Promoting Self-Direction and Personal Autonomy

Richard Brown Ph.D.
brown123@umn.edu

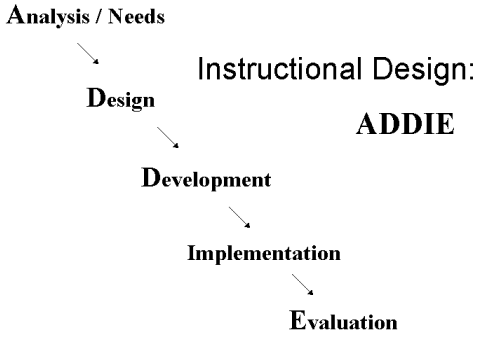
The following pages (and associated Breeze presentation) provide an overview of the topic, self-determination, as it relates to the professional abilities of Pharmacists. In addition, a framework is suggested for incorporating attributes within instructional strategies that promote the ongoing training, practice, and reflection upon the component elements of self-directed learning and development.

What you read in the next several pages is not intended to be taken as gospel. Please critically reflect on everything in this presentation/handout and challenge the assumptions you read or hear (or those that are implied).

Handout and "Breeze" presentation - Version 1.0
Accompanying on-line narrated presentation - https://umconnect.umn.edu/selfdirection/

Overview

- **ADDIE Model** (Review)
- **A**nalysis: Why do anything? Needs and Goals
  - General Ability Outcomes
  - Important Characteristics
- **D**esign:
  - Relevant Research
  - Operationalizing "Self-Direction"
  - Key Dimensions of Instructional Strategies
- **D**evelopment
  Implementation ↔ Some Examples
  Evaluating your efforts…
- Open issues…
- Additional Resources…



The ADDIE model is a generic one that emulates or captures key elements of many other instructional design models (and "general systems" models in other fields). More information regarding "ADDIE" is included at the start of your "Teaching Basics" module, within the topic, Instructional Systems Design. Try "Googling" "systems design" or "general systems thinking" for more information on this topic.

Additional resources related to Instructional Systems Design are included in the final page of this handout.

Analysis: Why do anything?

- Professional Ability Outcomes
  - On-going Change of the Profession
  - Individual Control and Responsibility
  - Need for General Ability Outcomes
- Can be "Objectified"
  - Knowledge
  - Skills
  - Attitudes / Values
- Can be Taught and Nurtured

As professionals, Pharmacists are expected to maintain an ongoing regimen of professional growth and training. As this is a thriving field, new technologies, techniques and protocols are evolving constantly. No longer playing the somewhat "subservient" role of student, Pharmacists are expected to be internally motivated to maintain a current set of skills and up-to-date knowledge as a professional in this arena.

Promoting this predisposition towards self-direction and personal growth is an important element of the PharmD curriculum and can be accomplished through systematic incorporation of strategies useful toward this end.

Analysis:
Pharmacy's General Ability Outcomes
Thinking

- Identify, retrieve, understand, analyze, synthesize, and evaluate information needed to make informed, rational, ethical decisions.
- Solve complex problems that require an integration of one's ideas and values within a context of scientific, social, cultural, legal, clinical, and ethical issues.
- Display habits, attitudes, and values associated with mature critical thinking.

Analysis:
Pharmacy's General Ability Outcomes
Self-Learning Abilities

- Determine areas of deficiency and/or interest.
- Engage in learning activities on an ongoing basis for personal or professional development based on self-determined areas of deficiency and/or interest.
- Foster intellectual curiosity as a motivation for lifelong learning.

The specific set of skills required of practicing Pharmacists and defined within the larger set of outcomes expected of all graduates of the Pharmacy Doctorate program are included as "General Ability" and "Self-Learning" outcomes.

The logic of pairing these two distinct sets of outcomes for the purposes of this presentation is that practicing the skills defined within each category requires the use of skills detailed within the other. It could be argued that the skills defined, in combination, represent significant aspects of what is considered "fluid" intelligence, rather than "crystallized" intelligence. That is, these skills are not tied to specific disciplinary content but are skills that are applied across the range of content within the field. In fact, it could be argued that the skills identified as "general ability" and "self-learning" skills translate into all arenas of ones professional and personal life.

