A Review of the Myers-Briggs Type Indicator in Public Affairs Education

John Sample

Florida State University

ABSTRACT

The Myers-Briggs Type Indicator (MBTI) is a trusted and widely used personality assessment, having extensive applications in curriculum development and research in the organizational sciences, including public affairs education. The MBTI is a reliable and valid assessment of personality that identifies four cognitive processes, eight dichotomous preferences, and 16 distinct personality types and may be applied to a variety of topics of interest in public affairs education, including curriculum development and classroom instruction, student career and occupational counseling, and for researching of issues and problems in public agencies and nonprofit organizations. This article reviews the author's experience using the MBTI in a graduate course in human resource management for students enrolled in a Master of Public Administration program at large public university in the southeast United States. Those who consider using the MBTI are cautioned to become knowledgeable, qualified, and certified in the ethical use of this personality assessment.

KEYWORDS

Myers-Briggs Type Indicator, curriculum development, service learning, team building, ethics

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The effective practice of public affairs administration requires a variety of human interactions daily with people representing different interests and aspirations in a variety of contexts. These interactions are typically defined in the organizational sciences to include leadership, small and large group dynamics, interpersonal communication, and organizational behavior and development. Curriculum developers in public affairs education are encouraged to involve students in ways that foster self-reflection. The "self-enlightened" scholar-practitioner in public administration is well advised to know him- or herself in terms of a personal vision of public service that includes strategies for self-management of cognitive processes. One such instructional strategy is to utilize reliable and valid interpersonal assessments as an integral part of curriculum development. Denhardt, Denhardt, and Aristiguets (2015) have identified six such assessments, one of which is the Myers Briggs Type Indicator (MBTI).

The MBTI is one of the most trusted and universally used measures of "well person" personalities available today (Bayne, 2005; Quenk, 2009). General uses are reported in counseling and clinical settings, educational and learning settings, religious and spiritual contexts, and employee training, and management and organizational development in both the public and private sectors (Carskadon, 2002; Martin, 2015).

The MBTI has a rich tradition as a research tool, as documented by well over 1,900 published scholarly articles, 1,700 theses and dissertations, and more than 11,000 entries listed in the Center for the Application of Psychological Type (CAPT) searchable database (L. Abbitt, personal communication, April 25, 2016; Quenk, 2009). CAPT also publishes the *Journal of Psychological Type* that is devoted to researching type in a variety of contexts. Several high-quality reviews of research and applications of the MBTI in management and organizations were completed by Gardner and Martinko (1996) and Walck (1992). Carskadon (2002) provides abstracts for 56 articles related to management and organizational practices over a 25-year period from the *Journal of Psychological Type.*

The purpose of this article is to explore the theory and applications of the MBTI as they relate to curriculum development in public affairs education. The article begins with an overview of Jung's (1946) theory of psychological types and the MBTI (Myers & Myers, 1995), including a summary of MBTI theory as it relates to organization and administrative theory and applications for using the MBTI as part of curriculum development. Included in this article is the author's curriculum development experience with using the MBTI in a graduate classroom context. The article culminates in noting advice, cautions, and ethical issues in administering the MBTI, scoring it, and interpreting results.

OVERVIEW OF JUNG'S PERSONALITY TYPES
The mother-daughter team of Katherine Cook Briggs (1875–1968) and Isabel Briggs Myers (1897–1980) were consummate observers of people in everyday settings. They developed an initial version of the MBTI that was first published by Educational Testing Service in the 1940s based on Jung's theory of psychological types. In the ensuing decades of research and development, the MBTI has evolved into one of the most widely used assessment tools in the world for describing and understanding differences in people (Myers & Myers, 1995). Current forms of the MBTI are published by Consulting Psychologists Press and have been

translated into more than 20 languages, and more than two million assessments are completed each year (Quenk, 2009).

Despite criticism of the MBTI on psychometric grounds (McCrae & Costa, 1989; Stricker & Ross, 1964), the assessment has established a record of reliability and validity when administered appropriately and ethically (Bayne, 2005). Reported internal consistency, reliability, and validity for the four MBTI functions are very acceptable according to Myers, McCaulley, Quenk, & Hammer (1998). Consulting Psychologists Press provides reliability and validation studies for current forms of the MBTI on its website (www.cpp.com).

