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A Study of Personality Types Found Within the Speech-Language Pathology Profession and the Communication Sciences and Disorders Major

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A STUDY OF PERSONALITY TYPES FOUND WITHIN THE SPEECH-LANGUAGE
PATHOLOGY PROFESSION AND THE COMMUNICATION SCIENCES AND
DISORDERS MAJOR

By

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A Thesis Submitted in Partial Fulfillment
of the Requirement's for a Degree with Honors
(Communication Sciences and Disorders)

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Abstract

The Myers-Briggs Type Indicator (MBTI) was used to analyze the personality types of speech-language pathologists and communication sciences and disorders students. The results are organized by 4 dichotomies: extroversion/introversion, sensing/intuition, thinking/feeling, and judging/perceiving. The study analyzed the individual dichotomies as well as personality outcomes as a whole. The study was designed to discover trends within each data point both separately and jointly, aiming to further research on the idea of personality types changing over time. Results suggest that similarities and differences are present in between both data points. The results are discussed in terms of their possible impact on the idea of personality changing over time.

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Background

Communication Disorders

Communication requires the transmission of information from one person to another. Information can be conveyed through tone of voice, facial expression, posture, and gestures. Language, however, is the preferred medium used when humans choose to communicate ideas, and speech is the avenue used to transmit these ideas (Plante & Beeson, 1999). A communication disorder is described as;

An impairment in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems. A communication disorder may be evident in the processes of hearing, language, and/or speech. A communication disorder may range in severity from mild to profound. It may be developmental or acquired. Individuals may demonstrate one or any combination of communication disorders. A communication disorder may result in a primary disability or it may be secondary to other disabilities (American Speech-Language-Hearing Association, 1993).

Communication disorders come in many forms such as speech disorders, language disorders, hearing disorders and central auditory processing disorders. These disorders are then classified into smaller subsets, such as articulation disorders or atypical speech sound production, fluency disorders or an interruption in the flow of speaking, and voice disorders which are defined as abnormal voice and/or absence of vocal quality. A language disorder is impaired comprehension and/or use of spoken, written and/or other symbol systems. A language disorder involves the formation of language, which includes phonology or the sound system of language, morphology or the system that governs the structures of words, and syntax, which is the system that governs the order and combination of words. In addition, a language disorder can involve the content of language or the semantics, which is the system that governs the meanings of words and sentences; language disorders can also involve the function of language or the pragmatics

which is the system that combines language components in a functionally and socially appropriate way.

A hearing disorder is also classified as a communication disorder which is the result of impaired auditory sensitivity of the physiological auditory system. The subcategories of this disorder are deaf and hard of hearing. Deafness is defined as a disorder that hinders aural and oral communication to the extent that the primary means of receiving sensory information may be other than the auditory channel. Hard of hearing is defined as a hearing disorder that may be fluctuating or permanent; it adversely affects the ability to communicate (American Speech-Language-Hearing Association, 1993).

A central auditory processing disorder is a deficit in processing audible information signals that are not attributed to impaired hearing sensitivity or intellectual impairment. The disorder may involve the individual's ability to attend, identify and discriminate acoustic signals; store and retrieve information; sort, filter and combine information appropriately; and attach meaning to acoustic signals through linguistic and nonlinguistic contexts (American Speech-Language-Hearing Association, 1993).

Speech-Language Pathologists

Once a communication disorder has been identified the individual will need to consult a professional with knowledge of communication disorders and strategies used to help. These people can be found in the communication sciences and disorders (CSD) field. This discipline focuses on a variety of problems in language, speech and hearing. Professions within this discipline are speech-language pathology, audiology and speech and hearing science. These individuals are held accountable by the American Speech-Language-Hearing Association (ASHA) whom "is the national professional, scientific,

and credentialing association for more than 173,070 members and affiliates who are audiologists, speech-language pathologists, speech, language, and hearing scientists, audiology and speech-language pathology support personnel, and students” (American Speech-Language-Hearing Association, 1997-2014).

Professionals who follow the standards defined by the Council for Clinical Certification work to gain their Certificate of Clinical Competence (CCC), a nationally recognized professional credential that represents a level of excellence in the field of audiology and speech language pathology (American Speech-Language-Hearing Association, 2014).

The Counsel for Clinical Certification in Audiology and Speech-Language Pathology (CFCC) is a semi-autonomous credentialing body of the American Speech-Language-Hearing Association. The charges to the CFCC are: to define standards for clinical certification; to apply those standards in granting certification to individuals; to have final authority to withdraw certification in cases where certification has been granted on the basis of inaccurate information; and to administer the certification maintenance program” (Council for Clinical Certification in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2013).

