

# Planning Workshop Evaluation Survey Technical Memorandum

Robert Goodspeed  
Taubman College of Architecture and Urban Planning  
University of Michigan  
[rgoodspe@umich.edu](mailto:rgoodspe@umich.edu)

December 4, 2013

## Table of Contents

1. Introduction
2. Survey Implementation Notes
3. Questions
  - 3.1. General Planning Views
  - 3.2. Learning
  - 3.3. Learning Styles
  - 3.4. Planning Support System/Materials
  - 3.5. Demographics
4. Works Cited
5. Sample Survey

## 1. Introduction

As part of dissertation field research, I developed a planning workshop evaluation survey (Goodspeed 2013). Although the survey was designed for my research focusing on the role of planning support systems, it contains questions about a range of issues useful to collect at planning workshops. This memorandum presents the questions that were used, along with a brief note for how they were scored.

Since my research in this area is ongoing, I am very interested to hear from anyone who would like to use these questions to evaluate a planning meeting or workshop, or would like to suggest improvements to these questions.

## 2. Survey Implementation Notes

The survey was conducted at the conclusion of the planning workshop. After a brief verbal introduction by the researcher, the survey was distributed in hard copy to all participants. This technique resulted an estimated coverage of 85-95% of all workshop participants, versus the 27% coverage achieved by emailing and online survey to participants several days later. Despite coming at the end of a lengthy workshop, participants were willing to complete the three-page survey.

After collection, responses were manually entered into spreadsheet software and analyzed using statistics software.

### 3.1 General Planning Views

Topic	Question <sup>1</sup>	Scale
Planning	Urban growth should be managed to reduce negative side effects (such as environmental damage or traffic congestion).	Strongly Agree (5), Somewhat Agree (4), Neither Agree nor Disagree (3), Somewhat Disagree (2), Strongly Disagree (1)
Density	High density development should only be allowed near where it already exists.	
Jobs vs. Environment	New jobs created by growth should outweigh environmental protection.	
Affordable Housing	A lack of affordable housing for low and moderate income residents is a problem in the municipality where I live.	
Historic Preservation	Buildings in the city's historic areas should be protected from demolition.	
<sup>1</sup> Based on Beatley, Brower and Lucy (1994).		

**Description:** The following questions were adapted from questions used by Beatley in his study of the demographic and view representativeness of participants in an urban planning process. However, all were modified significantly to avoid double-barreled questions and clarify wording.

**Scoring:** The results were scored with strongly agree as 5, and strongly disagree as 1.

**Derived Measures:** The questions were used together as a measure of view diversity by taking the mean standard deviation for all five questions at each workshop.

### 3.2 Learning

*Two measures of learning were the primary dependent variables in the dissertation study. Learning was viewed as a useful intermediate variable in a collaborative planning framework. See the dissertation for a theoretical discussion.*

#### Self-reported Learning

Construct	Question	Scale
Learning	<ul style="list-style-type: none"> <li>I learned a great deal</li> </ul>	Strongly Agree (5), Somewhat Agree (4), Neither Agree nor Disagree (3), Somewhat Disagree (2), Strongly Disagree (1)

**Explanation:** This question is used widely in higher education research and course evaluation, dating back to at least 1971 when it was found in a factor analysis to relate to the broader concept of student stimulation (Holmes 1971).

#### Double Loop Learning

“Governing Variables” (Argyris and Schön 1996)	Variable Name	Question	Scale
Evidence seeking	<i>Answer questions</i>	<ul style="list-style-type: none"> <li>I was able to get answers to the questions I had.</li> </ul>	Strongly Agree (5), Somewhat Agree (4), Neither Agree nor Disagree (3), Somewhat Disagree (2), Strongly Disagree (1)
Valid information	<i>Open discussion</i>	<ul style="list-style-type: none"> <li>Workshop participants discussed the issues in an open way.</li> </ul>	
Free and informed choice	<i>Others listened</i>	<ul style="list-style-type: none"> <li>Other participants at the workshop listened to what I had to say.</li> </ul>	
Free and informed choice	<i>Alternative views</i>	<ul style="list-style-type: none"> <li>Alternative viewpoints were considered.</li> </ul>	
Internal commitment to choice	<i>Commitment to choice</i>	<ul style="list-style-type: none"> <li>I would support recommendations created by the participants of this workshop.</li> </ul>	

**Explanation:** These questions were created to operationalize the “governing variables” for the Model II theory-in-use hypothesized by Argyris and Schön (1996).

