CHAPTER 6

Enrichment Materials

What is this chapter about?

In order to have a successful learning event, you may want to use the additional information contained in this chapter. It will allow you to augment the knowledge you have gained throughout the previous chapters which contain the "need-to-know" material for planning a learning event. This chapter contains "nice-to-know" content to give you more background information and skills. It contains additional information on the following:

1. The Nursing Best Practice Program;
2. Assessing your learners;
3. Planning your strategies;
4. Implementing your plan; and
5. Evaluating your learning event.

Nursing Best Practice Guidelines Program

This section contains additional information about the Nursing Best Practice Guidelines Program. The following topics are discussed:

- Government funding
- Key areas of priority
- Organizational structure
- What are Best Practice Guidelines
- Standards of Practice and Evidence-Based Practice
- Types of evidence use for BPG recommendations
- Dissemination
- Best Practice Champions Network

Government Funding

In 1998, the Ontario Minister of Health and Long-Term Care, Elizabeth Witmer, established a Nursing Task Force to address a broad range of issues related to the nursing profession. One of the task force's key recommendations was the development of clinical practice guidelines as a means of ensuring quality care for the public. In 1999, Minister Witmer announced multi-year funding, allocated to the RNAO for the development, pilot implementation, evaluation and dissemination of nursing best practice guidelines. In November of 1999, the Nursing Best Practice Guidelines Program was launched starting with several focus groups to further the conceptual and operational direction of the program, as well as to identify priority areas.

Key Areas of Priority

Through several focus groups with key stakeholders, five key areas of priority were identified. These priorities have provided a framework to identify specific clinical topics for best practice guideline development. These five areas are:

1. Gerontology
2. Primary Health Care
3. Mental Health
4. Home Care
5. Emergency

Organizational Structure of the Nursing Best Practice Guideline Program

The organization of the Nursing Best Practice Guideline Program reflects the various functions/mandates of the program. The program has a core staff that direct and coordinate activities and report to the RNAO Executive Director and provide regular reports to the Government of Ontario. The program is structured in a manner that engages a broad spectrum of stakeholders: patients/families; nurses; health care providers;

Achievements

In early 2000, RNAO commenced the first cycle of guideline development, pilot testing, evaluation and dissemination. Since its early months, the program has gained tremendous momentum with several cycles now underway. In its early months, the RNAO also committed to ensure that the best practice guidelines were kept up to date and to formally review and revise the best practice guidelines, if necessary, every three years.

To date, dozens of best practice guidelines have been developed along with health education fact sheets and toolkits/ resources for best practice guideline implementation in practice and in nursing education. A comprehensive and updated list of the latest documents and resources can be found on the RNAO website at **www.rnao.org/bestpractices**. Many of the best practice guidelines and resources are also available in French.

Additionally, the best practice guidelines have been piloted in over 40 health care settings in Ontario and in over a dozen nursing education programs. A comprehensive, multi-dimensional dissemination, uptake, and implementation plan has been put in place to ensure the best practice guidelines and related resources are actively used in health care.

health care organizations; nursing educational programs; researchers; policy makers; health care and professional associations; subject matter experts; advocacy groups; etc.

Best Practice Guidelines

Best practice guidelines are systematically developed statements based on best available evidence to assist nurses, other health care providers and patients make decisions about patient care. Important points for learners include:

a **Systematic development.** Each best practice guideline is developed using rigorous methods including:

- Literature review, particularly systematic reviews and meta-analyses, along with other general reviews. Literature is critically appraised using defined criteria.
- Recommendations are developed based on research evidence and, where research evidence is not available, through expert opinion and consensus.
- All draft best practice guidelines undergo an extensive review by a diverse range of stakeholders including patients and their families, advocacy groups as well as multidisciplinary health care providers, managers and policy decision makers.

b **Best available evidence.** Although proponents of evidence-based practice strongly advocate for randomized control trials (RCT) as the gold standard for evidence, there are many areas of patient care that are neither amendable nor appropriate for RCT research design and such research is not available. The notion of strong evidence only coming from the quantitative tradition of research is increasingly challenged. A debate on broadening the definition and nature of evidence to include other forms of evidence such as evidence from qualitative studies, patient experience, clinician expertise, etc., has informed the choice of evidence for BPG.

At present, the RNAO BPG Program uses the levels of evidence detailed in the margin, noting that international work is underway to establish a more inclusive system of evidence.

c **BPG as decision tools.** BPG should be thought of as decision-making tools within the context of patient preferences, wishes, ethics and feasibility. The recommendations should not be used blindly or in a "cookbook" fashion.

Levels of Evidence

Ia Evidence obtained from meta-analysis or systematic review of randomized controlled trials.

Ib Evidence obtained from at least one randomized controlled trial.

IIa Evidence obtained from at least one well-designed controlled study without randomization.

IIb Evidence obtained from at least one other type of well-designed quasi-experimental study, without randomization.

III Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.

IV Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

BPG, Standards of Practice and Evidence-Based Practice

The College of Nurses of Ontario (CNO), the nursing regulating body, has a number of mandatory practice standards that define the professional expectations for all Ontario nurses, which apply in a variety of practice settings and situations.

RNAO BPG are congruent with the practice standards and provide the best available knowledge for practice. These are based on optimal care and therefore may not necessarily be mandatory standards. Therefore, there may be an overlap between standards and BPG. The distinction should be made that BPG provide recommendations, not obligations.

In Ontario, RNAO and CNO have collaborated to ensure that where there is overlap or connection between standards and BPG, these are made apparent to nurses. For example, in newly developed BPG, related standards are cross-referenced. Also, on the RNAO and CNO websites, standards and BPG are cross-referenced. For example, the RNAO BPG *Prevention of Falls and Falls Injuries in the Older Adult* is cross-referenced with a related standard in the CNO guide to the use of restraints. The scope of the guideline is broader but does contain recommendations on least restraints, which are then discussed in the CNO guide in greater detail. Similarly, the RNAO BPG *Client Centred Care* is linked to CNO standards on "ethical framework", "guide to consent" and "guide to nurses providing culturally sensitive care".

BPG are one strategy in moving towards an evidence-based practice environment. Evidence-based practice is "a set of tools and resources for finding and applying current best evidence from research for the care of individual patients" (Haynes, 2004, p. 232). Although individual clinicians can conduct their own literature searches, appraisal and application of best evidence for clinical decision making, it is unlikely that all practitioners will be able to do so at all times in all practice situations. It is also impractical to expect that individuals will have the skill and necessary time and resources to find, appraise and apply best evidence on their own. Therefore, guidelines provide a means of accessing pre-appraised evidence and recommendations on appropriate ways of applying the evidence in practice. Additionally, guideline development panels use their clinical experience and expertise as well as feedback from a broad spectrum of stakeholders to weigh the evidence and make appropriate recommendations for practice, for the context and for skill requirement.

How Best Practice Guidelines are Developed and Kept Current

Numerous BPG have been published, along with patient education materials referred to as Health Education Fact Sheets. Many of the guidelines and all of the Health Education Fact Sheets are published in French. All materials can be found on, and ordered online, from the RNAO website at **www.rnao.org/bestpractices** (**CD1**).