The professionals who have achieved the CCC certification have voluntarily met rigorous professional and academic standards and have knowledge, skills, and expertise to provide high quality clinical services. ASHA is the leading professional, credentialing, and scientific organization for speech-language pathologists, audiologists, and speech-language-hearing scientists. It has been certifying professionals since 1952 and since 1926 it has been the guardian of speech-language pathology and audiology. It initiated the development of national standards for the professions. The CCC certification is not contingent upon membership in any other professional organization and is based on skill validation studies and practice analysis involving employers, leaders in the discipline of

communication sciences and disorders, and practitioners in the professions of speech pathology and audiology (American Speech-Language-Hearing Association, 2014).

Speech-language pathologists (SLP) perform a wide array of tasks including evaluating, diagnosing and treating speech, language, cognitive-communication and swallowing disorders. They can work with any age group spanning from infancy to the elderly (American Speech-Language-Hearing Association, 2014). Speech-language pathologists also perform tasks like counseling patients and their families about problems the patients are having and what can be done to help. They collaborate with other professionals like doctors, teachers, physical therapists, occupational therapists and dietitians. They also help find other ways for people to communicate and are involved with research to find new and emerging ways to treat patients with communication and swallowing disorders.

There are many major areas of interest when it comes to the field of speech-language pathology. They include accent modification, augmentative and alternative communication, Autism spectrum disorder, cleft palate or craniofacial disorders, disfluency, dysphagia, neurogenic speech disorders and language disorders. Accent modification is done when accents are modified through articulation therapy.

Augmentative and alternative communications provide a way for those who are unable to independently communicate because of a limitation a means of communication. Autism spectrum disorders include a spectrum of developmental disorders that affect social interactions, verbal communication, and a child's language or ability to formulate speech and language properly. Cleft palate or craniofacial disorders are congenital conditions involving craniofacial structural anomalies. Disfluency, or stuttering, is the inability to

have speech that flows. Dysphagia is a swallowing disorder that may be caused by paralyzed vocal folds or a weakening of muscles used for swallowing. Neurogenic speech and language disorders occur because of brain injury, and voice disorders at the larynx or vocal fold level that are caused by misuse, external trauma or a neurogenic condition (Hassebroek, 2010). These areas of interest can lead speech-language pathologists to work in many different locations such as acute care, rehabilitation hospitals, public and private schools, colleges and universities, corporations and nonprofit organizations, private practices, research labs, skilled nursing facilities and assisted living facilities.

Speech-language pathology is a rewarding and constantly developing profession where everyday research and development lead to new treatment options for individuals with communication disorders. According to the United States Department of Labor statistics as of May 2012 there are currently 134,100 speech language pathologists employed in the United States of America with a nineteen percent job increase outlook for the years 2012-2022. The Department of Labor indicates that because of the large baby boom population growing older there are more instances of health conditions that cause speech, language and swallowing impairments. Since May 2012, the state of Maine employed between 730 and 1480 speech pathologists. In contrast, Montana, Wyoming, Vermont, and New Hampshire only employed 70 to 580 SLP's. States that include the highest level of employment for this occupation include California, Texas, New York, Illinois, and Florida.

It is found that people who received speech-language pathology services made improvements in all healthcare settings. Eighty-four percent of people with a speech disorder such as apraxia or dysarthria made progress in a hospital or in rehabilitation

facility. Eighty-one percent of people with language problems after a stroke make improvements with outpatient services and over half of the people in hospitals no longer needed a feeding tube after receiving swallowing treatment from an SLP (American Speech-Language-Hearing Association, 2013).

Student Requirements

Research shows that different personality types are found within the field of speech-language pathology. In comparison this thesis is researching the personality types found within undergraduate students studying communication sciences and disorders. It is important to understand the characteristics and requirements that are necessary to become a speech-language pathologist. Peterson-Schober and O'Rourke are professionals who have created a list of sixteen characteristics that are important for success in the field of speech pathology. These include "communicating effectively in both oral and written language, having hearing acuity sufficient to identify, discriminate, and understand speech, possessing honesty, and a willingness to uphold the ethical standards of the profession" (p. 44). The ethical standards of the profession are set forth by ASHA indicate that,

Individuals shall honor their responsibility to hold paramount the welfare of persons they serve professionally or who are participants in research and scholarly activities, and they shall treat animals involved in research in a humane manner. Individuals shall honor their responsibility to achieve and maintain the highest level of professional competence and performance. Individuals shall honor their responsibility to the public by promoting public understanding of the professions, by supporting the development of services designed to fulfill the unmet needs of the public, and by providing accurate information in all communications involving any aspect of the professions, including the dissemination of research findings and scholarly activities, and the promotion, marketing, and advertising of products and services. Individuals shall honor their responsibilities to the professions and their relationships with colleagues, students, and members of other professions and disciplines (American Speech-Language-Hearing Association, 2010).

