

Weill Cornell College of Medicine, Qatar

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# **CURRICULUM DEVELOPMENT AS A PATH TO SCHOLARSHIP & PUBLICATION**

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November 24, 2014



# Disclosures

The presenter is an editor and author of the book:

- Kern DE, Thomas PA, Hughes MT, eds. Curriculum Development for Medical Education: A Six-Step Approach. 2<sup>nd</sup> ed. Baltimore (MD): Johns Hopkins University Press; 2009.

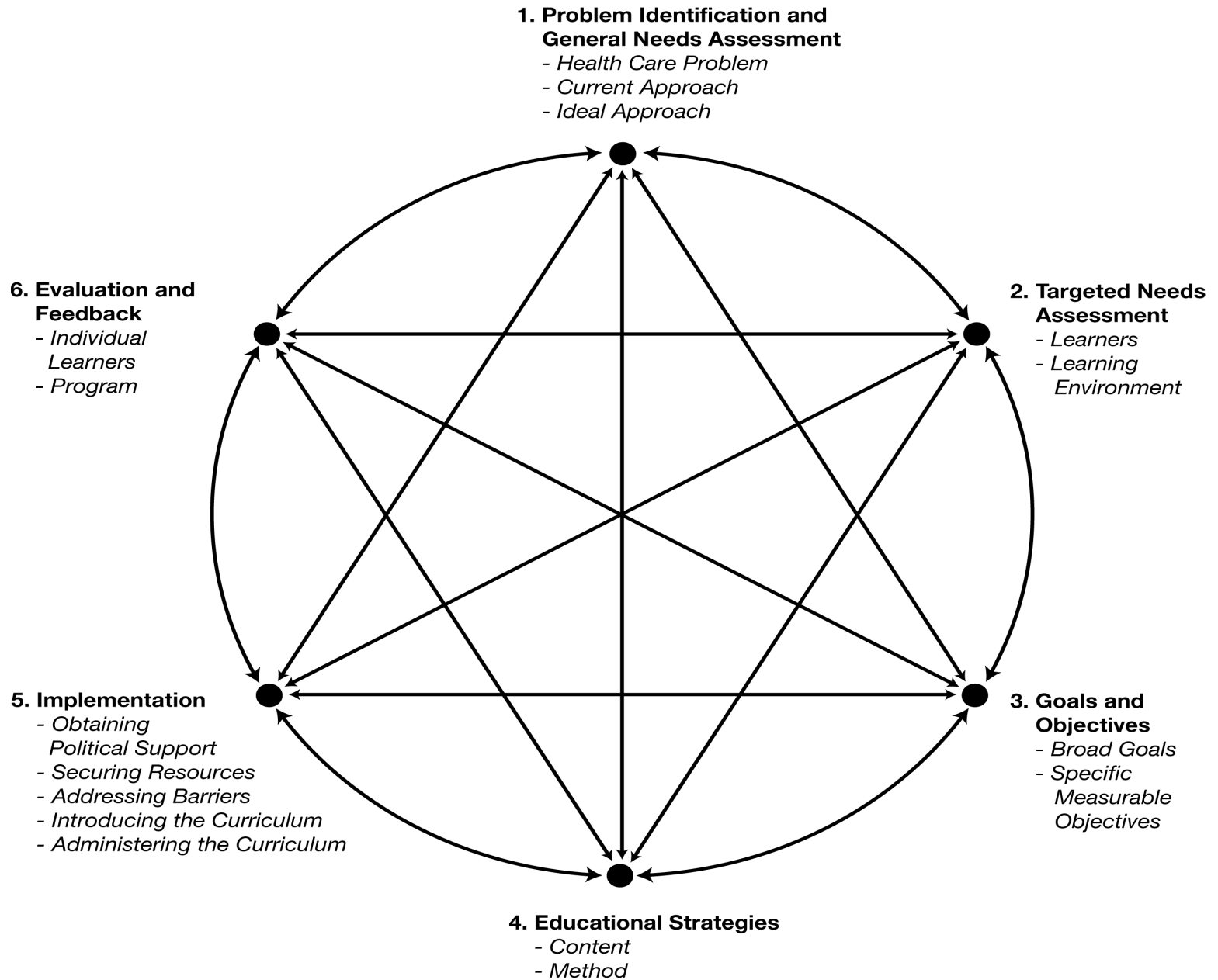
and receives royalties from the publisher, Johns Hopkins University Press.

