

# ID Final Report

4-23-07

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## [Need for Instruction](#)

Within the general topic of asthma education, the learning need that I have identified is the ability for parents or guardians to be able to administer respiratory medication by hand held nebulizer kit to their child or minor with 100% accuracy. A gap has been identified between the desired status (100% accuracy) and actual status (0% accuracy) indicating a need. The need can be addressed by instruction because:

- The learners lack the skill
- Learners are required to perform the skill prior to discharge from the children's rehabilitation center
- Subject matter experts (respiratory therapists) are available to provide instruction including:
  - Review of prerequisites,
  - Assessment of learners prior knowledge,
  - Adequate practice of the skill,
  - Provision of manipulatives, text and graphic media
- The instruction can be provided in a relatively short period of time

Learner characteristics that will influence the development of an effective learning environment include: age; level of education; literacy; first language; disabilities; motivation; and previous experience in observing the hand held nebulizer kit being used.

### **Goal Statement**

The parents or guardians will be able to administer respiratory medication by hand held nebulizer kit to their child or minor in the children's rehabilitation center with 100% accuracy as observed by a respiratory therapist.

### **Learning Domain**

My goal fits into the psychomotor skill of Gagne's learning domains because it involves the coordination of mental and physical activity. My goal requires physical activities to be performed with mental accompaniment. The physical activities are new, non-trivial and require skillful execution thereby meeting Dick & Cary's description of a psychomotor goal

### **Instructional Analysis**

[Completed Flow Chart Created in Microsoft Visio 2007](#)

### **Target Population**

The learners are highly heterogeneous and motivated to learn the instruction. There are entry behaviors that the learners will need to possess in order to begin the instruction. If the learners do not possess the entry behaviors, alternative instruction will be provided to aid the learner as possible. Most of the learners have a good rapport with the organization providing the instruction and have some previous exposure to the instruction topic by direct observation. The learners prefer individual instruction provided in the real-life setting with hands-on experience. Overall, the learners are motivated and interested to learn the instruction.

### **Performance and Learning Contexts**

The learners can expect strong organizational support since the learning and application of new home care skills are strongly encouraged and supported. The use of the learner's new skills will depend on home care equipment and supplies. Health care professionals will serve as resources to the learner for the new skills. The availability of electricity is a requirement for their new skill. The organization facilitates the procurement of home care equipment, supplies, and resources for the learner. The learners will work either alone or in a team consisting of home health providers and /or family members. The new skills are very relevant to the actual provision of care and the skills will be used in the performance setting. There

are no physical, social or motivational constraints to the use of the new skill. Information regarding performance context was obtained through site visits, observations, and interviews.

There is one learning site which consists of 10 inpatient rooms, conference rooms and learner lounge with computer access. All of the needed equipment is available including air compressors, hand held nebulizer kits, and medications. Electricity is provided by the facility. The site allows for a variety of instructional strategies including self-study print, small-group discussions and presentations, and media resources. The personnel are available to the learner at all times. Instructional time is based on learner availability but often prescheduled. The site is very convenient to the learner with optional room and board provided. Adequate space is provided for skill instruction and practice. The learning environment includes:

- adequate lighting
- adjustable environmental controls
- availability of food stuffs
- adequate restroom facilities
- comfortable seating

The learning environment reflects a realistic experience of the eventual work (home care) environment. Instruction is provided as a hands-on experience using real equipment, supplies, medications and patients (learner's children). Information regarding learning context was obtained through site visits, observations, and interviews.

