

What have I learned? Reflection methods

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Introduction

"Reflection in medicine—the consideration of the larger context, the meaning, and the implications of an experience and action—allows the assimilation and reordering of concepts, skills, knowledge, and values into pre-existing knowledge structures. **When used well, reflection will promote the growth of the individual.** While feedback is not used often enough, reflection is probably used even less."

William T. Branch, Jr., MD; Acad. Med. 2002;77:1185–1188.

Goal

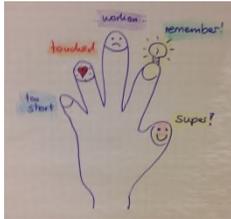
The goal is that participants give feedback on what they have learned throughout the day and formulate their learning. The moderator has the chance to reinforce the most important topics and/or clarify issues.

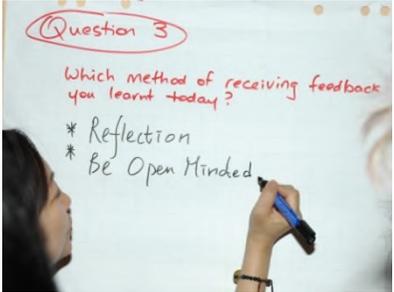
For this at the end of each course day a short reflection session is planned (15 min minimum). Choose one of the methods described below.

Methods for reflection

Method	Description	Tools
<p>1. One minute paper</p> <p>The "One Minute Paper" is one of the Classroom Assessment Techniques (CATs) developed by Angelo and Cross [1].</p> <p>[1] Angelo TA, Cross KP. Classroom Assessment Techniques. Jossey-Bass, San Francisco, 1993</p>	<p>Participants are given a very short time (e.g. one minute) to write down on a card the most important thing they have learned.</p> <p>Questions to ask</p> <ul style="list-style-type: none"> • What was the most important point made in class today? • What unanswered question do you still have? <p>Process</p> <ol style="list-style-type: none"> 1. Each participant writes down the most important point he/she has learned. 2. Several participants share their reflection with the group. 3. After the reflection session, all papers are collected and evaluated after the course by the chairperson 	 <p>Moderation cards Pens</p>
<p>2. Pictionary type of reflection</p>	<p>Groups are formed and given a flipchart type of paper. Each person draws an illustration, symbol, object expressing what he/she has learned that day.</p> <p>Process</p> <ol style="list-style-type: none"> 1. Each member of a group draws what he/she has learned on the flipchart. 2. Each member explain their drawings to the group 3. One person per group will explain the drawings to the entire audience 	 <p>Flipcharts Colored pens</p>

<p>3. Key images on cards</p> <p>Learning and Leading with Habits of Mind</p> <p>Chapter 12. Learning Through Reflection by Arthur L. Costa and Bena Kallick</p>	<p>This reflective method guides participants to mentally wander through the teaching content of the previous day using images.</p> <p>Process</p> <ol style="list-style-type: none"> 1. Participants form a circle 2. Moderator puts 20 cards on the floor (choosing content from day 1 or day 2 of the AO Trauma Course—Basic Principles of Fracture Management for ORP) 3. Participants are asked to choose a card and give feedback on what they learned. 		<p>Cards downloadable from AO Trauma Faculty Support Package for ORP (English version)</p>
<p>4. Clustering</p>	<p>Method developed by Gabriele Rico, focusing on creativity, split-brain research, and the writing process at Stanford University in 1976.</p> <p>Starting with one central word associations with it are then set up in brainstorming mode.</p> <p>Process</p> <ol style="list-style-type: none"> 1. Groups are formed and given a flipchart type of paper. 2. Chairperson provides each group with a card on which a topic of that day is written. Eg: absolute stability, infection, perioperative preparation for IM nailing 3. Each group uses the allocated topic and writes down associations with it (mind map). Several persons can work at the same time. 4. One person presents the result after 3 minutes to the entire audience. 		<p>Flipcharts Colored pens</p>

<p>5. Image "Hand"</p>	<p>A reflective method which expects feedback on 5 different levels using the hand drawn as image on a flipchart</p> <ol style="list-style-type: none"> 1. Thumb refers to what went super, extraordinary 2. Index finger refers to an important thing that must be remembered 3. Middle finger refers to an issue that needs to be worked on 4. Ring finger refers to an emotional issue, something that touched the learner emotionally 5. Smallfinger refers to content that was referred to as too short <p>Process</p> <ol style="list-style-type: none"> 1. Explain image of hand, the meaning of the different fingers corresponding to the expected evaluation 2. Ask participants to write their comments on post its 3. Participants form a U shape around a flipchart 4. Participants post their comments individually on the hand image 5. Comment individual comments  	<p>Flipchart Colored pens Colored post its Pens</p> <p>Draw hand as image</p>
<p>6. Interview</p>	<p>Individual participants are interviewed by the moderator.</p> <p>Question to ask</p> <ul style="list-style-type: none"> • What will you tell your superior (or OR team) about this course? (1 sentence) <p>Process</p> <ol style="list-style-type: none"> 1. Moderator asks question to participants of his/her choice. 2. Appointed participant answers. 3. Moderator goes to next participant. 	<p>Microphone</p>

<p>7. Flashlight</p>	<p>Flashlight is a method of feedback that can quickly determine the mood, the situation regarding the content and relationships in a group. The participants express themselves briefly, just with one sentence, clearly related to a topic. This is fairly quick brainstorming. The results may lead to adaptation and/or changes in the program.</p> <p>Questions to ask</p> <ul style="list-style-type: none"> • What did you learn today? • What was new for you today? <p>Process</p> <ol style="list-style-type: none"> 1. The participants sit in a circle, including the moderator. 2. The moderator explains the "game" and asks the questions. He/she throws then a soft ball to a participant to start the reflection. 3. This participant reports briefly and throws the ball afterwards to another participant of his/her choice. 4. The reflection continues until time over. 		<p>Soft ball</p>
<p>8. Silent talk</p>	<p>Moderator prepares different questions on 4 flipcharts spread in the room. The topics were covered throughout the day. The participants stroll silently through the room and write answers on flipcharts.</p> <p>Process</p> <ol style="list-style-type: none"> 1. The moderator writes a different question on each flipchart. 2. The participants walk silently to the flip charts and write down what they have learned with regards to the topic. 3. The moderator or assigned delegates summarize the results for the audience. 		<p>Flipcharts</p>