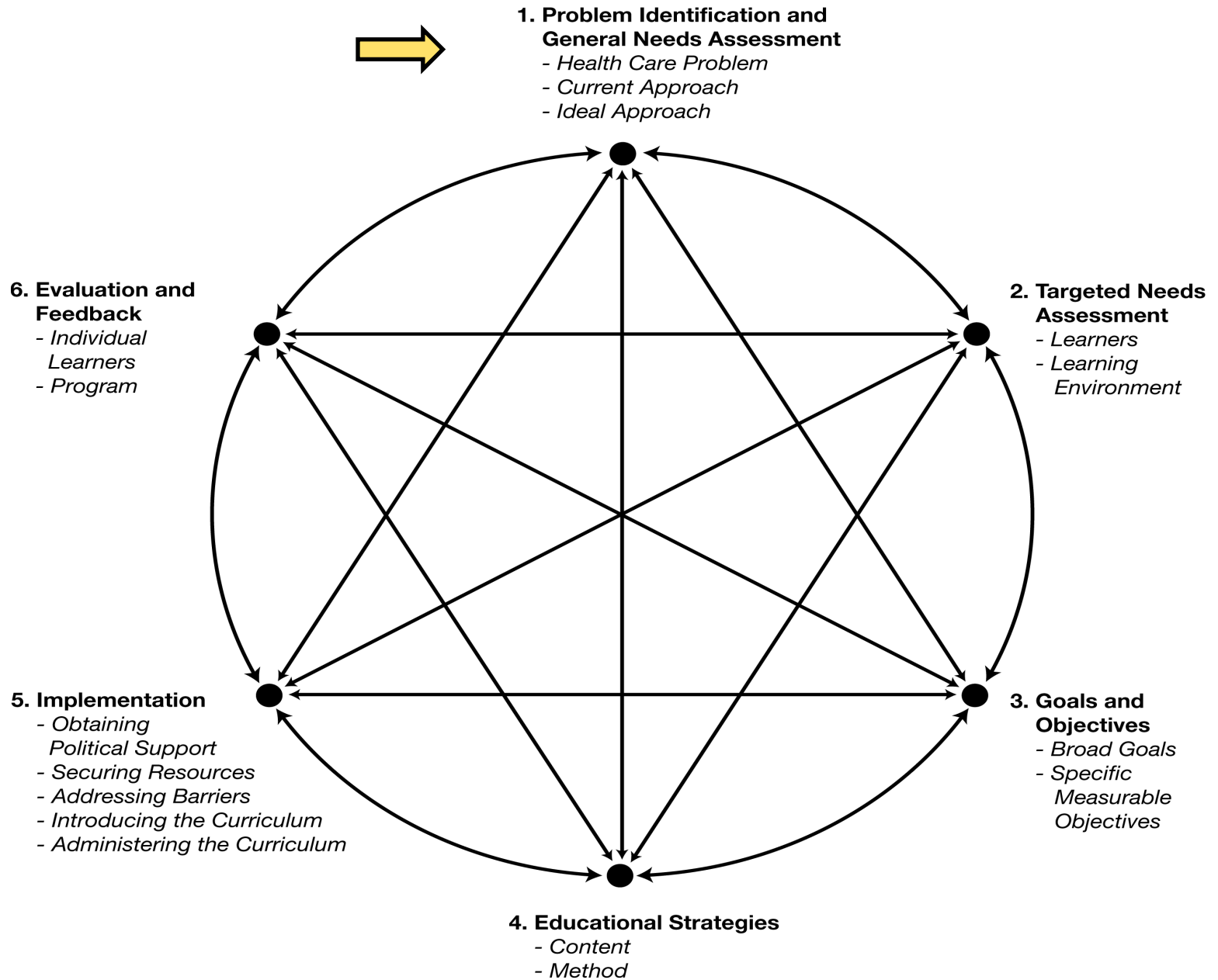
# Goals of Workshop

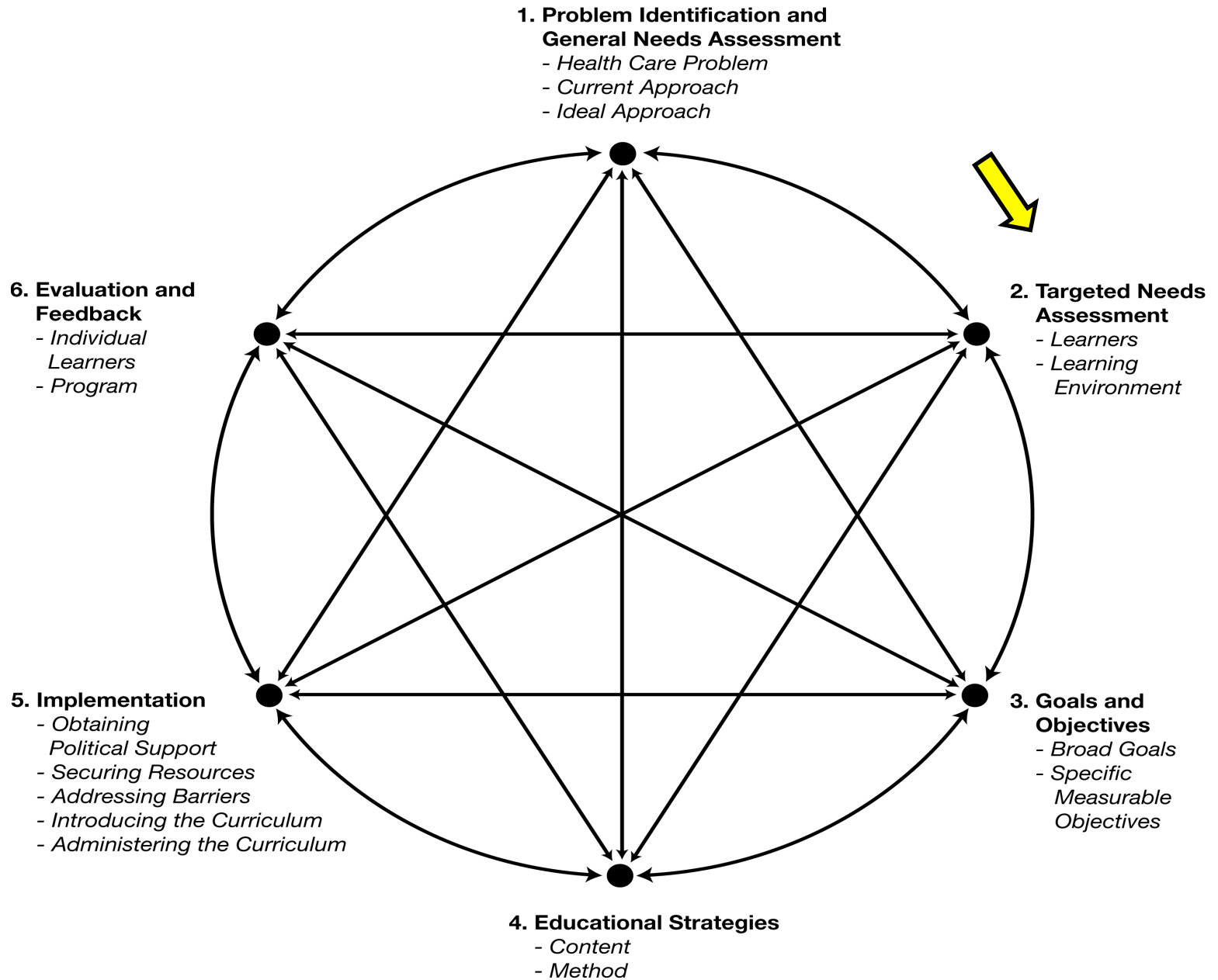


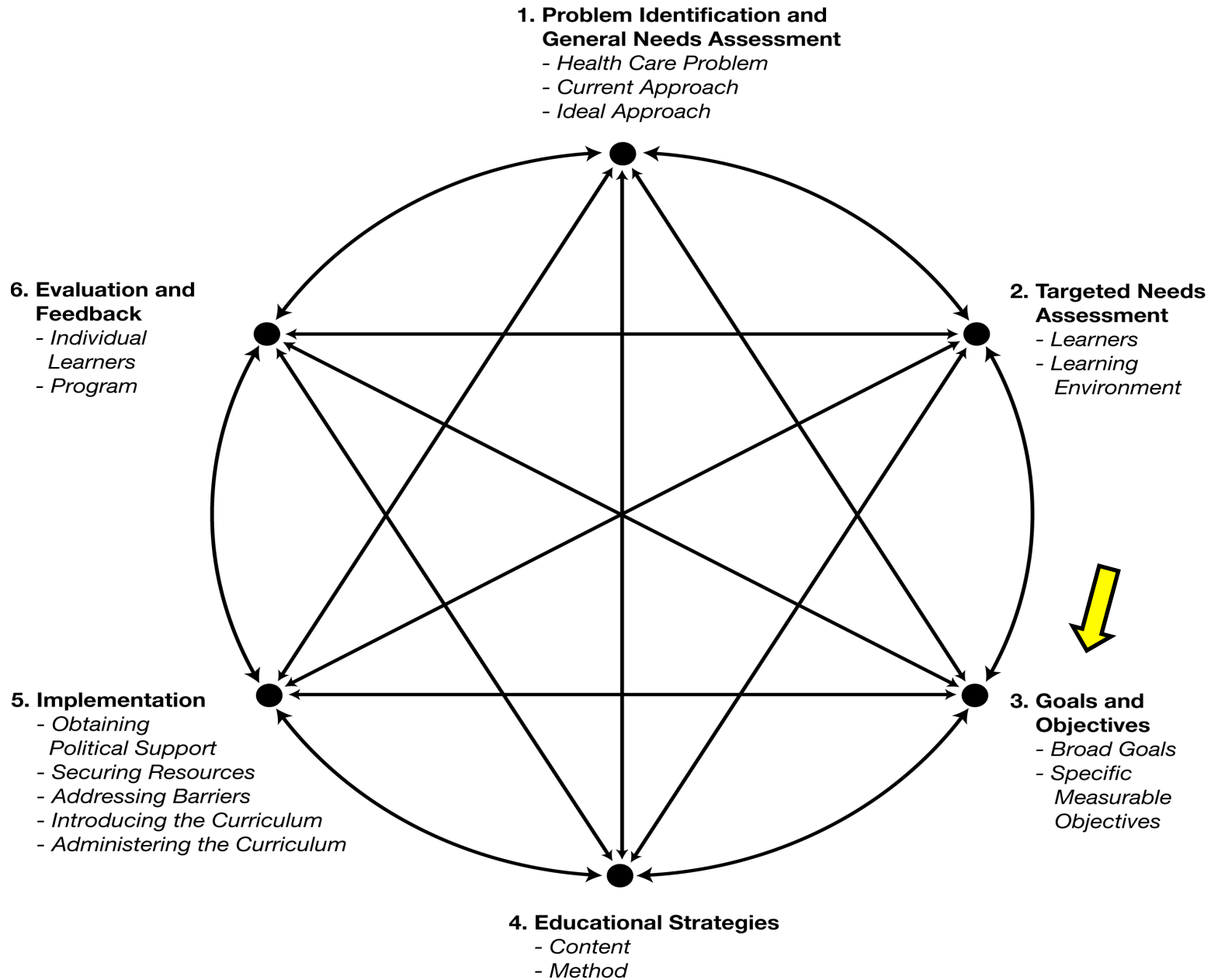
By the end of the session, participants will be able to:

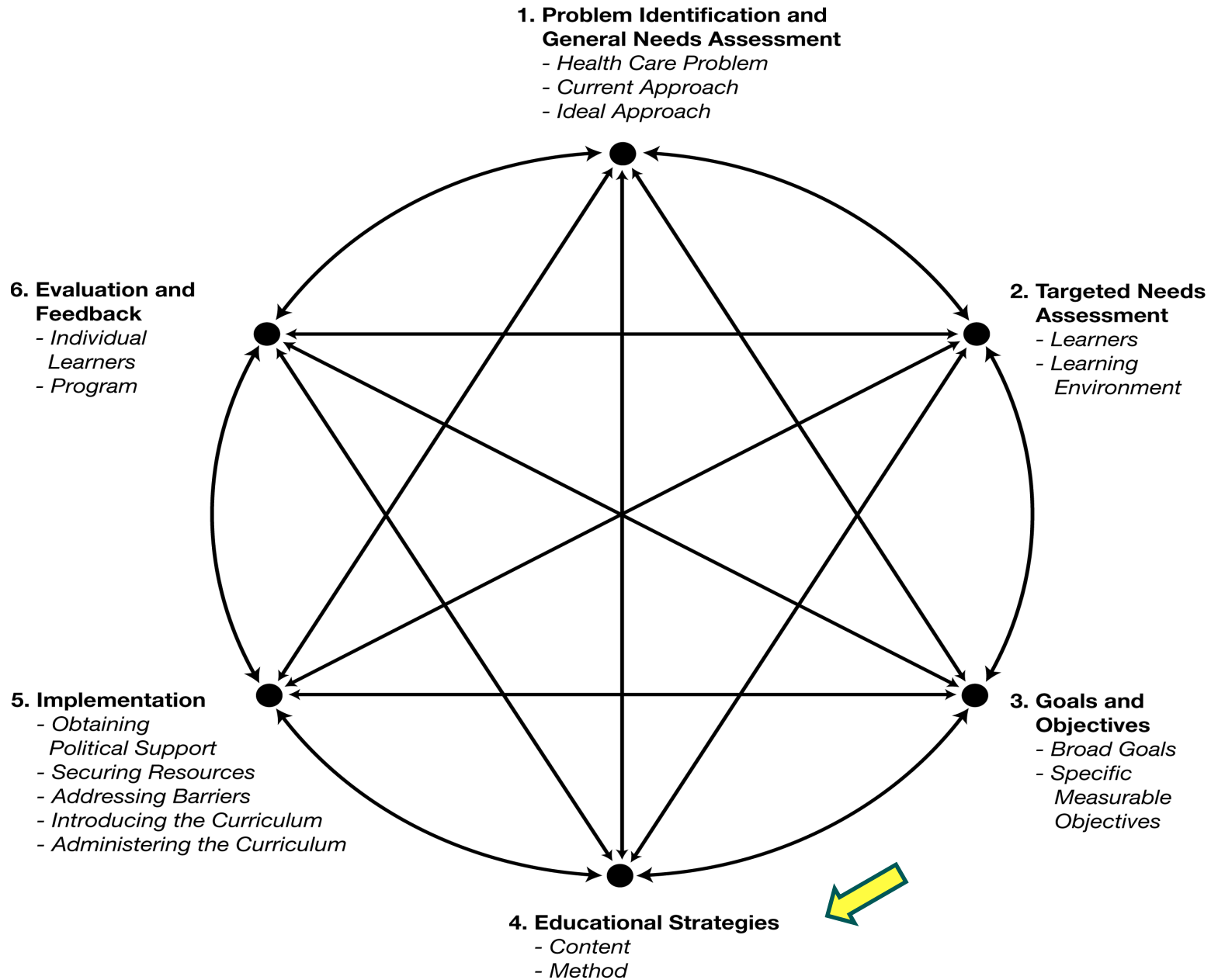
- Describe the components of scholarship as defined by Glassick.
- Describe how these principles relate to curriculum/program development.
- Describe different modes for disseminating curriculum related work.
- Describe an approach to publishing curriculum related work