**Skills, Objectives, and Assessment Items**

<b>Design Evaluation Chart</b>		
<b>Skill</b>	<b>Objective</b>	<b>Assessment Item</b>
<b>1.0</b> Obtain respiratory nebulizer medication	<b>1.0</b> Without assistance in the children’s rehabilitation center, obtain respiratory nebulizer medications with 100% accuracy.	<b>1.0</b> Obtains respiratory nebulizer medications (Yes/No)
<b>1.1</b> Identify respiratory nebulizer medications	<b>1.1</b> Without assistance in the children’s rehabilitation center, identify respiratory nebulizer medications with 100% accuracy	<b>1.1</b> Identifies respiratory nebulizer medication (Yes/No)
<b>1.3</b> Review prescription order	<b>1.3</b> Given a respiratory nebulizer prescription order, review the prescription order with 100% accuracy.	<b>1.3</b> Reads out loud the prescription order (Yes/No)
<b>2.0</b> Assemble the components of a hand held nebulizer kit	<b>2.0</b> Given a hand held nebulizer kit, assemble the components of a hand held nebulizer kit with 100% accuracy.	<b>2.0</b> Assembled the components of a hand held nebulizer kit (Yes/No)
<b>2.1</b> Identify components of a hand held nebulizer kit	<b>2.1</b> Given a hand held nebulizer kit, identify components of a hand held nebulizer kit with 100% accuracy.	<b>2.1</b> Identified the components of a hand held nebulizer kit (Yes/No)
<b>2.3</b> Place T-piece on top of medication cup	<b>2.3</b> Given a hand held nebulizer kit, place the T-piece on top of the medication cup with 100% accuracy.	<b>2.3</b> Placed the T-piece on top of the medication cup (Yes/No)
<b>2.4</b> Attach mouthpiece and reservoir to the T-Piece	<b>2.4</b> Given a hand held nebulizer kit, attach mouthpiece and reservoir to the T-Piece with 100% accuracy.	<b>2.4</b> Attached mouthpiece and reservoir to the T-Piece (Yes/No)

<b>2.5</b> Attach medication cup to the air compressor using the gas supply tubing	<b>2.5</b> Given a hand held nebulizer kit, attach medication cup to the air compressor using the gas supply tubing with 100% accuracy	<b>2.5</b> Attached medication cup to the air compressor using the gas supply tubing (Yes/No)
<b>3.0</b> Instill the medication into the medication cup	<b>3.0</b> Given an assembled hand held nebulizer kit, instill the respiratory nebulizer medication into the medication cup with 100% accuracy	<b>3.0</b> Instilled the respiratory nebulizer medication into the medication cup (Yes/No)
<b>3.2</b> Unscrew the medication cup	<b>3.2</b> Given an assembled hand held nebulizer, unscrew the medication cup with 100% accuracy.	<b>3.2</b> Unscrewed the medication cup (Yes/No)
<b>3.3</b> Twist off the top of the respiratory medication	<b>3.3</b> Given the respiratory nebulizer medication, twist off the top of the respiratory medication with 100% accuracy.	<b>3.3</b> Twisted off the top of the respiratory nebulizer medication (Yes/No)
<b>3.4</b> Squeeze the medication into the medication cup	<b>3.4</b> Given the respiratory medication, squeeze the medication into the medication cup with 100% accuracy.	<b>3.4</b> Squeezed the medication into the medication cup (Yes/No)
<b>4.0</b> Administer the hand held nebulizer treatment	<b>4.0</b> Without assistance in the children's rehabilitation center, administer the hand held nebulizer treatment with 100% accuracy	<b>4.0</b> Administered the hand held nebulizer treatment (Yes/No)
<b>4.1</b> Plug in the air compressor	<b>4.1</b> Given an air compressor, the learner should be able to plug in the air compressor with 100% accuracy.	<b>4.1</b> Plugged in the air compressor (Yes/No)
<b>4.2</b> Locate and turn on power switch	<b>4.2</b> Given an air compressor, locate and turn on the power switch with 100% accuracy	<b>4.2</b> Located and turned on the air compressor power switch (Yes/No)
<b>4.3</b> Start the air compressor	<b>4.3</b> Given an air compressor,	<b>4.3</b> Started the air compressor

power source	start the air compressor power source with 100% accuracy	power source (Yes/No)
<b>4.5</b> Instruct patient to place the mouthpiece into their mouth	<b>4.5</b> Without assistance in the children's rehabilitation center, instruct the patient to place the mouthpiece into their mouth with 100% accuracy	<b>4.5</b> Instructed the patient to place the mouthpiece into their mouth (Yes/No)
<b>4.6</b> Instruct the patient to breathe through their mouth, breathing in the mist	<b>4.6</b> Without assistance in the children's rehabilitation center, instruct the patient to breathe through their mouth with 100% accuracy	<b>4.6</b> Instructed the patient to breathe through their mouth (Yes/No)
<b>4.7</b> Turn off the air compressor at the end of the treatment	<b>4.7</b> Without assistance in the children's rehabilitation center turn off the air compressor at the end of the treatment with 100% accuracy.	<b>4.7</b> Turned off the air compressor at the end of the treatment (Yes/No)