Jung's (1946) theory of psychological type states that what appears to be random variation in human behavior has order and consistency and is therefore predictable. The MBTI assessment describes differences between normal healthy people, differences that can be the source of much misunderstanding, conflict, and miscommunication. Isabel Meyers identifies these strengths as "gifts" that are described as cognitive motivations, strengths, and potential areas for growth (Myers & Myers, 1995). These "gifts differing" describe the self and others in terms of strengths and their unique way of viewing and experiencing the world.

These four basic cognitive processes are used in both the external world and inner world to provide people with eight dichotomous ways of employing mental abilities:

- Extraversion and introversion (E and I) are attitudes that determine the source and direction of energy and focus of attention. Extraverts have a preference that focuses their energy on the outer world of human interaction and activity. Introverts have a preference that focuses their energy on their inner world and are energized through reflection and solitude.

- The sensing and intuition (S and N) dichotomies are cognitive functions of "perception" that determine the preference

for gathering or taking in information. Sensing types have a preference for relying on their five senses when gathering information. Sensors prefer concrete, factual, and practical application when taking in information. Their focus is on the past and the present. Intuitives perceive situational possibilities from a larger perspective and are more abstract and theoretical in terms of what could be and what is possible for the future. Hunches, flashes of inspiration, and insight are attributed to intuitives.

- The thinking and feeling (T and F) dichotomies are cognitive functions that determine an individual's preference for making decisions and coming to conclusions. Those with a preference for thinking use logic and analysis to come to conclusions. A decision has to "make sense" to a thinker. Those with a preference for feeling emphasize human values and potential effects of a decision on people. Feeling types rely on affect and empathy. A decision must "feel right" to a feeler.

- The judging and perceiving (J and P) orientations relate to the outer world. Judging types prefer decisiveness and closure that focus on organizing self and others in the outer world using either thinking or feeling. Perceiving types prefer flexibility and spontaneity, resulting in adaptation and free-flowing views of the outer world using perception (sensing or intuition). (Myers et al., 1998)

As people use their preferences in each of these four functional areas, they develop behaviors and attitudes that form lifelong preferences for interpersonal relationships and interpreting experiences in a variety of social and organizational contexts. These combinations of preferences produce different kinds of people who are interested in various preferences. Each psychological type has its own inherent strengths, as well as potential blind spots, which may explain the title of Pearman and Albritton's (2010) book, *I'm Not Crazy, I'm Just Not You.*

The 16 Personality Types

Given the eight possible preferences that compose an individual's unique personality type, there are 16 possible combinations of these preferences, resulting in 16 unique personality types. Completing the MBTI inventory provides the user with a four-letter summary for his or her personality type: E or I, S or N, T or F, and J or P. Distribution of the 16 personality types is not even among the 16 personality types; distribution varies according to characteristics associated with specific groups, such as teachers, executives in business and industry, sales representatives, mental health counselors, air traffic controllers, and so on.

Table 1 displays the number and percentage of personality types for two groups of managers in public organizations (Macdaid, McCaulley, & Kainz, 1986, p. 317). A third group is composed of 203 graduate students attending Master of Public Administration (MPA) class from 2013 to 2015. The distribution of these groups is consistent with private sector organizations in which the four corners of the type table (ISTJ, ESTJ, INTJ, and ENTJ) are typically overrepresented when compared to the general population. By way of contrast, counseling and social work professionals are overrepresented by INFJ, INFP, ENFP, and ENFJ personality types when compared to the general population.

For example, ESTJ describes a person who is energized by the external world (E), who prefers to gather practical information by sensing (S), whose way of coming to conclusion or decision making is thinking, and who adopts the preference of judging (J) to organize and structure his or her world. The dynamic qualities for each of the 16 personality types have a predictable order. The middle two functions (S and N; T and F) determine which function is dominant (i.e., most used, capable of development, and under conscious control). The dominant function for the ESTJ type is thinking, and the least preferred function is feeling (Quenk, 2009).

For example, consider two individuals whose four-letter MBTI personality type is either ESTJ

TABLE 1.