Typically, a BPG is a hard copy or web-based document that contains the following:

- Purpose and scope of the guideline
- Guideline development process
- Definition of terms
- Description of levels of evidence
- Background information on the topic area
- Summary of recommendations
- Detailed list of recommendations with associated discussion of evidence. All material is appropriately referenced. Three types of recommendations are provided:
  - Practice recommendations: statements of best practice directed at the practice of health care professionals that are evidence-based.
  - Educational recommendations: statements of educational requirements and educational approaches/strategies for the introduction, implementation and sustainability of the best practice guideline.
  - Organization & policy recommendations: statements of conditions required for a practice setting that enable the successful implementation of the best practice guideline. The conditions for success are largely the responsibility of the organization, although they may have implications for policy at a broader government or societal level.
- Indicators and measures that can be used for evaluation
- Strategies for implementing the guideline
- References and bibliography
- Other resource information such as assessment tools, detailed information on specific recommendations such as medications, referral information for patients, etc.

BPG and Health Education Fact Sheets (HEFS)

www.rnao.org/bestpractices

All BPG are formally reviewed every three years by an expert panel. The panel reviews the evidence available since the original BPG was published. Revisions are made as necessary, validated as required by stakeholders and re-published. Where revisions are minor, an addendum accompanying the original BPG is published. The review and revision process is described in the reviewed/revised BPG document.

Types of Evidence Used to Develop the Recommendations

The RNAO Nursing Best Practice Guidelines Program uses a broad range of both quantitative and qualitative research evidence appropriate for the relevant clinical questions for the specific topic of the BPG. In addition, the development panel members consider experiential and clinical expertise in the development of recommendations, validation of the research findings, and discussion of the recommendations in the various local contexts, specifically, as they relate to various health care sectors such as acute care, long term care, community, etc. Lastly, stakeholder feedback, evidence from a broad spectrum of health care providers, managers, policy makers, and most importantly, patients and their families, is systematically solicited, discussed and incorporated into the final BPG recommendations.

Each BPG is also scrutinized to ensure it has contextual relevance. At times, the evidence may suggest a particular recommendation but the environment does not make it feasible for the recommendation to be implemented. Therefore, the BPG development panel must consider the context when making recommendations. It is important for readers to ensure they read the "discussion of evidence" to understand the nature of the evidence used to derive a particular recommendation.

BPG Dissemination, Knowledge Transfer/Uptake and Evaluation

Various resources are available to the educator for promoting BPG as well as keeping up to date with BPG related knowledge. Other tools and resources can be used to enhance the educator's networks.

- **a** **Website www.rnao.org/bestpractices.** All BPG and related material are available for free download from the RNAO website. The BPG come in two formats: summary of recommendations and the complete guideline.
- **b** **CD with all published BPG.** Each year, a CD containing PDF files of all currently published BPG (English and French), all Health Education Fact Sheets, and the *Toolkit* is released. A CD is available with this binder (**CD1**).
- **c** **BPG Newsletter.** Published three times a year, anyone can subscribe to these free newsletters on the website. A copy of the latest newsletter is available with this binder.
- **d** **A 28-minute video: *Making it Happen*.** This is available to help orient staff and students to the Nursing Best Practice Guidelines Program. This can be ordered on the website, and is available in CD and DVD formats. A copy is included with this binder.

BPG and related material
www.rnao.org/bestpractices

e **Best Practice Champions Network.** Nurses in all sectors, including nursing schools, can join the Champions Network. BPG Champions commit to a two-year period to assist in promoting, influencing and implementing guidelines. An initial two-day workshop is provided to all Champions followed by regular support through teleconferences, symposiums, newsletters, and other supports by RNAO. A staff Champions Coordinator provides the necessary support along with a network of over 500 other Champions across the province of Ontario. A more detailed description follows at the end of this section.

f **International Conference.** A two-day conference is held every other year (odd years) in Toronto, Ontario.

g **Best Practice Summer Institute.** An annual one-week long institute held in Ontario to develop in-depth capacity in evidence-based practice, guideline implementation, and change management.

h **Advanced Clinical/Practice Fellowships for Best Practice Guideline Implementation.** This fellowship provides funding for nurses to conduct a 12-week mentored learning experience to develop personal and organizational capacity for guideline implementation.

i **RNAO Doctoral Fellowships.** Offered to one candidate annually, this fellowship is an initiative in partnership with the Government of Ontario to develop research capacity in the evaluation of health outcomes, and where feasible, financial and system outcomes associated with implementation of BPG.

j **RNAO.** Conducts presentations, workshops, and writes for various publications in order to spread the knowledge packaged in the BPG. In 2004, RNAO held 20 full day BPG workshops across Canada and over a 1000 nurses participated in these sessions. These workshops were funded by Health Canada. Organizations wishing to hold customized workshops in their organizations are requested to contact the RNAO to discuss details.

k **Web-based Learning.** Resources available on the RNAO website include a self-paced e-learning module on critical appraisal of research publications and a self-paced e-learning program based on a best practice guideline on smoking cessation, titled *Helping People Stop Smoking*. Additionally, a workshop entitled *Diabetes Foot: Risk Assessment Education Program* has been designed. A facilitator's guide and participant's package, plus images on slides are all available for free download on the website.

l **New Product Development.** Knowledge uptake is continuously occurring and announced through various means and usually available on the website.

- **Best Practice Spotlight Organization Initiative.** A long-term partnership between RNAO and selected organizations to plan, implement and evaluate multiple guidelines in one organization. Lessons learned from these projects are disseminated broadly.
- **Best Practice Education Demonstration Projects.** These are projects undertaken in partnership between RNAO and selected faculties of nursing to integrate and evaluate best practice guidelines into nursing educational curriculum. Lessons learned from these projects are disseminated broadly.
- **Evaluation tools.** Various BPG evaluation tools have been developed and are available as published monographs on the website.

Best Practice Champions Network

The Best Practice Champions Network is an initiative of the RNAO that prepares nurses to take active roles in promoting, influencing, supporting and implementing best practice guidelines in their practices throughout Ontario. The Network was launched in Toronto in June 2002 with an overwhelming response from the nursing community. The aim of the Network is to provide a means of sharing successes and challenges, requesting assistance, and continuous learning on dissemination and implementation of BPG. Best Practice Champions are nurses and others who are passionate about improving nursing practice and client care in their organization. Champions can be anyone who will be able to have organizational and/or unit/program level influence. The Champions can take many different roles such as bringing awareness of best practices to their organization, influencing groups and committees to consider these best practices, mobilizing, coordinating and facilitating the training and development of professional staff in BPG implementation, etc. Moreover, they can provide ongoing resource support for bridging the gap between evidence and practice with strategies to implement specific BPG. For detailed information on how to get involved, see the RNAO website at **www.rnao.org/bestpractices.**

Get involved!
www.rnao.org/bestpractices

In order to create a critical mass of committed individuals towards BPG within an organization, one approach might be to identify and engage select individuals in the Best Practice Champions Network. This group could attend the orientation workshop together and subsequently create their own support group within their organization to plan and implement strategies to influence uptake of BPG in their organization. An organizational approach to establishing champions can provide leverage, support and momentum. Examples of activities conducted by already established Best Practice Champions in Ontario include:

- Presenting at the professional practice committee to get buy-in from others.
- Developing an organization-wide communications plan, including raising awareness of BPG through booths, posters, contests, intra web, newsletters, etc.
- Establishing an organizational BPG steering committee to spearhead the identification and implementation of BPG in the organization.
- Networking and sharing ideas and resources with other Best Practice Champions outside of the organization by holding open house sessions, drop-in site visits, teleconference sessions, or by email and phone.