### Instructional Strategy

#### Sequence and Clustering of Objectives

CLUSTER	OBJECTIVES	TIME
1	Introduction, pretest over all main steps in goal (1.0 – 4.0)	10 min
2	<b>Objective 1.1</b> – Without assistance in the children's rehabilitation center, identify respiratory nebulizer medications with 100% accuracy. <b>Objective 1.3</b> – Given a respiratory nebulizer prescription order, review the prescription order with 100% accuracy <b>Objective 1.0</b> – Without assistance in the children's rehabilitation center, obtain respiratory nebulizer medications with 100% accuracy.	5 min
3	<b>Objective 2.1</b> – Given a hand held nebulizer kit, identify components of a hand held nebulizer kit with 100% accuracy. <b>Objective 2.3</b> – Given a hand held nebulizer kit, place the T-piece on top of the medication cup with 100% accuracy. <b>Objective 2.4</b> – Given a hand held nebulizer kit, attach mouthpiece and reservoir to the T-Piece with 100% accuracy. <b>Objective 2.5</b> – Given a hand held nebulizer kit, attach medication cup to the air compressor using the gas supply tubing with 100% accuracy. <b>Objective 2.0</b> – Given a hand held nebulizer kit, assemble the components of a hand held nebulizer kit with 100% accuracy.	5 min
4	<b>Objective 3.2</b> – Given an assembled hand held nebulizer, unscrew	5 min

	<p>the medication cup with 100% accuracy.</p> <p><b>Objective 3.3</b> – Given the respiratory nebulizer medication, twist off the top of the respiratory nebulizer medication with 100% accuracy.</p> <p><b>Objective 3.4</b> – Given the respiratory medication, squeeze the medication into the medication cup with 100% accuracy</p> <p><b>Objective 3.0</b> – Given an assembled hand held nebulizer kit, instill the respiratory nebulizer medication into the medication cup with 100% accuracy.</p>	
5	<p><b>Objective 2.5</b> – Given a hand held nebulizer kit, attach medication cup to the air compressor using the gas supply tubing with 100% accuracy.</p> <p><b>Objective 4.1</b> – Given an air compressor, the learner should be able to plug in the air compressor with 100% accuracy.</p> <p><b>Objective 4.2</b> – Given an air compressor, locate and turn on the power switch with 100% accuracy.</p> <p><b>Objective 4.3</b> – Given an air compressor, start the air compressor power source with 100% accuracy.</p> <p><b>Objective 4.5</b> – Without assistance in the children's rehabilitation center, instruct the patient to place the mouthpiece into their mouth with 100% accuracy.</p> <p><b>Objective 4.6</b> – Without assistance in the children's rehabilitation center, instruct the patient to breathe through their mouth with 100% accuracy.</p> <p><b>Objective 4.7</b> – Without assistance in the children's rehabilitation center, turn off the air compressor at the end of the treatment with 100% accuracy.</p> <p><b>Objective 4.0</b> – Without assistance in the children's rehabilitation center, administer the hand held nebulizer treatment with 100% accuracy.</p>	15 min
6	Posttest over all main steps in goal (1.0 – 4.0)	35 min

### Preinstructional, Assessment, and Follow-Through Activities

<b>PREINSTRUCTIONAL ACTIVITIES</b>
<p><b>Motivation:</b> Introduction to the instruction will include (1) relevancy to the learner's personal needs in learning to care for their child, (2) assurance of their ability to complete the instruction in a supportive environment, (3) provision of supportive instructional media and experts during the one on one instruction (4) discussion that the actual tools, equipment, and medication used in the performance context will be used during the instruction.</p>
<p><b>Objectives:</b> A list of the overall objectives that includes the four major steps in the administration of respiratory medication by hand held nebulizer kit will be provided.</p>
<p><b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; graphic and text media instruction sheet, manipulatives.</p>
<b>ASSESSMENT</b>
<p><b>Pretest:</b> Due to the heterogeneous nature of the learners, a pretest will be administered in the form of an oral/demonstrative assessment. The pretest will assess entry behaviors and learners previous experience in observing the hand held nebulizer being used for respiratory medication administration.</p>