MBTI Type Table for Managers in City, County, and State Government and for MPA Students

ISTJ		ISFJ		INFJ		INTJ	
*N = 79	% = 30.74	*N = 16	% = 6.23	*N = 5	% = 1.95	*N = 19	% = 7.39
**N = 138	% = 26.39	**N = 29	% = 5.40	**N = 8	% = 5.40	**N = 29	% = 5.54
+N = 55	% = 27.09	+N = 11	% = 5.41	+N = 8	% = 3.94	+N = 15	% = 7.39
ISTP		ISFP		INFP		INTP	
*N = 12	% = 4.67	*N = 4	% = 1.56	*N = 3	% = 1.17	*N = 10	% = 3.89
**N = 25	% = 4.78	**N = 10	% = 1.91	**N = 8	% = 1.53	**N = 15	% = 2.87
+N = 7	% = 3.44	+N = 5	% = 2.46	+N = 1	% = 1.49	+N = 8	% = 3.94
ESTP		ESFP		ENFP		ENTP	
*N = 4	% = 1.56	*N = 4	% = 1.56	*N = 5	% = 1.95	*N = 4	% = 1.56
**N = 14	% = 1.91	**N = 10	% = 1.91	**N = 18	% = 3.44	**N = 14	% = 2.68
+N = 6	% = 2.95	+N = 3	% = 1.48	+N = 6	% = 2.95	+N = 5	% = 2.46
ESTJ		ESFJ		ENFJ		ENTJ	
*N = 57	% = 22.18	*N = 10	% = 3.89	*N = 7	% = 2.72	*N = 7	% = 2.72
**N = 119	% = 22.75	**N = 37	% = 7.07	**N = 13	% = 2.49	**N = 36	% = 6.86
+N = 51	% = 25.12	+N = 9	% = 4.43	+N = 5	% = 2.46	+N = 8	% = 3.94

Source. Reproduced and adapted by permission from Macdaid, McCaulley, & Kainz (1986, pp. 316–317).

* Subjects were 257 top-level city, county, and state government managers, 20% female and 80% male attending the institute from across North Carolina. Data collected by Ron Lynch of the Institute of Government, University of North Carolina at Chapel Hill from 1980 to 1983.

** Subjects were 523 public sector managers, 26% female and 74% male, attending the institute from across North Carolina. Data collected by Ron Lynch of the Institute of Government, University of North Carolina at Chapel Hill from 1980 to 1986.

\+ Subjects were 203 MPA students, 55% female and 45% male. Data collected by John Sample, Askew School of Public Administration and Policy, Florida State University, from 2013 to 2015.

or INFP. Not only are the four letters for the ESTJ and INFP types clearly opposites; as depicted in the type table (see Table 1), the individuals have a significant difference in the predictable order in which they each address problems or respond to others (Myers et al., 1998):

Predictable order	ESTJ	INFP
1. dominant	thinking	feeling
2. auxiliary	sensing	intuition
3. tertiary	intuition	sensing
4. least preferred	feeling	thinking

The following examples illustrate how Jungian psychological type and MBTI feedback might be used to explain and improve instructor-student interactions to better understand and predict student behavior in the classroom.

Imagine an instance in which an ESTJ student in an MPA class is confused about an assignment given by an INFP faculty member. Not only are they each opposite in terms of their MBTI preferences, but the predictable order, beginning with the dominant preference, is also opposite (thinking vs. feeling) and the inferior (least preferred) preferences are feeling and thinking. The probability of a satisfactory resolution is moderate to high if the INFP instructor extends natural warm feeling combined with a concrete and practical explanation for the ESTJ student. Given this scenario, the ESTJ student will attend more to concreteness in the explanation and less to warm feelings from the INFP instructor (Fornaciari & Dean, 2013). Both the instructor and the student should "flex" to each other's approach to communicating and resolving a problem to achieve a satisfactory resolution (Allen & Brock, 2000).

Further, assume the instructor is teaching an entry-level policy analysis class in an MPA program that has 20 students. If all students have completed a reliable and valid form of the MBTI, their data can be displayed on a type table like Table 1. The instructor would have a useful snapshot of the class in terms of students' personality types, including cognitive abilities. The instructor could use this information to create instructional strategies for individual students and to create diverse teams to accommodate decision making and learning styles. Dunning (2003) identifies eight learning styles associated with each personality preference, including concrete strategies for accommodating each learning style in traditional educational and adult learning settings.