Analysis:
Important Characteristics of These Outcomes

- Skills, habits, and values
- Obtained over time
- Require repeated practice and feedback
- Practiced Across the curriculum (fluid vs crystallized)
- Supported and/or taught via specific strategies and associated tools

Understanding that these outcomes can be operationalized as concrete objectives and, then, appropriate strategies and evaluation mechanisms developed, helps us move from the analysis phase towards designing our instruction and/or the "environmental" characteristics to support or nurture these skills.

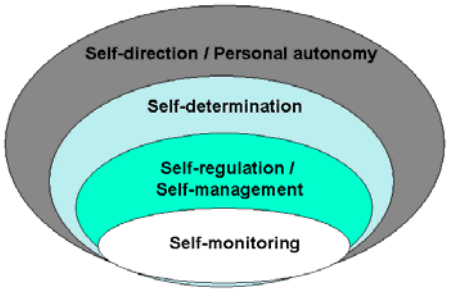
Design:
Moving from Goals to Objectives
Self-directed Learning…
(Knowles, 1975)

A process…

"… in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs [and interests*], formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes."

* My insert

Design:
Moving from Goals to Objectives
Relevant Concepts



Of the concepts related to self-direction, it might be useful to consider each in relation to the other terms. The slide on the right, above, is intended to illustrate a perspective whereby each term or set of terms can be seen as being more encompassing than terms beneath it or encircled within the ven diagram. For example, self-monitoring is one skill encompassed by the term self-regulation which, in turn, is one component under the umbrella of self-determination.

In this scheme, the most encompassing and wide-ranging set of skills are encompassed by the terms self-direction and personal autonomy. While this analysis may be useful for our purposes, a more detailed and fully considered effort of conceptual analysis is needed.

Design:
Moving from Goals to Objectives

Review of Relevant Educational Research

- Self-direction – Malcolm Knowles
- Self-determination – Edward Deci and Richard Ryan
- Self-management – Edwin Fisher, Tina Koch
- Self-regulation – Lynn Corno, Kathryn Ley
- Self-monitoring – Frederick H. Kanfer

Operationalizing "higher-order" thinking and "executive control" capacities is fertile territory for researchers in many disciplines. Placing these professional outcomes within a useful "taxonomy of learning outcomes" (ala Gagne, 1974; Bloom 1956) facilitates the definition of precise objectives and selecting specific strategies. Related to this process, it is important to distinguish among the various related concepts. The following selection of articles provides you with a representative sample of individuals working within each conceptual model.

Smith, M. K. (2002). Malcolm Knowles, informal adult education, self-direction and anadragogy. *The encyclopedia of informal education*. [On-line]. http://www.infed.org/thinkers/et-knowl.htm

Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy: Does psychology need choice, self-determiniation, and will? *Journal of Personality*, 74, 1557-1586.

Lyn Corno (2004) Introduction to the Special Issue Work Habits and Work Styles: Volition in Education Teachers College Record 106 (9), 1669–1694.

Fisher et al. (2005). Ecological Approaches to Self-Management: The Case of Diabetes. *American Journal of Public Health*, 95 (9). 1523-1535.

Ley K, Young D. (2001). Instructional principles for self-regulation. *Educational Technology Research and Development*, 49 (2), 93-103

Kanfer FH. 1975. Self-management methods. In *Helping People Change*, ed. FH Kanfer, pp. 309–55. New York: Wiley

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Design:
From Objectives to Strategies

Key Dimensions of Useful Strategies

- Motivational Goals
- Instructional Goals

A large variety of strategies have been suggested to promote self-direction and personal autonomy. The following are summaries of some of the important dimensions to consider when selecting or designing strategies focused towards promoting or nurturing self-direction. A large set of specific strategies is included in the final two pages of this document.

Motivational Goals (see summary of Johnmarshall Reeve, page 6 of this document)
- Nurtures inner motivational resources
- Relies on informational language
- Promotes valuing
- Acknowledges and accepts negative affect as valid reaction to constraints

Instructional Goals for Promoting Self-Direction (see page 7 for details)

- *Shared Control / Partnership*
  - Teach "information literacy," "project management," and "research" skills
  - Design opportunities for practice and feedback for students using strategies
  - Provide a menu of learning opportunities/venues and assessment mechanisms
  - Encourage ongoing evaluation of course and revise strategies cooperatively
- *Open Communication and Professionalism*
  - Create a safe and supportive environment for ongoing discussion, goal setting, practice and feedback
  - Model and expect openness, trust, respect, and ethical behavior throughout the curriculum and "community"
  - Encourage community and community participation
  - Nurture professional values and beliefs
- *Promote Independence and Critical Reasoning Abilities*
  - Practice in "real world" settings – realistic problems, cases, clerkships, etc.
  - Ensure access to necessary resources
  - Encourage ongoing reflection and self-diagnosis of learning needs