<b>Practice Tests:</b> Practice test will not be administered
<b>Posttest:</b> A posttest will be administered only at the end of instruction. The test will be the actual administration of the respiratory medication by hand held nebulizer to their child under observation of an expert.
<b>Student Groupings and Media Selection:</b> Instructor-led, individual assessment; manipulatives.
<b>FOLLOW-THROUGH ACTIVITIES</b>
<b>Memory Aids:</b> Text and graphic instructional sheets will be provided.
<b>Transfer:</b> Instructional materials including manipulatives will be provided that are the actual tools, equipment and medications to simulate real-life experience.
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; graphic and text media instruction sheet, manipulatives.

### Content Presentation and Student Participation

<b>OBJECTIVE: Objective 1.1</b> – Without assistance in the children’s rehabilitation center, identify respiratory nebulizer medications with 100% accuracy.	1
<b>CONTENT PRESENTATION</b>	
<b>Content:</b> Respiratory nebulizer medications are located in their child’s medication drawer and can be identified by both container and label.	
<b>Examples:</b> <ol style="list-style-type: none"> <li>1. Show where the child’s medication drawer is located and contents.</li> <li>2. Show different types of respiratory nebulizer medication containers.</li> <li>3. Show where to locate and read the respiratory nebulizer medication label.</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; text and graphic respiratory medication identification sheet and actual respiratory nebulizer medication manipulatives.	
<b>STUDENT PARTICIPATION</b>	
<b>Practice Items:</b> <ol style="list-style-type: none"> <li>1. Identify where your child’s medication drawer is located</li> <li>2. Identify at least two different types of respiratory nebulizer medications.</li> <li>3. Locate and read the respiratory nebulizer medication label.</li> </ol>	
<b>Feedback:</b> <ol style="list-style-type: none"> <li>1. Medication drawer located</li> <li>2. Two different respiratory nebulizer medications identified</li> <li>3. Medication label located and read</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-supported, individual practice using text and graphic respiratory medication identification sheet and actual respiratory nebulizer medication manipulatives.	



<b>OBJECTIVE: Objective 1.3</b> – Given a respiratory nebulizer prescription order, review the prescription order with 100% accuracy	2
<b>CONTENT PRESENTATION</b>	
<b>Content:</b> Respiratory nebulizer prescription orders are located on the medication label.	
<b>Examples:</b> <ol style="list-style-type: none"> <li>1. Show where the prescription order is located on the medication label.</li> <li>2. Review the prescription order with the learner</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; actual respiratory nebulizer medication manipulatives.	
<b>STUDENT PARTICIPATION</b>	
<b>Practice Items:</b> <ol style="list-style-type: none"> <li>1. Identify where the prescription order is located on the medication label.</li> <li>2. Read the prescription order</li> </ol>	
<b>Feedback:</b> <ol style="list-style-type: none"> <li>1. Prescription order located</li> <li>2. Prescription order read</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-supported, individual practice; actual respiratory nebulizer medication manipulatives.	

<b>OBJECTIVE: Objective 2.1</b> – Given a hand held nebulizer kit, identify components of a hand held nebulizer kit with 100% accuracy.	3
<b>CONTENT PRESENTATION</b>	
<b>Content:</b> The components of the hand held nebulizer kit include: mouthpiece; T-piece; reservoir; medication cup; gas supply tubing.	
<b>Examples:</b> <ol style="list-style-type: none"> <li>1. Identify and name each component of the hand held nebulizer kit.</li> <li>2. Describe the function of each component of the hand held nebulizer kit.</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit manipulatives.	
<b>STUDENT PARTICIPATION</b>	
<b>Practice Items:</b> <ol style="list-style-type: none"> <li>1. Identify and name each component of the hand held nebulizer kit.</li> <li>2. Describe the function of each component of the hand held nebulizer kit.</li> </ol>	
<b>Feedback:</b> <ol style="list-style-type: none"> <li>1. Hand held nebulizer kit components identified and named.</li> <li>2. Function of each component of the hand held nebulizer kit described.</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-supported, individual practice; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit manipulatives.	

