

Qualitative Methods, Handout 2016

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Figure1: Matrix connecting research, scholarship, practice

Dimension*	Research*	Scholarship*	Investigation Research Type 2	Practice*
Goals and background	Responds to a question of general interest related to gaps in knowledge or key intellectual problems	Requires a high level of discipline related expertise; has clear goals	Responds to a specific, concrete question meeting a need or solving a concrete problem	Responds to a specific, concrete question meeting a need or solving a concrete problem
Methods	Provides evidence that has been systematically collected + analyzed, and can answer the core question	Has clear methods	Helps solve a problem	Solves a problem
Relation to earlier work	Builds on earlier work	Requires a high level of discipline-related expertise	Collects new data and/or compiles relevant existing research in a semi-systematic way	Application of existing knowledge and techniques at a professional level of skill; may involve investigation as one part; adds political problem-solving skills
Argument	Makes an argument that at least implicitly counters reasonable objections		May draw on some previous studies	May use standard techniques or best practices
Documentation and evaluation	Documents and evaluates its methods and findings, so that both can be replicated by others	Involves documentation that includes a reflective critique	Makes an argument that at least implicitly answers the need or question at hand	Makes an argument that at least implicitly answers the need or question at hand
Peer review	Is subject to peer review	Is reviewed by a panel of peers	May be documented and made public for evaluation; not essential	May be documented and made public for evaluation; not essential
Public/dissertation	Is made public	Involves documentation that includes a reflective critique	Peer review may occur through awards or job evaluations; not essential.	Peer review may occur through awards or job evaluations; not essential

2006 **A. Forsyth** and K. Crewe. Research in Environmental Design: Definitions and Limits. *Journal of Architectural and Planning Research* 23, 2: 160-175; 2007 **A. Forsyth**. Innovation in Urban Design: Does Research Help? *Journal of Urban Design* 12, 3: 461-473. 2016 **A. Forsyth**. Investigating Research. *Planning Theory and Practice* 17, 3: 467-471.

Figure 2: Cultures of Research in Planning Compared with Practical Design

	Example Question	Typical Scope	How Knowledge of an Issue Created
Scientific Frontiers	Do low-income children who live near fast food eat more of it?	One narrow question per paper (for scientific journals); many short papers from one project; many co-authors	Incremental accumulation of knowledge of highly targeted studies over time, systematically synthesized
Practical Applications	Do bicycle lanes reduce accident rates?	Multiple issues e.g. current knowledge + research evidence + implications for practice	From studies that are policy-relevant; that provide good enough, timely evidence
Assessing Practice	Institutional barriers to HIA?	Raises question + uses experience/ extended case as evidence and illustration; relates to theory	Learning from history and practice about what's possible
Enduring Questions	Is a healthy city a just city?	Poses a large question and/or object of criticism; relates to theory; and proposes ways forward	By systematic, theoretically & empirically-informed reflection
Speculative Design (Not Research)	What is a healing form for this project?	Creates a solution to a site-specific project	Using design thinking and drawing on professional expertise and creativity to create models; evidence could be created from multiple post-occupancy evaluations (but typically is not)

Source: Adapted and expanded from Forsyth (2012).

Figure 3: Culture Self-descriptions and Critiques

	<i>Researcher self description/ internal culture</i>	<i>Critique OF others</i>	<i>Critique BY others</i>
<i>Scientific Frontiers</i>	Adding incrementally to the body of knowledge	Others lack rigor and specificity; questions are too broadly defined	Narrow; naïve about practical applications
<i>Practical Applications</i>	Helping apply evidence to practice; research that makes a difference	Others produce research that is useless, abstract, and overly academic	May answer a question but doesn't advance knowledge enough; descriptive
<i>Assessing Practice</i>	Providing important lessons from practice	Others lack grounding in the real world	Overly reliant on personal experience or cases that may not apply to other situations; self-promoting or overly positive about cases
<i>Enduring Questions</i>	Providing new insights on fundamental questions, including ethical concerns	Others answer small and/or unimportant questions	This has been done before; critiques oversimplify; posturing

Forsyth (2012)

Forms of Validity and Reliability For Urban Planners

For urban planners, some definitions of forms of validity and reliability are in order (from Vogt 1993):

Validity—That something measures what it is supposed to measure, e.g. when measuring the level of interest of buildings measure walkability? Many use **triangulation** to see if different methods converge/diverge.

- Concurrent validity—determining validity of a measure by “seeing how well it correlates with some other measure the researcher believes is valid” (p.41). This can be useful if the new measure is simpler.
- Construct validity—“The extent to which variables actually measure the constructs [concepts] of interest” (p. 44). Generally that measured by seeing if this correlates with another measure that your theory predicts it should correlate with.
- Content (or sampling) validity—measure has items that “accurately represent the thing (the “universe”) being measured” (p.45). That is, it isn’t just measuring part of the thing.
- Convergent validity—“The overlap between different tests that presumably measure the same construct” (p.48).
- Criterion-related validity—see predictive validity.
- Discriminant validity—validity is “high when the construct *fails* to correlate with other, theoretically distinct, constructs”, the opposite of convergent validity.
- Face validity—“logical or conceptual validity” often judged by experts (p.89). The main form of validity used in urban design.
- Predictive or criterion-related validity—measure “the extent to which as test, scale, or other measurement taken at one time predicts subsequent performance or behavior” (p177). For example, SATs and college performance.