Development, **I**mplementation, **E**valuation:

Some Examples

- Focus on link between objectives, strategy and evaluation mechanisms
- Consider co-design of cross-curricular strategies
- Work with students to review and revise
- Include evaluation of "transfer to workplace," if possible

When reviewing the strategies listed on the final two pages of this handout, consider the advice to the left. For example, systematic design always involves ensuring the strategies we incorporate in a module, course, or curriculum are intended to satisfy one or more objectives we have developed. In addition, if we are serious about supporting our students as they evolve and practice self-direction, they should be involved in both selecting and evaluating the use of specific strategies. If possible, students should be able to select from a "menu" of strategies to both learn and practice, coupled with strategies to evaluate their progress.

Open Issues

- Linking Critical Thinking and Self-Direction
- Implementing Change Across the Curriculum
- Measuring Long-Term Effects – Behavior in the Field and Over-time
- Cross-Disciplinary Relevance

Critical Thinking. An important skill (or set of skills) required for ongoing and effective self-direction is that of "critical thinking." While the concept of critical thinking means many things to many people, at its essence is the ability to apply reason when deciding what to do or what to believe. Again, when "thinking for oneself," (e.g., self-direction) the ability to apply well-reasoned judgment is essential. The topic of critical thinking is addressed explicitly in another area of this course.

Cross-Curricular Application. Many curricula are organized in a manner that does not foster cross-curricular implementation of processes, technologies, or strategies. However, obtaining buy-in and advocacy from colleagues in several departments prior to attempting implementation, facilitates the long-term success of any such project.

Change in the Workplace. An important but difficult stage in any instructional "intervention" is that of evaluating the long-term effects and results of our instruction in the world outside of the classroom. A well-designed needs assessment should assist us in determining – in measurable terms – exactly what outcomes we hope to obtain in the workplace or other external setting. Consider a need as a gap between what currently exists (or occurs) and that which should exist/occur. These needs should be quantified. Of course, our instructional intervention can, typically, be expected to have only a limited effect on what are often complex issues. For a more extended education on this topic, look for references to Kirkpatrick's "Four Levels of Evaluation" or any of the work by Roger Kaufman and his model of "Needs Assessment and Planning."

Cross-Disciplinary Relevance. If we successful design our learning environment within one content area to nurture and teach skills related to self-direction and personal autonomy, it is likely that our students will find themselves able to learn independently in a variety of content areas in many other disciplines. This is a great strength of what some have termed, "intelligence improvement efforts" (Sternberg, 1979). Very often, what we teach (and learn) is not discipline-specific content (i.e., concepts and rules) but, rather, strategies related to how to learn. Self-direction is comprised of several such global skills.

Additional Resources

The following pages provide you with four distinct summaries of research related to the topic of self-direction. In addition, there are several articles and web sites documenting research with a variety of populations – students, professionals, folks handling chronic illness.

You will find that the arena of self-direction / determination / management is a very fertile one for research and strongly focused on detailing pragmatic strategies for behavioral change and personal growth. Where do you stand? What are your thoughts and ideas? How will these affect how you teach (or learn)?

References Cited:

Bloom B. S. (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain*. New York: David McKay Co Inc.

Fisher et al. (2005). Ecological Approaches to Self-Management: The Case of Diabetes. *American Journal of Public Health*, 95 (9). 1523-1535.

Gagné, R.M. and Briggs, L.J. (1974). *Principles of instructional design (2nd ed.)*. Holt, Rinehart, and Winston.

Kanfer FH. 1975. Self-management methods. In *Helping People Change*, ed. FH Kanfer, pp. 309–355. New York: Wiley

Ley K, Young D. (2001). Instructional principles for self-regulation. *Educational Technology Research and Development*, 49 (2), 93-103

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Smith, M. K. (2002). Malcolm Knowles, informal adult education, self-direction and anadragogy. *The encyclopedia of informal education*. [Online]. http://www.infed.org/thinkers/et-knowl.htm

Sternberg, R. J. (1979). The nature of mental abilities. *American Psychologist*, 34, 214-230.