<b>OBJECTIVE: Objective 2.3</b> – Given a hand held nebulizer kit, place the T-piece on top of the medication cup with 100% accuracy.	4
<b>CONTENT PRESENTATION</b>	
<b>Content:</b> The T-piece attaches to the top of the medication cup with a sliding fit. Only one opening of the T-piece can fit on top of the medication cup.	
<b>Examples:</b> <ol style="list-style-type: none"> <li>1. Show the T-Piece opening that slides onto the medication cup</li> <li>2. Show that the other openings of the T-piece do not fit onto the medication cup.</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit manipulatives.	
<b>STUDENT PARTICIPATION</b>	
<b>Practice Items:</b> <ol style="list-style-type: none"> <li>1. Identify the T-Piece opening that slides onto the medication cup</li> <li>2. Show that the other openings of the T-piece do not fit onto the medication cup</li> </ol>	
<b>Feedback:</b> <ol style="list-style-type: none"> <li>1. T-Piece attached to the medication cup</li> <li>2. Shows that other openings of the T-Piece do not fit onto the medication cup.</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-supported, individual practice; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit manipulatives.	
<b>OBJECTIVE: Objective 2.4</b> – Given a hand held nebulizer kit, attach mouthpiece and reservoir to the T-Piece with 100% accuracy.	5
<b>CONTENT PRESENTATION</b>	
<b>Content:</b> The mouthpiece and reservoir fit onto the remaining openings of the T-Piece and can be attached to either side.	
<b>Examples:</b> <ol style="list-style-type: none"> <li>1. Show that the mouthpiece and reservoir can be attached to either open end of the T-Piece.</li> <li>2. Attach the mouthpiece to the T-Piece.</li> <li>3. Attach the Reservoir to the other end of the T-Piece.</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit manipulatives.	
<b>STUDENT PARTICIPATION</b>	
<b>Practice Items:</b> <ol style="list-style-type: none"> <li>1. Attach the mouthpiece to the T-Piece</li> <li>2. Attach the reservoir to the T-Piece</li> </ol>	
<b>Feedback:</b> <ol style="list-style-type: none"> <li>1. Mouthpiece attached to the T-Piece</li> <li>2. Reservoir attached to the T-Piece</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-supported, individual practice; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit manipulatives.	

<b>OBJECTIVE: Objective 2.5</b> – Given a hand held nebulizer kit, attach medication cup to the air compressor using the gas supply tubing with 100% accuracy.	6
<b>CONTENT PRESENTATION</b>	
<b>Content:</b> The gas supply tubing is attached to the bottom of the medication cup. The other end of the gas supply tubing is attached to the air compressor. Either end of the gas supply tubing fits both the medication cup and the air compressor.	
<b>Examples:</b> <ol style="list-style-type: none"> <li>1. Show where the gas supply tubing attaches with the medication cup</li> <li>2. Show where the gas supply tubing attaches with the air compressor</li> <li>3. Show that either end of the gas supply tubing attaches to either the medication cup or the air compressor.</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit manipulatives.	
<b>STUDENT PARTICIPATION</b>	
<b>Practice Items:</b> <ol style="list-style-type: none"> <li>1. Attach the gas supply tubing to the medication cup</li> <li>2. Attach the gas supply tubing to the air compressor</li> </ol>	
<b>Feedback:</b> <ol style="list-style-type: none"> <li>1. Attaches the gas supply tubing to the medication cup</li> <li>2. Attaches the gas supply tubing to the air compressor</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-supported, individual practice; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit manipulatives.	