Different to others

- External validity—Generalizability (to others).
- Internal validity—How much the results of an experiment can be attributed to the treatment rather than flaws in the research.

Forms of Reliability

- Test-retest reliability—“A correlation between scores in two administrations of a test given to the same subjects” (Vogt 1993, 231)
- Inter-observer or Inter-rater reliability—agreement among observers
- Intra-observer reliability—agreement in single observer ratings over time
- Alternate-form reliability—two different forms of a test based on the same content
- Internal consistency—“the extent to which items in a scale are correlated with one another”

(Vogt 1993, 114).

References—related publications

- Boarnet M., A. Forsyth, K. Day, and J.M. Oakes. 2011. The Street Level Built Environment and Physical Activity and Walking: Results of a Predictive Validity Study for the Irvine Minnesota Inventory. *Environment and Behavior* 43, 6: 735-775.
- Brownson R., C. Hoehner, K. Day, A. Forsyth, J. Sallis. 2009. Measuring the Built Environment for Physical Activity: State of the Art. *American Journal of Preventive Medicine* 36, 4s: s99-s123.
- Forsyth A, J. Jacobson, and K. Thering. 2010. Six Assessments of the Same Places: Comparing Views of Urban Design. *Journal of Urban Design* 15, 1: 21-48.
- Forsyth A. and K. Crewe. 2006. Research in Environmental Design: Definitions and Limits. *Journal of Architectural and Planning Research* 23, 2: 160-175
- Forsyth A. 2007. Innovation in Urban Design: Does Research Help? *Journal of Urban Design* 12, 3: 461-473.
- Forsyth A. 2012. Defining Suburbs. *Journal of Planning Literature* 27, 3: 270-281.
- Forsyth A. 2012. Alternative Cultures in Planning Research: From Extending Scientific Frontiers to Exploring Enduring Questions. *Journal of Planning Education and Research* 32, 2: 160-168.
- Forsyth A., C. Schively Slotterback, and K. Krizek. Health Impact Assessments in Planning: Development and Testing of the Design for Health HIA Tools. *Environmental Impact Assessment Review* 30: 42-51.
- Forsyth A., D. Van Riper, N. Larson, M. Wall, D. Neumark-Sztainer. 2012. Creating a Replicable, Cross-Platform Buffering Technique: The Sausage Network Buffer for Measuring Food and Physical Activity Built Environments. *International Journal of Health Geographics*. 11:14. <http://www.ij-healthgeographics.com/content/11/1/14>.
- Forsyth, A. 2016. Investigating Research. *Planning Theory and Practice* 17, 3: 467-471.
- Forsyth A., J.M. Oakes, and K. H. Schmitz. 2009. Test-Retest Reliability of the Twin Cities Walking Survey. *Journal of Physical Activity and Health* 6, 1: 119-131.
- Forsyth A., K. Krizek, A. Agrawal, E. Stonebreaker. 2012. Reliability Testing of the PABS (Pedestrian and Bicycling Survey) Method. *Journal of Physical Activity and Health* 9, 5: 677-688.
- Forsyth A., L. Lytle, and D. Van Riper. 2010. Finding Food: Issues and Challenges in Using GIS to Measure Food Access. *Journal of Transport and Land Use* 3, 1:43-65. doi: 10.5198/jtlu.v3i1.105.
- Forsyth A. 1999. On Writing and Tenure. *Journal of Planning Education and Research* 19, 1: 98-105.
- Forsyth A.. 2012. Alternative Cultures in Planning Research: From Extending Scientific Frontiers to Exploring Enduring Questions. *Journal of Planning Education and Research* 32, 2: 160-168.
- Krizek K., A. Forsyth, and C. Shively Slotterback. 2009. Is There a Role for Evidence-Based Practice in Urban Planning and Policy? *Journal of Planning Theory and Practice* 10, 4: 455-474.
- Lytle L. 2009. Measuring the Food Environment State of the Science, *AJPM* 36: S134-s144
- Schively Slotterback C., A. Forsyth, K. Krizek, A. Johnson, and A. Pennucci. 2011. Testing Three Health Impact Assessment Tools in Planning: A Process Evaluation, *Environmental Impact Assessment Review* 31: 144-153. <http://dx.doi.org/10.1016/j.eiar.2010.01.005>
- Sirard J., A. Forsyth, J.M. Oakes, K. H. Schmitz. 2011. Accelerometer Test-Retest Reliability by Data Processing Algorithms: Results from the Twin Cities Walking Study. *Journal of Physical Activity and Health* 8: 668-674.