An area which affects the academic performance of women students is child-care. Quality child-care is not only a serious problem in the work environment, but on college campuses. Many women, in order to be students, need a place to care for their preschoolers while they are in class. When we discuss student retention, this is as serious a problem as financial aid. As an adviser, know whether there is campus day-care available for children of students and have the phone number for social services so they can track down quality day-care for their children. In some states private day-care is regulated by the state and lists of registered and licensed day-care facilities are available through social services. Another aspect of student retention is good advising. With women students, retention is affected by many of the factors already mentioned. There are still societal pressures on a woman to be "SuperWoman" — the perfect mother, homemaker, and careerwoman. Juggling all titles, with or without a spouse, becomes difficult. Add trying to earn a college education on top of all that, and it makes for fremendous stress. Discuss taking fewer hours per semester rather than 16 to 18 hours. Suggest using summer for those classes such as humanities and social science electives or business courses which are more commonly offered than agriculture classes.

But most of all, as an adviser be there to listen to the problems and encourage the student to find support groups or get professional counseling when needed, even if this means you make the telephone call while the student is in your office to get that first appointment. We also need to rethink college education. There is no magic or added-value earning a Bachelor's degree in four years if there is no learning with it. Taking the extra time to do quality work while juggling all the other pressures will have better pay-offs in the end, that is, when the student graduates and is on the job. That holds for both women and men.

Student Diversity and Personality Type

R.C. Sorensen and T.E. Hartung

Every instructor has observed that students differ in many significant ways. Many of these have to do with differences in background, training and experience. But other characteristics of students seem to have a more personal and basic origin. These qualities include, among others, creativity, motivation, decisiveness, friendliness, facility with complexity, flexibility, and mode of gathering information. These are aspects of personality.

Program Description

Some members of the faculty at the University of Nebraska under the leadership of their dean, Ted Hartung, have undertaken a program to investigate the role of personality type in undergraduate instruction, using the Myers-Briggs Type Indicator (MBTI) to indicate personality type. The MBTI is based on the psychological principles of Carl Jung, and was developed by Isabel Briggs-Myers and Katharine C. Briggs. The principal value of using such an instrument is not that it detects new personal traits, but that a vocabulary is provided which allows teachers to describe, in a structured and logical way, those characteristics they have observed in students for many years.

The purpose of this paper is to present some of the very basic aspects of personality type as described by MBTI theory and to present some of the conclusions reached on the basis of the work conducted at the University of Nebraska. Additional information is available in the references listed at the end of the paper.

An invited paper presented by Sorensen and Hartung from the University of Nebraska at a special lunch session during the 33rd Annual NACTA Conference, June 14-17, 1987, at the University of Missouri.

The Myers-Briggs personality type is based on four scales with two opposites in each scale. The personality type consists of a combination of one of the opposites from each of the four scales. Unlike many inventories, strength of personality consists of a high level of development of one of the two opposites rather than a balance of the two. Jung has stated that one of the two opposites for each scale is preferred and natural for the individual, and that this preference is not acquired, but inherent. Although one pole is preferred, each person is able to develop the characteristics of the other pole to a greater or lesser degree, not by personal effort, but by broadened experiences with life. The implications of these ideas for teaching are obvious.

Scales Defined

The four scales are (1) extravert-introvert (E-I), (2) sensing-intuition (S-N), (3) thinking-feeling (T-F), and (4) judging-perceptive (J-P). The first three scales were described by Jung. The fourth was developed later by Isabel Briggs-Myers. The words used in these contexts in many cases do not mean the same as in common parlance. Therefore it is important to use them precisely as defined by Jung and Briggs-Myers.

Extraverts (E) are those persons whose energies are directed toward the outside world. They are usually in touch with what is going on around them and, if possible, are involved in it. As students they are friendly and outgoing and enjoy being active. Introverts (I) are those whose energies are directed to inner thoughts and ideas. They are contemplative and often private persons who may be seen as unfriendly and withdrawn. As a rule, they are not expressive in the classroom, but are usually involved in the classroom presentation in the context of their own thoughts.

Persons with sensing preference (S) obtain their information through their five senses. What they sense is usually exactly what is present. As a result they are often very good with details and do best if the instruction is very well organized and presented exactly in the form in which they are expected to remember it. They want their courses to be practical and have immediate applicability to their life. Intuitive (N) persons, on the other hand, get their information through a sixth sense. Information they collect is filtered through their own personal concept and value systems to see beyond what is before them. These students are best at instruction which allows them to extend or elaborate on the material presented in class. Often intuitives are seen as better students than sensing persons because they work more effectively with concepts and theories. The weakness of intuitives is that they often miss some of the detail that is presented to them.

Thinking (T) and feeling (F) preferences relate to the way that persons make decisions. Decisions of thinking persons are usually based on whether a proposition is logical or makes sense. Thinking students are normally able to reason out an answer that makes sense to them. Although the answer is based on the students' own particular brand of logic, personal preferences do not affect the answer. Feeling persons decide on the basis of personal values. A proposition is correct if it agrees with their values. Logic is much less important. Thinking behaviors are normally more highly valued in the classroom than feeling behaviors. Persons with feeling preference are often more effective in interpersonal relationships than thinking persons.