Relevant Resources:

Students

Barrell, John (1995). Critical Issue: Working Toward Student Self-Direction and Personal Efficacy as Educational Goals. North Central Regional Educational Laboratory. Retrieved from web April, 2007 - http://www.ncrel.org/sdrs/areas/issues/students/learning/lr200.htm

Reeve, Johnmarshall; Jang, Hyungshim (2006). What Teachers Say and Do to Support Students' Autonomy during a Learning Activity. *Journal of Educational Psychology*, 98 (1) p209-218

Reeve, Johnmarshall; Jang , Hyungshim; Carrell, Dan; Jeon, Soohyun; Barch, Jon (2004). Enhancing Students' Engagement by Increasing Teachers' Autonomy Support. *Motivation and Emotion*. 28 (2)

Smith, M. K. (2002) 'Malcolm Knowles, informal adult education, self-direction and anadragogy', the encyclopedia of informal education, www.infed.org/thinkers/et-knowl.htm. Last updated: October 20, 2005

Williams, G.C.; Deci, E.L. (1996). Internalization of Biopsychosocial Values by Medical Students: A Test of Self-Determination Theory. *Journal of Personality and Social Psychology*, 70 (4). 767-779. Retrieved November, 2006 - http://www.psych.rochester.edu/SDT/documents/1996_WilliamsDeci.pdf

Patients

Essential Elements of Self-Management Interventions [Monograph]. (2002). Washington, DC: The Center for the Advancement of Health; Retrieved May, 2007 - http://www.cfah.org/pdfs/Essential_Elements_Report.pdf

Fisher EB, Brownson CA, O'Toole ML, Shetty G, Anwuri VV and Glasgow RE. (2005). Ecological Approaches to Self-Management: The Case of Diabetes. *American Journal of Public Health*, 95(9), pp. 1523-1535

Joshua Chodosh, MD, MSHS et al (2005). Meta-Analysis: Chronic Disease Self-Management Programs for Older Adults. *Annals of Internal Medicine.* 143 (6). 427-438 (plus appendices). Retrieved via web 6/1/07 - http://www.annals.org/cgi/reprint/143/6/427.pdf

Koch, P. Jenkin & D. Kralik (2004) Chronic illness self-management: locating the 'self'. *Journal of Advanced Nursing.* 48 (5), 484-492.

Sher, T G : Bellg, A J : Braun, L : Domas, A : Rosenson, R : Canar, W J (2002). Partners for Life: a theoretical approach to developing an intervention for cardiac risk reduction. *Health Education Research*, 17(5): 597-605

Williams GC, McGregor HA, Zeldman A, Freedman ZR, Deci EL. (2004). Testing a self-determination theory process model for promoting glycemic control through diabetes self-management. *Health Psychology*, 23(1):58-66.

Williams, G.C.; McGregor, H.A.; Sharp, D.; Levesque, C.; Kouides, R. W.; Ryan, R.M.,; Deci, E.L. (2006). Testing a self-determination theory intervention for motivation tobacco cessation: Supporting autonomy and competence in a clinical trial. *Health Psychology*, 25 (1). 91-101

<table>
<tr><td>Theory Name / Primary Author</td><td colspan="2">Autonomy-Supportive Teaching Methods / Johnmarshall Reeve</td></tr>
<tr><td>Principle Assumptions and
Primary References

Tables generated from personal communication, shared PPT slides.

Author web site:
http://reeve.socialpsychology.org/</td><td colspan="2">- Nurtures inner motivational resources
- Relies on informational language
- Promotes valuing
- Acknowledges and accepts negative affect as valid reaction to constraints</td></tr>
<tr><td rowspan="3">Instructional Strategies

Autonomy Supports:
Listen carefully
Allow time for independent work
Provide rationales
Praise mastery
Offer encouragements
Offer hints when stuck
Response to student-generated comments, suggestions
Ask what students want
Perspective statements</td><td>Nurture Inner Motivational Resources:
Initiating students’ classroom engagement.

Build instructional activities around students…
Interests
Enjoyment
Sense of Being Challenged
Preferences
Choice-Making</td><td>Versus…

Rely on external regulators, such as…
Incentives
Consequences (Rewards)
Directives
Assignments
Compliance Requests</td></tr>
<tr><td>Rely on Informational Language
Respond to students’ motivational problems (e.g., listlessness, poor perf.).

