manual Planning Grid

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Instructional Design Strategy</th>
<th>Materials/Media</th>
<th>Enabling Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Lecture, individual</td>
<td>Sign-in sheet, SP handouts, student pictures</td>
<td>Case checklist, case</td>
<td>1a – The SP will be able to identify important case details</td>
</tr>
<tr>
<td>10 min.</td>
<td>First Training</td>
<td>Lecture, individual, SP handouts</td>
<td>Case</td>
<td>1b – The SP will be able to define two pieces of information to give to the student as an answer for a related open-ended question</td>
</tr>
<tr>
<td>30 min.</td>
<td>Second Training</td>
<td>Lecture, individual, SP handouts</td>
<td>Case checklist, case</td>
<td>1c – The SP will be able to recognize questions and physical examination maneuvers from the case checklist</td>
</tr>
<tr>
<td>3rd</td>
<td>Lecture, individual</td>
<td>Sign-in sheet, SP handouts</td>
<td>Case checklist, case</td>
<td>1d – The SP will be able to identify important case details</td>
</tr>
<tr>
<td>5th</td>
<td>Lecture, individual</td>
<td>Sign-in sheet, SP handouts</td>
<td>Case checklist, case</td>
<td>1e – The SP will be able to recognize questions and physical examination maneuvers from the case checklist</td>
</tr>
</tbody>
</table>

### Instructional Design Model

- **Overview**
  - Why we chose Return on Investment (ROI) as an evaluation tool
  - ROI serves as a valuation method that can be used to sum up the effectiveness of a program to stakeholders using understandable and measurable results. It is a difficult task to communicate the value of standardized patient training using only qualitative measures. ROI results will give our program the means to effectively showcase our worth to the School of Medicine.
  - How we plan to increase ROI for our program through the use of the Instructional Design process our training department will be able to realize a measurable decrease in time and resources necessary to complete training for our SP cases. Also, we expect training outcomes to improve as we will be offering increasingly effective instruction.

### Increasing ROI

<table>
<thead>
<tr>
<th>Increasing Benefits</th>
<th>Decreasing Costs</th>
<th>Increasing ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Collection</strong></td>
<td><strong>Instructional Design &amp; Training</strong></td>
<td><strong>ROI Model</strong></td>
</tr>
<tr>
<td><strong>Final Cost Estimation</strong></td>
<td><strong>Communication &amp; Feedback</strong></td>
<td><strong>ROI Model</strong></td>
</tr>
</tbody>
</table>

Our use of the Instructional Design approach as well as our work with Subject Matter Experts (SMEs) will help us to complete these steps.