Like speech-language pathologists, the students of this profession come from varied backgrounds. The undergraduate degree that many speech-language pathologists graduate with is called communication sciences and disorders (CSD). It is important to note that there are over 300 programs accredited by ASHA in the United States. Referencing the ASHA 2014 standards and implementation procedures for the Certificate of Clinical Competence we can see the requirements students and professionals need to meet in order to gain certification. The standards require that an applicant must have a master's, doctoral, or other recognized post-baccalaureate degree, that all graduate course work and graduate clinical experience must have been initiated and completed in a speech-language pathology program accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). The applicant for certification must have completed a program of study (a minimum of 36 semester credit hours at the graduate level) that includes academic course work and supervised clinical experience sufficient in depth and breadth to achieve the specified knowledge and skills outcomes. The standards indicate that the applicant must demonstrate knowledge of biological sciences, physical sciences, statistics, and the social/behavioral sciences. In addition the applicant must demonstrate knowledge of basic human communication and swallowing processes, including the appropriate biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases. The applicant must have demonstrated the ability to integrate information pertaining to normal and abnormal human development across the life span. The standards require the applicant to demonstrate knowledge of communication and swallowing disorders and differences, including the appropriate etiologies, characteristics, anatomical/physiological, acoustic,

psychological, developmental, linguistic, and cultural correlates, as well as completing a program of study that included experiences sufficient in breadth and depth to achieve skills including evaluation, intervention, interaction and personal qualities. For certification in speech-language pathology an applicant must complete a minimum of 400 hours of supervised clinical experience in the practice of speech-language pathology; with twenty-five of these hours being spent in clinical observation, and 375 hours being spent in direct client/patient contact. Applicants must successfully complete a Speech-Language Pathology Clinical Fellowship (CF) consisting of clinical service activities that foster the continued growth and integration of knowledge, skills, and tasks of clinical practice in speech-language pathology consistent with ASHA's current Scope of Practice in Speech-Language Pathology. The Clinical Fellowship must have consisted of no less than 36 weeks of full-time professional experience or its part-time equivalent (Council for Clinical Certification in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2013).

Getting to the graduate level in communication sciences and disorders is a task that can only be accomplished by those who are motivated, dedicated, and passionate for their future as a speech-language pathologist. Though students have yet to have the opportunity to develop and perfect their skills in the field of speech language pathology, this thesis will show that personality types of students and professional speech-language pathologists both overlap and contrast.

Personality

Isabel Briggs Myers and Katherine Cook Briggs work was inspired by C. G. Jung's book, *Psychological Types*. The duo discovered Jung's research in 1923 and

decided to pursue the concept of personality types in detail to help people make better life decisions for themselves. Myers added her own findings to those of Jung and created a paper and pencil questionnaire that continued to evolve for the next three decades. The instrument that was developed is now called the Myers-Briggs Type Indicator (MBTI), which is a personality indicator. The MBTI was made available to the public in 1975. Myers and Briggs hoped that this indicator would help people learn to understand, appreciate, and grow according to their personalities in diverse settings (Myers and Briggs Foundation, 1995).

The MBTI instrument takes Jung's theory of psychological types and organizes it into a questionnaire. The MBTI identifies and describes sixteen different and distinctive personality types based on four dichotomies. The questions focus on ways individuals gather information, how individuals focus their energy, their overall lifestyle choices and how they make decisions. All of the types that are recorded are considered equal and every type has value. The MBTI is considered to be both a valid and a reliable tool as it is used in today's world (Myers and Briggs Foundation, 1995).

The MBTI instrument has been used for many purposes including discrimination in learning styles, career placement, how people form relationships with others, and personal growth. Donna Dunning, a recognized and award winning psychologist, educator, and certified human resource professional has written several works on the usefulness of MBTI. Her titles include *Type and Career Development: Facilitating Personal and Professional Development*, *What's your Type of Career*, *Introduction to Type and Communication*, and *TLC at Work*. The MBTI has also been cited and used by Charles R. Martin, Ph.D. He is the Vice President for Research and Development for the

Center for Applications of Psychological Type and is the author and coauthor of several books that including *Looking at Type and Careers* and *Looking at Type: The Fundamentals*.

