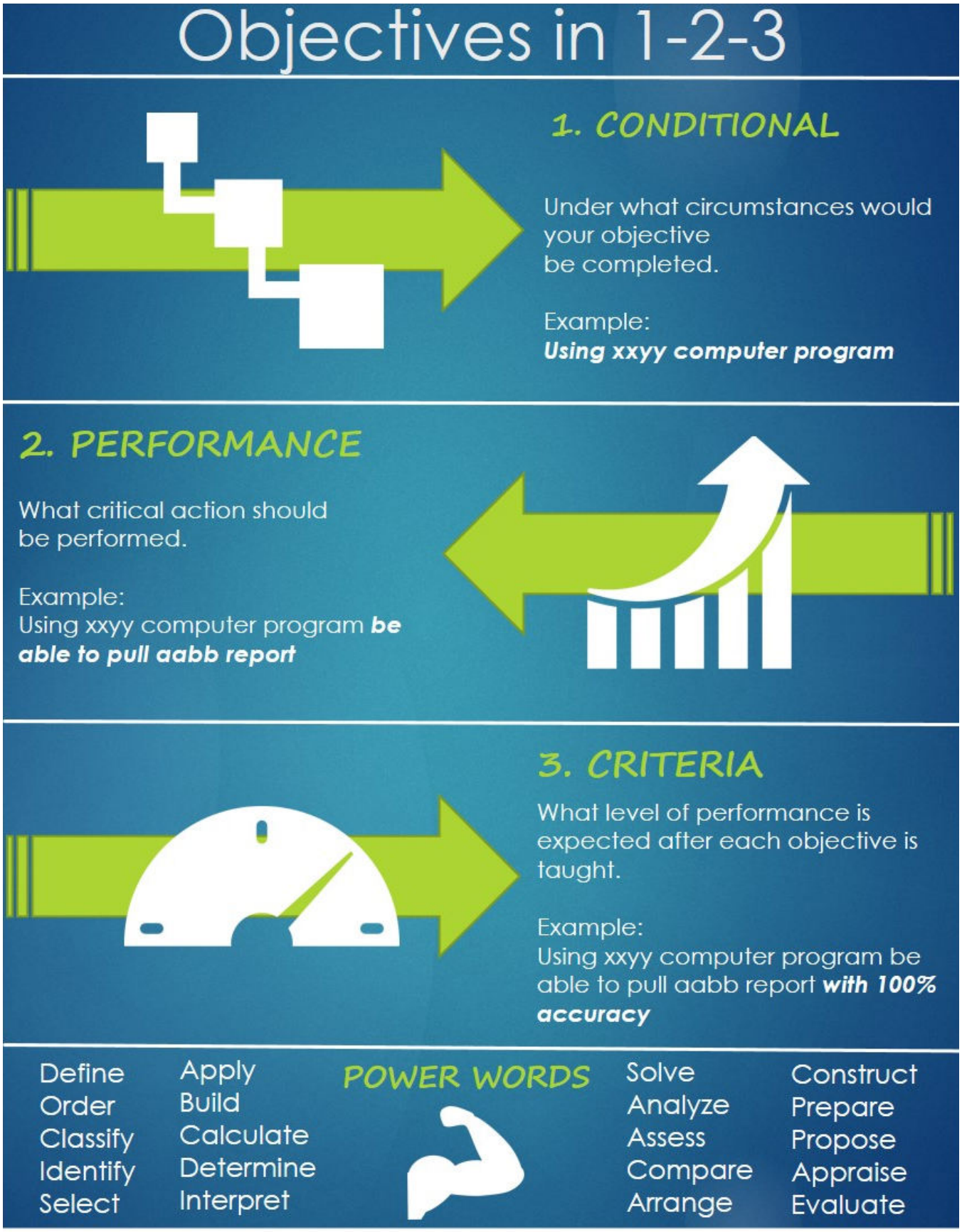
Assessment and Evaluation in Learning and Performance

