

For Personality Types of Competitive Judging Team Students And Classmates in Livestock and Horse Evaluation Classes

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Livestock and horse evaluation courses are taught within Animal Science Departments across the country. These courses provide a practical approach to livestock selection based on conformation and performance records of animals. Selection criteria learned in these courses is particularly useful to graduates destined for careers in applied areas of animal science. Yet the skills learned in making and defending decisions additionally benefit all students, regardless of their chosen career.

Three basic skills must be developed if students are to excel in evaluation or judging courses. First, students must understand ideal conformation and how form relates to function. Second, students must be able to identify positive and negative points of conformation. Students' senses of sight and touch must be developed to perceive differences such as degree of muscle, fat and structural correctness of animals. After identifying differences present, all factors are used to rank animals in a class. The third skill required of students is the ability to verbally defend their class placing by giving an organized and persuasive set of reasons. Points are awarded for accuracy, thoroughness, organization, and speaking ability. These skills not only enhance the livestock knowledge of the students, but also aid in the development of self-confidence and leadership potential which is a basic, long term goal of the activity.

Classroom development of these skills represents a unique challenge for instructors and students alike. A balance of knowledge, theories, and opportunities to put the information to work in a practical situation must be provided. Therefore, evaluation classes require a blend of learning and practicing principles to facilitate the acquisition of knowledge. Understanding the students' personality and ultimately their preferred learning styles should enhance the communication between instructors and students and ultimately the amount of information learned. Thus, a major objective of this research was to characterize the personality of students typically enrolled in livestock and horse evaluation classes at Texas Tech University.

Students with a talent for the evaluation of livestock are easily recognizable; yet, their personality

characteristics seem to vary widely. Instructors most often cite intelligence and previous livestock experience as essential factors for outstanding judging students. Motivation also has been regarded as an integral factor for success. However, the intelligent, experienced and/or highly motivated students do not always perform well in the evaluation classes. Because students differ widely in their aptitude for success in the evaluation classes, a second major objective of this research was to identify personality differences between students who ultimately judge on the senior judging team and their classmates.

Method

The Myers-Briggs Type Indicator (MBTI) was chosen to evaluate the students' personalities and approaches to decision making. The MBTI is a self-administered 166 item self-validating instrument first published in 1962 by the Educational Testing Service (Myers, 1962). The MBTI and the supporting research stemming from its development expanded and clarified Jung's theory that seemingly chance variation in human behavior is in fact not due to chance; it is the logical result of observable and measurable differences in mental functioning.

These basic differences concern the way people use their perceiving processes to become aware of people, things, occurrences, or ideas and the way they use their judging processes to come to conclusions about what has been perceived. Since the two together, perception and judgment, are central to a person's mental activity, they largely determine that person's overt behavior.

Jung's theory states there are two ways of perceiving which are sensing and intuition and two ways of judging which are thinking and feeling. In addition to whichever of these processes an individual prefers, there will be an accompanying preference for introversion or extraversion. Thus, the MBTI defines the following pairs of preferences from which sixteen different combinations of personality type may be derived:

(a) Extraversion (E)/introversion (I): the direction of interest. Does the subject interest flow mainly to the outer world of actions, objects, and persons (E) or to the inner world of concepts and ideas (I)?

(b) Sensing (S)/intuition (N): how situations are perceived and experienced. Does the subject attach more importance to the immediate realities of direct experience (S) or to the inferred meanings, relationships, and possibilities of experience (N)?

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Table 1. MBTI-Type Distribution

	Sensing		Intuitive		
	Thinking	Feeling	Feeling	Thinking	
Judging	ISTJ	ISFJ	INFJ	INTJ	Introversion
Perceptive	ISTP	ISFP	INFP	INTP	
Perceptive	ESTP	ESFP	ENFP	ENTP	Extraversion
Judging	ESTJ	ESFJ	ENFJ	ENTJ	

(c) Thinking (T)/feeling (F): judgment preferences. In making judgments, does the subject rely more on logical order and cause and effect (T) or on priorities based on personal importance and values (F)?

(d) Judging (J)/perception (P): life-style. Does the subject prefer to live in the judging attitude, systematically planning, ordering, and organizing his/her world, deciding what needs to be done and attempting to control events (J) or in the perceptive attitude, spontaneously, curiously, awaiting events and adapting to them (P)?

The preferences in type processes result in sixteen combinations of personality types (Table 1). The strength or degree of reliance upon a trait is known as "definitive" if scores are greater than 15. The combinations of traits not only reflect differences in personality but also in the learning style preference of the students. Addressing the preferred learning style and personality types would enhance learning and ultimate success of the instructor in reaching students (Barrett et al., 1985; Roberts and Lee, 1987).

The MBTI, Form F was administered to 74 students enrolled in basic livestock and horse evaluation classes from 1982 to 1985. Student classifications ranged from sophomores to seniors since no prerequisites or previous judging experience were required. Animal Science or a related agricultural field were the most common majors. Students had no previous knowledge of the MBTI and were encouraged to respond to the questions honestly without deliberation.