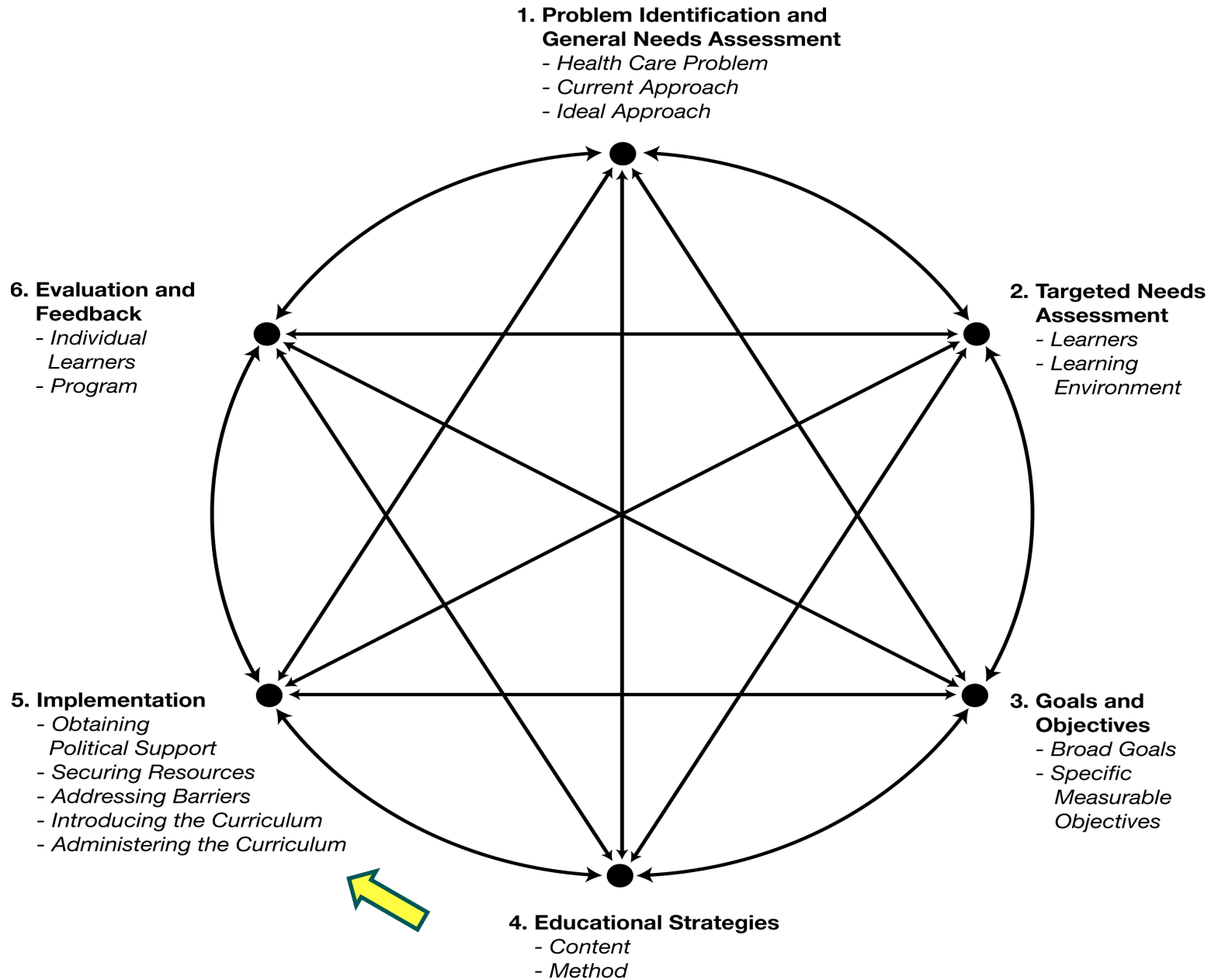


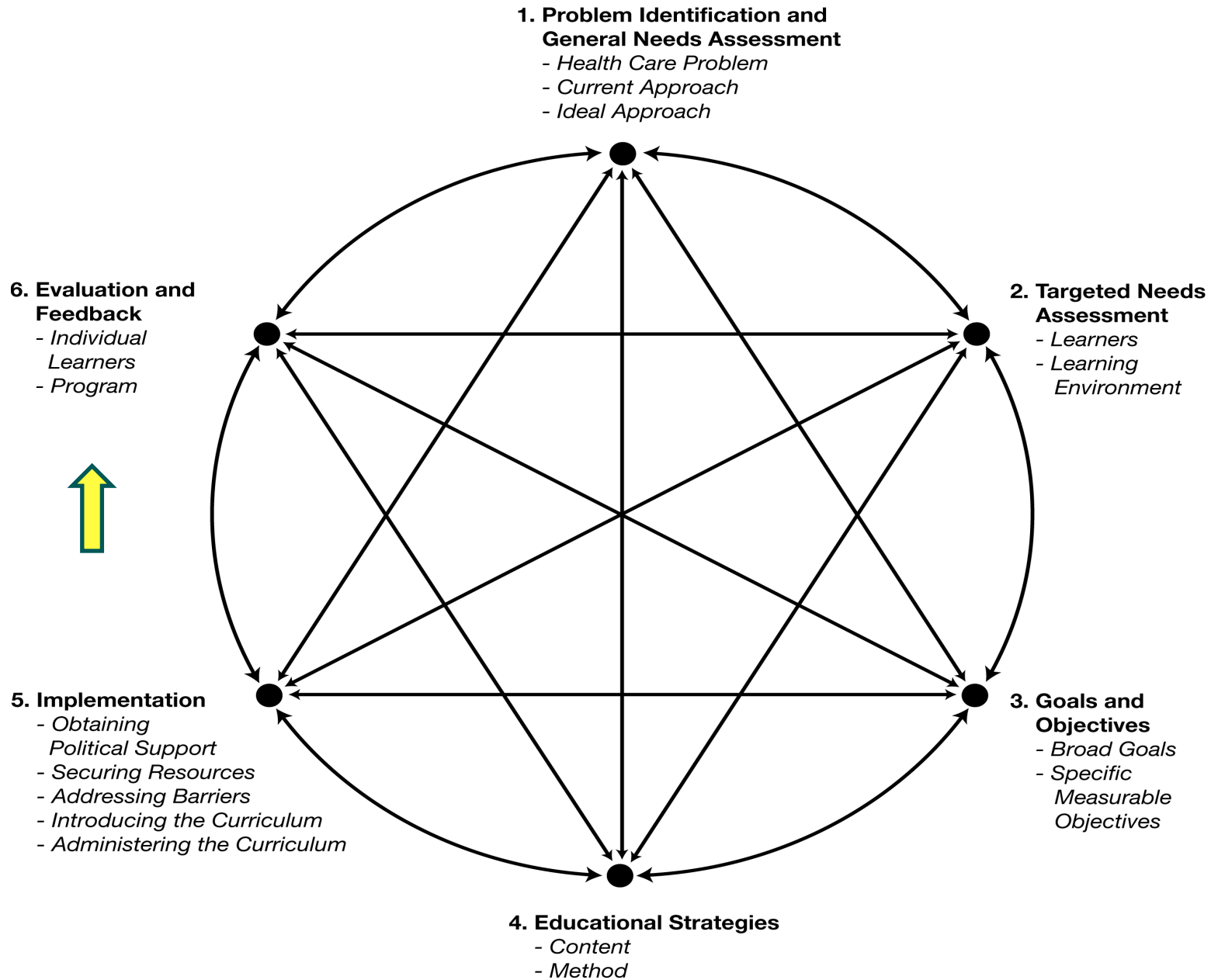












# PROGRAM VS. CURRICULUM DEVELOPMENT



- Steps are the same, with Step 4 being Intervention (Educational Strategies in the CD Model)
- Curriculum Development Reference
  - ❖ Kern DE, Thomas PA, Hughes MT, eds. *Curriculum Development for Medical Education: A Six-Step Approach*. 2<sup>nd</sup> ed. Baltimore (MD): Johns Hopkins University Press; 2009.
- Program Development References
  - Galley NG. *Program Development for the 21<sup>st</sup> Century: an Evidence-Based Approach to Design, Implementation, and Evaluation*. Thousand Oaks, CA: Sage Publications, Inc.; 2011.
  - McKenzie JF, Neiger BL, Thackeray R. *Planning, Implementing, and Evaluating Health Promotion Programs: A Primer*. 6<sup>th</sup> ed. San Francisco, CA: Benjamin Cummings Publishing Co.; 2012.
  - Timmreck TC. *Planning, Program Development and Evaluation: a Handbook for Health Promotion, Aging and Health Services*. 2<sup>nd</sup> ed. Boston: Jones and Bartlett Publishers; 2003.

# **Glassick\***

## **Criteria for Scholarship**



1. Clear goals and aims
2. Adequate preparation
3. Appropriate methods
4. Significant results
5. Effective presentation / dissemination
6. Reflective critique

***\*Glassick CE, Huber MR, Maeroff GI. Scholarship Assessed: Evaluation of the Professoriate. 1997; San Francisco, CA: Jossey-Bass.***

***\*Glassick CE. Boyer's expanded Definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the scholarship of teaching. Acad. Med. 2000;75:877–880.***

# Is CD Scholarship?



Scholarship	Curriculum Development
Clear Goals and Aims	Goals and Objectives
Adequate Preparation	Problem ID, GNA, TNA
Appropriate Methods	Educational Strategies
Significant results	Evaluation
Dissemination	?
Reflective critique	Evaluation

# DISSEMINATION



- The Curriculum or Elements of It
- Publication in Peer Reviewed Journals
- Electronic Publication
- Presentation
  - Local
  - Regional Professional Meetings
  - National and International Professional Meetings