Assessing your Learners

This section contains additional information about the assessment for the learning event. The following topics are discussed:

- Adult learning principles and how to assess the learner;
- Learner qualities in the clinical setting; and
- Developmental phases of learning.

Adult Learning Principles

According to Knowles (1984) and Knox (1986) there are characteristics that distinguish adults from children in regards to their learning. *Table 14* contains suggestions of how to assess learners of BPG according to the principles of adult learning.

Table 14: Adult Learning Principles: Assessment of the Learner

Adult Learning Principles	Assessment of the Learner
Adults must want to learn	Assess motivational factors affecting your learners (e.g., goal-orientated, activity-oriented, learning orientated)
Adults will learn only what they feel they need to learn	Assess the BPG content that the learner wants to learn. Have them distinguish between "need-to-know" and "nice-to-know"
Adults learn by comparing past experiences with new experiences	Assess the learner's previous exposure to BPG and how learning was best facilitated in the past. Ask them for examples of how they have applied BPG in their past work experiences
Adults need immediate feedback concerning their progress	During your initial assessment ask your learner the type, mode and frequency of feedback they wish to receive
Adults want their learning to be practical	Have your learners identify the demands and problems in their current work setting that relate to BPG, and ask them to identify situations in which they feel BPG would be helpful
Adults try to avoid failure	Have your learners identify the methods for in- class participation and evaluation to avoid putting individuals on the spot.
Adults do not all learn the same way	Assess the individual learning styles of your learners by asking them to describe how they best learn

Learner Qualities

The knowledge, skills and attitudes of the learner will also have an impact on the success of the learning event. Educators, therefore, need to be aware of specific qualities of the learner and adapt their educational strategies appropriately. *Table 15* outlines some of the qualities the educator should assess prior to choosing and implementing teaching strategies.

Developmental Phases of Learning

In addition to assessing learners on the basis of adult learning principles and learner characteristics, educators of adult learners can also consider the developmental phases of learners when they are preparing the learning event.

Perry's Scheme of Intellectual Development

Perry (1968), working with male university students, suggested that they move through a series of fairly well-defined phases of cognitive development that he described as coherent interpretive frameworks for giving meaning to educational experiences. Perry's scheme of intellectual development is described in *Table 16* (**p. 100**).

Table 15: Qualities of Learners

Qualities for BPG Learners	Assessment of Learners
1 Excellent patient care	▸ Commitment to excellent patient care is central to becoming an practitioner who uses BPG ▸ Practitioners who continually strive for excellence will want to understand their patients' problems thoroughly and apply BPG appropriately to all aspects of care
2 Excellent Clinical Skills	▸ Excellent clinical skills in patient interviewing and physical examination are needed for practitioners to accurately understand the clinical problem, the patient's unique situation and values, and the BPG recommendations related to the identified problem ▸ Excellent communication skills are essential so that practitioners can clearly explain to patients and learners the risks and benefits of the available options and BPG recommendations
3 Excellent Clinical Judgment	▸ Excellent clinical judgment is of paramount importance because it enables practitioners to weigh the risks and benefits of the available BPG in light of the patient's values and preferences ▸ Time and experience are essential elements to developing clinical judgment ▸ Expert learners will be expected to have a highly developed level of clinical judgment, whereas this quality will grow in early learners
4 Diligence	▸ Learners of BPG must be consistently willing to work hard and to apply the recommendations to clinical practice situations, taking into consideration the context and the complexity of clinical situations ▸ Diligence is needed to communicate and hone the other essential skills of interviewing, physical examination, clinical reasoning and judgment
5 Perspective	▸ An ability on the part of the learner to view newly appraised BPG appropriately within the context of health care and feasibility

Reference: Melnyk, B., Fineout-Overholt, E. (2005). *Evidence-based practice in nursing & healthcare: A guide to best practice.* Philadelphia: Lippincott Williams & Wilkins.

Women's Ways of Knowing

Since the vast majority of nurses are women, nurse educators should be aware of the developmental stages women experience so as to meet them as they are. Educators who are aware of different levels of achieving meaning can help learners by taking a connected knowledge approach, seeking to understand the perspective of the learner and how that perspective was reached. The researchers claim these ways of knowing, although gender related, are not gender specific, and while these ways of knowing are commonly held by women they are also accessible to men.

Table 16: Perry's Scheme of Intellectual Development

Phases	Characteristics of the Learner
Phase 1 Dualism	▸ Knowledge viewed as absolute, black or white, right or wrong, factual or subject ▸ Right answers come from authorities ▸ Multiple points of view are confusing ▸ Judgments lack rationale ▸ Learning is simply taking notes, memorizing facts **NOTE** Novice BPG learners tend to be in this phase and will apply BPG recommendations in a mechanized and routine manner
Phase 2 Multiplicity	▸ Multiple perspectives are acknowledged ▸ Authorities are not always right, they just have different opinions ▸ Knowledge is simply a matter of opinion ▸ Beginning to seek rationale for opinions ▸ Lacking in ability to evaluate opinions
Phase 3 Relativism	▸ Learn to weigh evidence and distinguish between weak and strong support ▸ Authorities are neither deified nor resisted ▸ Capacity for seeing the 'big picture' ▸ Can evaluate ideas ▸ Beginning to synthesize ideas
Phase 4 Commitment in Relativism	▸ Recognize they must make choices and commitments ▸ Authorities are consulted, ▸ Can transfer understandings of complexities and diverse perspectives ranging from academic pursuits to the creation of a personal world view **NOTE** Expert BPG learners tend to be in this phase and will be able to adapt BPG recommendations to the context of complex situations

Belenky, Clinchy, Goldberger, & Tarule (1996) identified a series of stages that women experience in coming to full participation in knowledge development. The five epistemological perspectives by which women know and view the world were identified as follows:

1. Silence;
2. Received knowing;
3. Subjective knowing;
4. Procedural knowing including two different types of procedures, called 'separate knowing' and 'connected knowing' and
5. Constructed knowledge.

Educators who are aware of women's different ways of knowing can help learners by taking a connected knowledge approach and seeking to understand the perspective of the learner and how that perspective was reached. Learners who have not yet reached the stage of constructed knowing may need help in recognizing that BPG recommendations do not dictate actions and different situations require different approaches

to care. *Table 17* is based on the five epistemological perspectives by which women know and view the world.