Expanding this example further, academicians in public affairs administration may use robust research methods, psychological type theory, and MBTI type tables to analyze groups of people, such as city managers (Hanbury, 2001), air traffic controllers (Dollar & Schroeder, 2004), local elected officials (Vogelsang-Coombs & Miller, 1999), and employees of the Internal Revenue Service (Mani, 1992).

ORGANIZATION AND ADMINISTRATIVE THEORY

It is important to note that although managers in both the private and public sectors tend to be distributed to the four corners of the MBTI type table (as stated above), all 16 personality types may hold responsible positions as supervisors, managers, and executives in all types of organizations. The fact that STJs and NTJs are attracted to supervisory and managerial positions should not be interpreted as necessary for success. The individual's positioning in one of the four corners of the type table does not assume or imply advanced abilities, superior intellect, or prediction of effectiveness. Many successful INFP and ESFJ managers and executives hold responsible positions in a variety of organizations (Hammer & Huszczo, 1996).

Public organizations, including nonprofits, continue to be exceptionally fertile opportunities for the applications of personality type and the MBTI as a research tool for public affairs

educators. Topics include leadership, problem solving and decision making, stress and conflict resolution, strategic planning, management and organization development, and multiculturalism (Bayne, 2004). The following sections summarize selective research findings associated with the MBTI and organizations, including public organizations.

Problem Solving, Decision Making, and Strategic Planning

Personality type is predictive of organizational preferences for problem solving and decision making. Several researchers working independently determined that sensing-thinking (S-T) dichotomies and intuitive-thinking (N-T) dichotomies populate organizations (Gardner & Martinko, 1996; Mitroff & Kilmann, 1975). They concluded that sensing-thinking (S-T) dichotomies are more likely present among managers who value quantitative information systems. Underrepresented in the type tables are intuitive-feeling (N-F) types and sensing-feeling (S-F) types, who value subjective and humanistic environments.

Nutt (2006) investigated decision-making practices by managers in the public and private sectors, using an experimental design, simulations, and the MBTI to explore risk and decision making in developing budgets. Managers in the private sector placed much reliance on analytics and too little on bargaining, whereas those in the public sector displayed overreliance on bargaining. Public sector managers see bargaining with peers and subordinates as necessary, given the effort to develop budgets, and are led away from analysis because their decision culture does not support analysis, much less free up funds to carry out analysis.

Leadership, Management, and Organization Development

One of the most extensive uses of the MBTI in organizations continues to be for developing leaders, managers, and organizations (Sample, 2004; Sample & Hoffman, 1986) and for training teams to manage the change process in organizations (Hammer & Huszczo, 1998; Huszczo, 2004). Reynierse (1993) assessed

personality type by organizational level to determine the proportion and distribution of managers. He concluded from a sample of 1,952 that extraverted types, thinking types, and judging types were overrepresented compared to the general population. Lower-level managers were more likely sensing types; proportions of intuitive types increased with succeeding levels of management and intuitives predominated among executives. Organizations can be "psychologically typed," which enables employees and stakeholders to more effectively characterize the nature of a business, public agency, or nongovernmental organization (Bridges, 1992).

Hanbury (2001) developed a theoretical model to empirically test the effects of leadership and personality as they relates to the tenure of city managers. A national sample of city managers completed the MBTI and the Leader Behavior Analysis survey. Analysis of the data confirmed that the tenure of a city manager is a function of the manager's leadership effectiveness and personality compatibility with the expectations of the city council. In a follow-up analysis by Hanbury, Sapat, and Washington (2004), the researchers reaffirmed earlier findings that the "introverted, inwardly driven, perceptive leader or city manager who is adaptable to change and chaos experiences longer tenure" (p. 572).

APPLICATIONS FOR TEACHING IN PUBLIC AFFAIRS EDUCATION

The early development of the MBTI was based, in large measure, on data collected on college campuses. In the ensuing decades, colleges and universities continued to find broad applications for the MBTI (Provost & Anchors, 2003). This section reviews potential curriculum development and instructional uses for the MBTI in public affairs education.