**Derivative Measures:** The Likert scale was coded quantitatively, with “Strongly Agree” as 5, and “Strongly Disagree” as 1. Where valid responses were present from all five questions, these five questions were summed to create a *double loop index*, with

possible values ranging from 5 to 25. Summated ratings scales constructed from multiple questions using Likert-type scales are used widely in the social sciences, since they have improved reliability, precision, and validity over single questions (Spector 1992). Scales allow researchers to measure constructs precisely, and reduce the impact of the inevitable errors associated with each question caused by respondents misreading or misinterpreting questions, poor wording, or other sources of item response error. In this case, a scale was especially appropriate because theory argued the central construct (Model II behavior) should be associated with diverse “variables,” which on their face may only appear loosely related.

The traditional measure of the internal consistency of a scale used widely in social research is the Cronbach alpha coefficient, which is a direct function of the number of items and their intercorrelation.<sup>1</sup> The coefficient takes values between 0 and 1, and higher values correspond with higher internal consistency. A widely accepted rule of thumb for internal consistency is a value of at least 0.70 (Nunnally 1978). In the dissertation, when computed for the 175 survey observations from all workshops where complete responses were available from all five scale items, the *double loop index* has a Cronbach alpha scale reliability coefficient of 0.82. When computed for the 100 survey responses collected at the four Austin workshops, the Cronbach alpha coefficient is 0.86.

---

<sup>1</sup> Cronbach's Coefficient alpha is given by  $\alpha = \frac{k}{k-1} \times \frac{s_T^2 - \sum s_i^2}{s_T^2}$  where  $k$  is the number of items

(questions) in the scale,  $s_T^2$  is the total variance of the sum of the items (here, the index), and  $s_i^2$  is the variance of an individual item. Its use is explained further in Cronbach (1951), Nunnally (1978), and Spector (1992).

### 3.3 Learning Styles

Constructs/Variable Name	Questions <sup>1</sup>	Scale <sup>1</sup>
<i>Sensation Seeking</i>	<ul style="list-style-type: none"> <li>• I like to do things that are new and different.</li> <li>• I have new ideas all the time.</li> </ul>	True (2), False (0), Can't Decide (1)
<i>Goal Orientation</i>	<ul style="list-style-type: none"> <li>• Experience suggests I achieve hard goals.</li> <li>• I am often one of the first to come up with a possible solution to a problem.</li> </ul>	
<sup>1</sup> Questions and scale after Jackson (2005).		

**Explanation:** Jackson has developed a Learning Styles Profiler instrument that has been used in several studies on the relationship of personality and learning (Jackson 2005; Jackson 2008, 2009; Jackson 2011). The original instrument was obtained from Jackson, which contains 75 questions, 15 on each of five dimensions. Two questions each were selected from the scales for *sensation seeking* and *goal orientation*, seeking the most distinctly worked among the two.

**Derivative Measures:** Following this instrument, these questions are scored on the following scale, from the instrument: true (2), false (0), and can't decide (1). The scores for the responses from the two questions for each dimension were summed to create the variables *sensation seeking* and *goal orientation*.<sup>2</sup> These variables have possible values ranging from 0 to 4. In the analysis, the responses to these questions are compared with the population distribution of these personality dimensions.

---

<sup>2</sup> These constructs arise in the psychology literature, for example on *sensation seeking* see Zuckerman (1979), and on *goal orientation* see Locke and Latham (1990).

### 3.4 Planning Support System/Materials

Construct	Variable Name	Question <sup>1</sup>	Scale
Engagement	<i>Shared views</i>	I was able to share my views and opinions with others.	Strongly Agree (5) Somewhat Agree (4) Neither Agree nor Disagree (3) Somewhat Disagree (2) Strongly Disagree (1)
Imagination	<i>Creativity</i>	The workshop encouraged creativity and new ideas among participants.	
Alignment	<i>Others perspectives</i>	The workshop helped me to get to know the perspectives of the other participants.	

<sup>1</sup> These questions are similar to questions used by Jones et al. (2009).

Construct	Variable Name	Question <sup>1</sup>	Scale
Identification	<i>Unique issues</i>	The computer tool reflects my unique issues and concerns.	Strongly Agree (5), Somewhat Agree (4), Neither Agree nor Disagree (3), Somewhat Disagree (2), Strongly Disagree (1)
Identification	<i>Influenced design</i>	I influenced the design of the computer tool. <sup>2</sup>	
Identification	<i>Tool familiarity</i>	I am familiar with the terms and concepts used in the computer tool.	
Imagination	<i>Ability to imagine</i>	The computer tool improved my ability to imagine what urban development might happen.	
Imagination	<i>Changed perception</i>	What I learned from the computer tool changed what I thought could happen in my community.	
Alignment	<i>Group discussion</i>	The computer tool improved the group's ability to identify areas of agreement and disagreement <sup>3</sup>	
Reification (reverse)	<i>Question outputs</i>	Workshop participants felt free to question the outputs from the computer tool.	
Negotiation	<i>Adjust policy</i>	The computer tool is useful for making adjustments to current policies.	