<b>OBJECTIVE: Objective 3.2</b> – Given an assembled hand held nebulizer, unscrew the medication cup with 100% accuracy.	7
<b>CONTENT PRESENTATION</b>	
<b>Content:</b> The medication cup unscrews apart to allow for medication instillation.	
<b>Examples:</b> <ol style="list-style-type: none"> <li>1. Show how to unscrew the medication cup</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; text and graphic respiratory medication identification sheet and actual assembled hand held nebulizer manipulatives.	
<b>STUDENT PARTICIPATION</b>	
<b>Practice Items:</b> <ol style="list-style-type: none"> <li>1. Unscrew the medication cup</li> </ol>	
<b>Feedback:</b> <ol style="list-style-type: none"> <li>1. Unscrewed the medication cup</li> </ol>	

**Student Groupings and Media Selection:**

Instructor-supported, individual practice; text and graphic respiratory medication identification sheet and actual assembled hand held nebulizer manipulatives.

**OBJECTIVE: Objective 3.3** – Given the respiratory nebulizer medication, twist off the top of the respiratory nebulizer medication with 100% accuracy.

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**CONTENT PRESENTATION****Content:**

The respiratory nebulizer medication is contained in a plastic medication bullet where the top is twisted off of the bullet.

**Examples:**

1. Show how to twist off the top of the respiratory nebulizer medication

**Student Groupings and Media Selection:**

Instructor-led, individual instruction; text and graphic respiratory medication identification sheet and actual assembled hand held nebulizer and medication manipulatives.

**STUDENT PARTICIPATION****Practice Items:**

1. Twist off the top of the respiratory nebulizer medication

**Feedback:**

1. Twisted off the top of the respiratory nebulizer medication

**Student Groupings and Media Selection:**

Instructor-supported, individual practice; text and graphic respiratory medication identification sheet and actual assembled hand held nebulizer and medication manipulatives.

**OBJECTIVE: Objective 3.4** –Given the respiratory medication, squeeze the medication into the medication cup with 100% accuracy

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**CONTENT PRESENTATION**

**Content:** The plastic bullet that contains the respiratory medication is squeezed to instill all of the medication into the medication cup.

**Examples:**

1. Show how to properly squeeze the respiratory medication into the medication cup
2. Show how to ensure all of the medication is instilled into the medication cup

**Student Groupings and Media Selection:**

Instructor-led, individual instruction; text and graphic respiratory medication identification sheet and actual assembled hand held nebulizer and medication manipulatives.

**STUDENT PARTICIPATION****Practice Items:**

1. Properly squeeze the respiratory medication into the medication cup
2. Ensure all of the medication is instilled into the medication cup

**Feedback:**

1. Respiratory medication was properly squeezed into the medication cup

2. All of the Respiratory medication was instilled into the medication cup
<b>Student Groupings and Media Selection:</b> Instructor-supported, individual practice; text and graphic respiratory medication identification sheet and actual respiratory nebulizer kit and medication manipulatives.

<b>OBJECTIVE: Objective 4.3</b> – Given an air compressor, start the air compressor power source with 100% accuracy.	10
<b>CONTENT PRESENTATION</b>	
<b>Content:</b> The air compressor provides the gas supply needed for medication nebulization. The air compressor requires electrical current and the power switch, located on the front of the air compressor, to be turned on to function.	
<b>Examples:</b> <ol style="list-style-type: none"> <li>Show where the electrical cord and power switch are located on the air compressor</li> <li>Show how the air compressor delivers gas to the medication cup</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-led, individual instruction; actual assembled hand held nebulizer and air compressor manipulatives.	
<b>STUDENT PARTICIPATION</b>	
<b>Practice Items:</b> <ol style="list-style-type: none"> <li>Identifies the electrical cord and power switch on the air compressor</li> <li>Shows how the air compressor delivers gas to the medication cup</li> </ol>	
<b>Feedback:</b> <ol style="list-style-type: none"> <li>Electrical cord and power switch identified.</li> <li>Gas delivery from the air compressor demonstrated.</li> </ol>	
<b>Student Groupings and Media Selection:</b> Instructor-supported, individual practice; actual assembled hand held nebulizer and air compressor manipulatives.	