According to Aviles (2001),

The MBTI has been utilized for personal, career and marriage counseling, conflict and stress management, team building and understanding managerial and learning styles (Fairhurst & Fairhurst, 195; Keirse, 198; Kroeger & Thuesen, 1989; More, Jenkins, Dietz & Feuerbaum, 197; Pearman& Albriton, 1997). The MBTI has great potential for use in human service organizations for two reasons: it has been designed for use with healthy individuals and its results are non-judgmental. (p.3)

In addition to these references, the MBTI is widely used in the field of research on personality types and has appeared in many articles, books and publications (Freeland, 2010; McCulley,1990; Meunier, 2011; Robertson, 1997).

The MBTI reports that knowledge of personality type can help with career planning, as well as curriculum choices. Understanding that personalities affect how one learns and comprehends information can be beneficial. For example, schools can take new and different approaches to teaching principles that enhances communication, and therefore, learning. Using MBTI results, individuals can achieve balance, create possibilities, understand one self and personally grow (Myers and Briggs Foundation, 1995).

Dichotomies

The first dichotomy of the MBTI measures how individuals gather energy. It categorizes individuals as extroverts or introverts. The extraverted person focuses on gathering energy from other individuals, the outer world. They usually prefer working in groups, oral communication and taking action. They are known as sociable individuals and they work out ideas through talking and tend to be expressive. Extroverts usually act,

respond, and make decisions quickly. Some words that describe extroverts include: active, sociable, outward, open and expressive. However, extroversion does not mean “talkative” or “loud,” but rather, how individuals get their energy (Larry, 1997).

Introverts are individuals that like to focus on the inner world. They gather their energy through time alone in quiet places and often participate in reflection of their decisions. They are typically seen as quiet individuals who are private and contained. Through reflection, introverts think about their memories and feelings to gain energy. Some words to describe introverts include: depth, private, inward, and reserved (Myers and Briggs Foundation, 1995). Being an introvert does not necessarily mean that the person is “shy” or “inhibited”. Many introverts find it difficult to be understood in such an extroverted society (Larry, 1997). In the American population, 76% of people are extroverts and 24% are introverts (Larry, 1997). Within normative data collected by the Myers-Briggs foundation, a sample of 385 speech-language pathologists was selected and results showed 214 extroverts and 171 introverts; indicating that 55% of the participants were extroverts and 45% introverts. Data were also gathered for the traditional age male and female college student, the female sample size was 14,519 with 8,677 extroverts and 5,842 introverts, a 59.7% to 40.24% ratio. The male sample was 12,637 with 6,468 extroverts and 6,169 introverts, reporting a much closer ratio of 51.1% to 48.8% ratio (Macdaid, McCaully & Kainz, 1995).

The next dichotomy the MBTI survey distinguishes between is sensing or intuiting. This dichotomy focuses on how people gather and retain information. People who fall under the sensing preference tend to absorb data in a literal and concrete manner. They make inferences about experiences using all five senses. They usually focus on the

present moment and put most value into what is concrete. Some examples that register more to sensing people are the taste of food, following steps in a plan, or memorizing a speech. These individuals like to follow agendas, have specific examples to assist in making decisions, and seek predictability. Sensing people like to gather their information in a very precise and exact manner (Larry 1997). The other way people tend to gather information is through intuition. These individuals gain their information through “hunches”, or sort of a sixth sense. They value imagination and trust inspiration. These individuals are usually more general and figurative. They are creative beings and tend to focus on the future and endless possibilities that may arise. Examples of the intuition-based dichotomy are those who are okay with departing from an agenda, desiring change, and welcoming alternatives. In the American population, approximately 76% are sensing and 24% are intuitive (Larry, 1997). Speech-language pathologists reported 188 sensing and 197 intuiting for this dichotomy, that’s a 48% to 51% ratio. The college aged female data reported 8,914 sensing and 5,605 intuiting, a 61% to 38% percent ratio. The college aged males reported 7,356 sensing and 5,281 intuiting a 58% to 42% ratio (Macdaid, McCaully & Kainz, 1995).