<sup>1</sup> Question wording varied slightly, for example the cases without a PSS referred to "materials".  
<sup>2</sup> Similar to questions used by Van den Belt (2004)  
<sup>3</sup> Similar to questions from Van den Belt (2004) and Salter (2009)

**Explanation:** These questions, many of which were adapted from the research literature on participatory workshops using GIS tools, focus on various aspects of the PSS or the materials used. In the research, several of these questions were used to operationalize Wenger's (1998) social theory of learning, which hypothesized that "infrastructures of learning" should provide for *imagination*, *alignment*, and *engagement*.

### 3.5 Demographics

Variable Name	Question	Scale
<i>Planner Identity</i>	To what extent do you agree with the statement: "I play an active role in the planning of the community where I live."	Strongly Agree (5) Somewhat Agree (4) Neither Agree nor Disagree (3) Somewhat Disagree (2) Strongly Disagree (1)
<i>Meeting Attendance</i>	In the last ten years, how many public meetings have you attended, here or elsewhere, about urban planning (development, transportation, land use, etc)?	None (1) Less than 1 per year (2) 1-2 per year (3) 3-5 per year (4) 5-12 per year (5) More than 12 per year (6)
<i>Length of residence</i>	How long have you been a resident of (various wording)? (Years)	Open Response (integer)
<i>Sex</i>	What is your sex?	Male (0), Female (1)
<i>Age</i>	What is your age? (Years)	Open Responses (integer)
<i>Education</i>	What is the highest level of education you have completed? <sup>1</sup>	Some high school (1) High school/GED (2) Some college (3) Associate or bachelors degree (4) Graduate or professional degree (5)
<i>Hispanic Ethnicity</i>	Are you of Hispanic, Latino, or Spanish origin? <sup>1</sup>	Yes (1), No (0)
<i>Race</i>	What is your race? Mark one or more boxes. <sup>1</sup>	White Black or African American American Indian or Alaska Native Asian Native Hawaiian or Other Pacific Islander Some other race:

<sup>1</sup> Questions taken from U.S. Census Bureau's 2013 American Community Survey.

**Explanation:** These questions collected a range of demographic variables. The *education*, *Hispanic ethnicity*, and *race* questions mimic the U.S. Census Bureau questions to facilitate comparison. Length of resident and meeting attendance were created for the dissertation study. Planner identity relates to research that argues learning outcomes may depend on perceived role.

## Works Cited

- Argyris, Chris, and Donald A. Schön. 1996. *Organizational Learning II: Theory, Method, and Practice*. Reading, Mass.: Addison-Wesley Pub. Co.
- Beatley, T, DJ Brower, and WH Lucy. 1994. Representation in comprehensive planning: An analysis of the Austinplan process. *Journal of the American Planning Association* 60 (2):185-196.
- Goodspeed, Robert. 2013. *Planning Support Systems for Spatial Planning Through Social Learning*. PhD Thesis. Department of Urban Studies and Planning, Massachusetts Institute of Technology, Cambridge, Mass. Available online at: <http://dspace.mit.edu/handle/1721.1/81739>
- Holmes, David S. 1971. The Teaching Assessment Blank: A Form for the Student Assessment of College Instructors. *The Journal of Experimental Education* 39 (3):34-38.
- Jackson, C.J. 2009. Jackson-5 scales of revised Reinforcement Sensitivity Theory (r-RST) and their application to dysfunctional real world outcomes. *Journal of Research in Personality* 43 (4):556-569.
- Jackson, Chris. 2005. *Learning Styles Profiler (LSP-iii)*. Provided by the author.
- Jackson, Chris J. 2011. How Sensation Seeking provides a common basis for functional and dysfunctional outcomes. *Journal of Research in Personality* 45 (1):29-36.
- Jones, N.A., P. Perez, T.G. Measham, G.J. Kelly, P. Aquino, K.A. Daniell, A. Dray, and N. Ferrand. 2009. Evaluating participatory modeling: Developing a framework for cross-case analysis. *Environmental management* 44 (6):1180-1195.
- Locke, Edwin A., and Gary P. Latham. 1990. *A theory of goal setting & task performance*. Englewood Cliffs, N.J.: Prentice Hall.
- Nunnally, Jum C. 1978. *Psychometric theory*. 2d ed, McGraw-Hill series in psychology. New York: McGraw-Hill.
- Salter, J.D., C. Campbell, M. Journeay, and S.R.J. Sheppard. 2009. The digital workshop: Exploring the use of interactive and immersive visualization tools in participatory planning. *Journal of environmental management* 90 (6):2090-2101.
- Spector, Paul E. 1992. *Summated rating scale construction : an introduction*, Sage university papers series Quantitative applications in the social sciences. Newbury Park, Calif.: Sage Publications.
- Van den Belt, Marjan. 2004. *Mediated modeling : a system dynamics approach to environmental consensus building*. Washington, DC: Island press.
- Wenger, Etienne. 1998. *Communities of practice : learning, meaning, and identity*, Learning in doing. Cambridge, U.K. ; New York, N.Y.: Cambridge University Press.
- Zuckerman, Marvin. 1979. *Sensation seeking : beyond the optimal level of arousal*. Hillsdale, N.J.: L. Erlbaum Associates.