Table 17: Women's Ways of Knowing

Perspective	Characteristics	Relevance for BPG Educators
Silence	In silence women experience themselves as mindless and voiceless, and subject to the whim of authority.	This person may be a very passive participant, perceives themselves as oppressed by society and the organization and will either resent attempts to be engaged or just ask for the "recipe" or "cookbook" for implementing BPG.
Received Knowing	The learner sees herself as capable of receiving and reproducing knowledge from external authorities, but these women do see themselves as being able to construct or create knowledge themselves.	This person will be capable of appreciating that BPG are based on expert knowledge from external authorities, but may apply the BPG in a routine manner, neglecting the context and the complexity of situations, and be hesitant to apply critical thinking skills to adapting BPG. She may also have difficulty understanding that there may be conflicting views held by authorities and be frustrated by ambiguity. "Received knowers" are listeners and tend towards conformist thinking. They encourage authorities to speak and act for them.
Subjective knowing	From this perspective, truth and knowledge are conceived as personal and private and subjectively known or intuited.	This person may also be passive/introverted and may be less enthusiastic about guidelines, feeling that the time honored ways of doing things are the best and reject BPG in favour of traditional practices and intuitive knowing. She will also tend to listen and observe and may be more receptive to experiential learning through reflection.
Procedural knowing	Procedural knowledge is present where women are invested in learning. Two types of procedural knowledge are reported: ▸ "separate knowing", distinguished by evaluation and objectivity in judging another's point of view; and, ▸ "connected knowing", distinguished by acceptance and appreciation of another's point of view.	This person may follow BPG guidelines in a very matter-of-fact manner. Those for whom procedural knowledge is 'separate knowing' will not accept BPG as fact and will doubt the credibility of the guidelines. Those for whom procedural knowledge is "connected knowing" will immerse themselves in exploring BPG through the experiential knowledge of themselves and others and will be open and receptive to incongruencies and ambiguities and the creation of new ideas.
Constructed knowing	From this position, women view all knowledge as contextual, and they experience themselves as creators of knowledge and place value on both subjective and objective strategies for knowing.	This person will be passionately involved in the learning process and embrace BPG as an opportunity to explore new ways of thinking, feeling and acting and will engage in dialogue with others by listening, asking questions, argumentation, hypothesizing and sharing ideas. Reciprocity and cooperation are prominent.

Planning the Learning Event

This section contains additional information about planning the learning event. The following topics are discussed:

- Factors to consider in order to level the content of the learning event;
- Bloom's taxonomy and learning objectives; and
- Writing learning objectives.

Table 18: Leveling Content for BPG Learning Events – Questions to Ask

Factor	Questions to Ask to Determine Level
Desired Endpoints ▸ Knowledge (Cognitive) ▸ Skills (Psychomotor) ▸ Attitudes (Affective)	▸ Given the factors listed, what level of learning is appropriate for these learners? ▸ What level of objective is appropriate for the level desired – e.g., for novices, beginning students, or introductory sessions use knowledge, comprehension or application; for senior students, experts, or those experienced with BPG look for application, synthesis, analysis. ▸ Are there affective and/or psychomotor aspects to the desired learning? Choose objectives that level them to suit learner, BPG and practice situation. (See **p. 108** for Bloom's leveling of objectives).
Learner Characteristics ▸ Profession ▸ Program/Year ▸ Novice – Expert ▸ BPG experience	▸ How homogeneous is your learner group? ▸ What is the professional mix – RNs, RPNs, PCWs, MDs, other health care professionals? ▸ What years in the educational program – Year 1-4/post grad ▸ What is the experience level of staff (clinical issue) – novice-to-expert? ▸ What is the experience of learners with BPG – introduction or advanced level?
Learning Event Context ▸ Course sequencing ▸ Threads & exemplars ▸ Time available	▸ Where does this course fit in the curriculum? e.g., in an introductory or senior level course? ▸ Have BPG been used previously as exemplars? ▸ Is desired use of BPG related to practice, evidence use or critique skills? ▸ Do curricular threads make it relevant to use a BPG in different courses? If so, what was the most recent use of the BPG? ▸ Have staff/students been exposed to previous learning opportunities re BPG?
BPG Content ▸ Practice recommendations ▸ Education ▸ Administration ▸ Rationales ▸ References ▸ Models	▸ Which recommendations are suitable for this target group? ▸ Do learners have any influence on educational or administrative actions in the institution? ▸ How much background on rationales/references should learners have to succeed in this learning? ▸ Are there models and summaries that can aid learning?

Four Factors to Consider for Planning the Learning Event

A BPG can be taught at varying levels of complexity. Four key factors introduced in *Chapter 3* should be considered when deciding the level of content to be included in a learning event:

1. The learner characteristics;
2. The desired endpoint;
3. The context of the learning event; and
4. The BPG content, including the parts to be emphasized and the complexity of the emphasis.

Table 18 outlines the questions to be asked for each of these factors to assist the educator in determining the level of the content.

When considering learner characteristics, it is important to plan for varying levels of experience. *Table 19* provides a more detailed description of the "Learner Characteristics". *Figure 3* in *Chapter 3* (**p. 42**) gives factors to consider in planning for various learner levels of proficiency.

Bloom's Taxonomy and Learning Objectives

When planning a learning event you will want to define the endpoint for the learners. You may also want to define the endpoint as a learning objective.

Learning objectives reflect outcomes and provide guidance to educators and learners. Learning objectives are also referred to as behavioural objectives, instructional objectives, and performance objectives. The main purpose is to assist the learner in gaining the most from the learning event. The term learning objective is defined as: "statements to assist and guide the learner toward achieving the desired outcome(s) of the learning event" (Morrison, Ross & Kemp, 2001).

Morrison, Ross & Kemp (2001) described the threefold purpose of learning objectives:

1. To assist the educator in selecting and organizing appropriate instruction and resources aimed at facilitating effective learning events.
2. To provide the educator with a framework for planning and formulating methods to evaluate student learning events.
3. To guide the learner in identifying the skills and knowledge required for mastery of the material covered in the learning event.