Career and Employment Counseling

The MBTI is used in workforce development career and employment counseling for advising students and clients about vocational preferences, career family choices, and employment

decisions (Kennedy & Kennedy, 2004; Martin, 1995). For example, *MBTI® type tables for college majors* (Schauhbut & Thompson, 2014) describes the relationship between personality preference and college majors. Each of the 59 MBTI type tables describes the relative frequency of each personality type within several college majors. These tables may be used to advise students as they search for potential college majors and by researchers studying the relationship between personality type, education, and issues related to public organizations.

Another important use for the MBTI is to predict attraction of a personality type to a specific occupation. *MBTI® type tables for occupations* (Schauhbut & Thompson, 2009) provides information on 250 occupations, each of which is associated with a descriptive code from O*NET (www.onetonline.org). O*NET is an online database that contains hundreds of occupational job summaries designed to assist students, job seekers, businesses, and workforce development professionals. The O*NET code provides descriptive and demographic information regarding a specific job summary.

It is important to note that most personality assessments, including the MBTI, have not demonstrated the ability to accurately predict future job performance and therefore should not be used as a stand-alone tool for employee selection (Cascio & Aquinis, 2010). Employers are subject to legal sanctions for using selection methods that intentionally or unintentionally result in prohibited employment practices that discriminate in the hiring process (Sample, 2007).

Multiculturalism

Although Jung (1946) believes that psychological types are attributed to an individual's genetics, it is also evident that society and culture establishes the way these preferences are expressed as behavior (Kirby, Kendall, & Barger, 2006). Researchers and practitioners in a wide variety of international contexts "report results very similar to those found by researchers and practitioners using the MBTI in the

United States" (Kirby & Barger, 1998, p. 371). In this regard, the MBTI has potential utility in public affairs education to assist faculty and students to understand that differences in personality are more universalistic and not just a Western construct. Instructors can use the MBTI to assist students in conceptualizing apparent stereotypic or ethnocentric thinking into an alternative framework for understanding cultural differences in terms of personality type and cognition.

The use of personality inventories in cultures other than the one in which norms have been developed requires caution and respect for diversity (Harris & Kumra, 2000). Harris and Kumra suggest that applying personality inventories to cultures that rely on "collectivism"—the close identification by people with strong ties to nationalism—may be problematic, because in assessing individual personality types, such inventories may conflict with norms based on collectivism.

Learning Style Preferences and Instructional Strategies

The MBTI has been used to identify learning styles of students and adults (Dunning, 2003; Salter & Evans, 2006). Lawrence (2009) identified the following characteristics of learning styles and personality type preferences that relate to learning:

A. Cognitive style in the sense of preferred or habitual patterns of mental functioning: information processing, formation of ideas, and judgments.

B. Patterns of attitudes and interests that influence what a person will attend to in a potential learning situation.

C. A disposition to seek out learning environments compatible with one's cognitive style, attitudes, and interests and to avoid environments that are not congenial.

D. Similarly, a disposition to use certain learning tools, to use them successfully, and to avoid other tools.
(pp. 38–39)

The MBTI is a predictor of learning style but cannot mandate how an individual will write, read, and study (Provost & Anchors, 2003). In addition to learning styles, many factors affect how a student behaves, including peer and environmental influence, learning environment, maturity level, self-motivation, and attitude. Thus, a perfect correlation between learning style and personality type is not possible. However, the MBTI can predict what kinds of environments, instructional tools, and behaviors hinder or encourage learning for a student's psychological type (Dunning, 2003).

Table 2 summarizes practical strategies for designing instruction for two students who have opposite personality types and learning styles (ESTJ and INFP). The recommended instructional strategies for these two students make sense for an instructor who is conducting one-on-one advising, counseling, or work with a student on a directed research project. This assumes that the student's learning style is known by both the instructor and student.

But what about designing instruction for graduate students in an MPA class when personalities are unknown? Assume for the moment that the distribution of MPA student personality types in a current semester mimic the distribution of personality types displayed in Table 1. This table is based on reported MBTI types of managers in North Carolina public organizations in the 1980s and for a group of MPA students from 2013 to 2015. It is reasonable to expect that the 1980s type table for public managers in North Carolina will be similar to the more recent distribution of MPA students. Note that in Table 1, the four corners of the type table (ISTJ, ESTJ, INTJ and ENTJ) display a noticeable and consistent pattern that highlight public managers.