## Planning Workshop Evaluation Survey Sample

This survey is part of a research project on participatory urban planning being conducted by \_\_\_\_\_. Your participation will be a great help to me, and the responses will be kept anonymous and will be used to compare different planning processes and tools. In addition, summarized data will be provided to the project planners to use to evaluate tonight’s meeting. Attached is a form titled “Consent to Participate in Survey” form, which includes more information about the study and your rights. Please complete the form and this survey before you leave tonight. Thank you for your participation.

*Please respond to the following questions about your general views regarding urban development by selecting one answer for each question.*

	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree
1. Urban growth should be managed to reduce negative side effects (such as environmental damage or traffic congestion).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. High density development should only be allowed near where it already exists.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. New jobs created by growth should outweigh environmental protection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. A lack of affordable housing for low and moderate income residents is a problem in the municipality where I live.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Buildings in the city’s historic areas should be protected from demolition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This area can be used for additional project-specific questions (#7-9).

*Please answer the following questions about the workshop in general.*

		Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree
10.	I was able to share my views and opinions with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Other participants at the workshop listened to what I had to say.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	I was able to get answers to the questions I had.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	The workshop encouraged creativity and new ideas among participants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	The workshop helped me to get to know the perspectives of the other participants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	Workshop participants discussed the issues in an open way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	Alternative viewpoints were considered.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	I learned a great deal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	I would support recommendations created by the participants of this workshop.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Please answer the following questions about the computer tool that was used during today's meeting.*

		Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree
19.	The computer tool reflects my unique issues and concerns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	I influenced the design of the computer tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.	I am familiar with the terms and concepts used in the computer tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	The computer tool improved my ability to imagine what urban development might happen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	What I learned from the computer tool changed what I thought could happen in my community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.	The computer tool improved the group's ability to identify areas of agreement and disagreement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.	Workshop participants felt free to question the outputs from the computer tool.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.	The computer tool is useful for making adjustments to current policies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please answer the following questions that relate to your personal learning style.

	True	False	Can't Decide
27. I like to do things that are new and different.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. I have new ideas all the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Experience suggests I achieve hard goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I am often one of the first to come up with a possible solution to a problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please answer the following questions about your background.

31. To what extent do you agree with the statement:  
"I play an active role in the planning of the community where I live."

- Strongly Agree
- Somewhat Agree
- Neither Agree nor Disagree
- Somewhat Disagree
- Strongly Disagree

32. In the last ten years, how many public meetings have you attended, here or elsewhere, about urban planning (development, transportation, land use, etc)?

- None
- Less than 1 per year
- 1-2 per year
- 3-5 per year
- 5-12 per year
- More than 12 per year

33. Did you attend (previous meeting)?

- Yes
- No

34. How long have you been a resident of (community name) or its surrounding area (ETJ)? Report 0 for less than one year.

Years

35. What is your sex?

- Female
- Male

36. What is your age?

Years

37. What is the highest level of education you have completed?

- Some high school
- High school/GED
- Some college
- Associate or bachelors degree
- Graduate or professional degree

38. Are you of Hispanic, Latino, or Spanish origin?

- Yes
- No

39. What is your race? Mark one or more boxes.

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Some other race: \_\_\_\_\_

40. Please provide any general comments about the workshop, or the computer tool below. (optional)

41. If you are interested in being interviewed about your experiences at this workshop, please provide your name and contact information below (optional):

---

Name

Phone or Email

**Thank you for your assistance with this research project! Please return this survey during the workshop.**  
For more information (contact information)