Module 4: Designing Measurable Learning

1. Developing Measurable Learning Objectives

Learning objectives are specific statements that describe exactly what the learner should know and be able to do at the conclusion of the instruction. As you learned in Module 3, the training objectives should be aligned to the training goal and should specify the steps the learner needs to accomplish in order to meet the established training goal. In order to do this successfully, the objectives must be developed so that they are measurable. While this concept seems somewhat obvious and simplistic, it is not always an easy task.
This infographic illustrates three basic components of a learning objective:

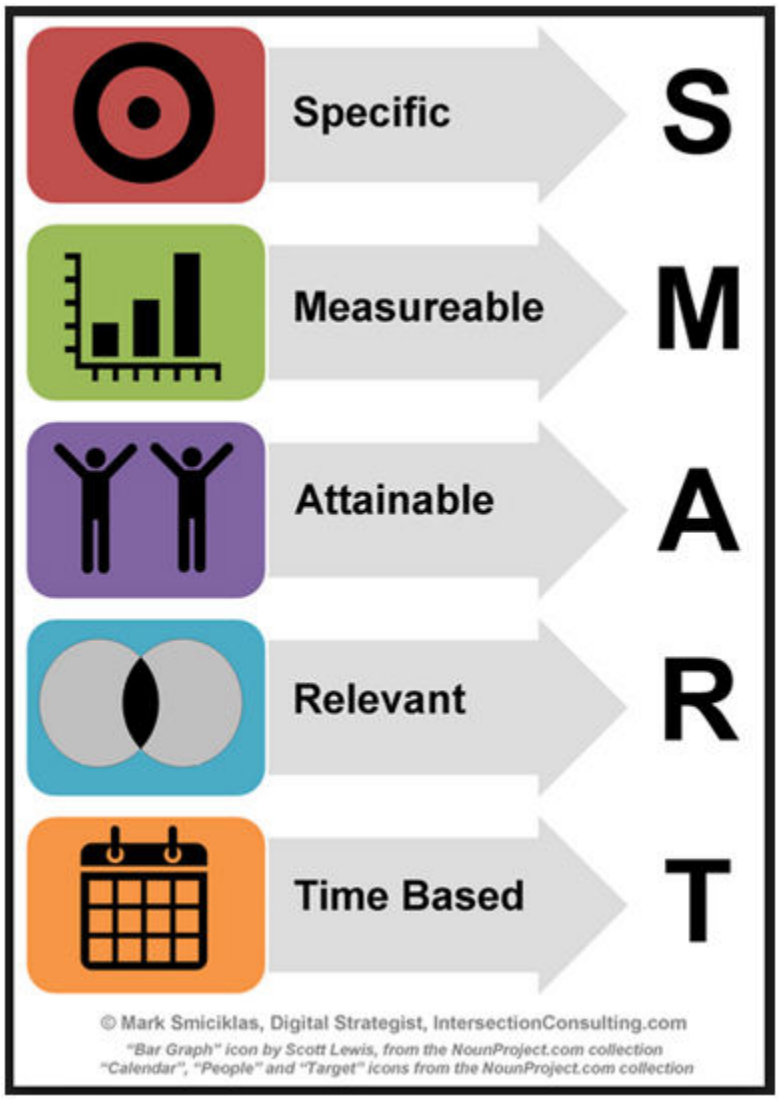


http://elearninginfographics.com/the-3-main-components-of-course-objectives-infographic/

Next, review the following article from eLearningIndustry on how to Use Perfect Learning Objectives to Boost The Quality of your e-Learning (http://elearningindustry.com/use-perfect-learning-objectives-to-boost-the-quality-of-your-e-learning).