Also of significance in Table 1 is the smattering of the remaining personality types. At first blush, this seems like good news—simply design instruction that focuses on the learning needs of the largest group of students, the ISTJ and ESTJ students. But what about the remaining

students from the remaining 14 personality types who require very different learning strategies, such as the INFP student? Does the instructor put the responsibility on this student to "flex" his or her learning style to accommodate the largest group in the class?

As stated earlier, each of the 16 personality types has a predictable order for development over a person's lifetime. ESTJs in the classroom are most comfortable using their dominate (thinking) and auxiliary (sensing) dichotomies when interacting with the instructor and other students, and they are less comfortable engaging their tertiary (intuition) and least preferred feeling (feeling) functions. Yet at some point in the ESTJ's career, maybe at the midpoint as a senior manager, sensing and intuition are necessary for success as a higher-level manager (Martin, 1995). This would suggest that curriculum development in public affairs education focus on the "whole person" over his or her lifetime (Dunning, 2003; Lawrence, 2009) by providing a variety of challenging assignments for all personality types, not just for ISTJs and ESTJs.

Effective curriculum development and instructional design strategies create safe places to learn while at the same time incorporating challenging opportunities for students to recognize their less developed functions. Introverts can be challenged to speak more often in class discussions and in teams, whereas extraverts can be encouraged to act as gatekeepers that prompt introverts to participate more actively. Writing assignments can be designed to encourage concept mapping and theoretical frameworks (intuition) or debating, questioning, and synthesizing content (thinking).

Applying the MBTI to an MPA Graduate Course

The author has incorporated the MBTI in a required human resource management course for MPA students at a large public university in

TABLE 2.

Instructional Strategies that Promote Learning by Specific Personality Type

ESTJ	INFP
• Engage in practical, hands-on learning activities	• Look over what is to be learned to determine the scope of the topic and the amount of detail required
• Organize material logically and sequentially	• Set broad, long-term learning goals
• Accomplish tasks using a step-by-step approach	• Learn about ideas and concepts
• Find concrete examples	• Create a framework before learning facts or details
• Apply learning to day-to-day situations	• Link new concepts to other, already known concepts
• Focus on relevant facts and details	• Map out concepts to organize a topic
• Link theory to real life examples	• Look for inferences, patterns, or trends in information
• Find accurate and precise data	• Apply information learned to help people grow and develop
• Ask for clear and specific criteria for evaluation	• Develop strategies such as mnemonics for memorizing details
• Set and accomplish short-term realistic learning goals	• Create metaphors or analogies to aid memory

Note. Reproduced with permission from Dunning Personality Experts (D. Dunning, personal communication, June 26, 2016). Content retrieved June 1, 2016, from http://www.dunning.ca.

the southeast United States. The course is designed such that students must effectively participate in a team-based service-learning project in order to earn a satisfactory grade (Brazon & Brannon, 2011; Imperial, Perry, & Katula, 2007). Students who submit their service-learning hours receive a notation on their formal academic transcript. Students also complete a variety of assignments, including a brief of an appellate court case, several calculation projects that link theory to practice, and an open-book final examination. The author has created more than 30 teams for 203 students during the 3-year period 2013–2015.

At the beginning of the semester, students complete the 70-item Kiersey Temperament Sorter (KS II) (Kiersey, 1998), a shortened and reliable version of the MBTI (Hall, 2009). In this first phase of creating highly diverse teams, the author selects five to seven students for each team based on students' dominant MBTI function. For example, the dominant function for an ESTJ student is thinking; for an INFP student, feeling. In the second phase, team members are selected based on differences in culture, ethnicity, and gender. Students are assigned readings that explain psychological type theory and the author provides lecture and discussion opportunities at strategic times during the semester.

Students complete four short reflection papers during the semester that explore the workings of psychological type. For example, in the first reflection paper, students are asked to write about a work-related conflict or unresolved personnel issue that might be explained by differences in personality type. In the second reflection paper, students are asked to recall a team-based experience, a conflict, or other memorable event that might be explained by their MBTI feedback. In the third reflection paper, students are asked to suggest a potential change in personal behavior that would increase the student's team effectiveness. The fourth reflection paper is part of the final examination in which students use a behaviorally anchored rating scale for self-evaluation and reflection on the contributions of team members.