# TEN RECOMMENDATIONS FOR DISSEMINATION



1. Think Ahead

# 1. Think Ahead



Start planning for publication

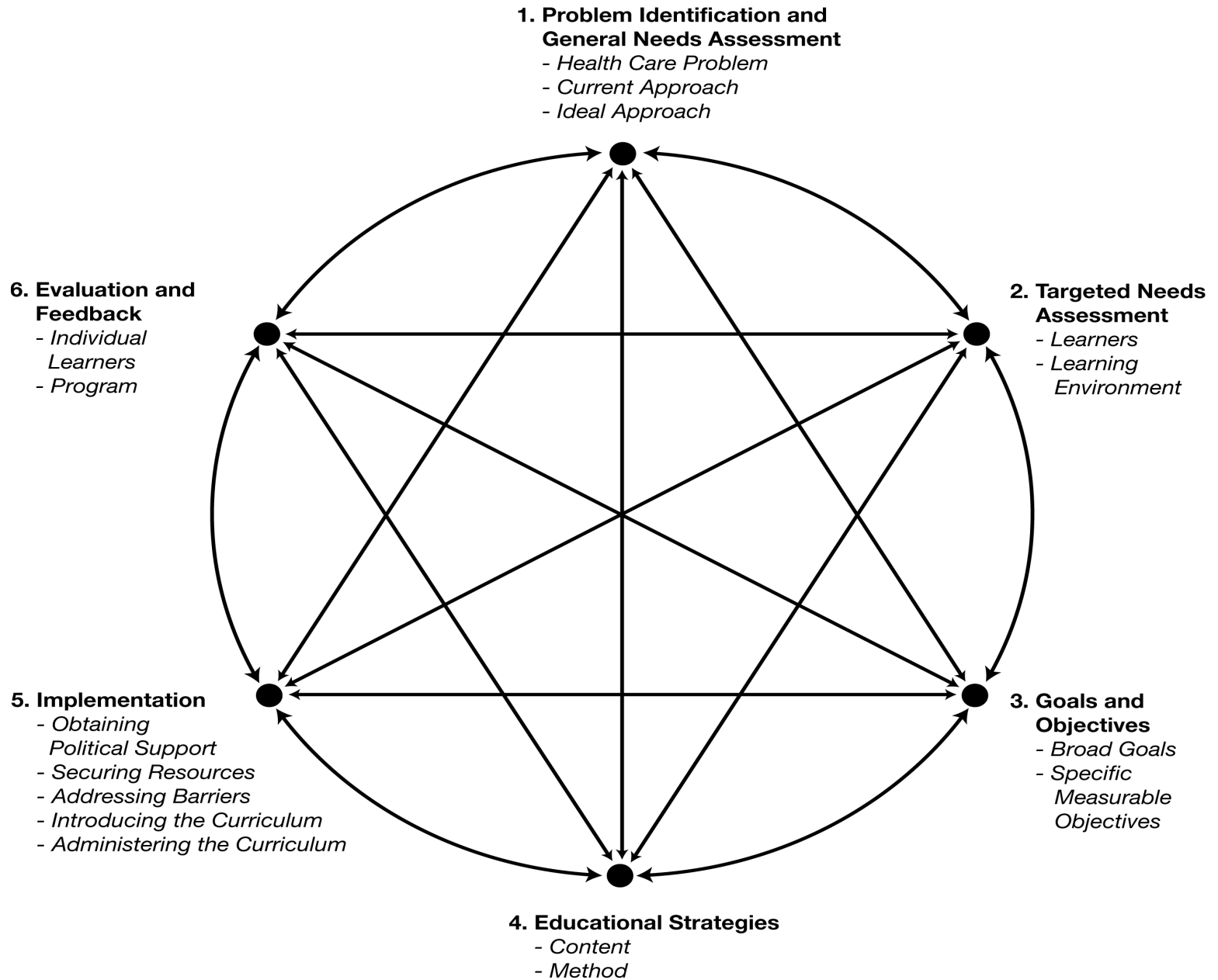
as you begin planning the curriculum.



# TEN RECOMMENDATIONS FOR DISSEMINATION



2. Have a Model for Curriculum  
Development that Makes Your Work  
Both Sound and Scholarly



# Is CD Scholarship?



Glassick Criteria for Scholarship	Curriculum Development
Clear Goals and Aims	Goals and Objectives
Adequate Preparation	Problem ID, GNA, TNA
Appropriate Methods	Educational Strategies
Significant results	Evaluation
Dissemination	?
Reflective critique	Evaluation

# **TEN RECOMMENDATIONS FOR DISSEMINATION**



## **3. Know What Makes Curricular Work Amenable to Dissemination**

# The Curriculum



- Relative advantage
- Compatibility
- Simplicity
- Trialability
- Modifiability
- Observability

Rogers EM. *Diffusion of Innovations*. 5<sup>th</sup> ed. New York: Free Press; 2003.

Oldenburg B, Glanz K. Diffusion of innovations, Chapter 13. In: Glanz K, Rimer BK, ViswanethK, eds. *Health Behavior and Health Education*, 4<sup>th</sup> ed. San Francisco: Jossey-Bass; 2008. Pp. 313–33.

Heath, Chip; Heath Dan. *Made to Stick: Why Some Ideas Survive and Others Die*. Random House, 2007.

# Examples, Dissemination of Curriculum:



- Web-based Ambulatory Care Curriculum in Internal Medicine (Available at <http://www.peaconline.org/>)
- Healer's Art Curriculum (Available at [www.ishiprograms.org/programs/medical-educators-students](http://www.ishiprograms.org/programs/medical-educators-students))
- CDIM/SGIM Core Medicine Clerkship Curriculum Guide (Available at <http://connect.im.org/p/cm/ld/fid=385> )

Sisson SD, Hughes MT, Levine D, Brancati FL. Effect of an Internet-based curriculum on postgraduate education. A multicenter intervention. *J Gen Intern Med*. 2004 May;19(5 Pt 2):505–9.7.

Sisson SD, Kalal D. Internal medicine residency training on topics in ambulatory care: a status report. *Am J Med*. 2011;124(1):86-90.

Rabow MW, Srubel J, Remen RN. Authentic community as an educational strategy for advancing professionalism: a national evaluation of the Healer's Art curriculum. *J Gen Intern Med*. 2007;22(10):1422–28.

Jablonover RS, Blackman DJ, Bass EB, Morrison G, Goroll AH. Evaluation of a national curriculum reform effort for the medicine core clerkship. *J Gen Intern Med*. 2000;15:484–91.

# Needs Assessment



- Important information
- New information or systematic review of existing data
- Methodologically sound
- Generalizable information

- e.g. Batt-Rawden SA, Chisolm MS, Anton B, Flicknger TE. Teaching empathy to medical students: an updated, systematic review. *Acad Med.* 2013;88(8):1171-7.
- e.g. Cheston CC, Flickinger TE, Chisolm MS. Social media use in medical education: a systematic review. *Acad Med.* 2013;88(6):893-901.47.
- e.g. Chakraborti C, Boonyasai RT, Wright SM, Kern DE. A systematic review of teamwork training interventions in medical student and resident education: a systematic review. *J Gen Intern Med.* 2008;23(6):846-853.
- e.g. Gearhart SL, Wang MH, Gilson MM, Chen BM, Kern DE. Teaching and assessing technical proficiency in surgical subspecialty fellowships. *J Surg Educ.* 2012 Jul;69(4):521-8.49.
- e.g. Ratanawongsa N, Bolen S, Howell EE, et.al. Residents' perceptions of professionalism in training and practice: barriers, promoters, and duty hour requirements. *J Gen Intern Med.* 2006;21(7):758-763.

# Goals and Objectives



- Topic of demonstrated importance
- Well described, methodical, sound process of developing the goals and objectives
- A broad consensus supports the goals and objectives.
- Professional organizations, authoritative bodies support the goals and objectives.

e.g. CDIM/SGIM Core Medicine Clerkship Curriculum Guide (Available at <http://connect.im.org/p/cm/ld/fid=385> )

e.g. Hsu EB, Thomas TL, Bass EB, Whyne D, Kelen GD, Green GB. Healthcare worker competencies for disaster training. *BMC Med Educ.* 2006;6:19



# Educational Strategies



- Topic of demonstrated importance
  - Educational strategies innovative and add to the existing literature
  - Educational strategies are sound and adaptable to other settings.
  - Evaluation provides evidence regarding efficacy (If very innovative and topical, less rigorous evaluation may be acceptable.)
- e.g. Branch WT Jr., Kern DE, Gracey K, et.al. Teaching the human dimensions of care in clinical settings. *JAMA*. 2001;286:1067-1074
- e.g. Houston TK, Connors RL, Cutler N, Nidiry MA. A primary care musculoskeletal clinic for residents: success and sustainability. *J Gen Intern Med*. 2004 May;19(5 Pt 2): 524-9.
- e.g. Ogur B, Hirsh D, Krupat E, Bor D. The Harvard Medical School–Cambridge integrated clerk-ship: an innovative model of clinical education. *Acad Med*. 2007;82(4):397–404.
- e.g. Smith RC, Laird-Fick H, D'Mello D, et. al. Addressing mental health issues in primary care: an initial curriculum for medical residents. *Patient Educ Couns*. 2014;94(1):33-42.