Results of the MBTI for statistical analysis were derived from section A printouts of the researcher's report (Center for Applications of Psychological Type, Inc., Gainesville, Florida). The data were evaluated with two primary objectives: first, to generally characterize the type distribution of the classes and second, to recognize potential differences between 1) class members (CM, n=47 students) and 2) judging team members (JM, n=28 students) who had excelled and participated in senior team competitions. Preference scores (ranging from 0 to approximately 49) for the four bipolar MBTI dimensions were analyzed for CM and JM in a randomized block design recognizing class as a blocking factor (Keppel, 1982).

Results and Discussion

Class Type Distribution and Implications for Instructors: A summary of the student personality types in the livestock and horse evaluation classes over a three-year period is presented in Table 2. No

definitive preference was evident on the extravert/introvert or judging/perceptive scales with approximately one-half the students showing each trait. Yet 82% and 72% of students showing sensing and thinking, respectively. The percentages within each scale are very similar to the ratios reported for animal science majors by Barrett et al. (1987). Of the 369 animal science students typed at the University of Nebraska, Lincoln, 52% were extraverted, 80% were sensing, 63% were thinking, and 53% were judging. The general population is perceived to be approximately 75% E, 75% S, 60 or 65% T, (males and females, respectively) and 55 to 60% J (Myers, 1962). The greater percentages of ST types in animal science may be reflective of the type of students drawn to the field because of its perceived more practical and applied nature.

The average preference score of 1.7 on the extravert scale has significant implications for the teaching methods employed in evaluation classes. Instructors should recognize the needs of both types of students and vary teaching efforts to appeal to both extraverted and introverted student throughout the course. Extroverts prefer the opportunity to "learn by doing" and introverts prefer the opportunity to identify and understand concepts prior to putting the concepts to work. Both approaches are important in well-taught evaluation classes where the class is composed of an equal distribution of E and I students.

The students were definitive for the sensing trait in their preferred mode of environmental perception, having an average score of 22.8. Consequently, instructors would most effectively communicate principles if students were allowed to employ their highly developed senses of sight, sound, and touch in the information gathering processes. Use of visual aids, live animals, and field trips are particularly appealing and effective methods of communicating information to the sensing student and are indispensable teaching aids in

Table 2. Student Typology Enrolled in Livestock and Horse Evaluation Classes at TTU.

Trait	Student %	Average preference score
E	50	1.7 (E)
I	50	
S	82	22.8 (S)
N	18	
T	72	14.1 (T)
F	28	
J	49	2.6 (J)
P	51	

evaluation classes. The greater practice time and real world experiences will enhance the S students' ability to apply concepts used in evaluation (Barrett et al., 1987). The intuitive students prefer to rely more on their imagination and hunches to assimilate information and may have more difficulty and consequently dislike learning under methods geared for the sensing students. Yet these students need to be encouraged to trust their instincts when supportive facts justify their placings.

The student evaluations also showed a clear preference for the thinking style of decision making process ($x=14.1$). Logic and analysis are important to the T students who rely on these processes throughout the evaluation course where daily decisions are required. The extensive practice involved in decision making tends to refine and enhance confidence in the student's decision making abilities of collecting information and analyzing it thoroughly. Instructors should strive to design animal classes with a specific purpose so that T students can follow the logic required to make the correct decisions. The 28% feeling type of students tend to rely on subjective ideas and values to

Table 3. Mean Preference Scores for the Class Members and Judging Team Members

Traits	CM	JM
	Trait: $x \pm S.E.$	Trait: $x \pm S.E.$
E/I	E: 5.3 ± 3.0^a	I: 8.8 ± 5.0^b
S/N	S: 19.1 ± 3.0	S: 26.5 ± 3.7
T/F	T: 7.7 ± 3.0^c	T: 20.5 ± 4.4^d
J/P	P: 7.6 ± 4.3	J: 2.3 ± 4.9

a, b Means in the same line differ ($P \leq .06$).

c, d Means in the same line differ ($P \leq .05$).

make decisions and may have difficulty breaking down a class into a logical placing. Yet if the F students learn how to logically break down a class into pairs, they often excel in making the correct decision in more difficult, close pairs if their livestock background has been extensive.

The preferences of the students was approximately equal between the J and P traits. The J students prefer to know the class schedule and what is expected of them whereas the P students enjoy the variation in activities of the typical evaluation class. Instructors can accommodate both types of students within the realm of the evaluation class such that learning is maximized. Students on both outer extremes of the J/P traits could have trouble adjusting to this approach.

Characterization of Class and Judging Team Members' Type Distribution: Preference scores for the traits characterizing the class and judging team members are presented in Table 3. For the E/I scale, the JM were more ($P \leq .06$) introverted than the CM. Although JM often become involved in activities where people and projects are a priority (traits common to the definitive extrovert), the intense concentration required for making and defending decisions throughout a day of competition would attract the introverted students who are naturally more oriented toward the inner world of thought and contemplation.

However, the extreme introvert may have difficulty projecting the self-confidence necessary in the reasons competition. On the other hand, the extreme extravert would tend to have difficulty focusing on the judging contest for the entire length of competition. High scoring extraverted students often finish a contest knowing many of the other team members and other less trivial information about the contest because they simply are more aware of their surroundings.