The SMART Approach

Instructional designers, along with professionals in the field of education and learning, often utilize a "SMART" approach to writing measurable objectives. S.M.A.R.T. is an acronym for the following:



http://www.practicallyperfectpa.com/2013/smart-objectives-assistants/11/11/

There are a couple of variations in both the 'A' and the 'R' in the acronym, some of which include:

A= attainable, achievable or agreed upon

R= relevant, research-based, or realistic

Keep these variations in mind as you review the following guide on how to write SMART objectives from the Heriot-Watt Performance and Development Review Handbook (http://www1.hw.ac.uk/hr/htm/pdr/06b SMART Objectives.pdf).
Next, view the video for a quick reprise of the SMART acronym:

Smart Objectives

http://www.youtube.com/watch?v=c6MDeDAEMgk

Check Your Understanding

After reviewing the module content, reading the additional resources and watching the videos, check your understanding of SMART objectives by flipping each card to review the definitions of the terms in the SMART acronym.

Check Your Understanding

Click Here to Begin

The ABCD Model

Yet another approach to writing measureable objectives is called the ABCD model. As you view the video, consider how the ABCD model compares to and contrasts with the SMART approach.

Instructional Objectives ABCD

http://www.youtube.com/watch?v=6b9ahqnC8Xc

Resources

Many people find that utilizing **Bloom's Taxonomy** can be helpful in creating measurable learning objectives. Below you will find some Bloom's Taxonomy resources:
Questions for the Revised Bloom's Taxonomy: **Revised Bloom's Taxonomy (https://csuglobal.blackboard.com/bbcswebdav/xid-7815392_2)**
Here is a link to learn more about a Learning Objectives Generator App (https://play.google.com/store/apps/details?id=com.pandp.objectives)
Examples of objectives written for each level of Bloom's Taxonomy along with activities and assessments. Writing Objectives Using Bloom's Taxonomy

(http://www.cincinnatistate.edu/online/faculty-resources/qm-training-packet/Example of how Bloom is used_02152012.pdf).

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2. Aligning Objectives to Instructional Strategies and Assessments

In Chapter 2 of *ROI by Design*, Paramoure (2013) indicates that in the typical design process once the training objectives are created, the next step is to determine or design the instructional strategies. In addition to aligning instructional strategies to the objectives, the assessments also need to be aligned to both the objectives and the strategies. When all three components are aligned, the outcomes of learning are greatly improved.

Backward Design

Another approach is to design the assessment used to measure the learning objectives first and then use the assessment to plan appropriate learning activities. This is often referred to as "backward design." Review the following article from eLearning Industry for an introduction to the model: Instructional Design Strategy for Achieving Alignment

(http://elearningindustry.com/instructional-design-strategy-for-achieving-alignment).

After reading the article, consider this perspective on alignment and backward design:

Alignment and Backward Design

http://www.youtube.com/watch?v=ZTv2HR2ckto

Resources

Wiggins and McTighe developed ***Understanding by Design*, or UbD**, which is a tool to help educators plan for aligned objectives, instructional strategies and assessments that emphasizes the backward design approach. While most UbD resources were designed with the K-12 educator in mind, the ideas, templates, and resources can be utilized for any instructional design project. Here are some resources and templates for implementing UbD:
Overview of UbD and the Design Template (http://www.grantwiggins.org/documents/UbDQuikvue1005.pdf) from Wiggins

UbD Lesson Plan Template (http://blog.wsd.net/thpaskett/2011/08/30/understanding-by-design-lesson-plan-template/)

The following is a website for using UBD in development of online courses. Be sure to scroll down and take a look at the “UBD Tree” and some of the examples: Understanding by Design. (http://iteachu.uaf.edu/develop-courses/planning-a-course/understanding-by-design/)

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3. Legal & Ethical Considerations Related to Assessment and Evaluation

There are a variety of ethical and legal considerations, implications and issues related to assessment and evaluation. Some are related to assessment and evaluation in general, and others are specific to digital, mobile and social technology assessment and evaluation.

To begin exploring these ethical and legal considerations first review Chapters 1, 2, 5 and 8 of the following guide on **Testing and Assessment (https://csuglobal.blackboard.com/bbcswebdav/xid-7815393_2)** produced by the U.S. Department of Labor: Employment and Training Administration.