Table 19: Learner Characteristics: Benner's Model Novice-to-Expert

Level of Proficiency	Characteristics	Strategies for Planning
Novice in relationship to BPG	▸ No experience with situations in which they are expected to perform ▸ Rigid adherence to taught rules or plans ▸ Little situational perception ▸ Unable to use discretionary judgment ▸ Focuses on pieces rather than whole	▸ Plan to provide structure, lead learners through specific BPG ▸ Proceed from simple to complex ▸ Use case studies, lab experiences and other concrete opportunities to apply skills and build confidence ▸ Group novices with experts so that they can learn from them, but recognize that experts can become frustrated with novice learners because intuitive thinkers may not be unable to break down BPG learning into concrete steps
Advanced Beginner	▸ Guidelines for action based on attributes or aspects ▸ Situational perception still limited ▸ Can demonstrate marginally acceptable performance ▸ Notices change but cannot cope with it ▸ All attributes and aspects are treated separately and given equal importance ▸ Needs help setting priorities ▸ Unable to see entirety of a new situation	▸ Plan for structured and well organized learning opportunities that build on prior learning experiences. Help them to begin to integrate BPG into their practice ▸ Provide opportunities for dialogue with competent and proficient clinicians to demonstrate using BPG to assist with problem solving and priority setting ▸ For positive learning to occur, plan opportunities for support and reinforcement in the learning session
Competent	▸ Now aware of all the relevant aspects of a situation ▸ Sees actions at least partly in terms of long-term goals ▸ Conscious of deliberate planning ▸ Can set priorities ▸ Critical thinking skills are developing	▸ Plan for less structure and more self-directed learning opportunities to allow building on recognized capability to choose learning needs ▸ Provide access to a preceptor/mentor who has expertise to assist in development of critical thinking skills related to the BPG
Proficient	▸ Sees situations holistically rather than in terms of aspects ▸ Sees what is most important in a situation ▸ Perceives deviations from the normal pattern ▸ Decision-making less laboured ▸ Uses guidelines and maxims for guidance	▸ Plan self directed activities to explore diverse situations and share their knowledge with clinicians, especially as teachers of BPG to more novice clinicians ▸ Have these nurses work with and guide novices and advanced beginners in workshop exercises and in reinforcing BPG use in practice ▸ Expand critical thinking and decision-making skills by arranging opportunities for dialogue with experts on complex situations regarding BPG
Expert	▸ No longer relies on rules, guidelines or maxims ▸ Intuitive grasp of situations based on deep tacit understanding ▸ Analytic approaches used only in novel situations or when problems occur ▸ Vision of what is possible	▸ May be bored with traditional lecture methods that are focused on the learning needs of novices and beginners ▸ Recognize expertise by involving in planning ▸ Allow for total self-direction in their learning and encourage generating hypotheses and questions about integration of BPG and adaptation to context ▸ Recognize expertise by having them act as teacher, group leader, or mentor for competent and proficient clinicians ▸ Consult on BPG education and implementation

In order to develop learning objectives it is essential to focus on the learner. A key tool for identifying and leveling learning objectives is Bloom's taxonomy. Benjamin Bloom & David Krathwohl (1956) devised taxonomy of learning behaviours to identify levels of learning within three domains: Cognitive, Affective and Psychomotor.

The Cognitive Domain

Educational activities and behaviours identified in this domain relate specifically to intellectual competence. Bloom and colleagues identified different levels of intellectual competence using a hierarchy of six categories: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. Each of the categories has been defined and language terms assigned to assist educators and students in identifying the level of intellectual competence to be achieved (Bloom & Krathwohl, 1956; Anderson & Krathwohl, 2001). This language is helpful in the process of developing and leveling learning objectives. *Table 20a* describes the elements of this domain.

The Affective Domain

Educational activities and behaviours identified in this domain relate specifically to an awareness of feelings, emotions and ways of thinking. This domain includes interest, attention, concern, responsibility, communication skills and the ability to demonstrate these characteristics in the context of situations relative to the area of study, in this case BPG. This domain has not been categorized; however, language terms have been assigned to assist educators and students in identifying achievement of behaviours specified in this domain. *Table 20b* describes the affective domain.

The Psychomotor Domain

This domain was not identified in Bloom's original work, but has been defined and classified in works other than Bloom's. For the purposes of this resource, it will be defined as educational activities and behaviours specific to the use of motor skills. *Table 20c* describes the elements of the psychomotor domain.

Table 20a: Cognitive Domain

(thinking, knowledge)

Knowledge

Definition
Remembers previously learned material

Sample verbs
- Define
- Identify
- Label
- List
- Name
- Recall
- State

Comprehension

Definition
Grasps the meaning of the material (lowest level of understanding)

Sample verbs
- Describe
- Discuss
- Explain
- Locate
- Paraphrase
- Give example
- Translate

Application

Definition
Uses learning in new and concrete situations (higher level of understanding)

Sample verbs
- Apply
- Carry out
- Demonstrate
- Illustrate
- Prepare
- Solve
- Use

Analysis

Definition
Understands both the content and structure of material

Sample verbs
- Analyze
- Categorize
- Compare
- Contrast
- Differentiate
- Discriminate
- Outline

Synthesis

Definition
Formulates new structures from existing knowledge and skills

Sample verbs
- Combine
- Construct
- Design
- Generate
- Plan
- Propose

Evaluation

Definition
Judges the value of material for a given purpose

Sample verbs
- Assess
- Conclude
- Evaluate
- Interpret
- Justify
- Select
- Support

Source: Krumme, G. (2001). Major categories in the taxonomy of educational objectives: Bloom 1956. Available: **http://faculty.washington.edu/krumme/guides/bloom.html**. Adapted with permission.

Table 20b: Affective Domain

(feelings, attitudes)

Knowledge

Definition

Selective attention to stimuli

Sample verbs

- Accept
- Acknowledge
- Be aware
- Listen
- Notice
- Pay attention
- Tolerate

Comprehension

Definition

Responds to Stimuli

Sample verbs

- Agrees to
- Answer freely
- Assist
- Care for
- Communicate
- Comply
- Conform
- Consent
- Contribute
- Cooperate
- Follow
- Obey
- Participate willingly
- Read voluntarily
- Respond
- Visit
- Volunteer

Application

Definition

Attaches value or worth to something

Sample verbs

- Adopt
- Assume responsibility
- Behave according to
- Choose
- Commit
- Desire
- Exhibit loyalty
- Express
- Initiate
- Prefer
- Seek
- Show concern
- Show continual desire to
- Use resources to

Analysis

Definition

Conceptualizes the value and resolves conflict between it and other values

Sample verbs

- Adapt
- Adjust
- Arrange
- Balance
- Classify
- Conceptualize
- Formulate
- Group
- Organize
- Rank
- Theorize

Synthesis

Definition

Integrates the value into a value system that controls behaviour

Sample verbs

- Act upon
- Advocate
- Defend
- Exemplify
- Influence
- Justify behaviour
- Maintain
- Serve
- Support

Source: Krumme, G. (2001). Major categories in the taxonomy of educational objectives: Bloom 1956. Available: **http://faculty.washington.edu/krumme/guides/bloom.html**. Adapted with permission.

Table 20c: Psychomotor Domain

(doing, skills)

Perception

Definition
Senses cues that guide motor activity

Sample verbs
- Detect
- Hear
- Listen
- Observe
- Perceive
- Recognize
- See
- Sense
- Smell
- Taste
- View
- Watch

Set

Definition
Is mentally, emotionally and physically ready to act

Sample verbs
- Achieve a posture
- Assume a body stance
- Establish a body position
- Place hands, arms, etc.
- Position the body
- Sit
- Stand
- Station

Guided Response

Definition
Imitates and practices skills, often in discrete sets

Sample verbs
- Copy
- Duplicate
- Imitate
- Manipulate with guidance
- Operate under supervision
- Practice
- Repeat
- Try

Mechanism

Definition
Performs acts with increasing efficiency, confidence, and proficiency

Sample verbs
- Complete with confidence
- Conduct
- Demonstrate
- Execute
- Improve efficiency
- Increase speed
- Make
- Pace
- Produce
- Show dexterity

Complete Overt Response

Definition
Performs automatically

Sample verbs
- Act habitually
- Advance with assurance
- Control
- Direct
- Excel
- Guide
- Maintain efficiency
- Manage
- Master
- Organize
- Perfect
- Perform automatically
- Proceed

Adaption

Definition
Adapts skill sets to meet a problem situation

Sample verbs
- Adapts
- Reorganizes
- Alters
- Revises
- Changes

Organization

Definition
Creates new patterns for specific situations

Sample verbs
- Designs
- Originates
- Combines
- Composes
- Constructs

Source: Krumme, G. (2001). Major categories in the taxonomy of educational objectives: Bloom 1956. Available: **http://faculty.washington.edu/krumme/guides/bloom.html**. Adapted with permission.