Although the JM did exhibit a greater preference for the sensing trait in Table 3, no differences were observed between CM and JM. The highly definitive score of 26.5 ± 3.7 for the JM's sensing preference is indicative of the coach's need to assimilate as many live classes of animals as possible for these students in practice. Slides and pictures would be less effective because only the sense of sight could be employed. Typically the sensing students will excel in judging because they evaluate exactly what is in the class and tend to enjoy the details necessary for reasons.

While both the CM and JM preferred the thinking approach to decision making, the JM were more ($P \leq .05$) definitive for the trait than their fellow classmates (Table 3). The JM's preference score of 20.5 ± 4.4 indicates these students are very impersonal and logical in their approach to decision making. Contrary to the feeling type of student, the JM often attain a greater degree of consistency in their class placings because of their more impersonal approach to decision making.

Neither CM or JM were definitive for the J/P traits. But the JM tended to prefer more organization in their lives than their classmates. Judging team students with a preference for J would adapt more easily to the time restraints of placing classes and giving reasons. If the judging team student who is perceptive can learn to work under the time restraints of the judging activity, they often serve as the molding factors for the group, injecting the essential element of fun during the many hours of practice.

Summary

The Myers-Briggs Type Indicator can be an effective tool for instructors to gain a greater understanding of the personality types of students in the classroom and their preferred learning styles. While it is impossible to customize instruction for every student in the classroom, instructors should recognize all student types and not discriminate against those in the minority (Sorensen and Hartung, 1987). This study indicated a high percentage of students enrolled in livestock and horse evaluation classes at Texas Tech University were sensing in their preferred information gathering processes and thinking in their preferred decision making practices. These students learn best when concrete examples directly applicable to the industry are used in class to convey information.

The judging team students were even more definitive for the sensing and thinking traits. Their

strong reliance upon their senses and logic to evaluate classes of livestock tend to make them more predictable in their class placings because they evaluate only what they see and use logic rather than feelings to place classes. But other personality types certainly may excel in the judging program. The authors have observed that intuitive or feeling students who have an extensive livestock background can effectively guide the N and/or F traits in making the correct decisions. Recognition of these personality differences among students can certainly enhance the communication between instructors and students so that greater success in the classroom as well as in competition may be attained.

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Globalization of a Course to Broaden a Curriculum And Attract Undergraduate Non-Majors

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Abstract

Courses taught in agronomy, like most other fields in agricultural higher education have tended to become more specialized and compartmentalized. Few courses are designed to offer a broad subject matter format, especially one with a global perspective. Declining enrollment is another concern in many agronomy departments. An active recruiting program is one answer to this problem, another is to attract additional students from other majors within the university into agronomy courses. One method to address these two concerns is to develop within the curriculum an offering that can benefit students already in the program, and also has an appeal for students who are not majors.

With the increasing emphasis on the global nature of markets and economy, a survey course with a global perspective can accomplish both goals; that of introducing an international component into the curriculum for agronomy majors, and providing a popular service course for others in the college community with a global interest. World Crops and Cropping systems has been taught for 5 years at Virginia Polytechnic Institute and State University. In that period of time an average of 133 students per year have taken this course. This course is only required in the agronomy department, and agronomy majors have only made up 10-15% of the enrollment. Therefore, 85-90% of the students are taking World Crops and Cropping Systems as an elective. During this same period, overall student evaluations for this course have averaged 3.8 on a scale with 4.0 as the highest evaluation.

Courses taught in Agronomy at the college and university level have traditionally been discipline oriented within a department (Schweitzer, 1986).

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Courses using an integrated approach across discipline, department, and colleges are not common. With strong departmental structure current institutional emphasis tends to promote more specialized subject matter courses (Hoshmand, 1988). Agriculture, like most professional fields taught in higher education, is faced with problems of compartmentalization and over specialization (Ellerbock, 1987). Concerns about the inability of our education system to meet the challenges of an increasingly complex, interdependent world have led to calls for revisions in curriculum and teaching methods (Boyer, 1987). Few courses in agriculture are designed to present not only a broad subject matter, but also a regional and international perspective (Ryan et al. 1985). A course with a global perspective is a needed addition for many curricula to address the international nature of agriculture.

The need for an introductory agronomy course in view of the increasing proportion of students with non-farm backgrounds has been identified (Bentley, 1980; Hasslen, 1983; Ryan et al., 1985). The number of students studying plant and soil sciences has declined in recent years to a further extent than other agricultural fields of study (Bruen et al. 1985; Beyrouly and Bacon, 1986). This decrease has left many agronomy departments laboring to find students to populate classes and thereby maintain teaching equivalents for departmental funding. Besides the obviously needed efforts to more vigorously recruit students, the development of a course which appeals to a broader segment of the university student body may be another successful approach for increasing enrollment in departmental courses.

The addition of a course with a global perspective, taught without prerequisites provides a vehicle to attract nontraditional students to a department, and an opportunity to internationalize the outlook of traditional agronomy majors. The objectives of this article are to describe an introductory agronomy course that was developed to present a global perspective, attract