One student summarized her team experience with the following comment:

> Completing the [MBTI] personality survey seemed like a silly academic exercise at first, but then as our team worked through the stages of Tuckman's [forming, storming, norming, performing] stages of team development, I began to realize that my behavior has an impact on others. Now I catch myself talking less, listening more, and have found my patience with others. It's OK when [international student's name withheld] struggles with his English because his understanding of stats is critical to our team project.

It should be noted that the reflection papers are submitted to the author for review and assignments of points; however, it is voluntary on the part of the student to disclose the contents of his or her reflection paper as part of planned team discussion at designated times throughout the semester. It has been the author's experience that many students are apprehensive about revealing the contents of a reflection paper for fear of embarrassment. Yet when the discussion begins, usually with animated laughter and comic relief, most teams settle into useful sharing about team behaviors that lead to "aha" moments. Occasionally, a team will have a "fair fight" that clears the air between two or more team members. The author refers to this phenomenon as "learning out loud."

During the semester, students are encouraged to use the MBTI as a framework to clarify intragroup experiences. The author keeps a practiced "ear" cocked to team discussions for relevant "chatter" that describes how well teams are progressing. In one instance, an international student was discovered to be very fluent in data management yet was very introverted and hardly participated as a team member. Once discovered, though, this student opened up; and when she spoke, everybody listened! When queried about this impressive change of events, the team extravert said, "I have learned to shut my motor mouth when [she] updates us because we are finally making progress." Other

team members laughed and nicknamed him "our high-verbal team member."

Applying the MBTI to Developing Public Affairs Policies

The development and analysis of public affairs policies is central to curriculum development and effective practice of public administrators in governmental and nonprofit organizations (Dunn, 2011). At a fundamental level, the development of public policy is a form of problem solving and decision making for which the MBTI offers useful insights. For example, introverted personality types "want to take time to think and clarify their ideas before they begin talking, while those who prefer extraversion will want to talk through their ideas in order to clarify them" (Huitt, 1992, p. 34). The dichotomies sensing-thinking (S-T), sensing-feeling (S-F), intuitive-thinking (N-T), and intuitive-feeling (N-F) have been used to research cognitive approaches to decision making.

According to Gardner and Martinko (1996) the S-T dichotomy prefers an impersonal, realistic, and bureaucratic approach to decision making, whereas the N-F dichotomy prefers personal idealism and a more fluid or organic approach. The N-T dichotomy prefers long-range strategic planning, whereas the S-F dichotomy plans more for the short term, with a focus on human relations. Mason and Mitroff (1973) and Kerin and Slocum (1981) also determined that there is a preference for the type of information valued by organizations. Sensing types want factual raw data, and intuitive types prefer stories and narratives. Thinking types prefer abstract information, and feeling type's value artistry. Each of the other dichotomies (S-F, N-F, and N-T) has a predictable set of biases when developing public policies (see Table 3). Given the preferences mentioned above, legislators and public administrators may demonstrate certain types of biases when developing and implementing public policy. For example, sensing-thinkers (S-T) may overly analyze data, a form of input bias, resulting in conservative policy recommendations (output bias) with little reanalysis (operational bias).

Recall that the sensing-thinking (S-T) preferences are depicted in the left-hand column of the MBTI type table (see Table 1). ISTJ and ESTJ comprise predominate personality types for public administrators and MPA students, followed by INTJ and ENTJ. Table 1 also includes those personality types most different from the predominant S-T and N-T. Sensing-feeling (S-F) and intuitive-feeling (N-F) preferences have a predictable set of biases that in turn predict the potential for continuing conflict and tensions when developing and implementing public policy. And lest we forget, there are numerous stakeholders (voters, taxpayers, interest groups) who are subject to public policies who expect to influence the public policy-making process.

Given the potential for conflict and tension in policy development, the author has used the following small-group exercise to explore the impact of personality type. Small groups are created in which the students share S-T, S-F, N-T and N-F preferences for decision making. Each team also includes an equal mix of extraverts (E) and introverts (I). The author (i.e., instructor) assigns each team to create an operational policy, such as "Encouraging the use of alternative energy sources, such as solar and wind power, by subscribers of coal-fired traditional electricity in a municipality." The final product is then summarized in the classroom (e.g., on a white board). Included in the summary are suggestions for communicating the policy to internal and external stakeholders. After the team presentations, the author uses Table 3 to discuss the potential for bias in policy development. Depending on time constraints, new teams of five to seven students representing all four decision-making preferences meet to discuss the issue of bias and how to create public policies that are more inclusive.