That is not to say that thinking persons do not have values and that feeling persons are not logical. But when a decision is called for, thinking persons will normally rely on logic and perhaps hurt feelings whereas feeling persons will rely on their values and perhaps incorporate some untruth in their decisions.

Judging (J) persons prefer an organized life style. They like things well planned, structured, and neat. They do not appreciate the unexpected and are often not very effective in dealing with it. They expect the teacher to be firmly in charge of the course and would like to have a schedule for tests and other class activities. Perceptive (P) students prefer going with the flow and make decisions about their classwork on a minute to minute basis. They often complete assignments in a last minute rush and are perfectly comfortable in doing so. They are more likely to be absent from class than other students. They are very effective in dealing with crises as a result of their flexibility.

Type Designation

The personality type designation is made up of the letters of the preferred trait in each of the four scales. Examples are ENFP, ISTJ, and ESTP. Sixteen combinations are possible. Many of the combinations are found in most classrooms. Persons of each of these

types have their own strengths and weaknesses. However, some of the types are less valued in the classroom and by society. In most classrooms, the students most valued by the teacher are those with the same personality type as the teacher.

Although the sixteen personality types are well described in a number of publications, a simpler scheme is preferred by many teachers. David Kiersey has combined the sixteen types into what he has called temperament groups. He names the groups by the letters the types in the group have in common. Thus the temperament groups are called SP (sensing-perceiving), SJ (sensing-judging), NT (intuitive-thinking) and NF (intuitive-feeling). Don Lowry has described these groups as "orange" students, "brown" students, "green" students, and "red" students, respectively. These groupings are made on the basis of behavior rather than on psychological concepts.

The SP or orange students are the practical, flexible students who look for excitement, and if they do not find any, create some. They often skip class because they find something more exciting to do. Their disinterest in schedules puts them at a definite disadvantage in most classrooms. However, their flexibility and attention to detail make them excellent practical problem solvers. They favor working with things and persons rather than listening to lectures and, like all types. do their best in a setting that fits their unique learning style. Many teachers, particularly in scientific fields, characterize these students very unfairly as disorganized, unmotivated, and unsuited for the academic environment.

Students whose preferences are SJ or who ar designated as brown are appreciated in most classes because they want to do what they are supposed to do. They want to be told exactly what the expectations for the class are, and they will fulfill them as best as possible. As a rule they are not interested in inquiry or investigation unless they have been shown exactly how to do it. They are not normally especially creative, but are very good at manipulation of data and facts with considerable accuracy. Unlike the SP students, they are comfortable with routine and as a rule do not seek constant excitement or stimulation. They usually have the best sets of notes in the class.

The NT or green students are those who are most interested in obtaining knowledge and ability for their own sake. They normally have great self-confidence and are impressed with instruction only if the teacher is obviously competent in the subject matter. All new information must be tested against these students' conceptualizations. If it fits, it is incorporated. If it cannot be incorporated, it is disregarded. Since these students are intuitive, they don't always get the details exactly right, therefore may not get the highest grades. But if they are given a chance to invent, project, extend, or create beyond what they were given, they will shine. As thinking persons, they may be a bit blunt and may have problems with interpersonal relationships.

They are in the minority in most classes and absent in some, there being only about 12% in the general population.

As feeling persons, NF or red students show excellent ability to incorporate values into the instructional material. Topics in the class will be tested against individual values and, like the NT students, incorporated into individual conceptulizations if that can be done. Individual indentity is important to NF students and comments on papers are often taken personally. Name recognition by the instructor is very important. Also, like the NT students, they have excellent ability to invent, create, improvise, investigate, and expand, always based on the values inherent in the situation. They are often charismatic and are appreciated by other students.

Most teachers will be faced with a variety of personality types. In agricultural classrooms, most students will probably be of the SP and SJ temperaments with limited numbers of NT and NF students. Further, there are many individual differences beyond those described by personality type. Thus it is not possible to customize instruction for every type of student or every individual student. It is possible, however, to minimize discrimination against certain types of students on the basis of their preferred learning style. If a teacher is interested in helping all students reach their potentials, then his or her design of instruction must take into account personality type differences. Although students need to be able to operate in their non-preferred function, it is best that they learn to do that in an environment which includes acceptance of their preferred learning style.

Nebraska Work

At the University of Nebraska College of Agriculture, work has been done with personality type for about five years. During that period, many things have been learned. The purpose of the remainder of this report is to present some of observations and research results which have been important.

The distribution of personality types among faculty is very different from the distribution for students. About 75% of the students prefer sensing whereas only 55% of the Agricultural College faculty have this preference. Limited data show that for the university as a whole, the percentage of sensing faculty is on the order of only about 10%. Whereas only 4% of the Ag College faculty are of SP temperament, 30% of the students show this preference. Therefore, SP students rarely see a role model of their type among their teachers. These differences make agreement about expectations in a course and in a university between faculty and students difficult. Type mismatch can also lead to high dropout rates for students whose learning styles are not appreciated. An awareness by the teacher of the nature of the mismatches can often go a long way toward solving the problem, often through rather simple changes in course design.