# Evaluations of Educational Interventions (1)

- Important topic
- Generalizable sample: multi-institutional
- Strong evaluation design: sufficient numbers / power, control group, long-term f/u
- Important outcomes: clinical outcomes > behaviors/ performance > skills > attitudes > knowledge > satisfaction
- Strong assessment methods: objective, reliability, content and other measures of validity
- Appropriate data analysis: when appropriate, account for confounding variables with multivariate analysis
- Evaluation strategy innovative
- Contribution to the existing literature

# MERSQI (Medical Education Research Study Quality Instrument)

Reed, DA et al. JAMA 2007;298:1002-1009; Reed DA et.al. J Gen Intern Med. 2008;23:903-907.

**Table 1.** MERSQI Domain and Item Scores for 210 Medical Education Research Studies

Domain	MERSQI Item	Studies, No. (%) <sup>a</sup>	Score		Mean (SD)	
			Item	Maximum Domain	Item	Domain
Study design	1. Study design			3	1.28 (0.47)	1.28 (0.47)
	Single group cross-sectional or single group posttest only	140 (66.7)	1			
	Single group pretest and posttest	33 (15.7)	1.5			
	Nonrandomized, 2 group	31 (14.8)	2			
	Randomized controlled trial	6 (2.9)	3			
Sampling	2. No. of institutions studied			3	0.84 (0.46)	1.90 (0.65)
	1	135 (64.3)	0.5			
	2	8 (3.8)	1			
	>2	67 (31.9)	1.5			
	3. Response rate, %				1.06 (0.44)	
	Not applicable	30 (14.3)				
	<50 or not reported	60 (33.3) <sup>b</sup>	0.5			
	50-74	39 (21.7) <sup>b</sup>	1			
	≥75	81 (45.0) <sup>b</sup>	1.5			
Type of data	4. Type of data			3	1.91 (0.99)	1.91 (0.99)
	Assessment by study participant	114 (54.3)	1			
	Objective measurement	96 (45.7)	3			
Validity of evaluation instrument <sup>c</sup>	5. Internal structure			3	0.25 (0.44)	0.69 (0.93)
	Not applicable	25 (11.9)				
	Not reported	138 (74.6) <sup>d</sup>	0			
	Reported	47 (25.4) <sup>d</sup>	1			
	6. Content				0.29 (0.45)	
	Not applicable	25 (11.9)				
	Not reported	132 (71.4) <sup>d</sup>	0			
	Reported	53 (28.6) <sup>d</sup>	1			
	7. Relationships to other variables				0.15 (0.36)	
	Not applicable	25 (11.9)				
	Not reported	157 (84.9) <sup>d</sup>	0			
	Reported	28 (15.1) <sup>d</sup>	1			
Data analysis	8. Appropriateness of analysis	29 (13.8)		3	0.86 (0.35)	2.58 (0.65)
	Data analysis inappropriate for study design or type of data	181 (86.2)	0			
	Data analysis appropriate for study design and type of data		1			
	9. Complexity of analysis	58 (27.6)			1.72 (0.45)	
	Descriptive analysis only	152 (72.4)	1			
	Beyond descriptive analysis		2			
	10. Outcomes	102 (48.6)		3	1.44 (0.50)	1.44 (0.50)
Outcomes	Satisfaction, attitudes, perceptions, opinions, general facts	41 (19.5)	1			
	Knowledge, skills	62 (29.5)	1.5			
	Behaviors	5 (2.4)	2			
	Patient/health care outcome		3			
<b>Total Score</b>				<b>18</b>		9.95 (2.34)

Abbreviation: MERSQI, medical education research study quality instrument.

<sup>a</sup>Percentages may not total 100 due to rounding.

<sup>b</sup>Percentage based on the 180 studies without a "not applicable" rating for the "response rate" item.

<sup>c</sup>Applies to a new or referenced instrument.

<sup>d</sup>Percentage based on the 185 studies without a "not applicable" rating for the "validity of evaluation instrument" items.

# Evaluations of Educational Interventions (2)

- e.g. Cornuz J, Humair JP, Seematter L et. al. Efficacy of resident training in smoking cessation: a randomized control trial of a program based on application of behavioral theory and practice with standardized patients. *Ann Intern Med.* 2002;429-437.
- e.g. Gozu A, Windish DM, Knight AM et. al. Long-term follow-up of a ten-month programme in curriculum development: a cohort study. *Med Educ.* 2008;42:684-692.
- e.g. Morrison EH, Rucker L, Boker JR, et. al. The effect of a 13-hour curriculum to improve residents' teaching skills: a randomized trial *Ann Intern med* 2004;141:257-263.
- e.g. Palter VN, Grantcharov TP. Individualized deliberate practice on a virtual reality simulator improves technical performance of surgical novices in the operating room: a randomized controlled trial. *Ann Surg.* 2014;259(3):443-8
- e.g. Roter DL, Hall JA, Kern DE, Barker LR, Cole KA, Roca RP. Improving physicians' interviewing skills and reducing patients' emotional distress: a randomized clinical trial. *Arch Intern Med* 1995; 155: 1877-1884.
- e.g. Sisson SD, Hughes MT, Levine D, Brancati FL. Effect of an internet-based curriculum on postgraduate education: a multicenter intervention. *J Gen Intern Med.* 2004;19:505-509.
- e.g. Smith RC, Lyeles JS, Mettler J, et al. The effectiveness of intensive training for residents in interviewing: a randomized, controlled trial. *Ann Intern Med.* 1998;128:118-126.
- e.g. Stamer AJ, Sectish TC, Simon DW, et. al. Rates of medical errors and preventable adverse events among hospitalized children following implementation of a resident handoff bundle. *JAMA.* 2013;310(21):2262-70.
- e.g. Watkins RS, Moran WP. Competency-based learning: the impact of targeted resident education and feedback on Pap smear adequacy rates. *J Gen Intern Med* 2004;19:545-548.

# **TEN RECOMMENDATIONS FOR DISSEMINATION**



**4. Seek Institutional Review  
Board (IRB) Approval Early**

## **4. Seek Institutional Review Board (IRB) Approval Early**



- Do not assume educational research is exempt.
- Ask your IRB about your proposed project early.

# **TEN RECOMMENDATIONS FOR DISSEMINATION**



## **5. Seek Funding/Resources**

# WHY?



- Protect time
- Improve quality\*
- Add to promotion portfolio

\*Reed DA, Cook DA, Beckman TJ, Levine RB, Kern DE, Wright SM. Funding is associated with quality in medical education research. *JAMA*. 2007;298:1002-1009.

\*Reed DA, Beckman TJ, Wright SM, Levine RB, Kern DE, Cook DA. Predictive validity evidence for Medical Education Research Study Quality Instrument scores: quality of submissions to *JGIM's* medical education supplement. *J Gen Intern Med*. 2008;23:903-7.