ADMINISTERING THE MBTI

Use of the MBTI is restricted and requires the user to be minimally "qualified by education" by an accredited university or college. Those who plan to purchase and use the MBTI must have completed a course in psychological tests

TABLE 3.
Potential Bias When Developing Public Affairs Policies

Potential Bias	Sensing-Thinker (S-T)	Intuitive-Thinker (N-T)	Sensing-Feeler (S-F)	Intuitive-Feeler (N-F)
Input bias (gathering information)	May ignore patterns in favor of specific facts Relies on logical procedures	May ignore information that differs from analytical model or plan	May ignore factual data in favor of opinions of others	May ignore factual data in favor of symbols, imagery, and metaphors
Output bias (generating alternative solutions)	Relies on what has worked in the past	Relies on information that confirms analytical model	Relies on options that have broad political support	Relies on value-based analogies and novel ideas
Operational bias (source for decision)	Relies on standardized practices that provide structure	Prefers a logical approach that is visionary, conceptual, and future-based	Takes cues from people in the workplace for his or her needs and wants	Prefers a values-based experience that forms a vision

Source. Modified and adapted from Gardner and Martinko (1996); Myers, McCaulley, Quenk, and Hammer (1998); and Haley and Pini (1994).

and measurements. Additionally, it is not unreasonable for instructors to become certified by creditable vendors such as Consulting Psychologists Press (CPP) or Center for the Application of Psychological Type (CAPT). Certification provides an additional level of knowledge and skills necessary for competent and ethical use of the MBTI in the classroom.

Instructors and researchers in public administration who have an interest in applying the MBTI in the classroom or as a research tool are additionally encouraged to explore the resources available from CPP and CAPT. CPP publishes three forms of the MBTI and offers individualized reports for work styles, teams, decision making, stress and conflict. In addition to certification training, CPP provides various instructional materials.

CAPT has existed since 1975 to promote Jung's theory of psychological types. A wealth of resources is available from its online catalog of publications and online searchable database, including the archives of the *Journal of Psychological Type.* The CAPT database also references scholarly journal articles, books, training, and conference reports.

Balancing privacy and confidentiality in the facilitation of MBTI programs is an important ethical issue (Fields & Reid, 2006). According to McCaulley (2000),

> Answering the MBTI is optional….As the MBTI spreads through an organization [or in the classroom] and is used with teams, the consultant [instructor] should make sure that individuals give permission for sharing results on a type table or in type-alike groups. In actual practice, when the MBTI is well taught, most people are pleased to share type information. Consultants [and instructors] need to be prepared, however, for accommodating those who are not willing to share their types. (p. 130)

Finally, it is paramount to understand that the client (student, employee, manager) is the best judge of the accuracy of his or her MBTI type preference. The four letters from a valid MBTI assessment are an initial hypothesis to be verified or modified by the student or client.

CONCLUDING COMMENTS
Use of the MBTI in curriculum development and in management and organizational contexts has reached worldwide proportions. With

such widespread use comes a potential for abuse in the administration and interpretation of an individual's feedback scores. Instructors are implored to use reliable, valid, and accepted forms of the MBTI and to avoid the temptation to use short forms available from a variety of Internet sources, which are often unreliable and have questionable validity. Further, instructors should not infringe on international copyright laws by making unauthorized copies of the MBTI and scoring forms.

Used properly, the MBTI is an important curriculum development tool for linking individual differences to a graduate course that includes a structured service-learning project. The MBTI offers a useful framework for understanding the behavior of self and others in a team environment. In the context of curriculum development, the MBTI is valuable not simply to raise awareness of individual differences but as a means for integrating and engaging students in a learning framework that spans a full semester.

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ABOUT THE AUTHOR

John Sample is a retired associate professor from Florida State University, Tallahassee, where he taught graduate courses for the College of Education and the Askew School for Public Administration and Policy. His teaching and research interests focused on human resource management and development. He holds advanced certification in the administration and interpretation of the Myers Briggs Type Indicator from the Myers and Briggs Foundation and Consulting Psychologists Press.