Communicate classroom requirements and opportunities through messages that are…
Noncontrolling
Informational
Flexible</td><td>Versus…

Communicate classroom requirements and opportunities through messages that are…
Pressuring
Critical
Rigid</td></tr>
<tr><td rowspan="2">Autonomy Thwarts:
Hold learning materials
Show solutions/answers
Speak solutions/answers
Commands/directives
Make should, got to, have to statements
Ask questions in controlling ways</td><td>Promote Valuing
Motivating students on uninteresting (but important) lessons.
When asking students to engage in a requested activity, behavior, or procedure…

Provide rationales to explain the lesson’s…
Utility (Use)
Importance
Value, Meaning
Hidden Value</td><td>Versus…

Neglect to communicate what it is about this lesson that makes it worthwhile—that justifies students’ investment of effort.</td></tr>
<tr><td>Acknowledge and Accept Expressions of Negative Affect
Inevitable conflict between what teachers want students to do and what students want students to do.

Acknowledge and accept such feelings and resistance as a valid reaction to the teacher’s constraints, demands, and imposed structures.</td><td>Versus….

Counter students’ negative affect, arguing that such “attitude” is unacceptable—something that needs to be changed, fixed, or reversed into a more acceptance attitude.</td></tr>
</table>

<table>
<tr><td>Theory Name / Primary Author</td><td>Supporting and Facilitating Self-Directed Learning / Cheryl Lowry synthesizing research by several other investigators: Ash, Bauer, Brockett, Brookfield, Cross, Hiemstra, Knowles, Reisser, et al</td></tr>
<tr><td>Principle Assumptions and
Primary References
http://www.ericdigests.org/pre-9213/self.htm
ERIC Identifier: ED312457
Publication Date: 1989-00-00</td><td>
<table>
<tr><th rowspan="2">Type of learning:</th><th colspan="2">Who is in Control of Instructional……</th></tr>
<tr><th>Objectives</th><th>Means</th></tr>
<tr><td>Self-directed</td><td>Learner</td><td>Learner</td></tr>
<tr><td>Informal Learning</td><td>Institution</td><td>Learner</td></tr>
<tr><td>Nonformal Learning</td><td>Learner</td><td>Institution</td></tr>
<tr><td>Formal</td><td>Institution</td><td>Institution</td></tr>
<tr><td colspan="3">These dimensions may better be represented on a continuum rather than a matrix….</td></tr>
</table>
</td></tr>
<tr><td>Instructional and Institutional Strategies

These suggestions are garnered from several resources, all cited in her paper. See her paper for a full list of citations.</td><td>
For educators:
o Help learner identify the starting point for a learning project and discern relevant modes of examination and reporting.
o Encourage adult learners to view knowledge and truth as contextual, to see value frameworks as cultural constructs, and to appreciate that they can act on their world individually or collectively to transform it.
o Create a partnership with the learner by negotiating a learning contract for goals, strategies, and evaluation criteria.
o Be a manager of the learning experience rather than an information provider.
o Help learners acquire the needs assessment techniques necessary to discover what objectives they should set.
o Encourage the setting of objectives that can be met in several ways and offer a variety of options for evidence of successful performance.
o Provide examples of previously acceptable work.
o Make sure that learners are aware of the objectives, learning strategies, resources, and evaluation criteria once they are decided upon.
o Teach inquiry skills, decision making, personal development, and self-evaluation of work.
o Act as advocates for educationally underserved populations to facilitate their access to resources.
o Help match resources to the needs of learners.
o Help learners locate resources.
o Help learners develop positive attitudes and feelings of independence relative to learning.
o Recognize learner personality types and learning styles.
o Use techniques such as field experience and problem solving that take advantage of adults' rich experience base.
o Develop high-quality learning guides, including programmed learning kits.
o Encourage critical thinking skills by incorporating such activities as seminars.
o Create an atmosphere of openness and trust to promote better performance.
o Help protect learners against manipulation by promoting a code of ethics.
o Behave ethically, which includes not recommending a self-directed learning approach if it is not congruent with the learners' needs.

For institutions:
o Have the faculty meet regularly with panels of experts who can suggest curricula and evaluation criteria.
o Conduct research on trends and learners' interests.
o Obtain the necessary tools to assess learners' current performance and to evaluate their expected performance.
o Provide opportunities for self-directed learners to reflect on what they are learning.
o Recognize and reward learners when they have met their learning objectives.
o Promote learning networks, study circles, and learning exchanges.
o Provide staff training on self-directed learning and broaden the opportunities for its implementation.
</td></tr>
</table>