# WHERE?



1. Know government funding sources
2. Know about selected private foundations that fund medical education
3. Contact relevant specialty or professional organization(s)
4. Know about grants offered by your own institution.
5. Negotiate for resources if asked to develop / revise / assume responsibility for curriculum
6. Consider funding yourself.

# Funding Yourself



## ■ Charging Tuition / CME

- Faculty Development Program
- Topics Ambulatory Medicine → PriMed
- JH IM Board Review Course
- Geriatrics Mini-Fellowship

## ■ Selling a Product

- Johns Hopkins Internet Learning Center  
Ambulatory Internal Medicine Curriculum
- AACH's "doc.com"

# Pay Attention to Feasibility and Sustainability



- Administrative requirements
- Costs
  - Direct costs
  - Indirect costs
  - Opportunity costs
- Faculty time and expertise
- Anticipate barriers / obstacles

# **TEN RECOMMENDATIONS FOR DISSEMINATION**



## **6. Seek Collaborators**

# 6. Seek Collaborators



- Assemble a team that has the appropriate combination of expertise and shares goals.
- Try to include collaborators from outside your institution, if generalizability and dissemination is a goal.
- Why:
  - better product, division of labor, mutual stimulation, more fun

# **TEN RECOMMENDATIONS FOR DISSEMINATION**



## **7. Know Where to Submit**

# 7. Know Where to Submit



- Know which journals publish educational articles (CD Book: Table 9.3).
- Know whether they have published articles like yours before.
- Pick first, second, third, and fourth choices.


# **TEN RECOMMENDATIONS FOR DISSEMINATION**



## **8. Know How to Prepare Curriculum-Related Manuscripts for Submission**



# **JGIM Education Issue Experience (2004)**



- 60 curricular (145 total) manuscripts submitted
- 51 (85%) sent for review
- 16 (27%) revision invited
- 11 of 60 (18%) of those submitted accepted
- 11 of 16 (69%) of invited revisions accepted

# Major Concerns Expressed in Editors' Letters



- Evaluation incomplete or inappropriate (48%)
  - Needs stronger or more outcome measures
- Intervention poorly described (27%)
- Work not established as innovative (25%)
- Poorly referenced / placed in literature (17%)
- Writing style / didn't follow journal rules (17%)
- Inadequate needs assessment (17%)
- Objectives not clear (13%)

# **Preparing Manuscripts**

## **Top 10 Recommendations**



1. Provide a strong rationale for your work. Place it in the context of the existing literature.
2. Make clear what your manuscript adds to the literature.
3. Make clear the methodologic strengths of your work.
4. Acknowledge limitations. Anticipate criticisms.

# Preparing Manuscripts

## Top 10 Recommendations



5. Stick to discussing your work. Avoid conclusions that go beyond your data. Word implications cautiously and accurately.
6. Maintain congruency between abstract, introduction, methods, results, and discussion:
  - objectives, methods, evaluation
  - terminology
  - data

# Preparing Manuscripts

## Top 10 Recommendations



7. Write carefully. Carelessness in writing may raise questions about the meticulousness of the rest of your work.
  - Follow instructions for authors and Uniform Requirements.
  - Reference accurately.
  - Proof to eliminate errors.
8. Write clearly and concisely. Review handout about writing style.

# Opening Paragraph



In the months that have passed since September 2001, there has been increasing recognition and awareness among physicians and other health professionals about the risks of a wide variety of different types of terrorist attacks in the U.S. Attacks using biological or chemical agents known to have high potential for causing epidemic disease were attempted and could be attempted again with a large number of serious consequences for our nation and its citizens. Based on this reason and other reasons, a project was conducted in order to review and synthesize all available published studies and educational curricula on the training of health professionals in how to detect disease and manage patients in the event of an attack.

# New Opening Paragraph



Clinicians now recognize that terrorists could use biological agents to attack a country. An attack could cause a devastating epidemic of disease, but little is known about clinicians' ability to respond to an attack. Therefore, we conducted a systematic review of studies that evaluated the training of clinicians in how to respond to a bioterrorist attack.

# Preparing Manuscripts

## Top 10 Recommendations

9. Follow recommendations in website and supplementary slides:

(Available by searching [www.google.com](http://www.google.com) for Making It Count Twice)

- Title
- Abstract
- Introduction
- Methods
- Results, Tables, & Figures
- Discussion
- References

10. Write abstract last and write it well. It's what most reviewers' read first, and often all that others read.



# **TEN RECOMMENDATIONS FOR DISSEMINATION**



## **8. Know How to Prepare Curriculum-Related Manuscripts for Submission**

# **TEN RECOMMENDATIONS FOR DISSEMINATION**



## **9. Know What to Expect and How to Respond to Editor's Letter**

# Responding to Rejection Letters



- Probably not worth pursuing rejections
  - If factual error, may pursue
- Seek advice, reaffirm merit
- Resubmit using any suggestions for revisions
  - Do so within 2-6 weeks, depending on extent of revision required

# Interpreting Revision Letters



- Almost never a pure acceptance letter
- Accept with minor revisions – “delighted to reconsider if you can....”
- Reconsider after major revisions – “Unable to accept in its current form but would reconsider...”
- About half of revised manuscripts get published

# Responding to Editor's Letter



- Review letter carefully, understand each point
- Associate editor is the key person, call or email him or her if you have legitimate questions
- Respond to each comment or suggestion of the associate editor and reviewers by number or page number. (make it easy to follow)
- You may explain why you cannot make a revision, but minimize the number of these
- Ask colleagues and mentors to review your response letter and revisions
- Be reasonable and respectful

# **TEN RECOMMENDATIONS FOR DISSEMINATION**



## **10. Seek Mentorship**

# 10. Seek Mentorship



- For curriculum development
- For seeking funding / grant writing
- For publishing

# **SUMMARY OF RECOMMENDATIONS (1)**



1. Think Ahead
2. Have a Model for Curriculum Development that Makes Your Work Sound and Scholarly
3. Know What Makes Curricular Work Amenable to Dissemination
4. Seek IRB Approval Early
5. Seek Funding/Resources



# **SUMMARY OF RECOMMENDATIONS (2)**



6. Seek Collaborators
7. Know Where to Submit
8. Know How to Prepare Curriculum-Related Manuscripts for Submission
9. Know What to Expect and How to Respond to Editor's Letter
10. Seek Mentorship

# RESOURCES FOR CD AS SCHOLARSHIP



## Book:

- Kern DE, Bass EB. Chapter 9: Dissemination. In Thomas PA, Kern DE, Chen B, Hughes MT, eds. Curriculum Development for Medical Education: A Six-Step Approach. 3rd ed. Baltimore (MD): Johns Hopkins University Press; 2015.

## Website:

- Kern DE, Branch WT, Green ML, et.al. Making It Count Twice: How to Get Curricular Work Published. SGIM Workshop, 2005. Available by searching [www.google.com](http://www.google.com) for Making It Count Twice



***QUESTIONS?***



**EXTRA SLIDES**

**Manuscript  
Preparation**

# Title



- Keep as simple and succinct as possible.
- Use it to grab attention.
- Title should capture essence of manuscript: can pose a question that manuscript addresses or highlight the main finding.
- Include all information requested in instructions on title page. Acknowledge financial support, if any, where appropriate.

# Abstract



- Write last, but write well
- Use a structured format whenever possible.
- Accurately capture the important findings.
- Include study population, educational methods, evaluation design & methods
- When possible, include rationale for study and contribution to literature

# Introduction



- 2-4 paragraphs, adequately referenced
- Make a strong, logical case for the importance of your work
- Briefly review work by others, and how your work adds to the literature
- End with purpose / goals of your work / manuscript.