### Lesson Allocation

SESSION	EVENTS AND OBJECTIVES	TIME
1	Preinstructional: Introduction, pretest over all main steps in goal (1.0 – 4.0)	20 min
2	Content Presentation: Introduction, instruction objectives for main steps for goal (1.0 – 4.0).	20 min
3	Student Participation: Practice activities on main steps for goal (1.0 – 4.0).	20 min
4	Assessment Introduction, posttest for terminal objective, debriefing	35 min

## Consolidation of Media Selections and Choice of Delivery System

SESSION	OBJECTIVES	TYPE(S) OF LEARNING	MEDIA SELECTIONS & STUDENT GROUPINGS	DELIVERY SYSTEM(S)
2 - 4	1.1 & 1.3	psychomotor	<ul style="list-style-type: none"> <li>▪ Text and graphic respiratory medication identification sheet</li> <li>▪ Actual respiratory nebulizer medication manipulatives</li> </ul>	Instructor-led, hands-on simulation
	2.1 through 2.5	psychomotor	<ul style="list-style-type: none"> <li>▪ Text and graphic respiratory medication identification sheet</li> <li>▪ Actual respiratory nebulizer kit manipulatives</li> </ul>	
	3.2 through 3.4	psychomotor	<ul style="list-style-type: none"> <li>▪ Text and graphic respiratory medication identification sheet</li> <li>▪ Actual respiratory nebulizer medication manipulatives</li> <li>▪ Actual assembled hand held nebulizer</li> </ul>	
	4.3	psychomotor	<ul style="list-style-type: none"> <li>▪ Actual assembled hand held nebulizer</li> <li>▪ Air compressor manipulatives.</li> </ul>	

### Proposed Development Procedures

The developmental needs for the instructional materials include procuring existing materials that coincide with my instructional objectives. The text and graphic respiratory medication sheet can be printed from the World Wide Web or ordered at a low cost in a laminated high quality finish. The laminated sheet will be reused for multiple instructions, while the printed sheet will be given to the learner. The manipulatives are readily available in the instructional setting and will be reused for multiple instructions to reduce the waste of medical materials. The instructional materials that I will develop include the lesson introduction, pre-test and post-test. I will develop these materials using word processing software, printer and paper copier.

I will be developing and compiling the instructional materials with feedback from the core group of KCRC respiratory therapists. I will also be delivering the instruction along with the other KCRC respiratory therapists.

I will develop the rough draft by compiling low-cost versions of the instructional materials when able. I will print from the World Wide Web the text and graphic respiratory medication sheet. The manipulatives will be stored together and reused for evaluation by subject matter experts (respiratory therapists) and trial runs by learners. I will limit quantities of printed materials to meet the needs of the trial evaluations.

### **Proposed Formative Evaluation Procedures**

The formative evaluation procedures for my instruction include; Expert review of my instructional materials; One-on-one Evaluation; Modified Small Group Evaluation; Formal presentation. The Expert review would include SMEs who can comment on the accuracy and currency of my instruction and appropriateness with the target population.

The One-to-One evaluation will include a few learners who are representative of my target population in varied ability. I will gather information about my instruction that includes: The clarity of instruction; Impact on the learner; Feasibility. I will request that the learner provide a critique of the instruction by completing a questionnaire. I will interview the learner during the post-test asking for their decision-making process during answer selection.

The Small Group evaluation will be modified by applying the learner selection, information gathered and methods to individual learners. The learners will be selected by:

- Above average, average, and below average in ability
- English is not their first language
- Previous experience with the procedure
- Representative of different age groups

Information will be gathered from the pre-test, post-test, attitude questionnaire, and follow-up interview.

The information gathered will include:

- The time required to complete the instruction
- The learners attitude about the instruction
- The learners perception on practice time and feedback

- Their perception on whether they achieved the instructional goal
- If the post-test accurately reflected their knowledge of the objectives
- If they were adequately prepared for the test

The Formal presentation will occur in place of a specified Field Trial since the previous evaluations were conducted in the intended instruction site under the intended instruction conditions. Modifications to the instruction will follow each evaluation to improve the instruction and instruction materials. Annual formative evaluation of the instruction will occur to maintain accuracy, currency and appropriateness.



## Completed Flow Chart Created in Microsoft Visio 2007