Writing Learning Objectives

Objectives begin with the identification of a topic and are refined as the learning process evolves. Content can be grouped and defined by specific goals related to the learning event. In essence, what will the student accomplish through participation in this learning event? A learning objective can then be formulated for each of the goals. Learning objectives are formatted after identifying the essential content of the learning event. Learning objectives must be written in the active voice and contain the condition, the behaviour and the criterion (Mager, 1984).

The Condition

This portion of the learning objective is specific to the situation under which the student will achieve the behaviour. An example: "At the completion of this learning event the student will…."

The Behaviour

This portion of the learning objective is specific to what the student will demonstrate. The behaviour is usually expressed in the form of a verb; this verb must define an observable or measurable student action. It is helpful to use Bloom's language terms for this portion of the learning objective. Two examples are:

1. "The student will describe the purpose of BPG" (Bloom's Cognitive Domain: Comprehension); and
2. "The student will collaborate with the client to identify the components of the BPG desired for integration in the current care plan" (Bloom's Cognitive Domain: Synthesis).

The Criterion

This portion of the learning objective is specific to the degree of satisfaction that the student will demonstrate the behaviour as evaluated by the educator. It is difficult in the field of nursing to assign numbers as an identification of the criterion. Therefore, you must use your own judgment of the situation to identify criteria for this portion of the learning objective. In terms of behaviours in the cognitive domain, the criterion may be an assigned number. For example, "… as demonstrated by the achievement of 80% upon the completion of a post-test." When describing behaviours in the affective and psychomotor domain this may be more difficult. For example, "…as demonstrated in the clinical setting to the satisfaction of the educator." *Table 21* includes each of the levels from both Bloom and Benner in comparison with examples to assist you in leveling learning objectives; the level of learning objective can be used once the learner's needs are identified. (Note: Level 5 is a combination of Bloom's synthesis and evaluation.)

Table 21: Leveling Learning Objectives using Bloom and Benner

Level of Objective	Bloom's Taxonomy (Cognitive, Affective, Psychomotor)	Benner	Example	BPG objective
Level One	**(C)** Knowledge – ability to recall or remember concept/ information contained in the learning event **(A)** Receiving – selective attention to stimuli **(P)** Perception – senses cues that guide motor activity Set – mental, emotional and physical readiness to act	**Novice** ▸ No previous knowledge of the concept/ information contained in the learning event	▸ 1st year student ▸ New graduate new to a specialty area ▸ Preceptor working with a student for the first time	▸ Learner can identify a BPG relevant to the area of practice ▸ Learner can assemble required materials for wound care according to BPG recommendations.
Level Two	**(C)** Comprehension – can explain the concept/information contained in the learning event **(A)** Responding – responds to stimuli **(P)** Guided response – imitates and practices skills, often in discrete steps	**Advanced Beginner** ▸ Enough knowledge and experience to understand the concept/information contained in the learning event ▸ May require additional guidance/supervision to put knowledge into practice	▸ New graduate with recent unit experience ▸ Educator new to teaching role	▸ Learner explains importance of BPGs in improving care ▸ Learner participates in activities to promote BPGs
Level Three	**(C)** Application utilizes previously learned concepts/ information in new situations **(A)** Valuing – attaches value or worth **(P)** Mechanism – performs acts with increasing efficiency, confidence and proficiency	**Competent** ▸ Able to plan using the concepts/information from the learning event for situations	▸ Experienced nurse on new unit ▸ Experienced educator with no knowledge of BPG ▸ Nurse developing an experience base in a specialty area	▸ Learner seeks other BPGs that may be appropriate for clients ▸ Learner can explain value of BPGs in improving care. ▸ Learner uses BPG recommendations routinely in care of most clients for which it is suitable
Level Four	**(C)** Analysis – able to generalize previously learned concepts/information to various situations, identifying causes and finding evidence to support use of knowledge and skills to obtain the best outcome **(A)** Organization – conceptualizes the value and resolves conflict between it and other values **(P)** Complete overt response – performs automatically	**Proficient** ▸ Able to anticipate what will occur in response to use of knowledge and skills, intuition and ability to recognize acute changes in the situation as they present themselves. ▸ Uses previously learned concepts/knowledge to anticipate the outcome of the plan	▸ Experienced nurse with the confidence in knowledge base and experience to make modifications in practice based on individual client's condition	▸ Learner identifies situations where modifications to BPG recommendations must be made to improve client care
Level Five	**(C)** Synthesis/Evaluation – creatively or divergently applying prior knowledge and skills to produce a new or original whole. **(A)** Internalizing – integrates value into a value system that controls behaviour **(P)** Adaptation/organization – adapts skill sets, creates a new pattern to meet specific problem or situation	**Expert** ▸ No longer relies on analytic rules, guidelines or principles. Is able to focus on the accurate region of the problem or situation because judgment is based on paradigms	▸ Leader in nursing care within a unit ▸ Post-graduate nursing student ▸ Experienced nurse transferring to a new unit with BPG that are relevant to all client care	▸ Learner seeks out other evidence sources to deal with unique problems ▸ Learner modifies approaches to improve patient care ▸ Learner identifies ways to collect data to assess effectiveness of various approaches

(C) = Cognitive (A) = Affective (P) = Psychomotor

Putting it all together

In these examples, final learning objectives may look like this:

1. At the completion of this learning event the student will describe the use of BPG as demonstrated by the achievement of 80% upon the completion of a post-test.
2. At the completion of this learning event the student will collaborate with the client to identify the components of the BPG desired for integration in the current care plan as demonstrated in the clinical setting to the satisfaction of the educator.

Implementing the Learning Plan

This section contains additional information about teaching and learning strategies and offers an alternative theory about how people learn. The following topics are discussed:

- Learning Styles
- Teaching Strategies

Learning Styles

Until the 1980s it was thought that most learners were verbal and computational (Brualdi, 1996). Howard Gardner (1983) proposed that there were eight types of intelligence. These were referred to as Multiple Intelligences. This model is a theory of cognitive functioning and proposes that each person has capacities in all eight intelligences. The intelligences usually work together and are always interacting with each other. An understanding of Gardner's eight intelligences will aid an educator in planning and implementing an educational session. *Table 22* describes the intelligences and corresponding teaching strategies to meet individual needs.