# Methods:


## Program Description



- Describe learner population precisely
- Describe setting of intervention
- State timing of intervention
- Describe curriculum development process
- Describe educational content & methods in sufficient detail to be replicated (use appendices or cite other sources if necessary)
- Describe resources required



# Methods: Evaluation



- State evaluation design
- Define evaluation variables: independent and dependent
- Describe measurement methods, including steps to ensure validity
- Describe data collection: timing & process
- Describe data analysis
- Indicate IRB approval
- Don't put results in Methods.

# Results (1)



- Create appropriate subheadings
- Report response rates
- Relevant characteristics of study population, including non-respondents
- Provide results: descriptive data, main analysis (univariate then multivariate), secondary analyses, qualitative analyses

# Results (2)



- Use tables and figures to present data succinctly and clearly, don't repeat in text all data in tables & figures
- Don't put Methods in Results
- Save commentary for Discussion

# Tables



- Check previous articles published by journal for format.
- Label rows & columns clearly.
- Use tables only when more efficient than using text
- Combine tables with similar content.
- Use footnote symbols per journal instructions, per Uniform Requirements when not specified ( <http://www.icmje.org/> ).
- Spell out or footnote abbreviations when first used.
- Tables should be self-explanatory, w/o having to read text.

# Figures



- Check previous articles published by journal for format.
- Label so that readers can easily interpret.
- Use to highlight findings where a visual image is more powerful than words.
- Use footnote symbols per journal instructions, or per Uniform Requirements when not specified ( <http://www.icmje.org/> ).
- Spell out or footnote abbreviations when first used.
- Figures should be self-explanatory, w/o having to read text.

# Discussion / Conclusion (1)



- Very briefly summarize key findings, emphasizing what's new.
- Comment on educational, in addition to statistical significance of results (e.g. effect size).
- Do not add new results in Discussion.
- Discuss interesting findings in the context of the literature, and findings that conflict with previous publications.
- Identify strengths and limitations, and discuss relative to other work.

# Discussion / Conclusion (2)



- Indicate next steps that would advance progress / understanding in area.
- End with a conclusion that raises interest by suggesting possible implications for patient care, education, research and/or health policy, a conclusion that is thought provoking, *but*
- Avoid conclusions that are not supported by the results. Be very careful about how you word conclusions/suggestions.

# References



- Cite references for accuracy & completeness (not uncommonly someone cited will be your reviewer).
- Follow journal instructions, and Uniform Requirements (<http://www.icmje.org/> ) when not specified.
- Use reference manager software.





# **EXTRA SLIDES**

## **CD As Organizational Change**



# **Can Curriculum Development Lead to Organizational Change?**

# Program Development is Organizational Change



- To the extent that one develops a new and different program, that affects how people interact, think about and do things, and the conversations they have.
- After several cycles these new ways become the new status quo.
- If successful, one train disciples, who disseminate the new ways.

# Some Principles of Organizational Change



1. Develop and communicate a shared vision
2. Cultivate allies and collaborators
3. Remain flexible and open to data and the perspectives of others
4. Build a case for the importance of the vision
5. Connect the vision to institutional culture and values, even while advocating for change
6. Make the change easy
7. Motivate and empower others to act in new ways, create disciples
8. Start with short-term wins, build on successes, engage in multiple efforts
9. Seize opportunities
10. Develop organizational structure and support



***EXAMPLES***

# MED-PSYCH (1)

- 1979 Introduction of CS and PS into GIM Training at JHBMC
  - Grant (2 Allies, 9 Seize opportunities, 10 organizational structure/support)
  - Requirements (2 Allies, 10 structure/support)
- External Experts → Internal Capability (2 Allies)
- Revision (3 Remain flexible/open to data, perspectives of others)
- Documentation and Communication of Success (8 Short term wins, 4 Build a case for Importance)
- Program Expansion to All IM Residents (8 Build on successes)

# MED-PSYCH (2)



- Related Activities (8 Multiple efforts)
  - Task Force → AAPP → AACH (2 Allies/collaborators)
  - Scholarship (4 Importance)
- Influence on Related Activities (8 Multiple efforts)
  - Intern and Resident Support Groups
  - FDP
  - Osler Center
  - Aliko Initiative
  - Miller Coulson Academy of Clinical Excellence

# **FACULTY DEVELOPMENT PROGRAM (1)**

- Programs in Teaching Skills and Curriculum Development (5 connect to institutional values)
- Established 1987 with HRSA support, with focus on GIM faculty (2Allies, 10 Support)
- Internally funded since 2006, serves all departments and divisions of SOM and beyond (10 organizational structure / support)
- Emphases on learner centeredness, innovation, societal needs/public trust, and educational scholarship (1 Shared vision; 4 Importance of vision; 5 Connect to institutional culture/values)



# FACULTY DEVELOPMENT PROGRAM (2)



- Documentation and Communication of Success (8 Short term wins, 4 Build a case for Importance)
- Revision (3 Remain flexible/open to data, perspectives of others)

# **FACULTY DEVELOPMENT PROGRAM (3)**

- Longitudinal Program in TS has trained >450 faculty and fellows (7 create disciples)
- Longitudinal Program in CD has trained over 280 faculty / fellows, mentored ~ 120 curricular project (7 create disciples)
- Facilitator Training Program has trained 36 faculty / fellows (7 create disciples)
- Special Programs has trained > 3,500 participants (7 create disciples)
- Most educational leaders at JH have been trained in the FDP (7 create disciples)

# FACULTY DEVELOPMENT PROGRAM (4)

## ■ Related Activities

- Task Force → AAPP → AACH (1 Allies)
- Scholarship (4 Importance)

## ■ Influence on Related Activities

- CRC Subcommittee on the Clinical Curriculum generated a white paper: Advancement of Teaching in the School of Medicine (March 2004)
- 2005 Weisfeldt committee on Revisions to Promotion Criteria (inclusion of “teaching”)
- 2005 Barker committee: Revisions to Silver Book
- Abeloff Committee → Institute for Educational Excellence

# COLLEGES ADVISING PROGRAM (1)

- Facing the Brutal Facts / Needs Assessment  
(3 Openness to data and others' perspectives)
  - Clinical Skills Teaching : 60 volunteer faculty / 3 hours per week
  - Ineffective Volunteer Advising
  - AAMC graduating student exit survey ("I just want someone to know me here")
- Support for Change / Implementation (2 Allies/collaborators; 10 organizational support)
  - External Pressures: Pending LCME Review
  - Funding
  - Key Stakeholders

# COLLEGES ADVISING PROGRAM (2)



- First Who – Then What / Implementation (2 Allies/collaborators)
  - Rob Shochet –FDP, AACH, Connections
  - First Cohort of College Advisors
- Vision / Goals and Objectives (1 Develop / communicate a shared vision)
  - Learning Community / Hidden Curriculum
  - Longitudinal relationships
  - Innovativeness (5 Connect to organizational values)
  - Scholarship (5 Connect to organizational values)

# **COLLEGES ADVISING PROGRAM (3)**

- **Building Broad Support / Implementation (2)**  
Cultivate allies / collaborators
  - Choice of college faculty
  - Some initial backlash, building support
  - Evidence of popularity and college faculty success  
(8 Short-term wins, build on successes)
- **Multiple Activities / Interventions, Related Activities** (8 Multiple activities, build on successes)
  - Improvements in advising process/ development of an advising template
  - Small group reflections
  - Advising case conferences
  - Assessment of learning environment
  - Learning Communities Institute

# COLLEGES ADVISING PROGRAM (4)



## ■ Early Impact

- Each student with a dedicated advisor
- Faculty and medical student community
- Faculty accomplishments and advancement
- Scholarly concentrations
- Interest in education among med students
- Learning environment and institutional culture a topic of conversation and study

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