We have found that overall intelligence level is unrelated to personality type. It is true that instruments that purport to measure IQ are highly intuitive in nature and therefore discriminate against sensing persons. When all aspects of intelligence are considered, however, a range of abilities exist in all types. At Nebraska, grade point averages (GPA) are type dependent. As an average, the SJ students have the highest GPA values, a result, no doubt of their need to satisfactorily accomplish their assignments and their facility with structure. In general, SP students have the lowest GPA values. Missed classes, poor scheduling, and course structures unsuited to their learning strengths probably contribute to poorer performance. This is not to say that SP students cannot excel in their coursework. They can, but often only with a great amount of effort on their part.

On the whole, NF and NT students attain only average grades. Two factors seem to be responsible. First, their weakness in sensing means that they do not always given adequate attention to details. As intuitives, they may read into test questions things which are not there. Second, they themselves often choose what is important and that may not agree with the teacher's assessment of relative importance. These shortcomings are made up by the ability of the NF and NT students to "see the big picture" and to create and improvise test answers that get them credit beyond what sensing students are likely to get. The relative performance of all students in a class is affected to some extent by the personality type of the teacher and the behaviors requested on his or her graded exercises.

Our experience has shown that to some extent students select majors on the basis of their personality type. Sensing students tend to go into "practical" production areas such as agronomy, animal science, and agricultural economics. Feeling persons seem to favor areas such as natural resources where value-based decisions are very important. The intuitive students are so few and far between that we have not been able to characterize their preferences for a major. Perhaps this means that they are led away from agriculture because of its practical orientation. These conclusions are in accord with other students that show a good correlation between career choices and personality type.

As is prescribed by the American Psychological Association, personality types are considered confidential on our campus and are provided to no one without the individual's permission. Under these conditions, students have been willing to provide their personality types to their instructors. Many students have become very interested in personality type concepts and have used them in attempting to develop their strengths in order to be the best students they can be. This group is composed of a high percentage of NF preference students since they are the ones who are most interested in knowing themselves.

Summary

In summary, then, how can we, as teachers, use personality types to help our students? Extraverted students need to be involved in their learning and be able to discuss it with the teachers and other students. Introverts need time to work through the material by themselves. They need good printed material and references for their own independent study. Sensing persons need the material laid out for them in detail. If they are expected to do intuitive activities, they will need some examples. Intuitive persons need clear task definition so they won't go off on a tangent. They need to be inspired to go beyond the course requirements. Thinking and feeling persons need to know the bases on which decisions are to be made. They need tasks to help them understand their own decision making process. Judging students need structure in all phases of their courses. Perceptive persons need flexibility in the way course objectives are accomplished. They should be provided some simple structures that help them stimulate structured behavior.

There is no simple recipe for using personality type in the classroom. The personality type of the teacher is an important factor in designing instruction for all. The most important fact to remember is that each instructional activity included in a course will be very helpful for one group students and rather difficult for another group. The best solution is a varied group of activities that provide something for everyone. Comfort will be found in the preferred ways of learning and growth will occur from those tasks not preferred.

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Advising On Early Career Planning

Katherine A. Sicht

Introduction

We often hear from students: "I don't know what I want for a career." or "Tell me what types of jobs I can get with my degree." The disconcerting factor in these situations is not the questions asked but the fact that they often come from seniors preparing for graduation.

A missing link in the series of events making up these students' college careers is advance planning. They did not (and perhaps were never encouraged) do any exploration of themselves or potential career areas.

Most students do not understand "career planning;" the words alone imply too much work. They are committed to keeping up with coursework, making good grades, participating in co-curricular activities and, in most cases, working a part-time job.

It is important that we, as advisors, teach students that "work" is a stimulating challenge and an integral part of our lives. The career planning done during college will pay lifelong dividends.

There are two challenges advisors face in encouraging students:

- 1) Planning for a career, not just a "job." Help them understand that a career is a life path, a summary of all the job decisions made in a lifetime. The first job choice in their career is just one in a series. If planned and executed carefully, each new position is a positive step on their career ladder.
- 2) Being serious about the educational background they are receiving. Is it adequately

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preparing them for a career that will satisfy their interests, skills, strengths and needs?

Career planning is not easy. Starting in the freshman year, students should have an action plan that includes a list of realistic goals. The plan should be flexible and modified as new information about themselves and careers is learned. Encourage students to set goals; these goals should serve as excellent motivators.

Career planning involves three major activities:

- Self-assessment
- Career exploration
- Placement (in a position)

Without these three components, the employment search process is nothing more than random job hunting, which usually results in dissatisfaction and dissappointment.

Self-Assessment

Starting a journey with no plan for arriving at the destination can result in wrong paths, dead ends or worse yet, backtracking. Self-assessment is a method of laying the groundwork for a successful "journey" to a fulfilling career.

Self-assessment means a detailed, thorough analysis of a student's background, qualifications, interests and aspirations. This self-inventory is the starting block to career planning.

From this assessment, the student will determine the most important criteria to use in analyzing career options. An example might be: "I am happier when I