Table 22: Strategies for Individual Learner Needs

Multiple Intelligences	Learning Style	Teaching and Learning Strategies
Linguistic (word smart)	▸ Learns best by speaking, hearing and seeing ▸ Likes to read, write and tell stories ▸ Good at memorizing names, places, dates and trivia ▸ Reads, writes and follows a lecture delivery with ease	▸ Didactic lecture format ▸ Use narrative stories to give meaning to BPGs ▸ Pre-reading packages ▸ Well written handouts ▸ Verbal debates ▸ Word games
Logical-mathematical (number/ reasoning smart)	▸ Associated with scientific and mathematical thinking ▸ Has ability to detect patterns ▸ Reasons deductively ▸ Thinks logically ▸ Explores patterns and relationships	▸ Experiments/research projects ▸ Statistics: interpreting results ▸ Problem based learning ▸ Teach how to do literature searches to obtain BPG ▸ Introduce the research that supports the BPG ▸ Step-by-step instructions ▸ Summaries
Spatial (picture smart)	▸ Ability to manipulate and create mental images to solve problems ▸ Not limited to visual domains ▸ Likes to draw, build, design, create things, daydream, look at pictures/slides	▸ Demonstrations ▸ Overheads ▸ PowerPoint presentations ▸ Diagrams ▸ Pictures, graphs ▸ Concept maps ▸ Involve in development of algorithms to follow BPGs
Musical (music smart)	▸ Capacity to recognize and compose musical pitches, tones and rhythms ▸ Learns best by rhythm, melody and music ▸ Likes to sing, hum, listen, play and respond to music	▸ Mneumonic and rhythmic reminders ▸ Play music as participants enter the room, or during evaluations
Bodily-kinesthetic (body smart)	▸ Learns best with sense of movement and touch ▸ Processes knowledge through bodily sensations ▸ Likes to move, touch, talk ▸ Uses body language ▸ Good at physical activities	▸ Hands-on practice or simulation of client care ▸ Learners return the demonstration of the skill, knowledge or attitude ▸ Active role-playing ▸ Simulated learning vignettes ▸ Have participants move around the room and write ideas on flip chart papers
Interpersonal (people smart)	▸ Has the ability to understand, perceive and discriminate between people's moods, feelings, motives and intelligences ▸ Good leader, organizer, communicator, manipulator and mediator ▸ Learns best by sharing, comparing, relating, cooperating	▸ Group work ▸ Case studies ▸ Simulations ▸ Real interactions with clients ▸ Brain storming ▸ Journal clubs
Intrapersonal (self smart)	▸ The ability to know oneself and to understand one's own inner workings ▸ Has ability to understand one's own feeling and motivation ▸ Learns best by working alone	▸ Individualized projects ▸ Self-paced instruction ▸ Self-reading packages, or self-testing ▸ Online courses ▸ Reflective journaling ▸ Praise and reinforcement to confirm learner is on the right track
Naturalistic (nature smart)	▸ Enjoys biological chemical and physiological underpinning of the teaching	▸ Present the research behind the BPG

Reference: Gardner, H. (1983) *Frames of Mind: The theory of multiple intelligences.* New York: Basic Books.

Teaching Strategies

Dialogical Learning

Small group work

- *Small group work* in the clinical setting may be more difficult, as many experienced nurses may not have used this type of learning. You may want to do some education on small group work with participants or facilitators before you begin (Elwyn, et al, 2000).
- *Case Studies* are an excellent way to develop learners' analytical and problem-solving skills, the types of skills needed to utilize BPG.
- *Group work* can begin with each group selecting one of the BPG to review. Present a short lecture on BPG, including prior background, content. Have the learners review the BPG as a group and compare the recommendations contained in the BPG to their current practice in their clinical area. They then present which recommendations are currently in place, which ones they have not seen or are not using and how they might incorporate the recommendations into their current practice.
- *Pre-reading packages* help learners come to group work with questions.
- *Interactive workshops* may also be effective but require resources and ongoing support of a clinical expert or champion.
  - Have a train-the-trainer course for resource nurses on the units, and organize regular meeting to discuss education issues.
  - Consider sending nurses to a Best Practice Champions Workshop offered by RNAO. It educates nurses on the use of the *Toolkit* for implementing BPG into clinical settings.
- Have learners work in small groups and ask them the following questions: How do you read a guideline? How will this guideline help you in practice? How strong is the evidence on which it is based? What can you take from this guideline today and apply to your practice tomorrow?
- *In clinical areas* set up scheduled times on patient care units to address questions about BPG.
- *In clinical areas* arrange for small group work to include the interdisciplinary team.

Journal Club

- Put students into journal clubs at the beginning of the semester. They pick an interest for the group (e.g., pediatrics, elder care, practice improvement) and then search BPG for interventions that apply to their topics. Have the students read and discuss the references of the BPG.

Experiential Learning

Role-playing

- Can be an effective technique, but you must be cognizant that some learners will not feel comfortable participating. If you can make case studies and role-playing scenarios more realistic you may have better participation. (Elwyn et al, 2000)

Brain Storming Sessions

- Ask the learners what they think would be a good solution to a particular problem, have them brainstorm for solutions and then introduce the BPG and compare the class solutions to the BPG interventions. This is particularly useful in the clinical area, as it can help acknowledge and recognize clinical expertise (Elwyn et al., 2000).

Case Scenarios

- Case Studies are an excellent way to develop learners' analytical and problem-solving skills, needed to utilize BPG. As the educator you should develop realistic case scenarios using real-life events and help participants develop well-built clinical questions. This will allow learners to determine if the clinical questions are answered in a particular BPG and allow them to reference other sources to determine answers.

Examples of Case Scenario types include:

- Simulations/Vignettes – Departments can develop vignettes online, or have actual actors. One university has used actors to simulate a client centred care conversation. Another used online vignettes to teach therapeutic relationships.
- Practice Sites – Identify which sites use the BPG that you are interested in teaching and partner with them to do education, or have students visit that site. In the clinical area you could have nurses who are interested in implementing a BPG visit other sites that have already done this.

On-Site Visits

- Have students visit sites that are currently using BPG (e.g., one professor had her students attend a Breastfeeding Clinic, when studying the BPG *Breastfeeding Best Practice Guidelines for Nurses*).

Educational outreach visits

- BPG Champions meet with clinical nurses on the unit to discuss the use of BPG, one-on-one.

Library Seminar

- Have your hospital or school librarian present a session in the computer lab/nursing station that focuses on the use of the nursing databases and the Web to find peer reviewed articles (Crumley et al, 2001).
- Unit staff can meet with the hospital librarian in a classroom, or individual session or mini sessions on the unit, to help them to ask good clinical questions and search appropriate resources. This may be needed for staff who question the BPG and its value (Crumley et al. 2001).
- Have students in clinical courses write a critical analysis on the use of BPG in their practice setting.
- Have nurses discuss or reflect on their own personal experiences that may affect their nursing care.