Next, click on each tab below to browse through the information and explore additional considerations when developing an evaluation plan for a business or organization seeking to provide blended or online training and assessment.

Authenticity

Refers to being "able to establish the user's identity beyond a reasonable doubt" (ITGS, 2012, p. 21). Authenticating the user is obviously crucial in online assessment and evaluation.

Inappropriate Assistance

The person being assessed may inappropriately access assistance from another person or resource.

Privacy

Individuals and groups should be the ones to determine when, how and to what degree information, including results of assessments, is shared with others (ITGS, 2012).

Netiquette

"Netiquette" refers to Internet etiquette. It is the "dos and don'ts" of online communication and should be followed when creating and implementing online assessment and evaluation tools (CourseHero, 2014).

Data Security

All individual and organizational assessment and evaluation data need to be protected and kept highly secure. Secure transmission of online survey data is also important. Many online assessment and survey software has an SSL encryption feature. Be sure to enable this (SurveyMonkey, 2014).

Bias

An assessment is considered biased "if a test design, or the way results are interpreted and used, systematically disadvantages certain groups of students over others" (Great Schools Partnership, 2014, para. 1). This might include bias toward race, age, color, gender, second language learners, culture, or income background (Great Schools Partnership, 2014).

Informed Consent

If required, when using an online assessment or survey, be sure to include a consent form for the survey. Also, consider including a data confidentiality statement and allow the respondent an option to withdraw from the survey if appropriate (SurveyMonkey, 2014).

Anonymity

In some cases assessment and evaluation data should be anonymous. If this is the case, responses can only be anonymous in an online survey if there is a way to not collect computer IP addresses (SurveyMonkey, 2014). Some assessment and survey tools have this as an option, but it typically must be switched to 'No' as the default is most often to collect the address.

Integrity

Assessment and evaluation data should be safeguarded for accuracy and completeness. "Data lacks integrity if it has been changed or accidentally tampered with" (ITGS, 2012, p. 21).

Surveillance or Video Assessment

Monitoring may be used to assess performance in the workplace. It is essential that the person being monitored is fully aware of and has agreed to the surveillance (Watson, 2013).

Take a look at this document containing suggestions for how to address the accessibility elements in the Quality Matters Rubric : Accessibility Standards (http://www.acousticslab.org/dots_sample/general/qm/qm8_accessibility_standards.pdf)

Resources

Here are some additional resources that may be of interest to you:

ADA:

Section 508-Compliant eLearning Solutions (http://elearningindustry.com/creating-section-508-compliant-elearning-solutions)

Top 10 Tips for Creating Accessible eLearning (http://elearningindustry.com/top-10-tips-for-creating-accessible-elearning)

5 Steps to Help you Create 508-Compliant Content (http://elearningindustry.com/5-steps-to-help-you-create-508-compliant-content)

FERPA:

Guidelines for Public, Student Class Blogs, Ethics, Legalities, FERPA and More (http://www.hastac.org/blogs/cathy-davidson/2012/11/30/guidelines-public-student-class-blogs-ethics-legalities-ferpa-and-mo)

OTHERS:

Using Facebook to Assess Candidates During the Recruiting Process: Ethical Implications (https://www.class.umn.edu/crimson/dependancies/multimedia/Facebook_in_Hiring_Ethical_Implications.pdf)

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ITGS. (2012). *Strand 1: Social and ethical significance*. Retrieved from http://itgs.wikispaces.com/file/view/Syllabus_Outline_extract_2012.pdf

Paramoure, L. (2013). *ROI by design: Unlock training's impact through measurable instructional design.* Amazon: CreateSpace Independent Publishing Platform.

SurveyMonkey. (2014). How does SurveyMonkey adhere to IRB guidelines? Retrieved from http://help.surveymonkey.com/articles/en_US/kb/How-does-SurveyMonkey-adhere-to-IRB-guidelines

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