Independent Strategies

Reflective Journals

Reflective journals allow the learner the opportunity to reflect on current practices, identify areas of strength as well as areas for improvement. Journal entries over time provide the learner with an evolving story of changes experienced as a result of the learning event. Reflective journals may be used as a personal development tool (i.e., not to be shared or evaluated by others), or may also be incorporated into the learning event as an assignment with evaluation criteria (i.e., shared between teacher and learner).

A consistent format for journal writings can also aid in establishing effective reflective writing. The following format takes the writer from reflection to action (College of Nurses of Ontario, 1996)

L	Looking back
E	Elaborate
A	Analyze critically
R	Reflecting
N	Next time . . . what would you do?

"The journal holds experience as a puzzle frame holds its pieces. The writer begins to recognize the pieces that fit together and, like the detective, sees the picture evolve."
A. Williamson

Strategies to Aid Journal Writing

1. Questions to aid personal reflections
   - What meaning does this topic/area have for you?
   - In what areas/situations do you feel you need to improve?
   - In what areas have you made progress? Specifically, what have you learned? What strengths can you identify?
   - What resources are available to you? Have you searched out

resources to aid in your learning?
- What was helpful to you; what was a barrier?
- How are you feeling about this area of learning?
- What are the current or future opportunities to work on in these areas?
- How will you know?

2 Reflections regarding a specific learning event(s)
- What happened?
- What did I do?
- Who else was involved?
- How do I feel about what happened?
- What did I learn?
- How will I use this in future situations?

Evaluation

This section contains additional information about evaluating the learning event. The following topics are discussed:
- Evaluating reflective journals
- Evaluating the outcomes of learning using rubrics.

Evaluating Reflective Journals

When used as a specific teaching strategy, reflective journals can be evaluated according to the desired outcomes of using the reflective journal (i.e., evidence of self-reflection, progressive reflective and linkage to practice; enhanced ability to link reflections to concepts and implications for practice). *Table 23* is a scoring guideline for journals.

Table 23: Reflective Journal Scoring Guideline

1	2	3	4	5
Vague description	Detailed description of event but lacking personal reflections	Detailed description of event including some personal opinions	Detailed personal reflections including personal learnings	Personal reflections including implications for professional practice; linkage to relevant concepts and theories

Reference: Webster University (2004). Reflective journal: A self-reflective scoring guide. Available: **http://www.webster.edu/~dtheiss/RJfie.htm**.

Evaluating the Outcomes of Learning

Several methods can be used to identify and evaluate the desired outcomes of learning. Rubrics are guidelines for rating learner performance. They specify the expected outcomes for the level of the learner. *Table 24* incorporates two models for determining outcomes of learning specifically related to use of evidence and best practice guidelines. The table integrates Benner's (1984) "from novice-to-expert" and Steinaker & Bell's (1979) "experiential taxonomy". *Table 25* is a rubric for the grading of written work and *Table 26* is a rubric for grading performance (specific skills).

Table 24: Desired Competencies: Application of Research into Practice

	Steinaker & Bell				
Benner	**Exposure**	**Participation**	**Identification**	**Internalization**	**Dissemination**
Novice	Shows awareness of BPGs and application to patient care	Demonstrates ability to identify relevant evidence and/or BPGs	Identifies areas for further growth and learning re: BPGs and patient care	Able to identify evidence required or lacking	Open to new information
Advanced Beginner	Able to discuss how certain aspects of BPGs apply to patient scenarios	Asks questions re: evidence and rationale for decisions	Demonstrates a wish to acquire more information and seeks out resources	Able to explain the rationale for specific BPG	Shares information with others
Competent	Able to analyze and discuss rationale for care decisions	Actively seeks out sources of information	Identifies aspects of BPGs applicable to patient care and practice	Learning becomes integrated into practice	Attempts to share BPG information and influence the practice of others
Proficient	Able to identify opportunities for incorporating BPGs into existing practice	Consistently demonstrates critical analysis and appraisal skills	Able to analyze and interpret information	Able to transfer knowledge to a variety of situations	Shows ability to teach others; critical analysis of evidence incorporated into practice
Expert	Identifies sources and types of information required to enhance knowledge	Confidently articulates foundation for practice and rationale for clinical decisions	Able to apply problem solving skills and knowledge in a variety of situations	Seeks and applies new knowledge and research findings.	Advocates for the implementation of BPG into care delivery models and systems

References: Benner, P. (1984) Cited by: Rolfe, G. (1993) Closing the theory – practice gap: A model of nursing practice. *Journal of Clinical Nursing, 2*, 173 –177.
Steinaker, N. & Bell, R. (1979). *The experiential taxonomy: a new approach to teaching and learning.* New York: Academic Press.

Table 25: Rubric for Grading of Written Work

Grade	Topic / Issue / Question	Use of Evidence	Degree of Analysis	Application to Practice
Superior (A+ / A-)	Applicable, insightful, plausible, sophisticated insight into concepts within current and future trends	Examples of primary sources evident; excellent integration of quoted material into paper	Analysis is fresh and exciting, poses new ways to view material and concepts	Makes clear and definitive links to patient, contextual and professional implications
Very Good (B+ / B -)	Promising, but slightly unclear or lacking insight and originality	Examples used to support most points; some evidence does not support main points, quotes well integrated	Evidence related, although points may not be clear	Application to practice described; fair degree of degree of breadth/depth of argument
Good/Average (C+ / C-)	Uses familiar concepts; offers relatively few new concepts for consideration; may be unclear	Examples used to support some points; quotes poorly integrated into sentences	Analysis offers nothing new; quotes do not relate to analysis	Surface level degree of application; does not demonstrate application beyond status quo; logic often fails
Needs help/Below average (D+ / D)	Difficult to identify; no originality; restatement of obvious/well identified position	Very few or weak examples; general failure to support arguments; quotes "plopped in" – not integrated into sentences in meaningful way	Very little, weak or no attempt to link evidence to argument	Application does not flow; no connections made
Does not meet Requirements / Failing paper (F)	Lack of comprehensive thought or structure	No evidence identified or referred to	No analysis evident	No application to practice included; inappropriate application

Table 26: Rubric for Grading Performance (specific skills)

Performance Levels	Criteria				
	Questioning Skills	Search Skills	Critical Appraisal Skills	Clinical Decision Making	Sharing Information with Others
Exceptional	Continually asks questions, raises different points of view	Readily accesses internal & external resources; able to conduct search independently	Integrates critical appraisal skills into practice	Synthesizes information to facilitate problem-based learning & decision-making with self & others	Freely shares information & resources with others
Good	Contributes to discussion in a meaningful way	Accesses available resources; able to conduct search with assistance	Critically appraises information used for practice	Can confidently articulate evidence base for clinical practice & decision-making	Provides meaningful contributions to discussions
Fair	Expresses own thoughts & questions	Aware of resources but does not access	Demonstrates critical appraisal skills inconsistently	Attempts to explain rationale for clinical decisions	Shares superficial information in discussions
Not Evident	Does not ask questions	Does not access available resource	Does not critically appraise at all	Cannot provide rationale for clinical decisions beyond "traditional routine"	Does not contribute to discussions

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