The third dichotomy is categorized as thinking or feeling and is influenced by how people make decisions. Individuals who fall under the feeling category tend to like things up close and personal. A “feeler” will make their decisions on an individual basis, in a subjective manner based on what they believe to be “right” within their own values. These individuals make decisions based on personal and social values and are very sensitive to other peoples’ feelings. They enjoy positivity and recognition for their work. Characteristics that describe a “feeler” may include: someone who aims for harmony at

all times, knowing when support is needed, and is warm and enthusiastic (Larry, 1997). “Thinkers” are classified as people who like logistics; they tend to think about cause, effect and objectivity. They like things to be black and white and are not masked by emotions. They may give off the impression of being heartless, insensitive, and uncaring but these individuals merely make decisions without involving emotion. A “thinker” makes decisions in a logical, rational and impartial manner, based on what they believe to be fair and correct based on pre-defined rules that society sets. They are motivated by desire for achievements and accomplishments. It can be said that a “thinker” makes decisions from the head whereas “feelers” make decisions from the heart. Some characteristics of a “thinker” may include: people who like “the rule of the law” or those who don’t make decisions according to what makes others happy. They are usually not outwardly emotional and sometimes enjoy playing devil’s advocate. Interestingly enough, the American population is divided in half on this dichotomy 50% are classified as feelers, and 50% are classified as thinkers. This category is the only one that has a gender influence, because about 2/3 of the males surveyed are thinkers and 2/3 of the females surveyed are feelers (Larry, 1997). The speech-language pathology data reported 260 individuals as feeling and 125 as thinking. That translates to a 67.5% to 32.5% ratio. The female college students reported 9,904 as feeling and 4,615 individuals as thinking, translating to a 68.2% to 31.8% ratio. The college aged males reported 4,626 feeling and 8,011 as thinking translating to a 36.6% to 63.4% (Macdaid, McCauly & Kainz, 1995).

The last dichotomy distinguishes between judging and perceiving based on basic external orientation. People who are categorized as judging tend to be people who enjoy making decisions. They plan, organize, and appreciate a lot of structure in their lives.

These individuals are product oriented and take deadlines seriously. They like to feel purposeful in the things that they do. “Judgers” set many goals for themselves and work hard to not only complete these goals, but also go beyond them (BSM Consulting, 2012). Being on time is a priority for “judgers”, they like to-do lists and will make them regularly. They strive to get things done before due dates and like to complete one activity before beginning another one (Larry, 1997). Words to describe those of the judging dichotomy are: control, organized, deliberate and productive. The perceiving half of the dichotomy differs in that their basic external orientation and are very flexible and spontaneous. People who are distinguished as perceivers love surprises. They prefer remaining very open and adaptable; this type of person will wait until the last minute to complete a task. These individuals are okay with their plans changing at the last minute and prefer to have tentative plans or schedules. Some perceiving tendencies are being open to new information and missing nothing, being process oriented, and being curious and spontaneous (BSM Consulting, 2012). Words to describe perceiving individuals are: flowing, receptive, flexible, and curious. The American population is divided 50/50 in this dichotomy (Larry, 1997). In this dichotomy the speech-language pathologists reported 229 judging and 156 perceiving, translating to 59.4% to 40.6% ratio. The college aged female student data reported 8,371 judging and 6,148 perceiving, a 57.6% to 42.3% ratio. The college aged male data reported 6,698 judging and 5,939 perceiving, translating to a 53.0% to 47.0% ratio (Macdaid, McCauly & Kainz, 1995).

Whole Personality

These dichotomies are then combined in sixteen different ways to produce the personality types that the Myers-Briggs indicates. This chart describes key characteristics of each personality type.

<p>ISTJ Hard-working Thorough Responsible Hallmark: Dependability</p>	<p>ISFJ Conscientious Loyal Dedicated Hallmark: Commitment</p>	<p>INFJ Insightful Inspiring Creative Hallmark: Integrity</p>	<p>INTJ Independent Individualistic Visionary Hallmark: Vision</p>
<p>ISTP Pragmatic Realistic Adaptable Hallmark: Ingenuity</p>	<p>ISFP Low-key Flexible Modest Hallmark: Sensitivity</p>	<p>INFP Original Values focused Caring Hallmark: Idealism</p>	<p>INTP Analytical Intellectual Ingenious Hallmark: Logic</p>
<p>ESTP Action oriented Energetic Realistic Hallmark: Energy</p>	<p>ESFP Friendly Outgoing Enthusiastic Hallmark: Enthusiasm</p>	<p>ENFP Lively Charismatic Encouraging Hallmark: Imagination</p>	<p>ENTP Perceptive Adaptable Clever Hallmark: Initiative</p>
<p>ESTJ Logical Directive Organized Hallmark: Decisiveness</p>	<p>ESFJ Helpful Warm Cooperative Hallmark: Affiliation</p>	<p>ENFJ Warm Supportive Friendly Hallmark: Responsiveness</p>	<p>ENTJ Energetic Assertive Confident Hallmark: Drive</p>

Figure 1

Purpose of Study

The purpose of this study is to examine the similarities and differences in the personalities of speech-language pathologists and students studying in the field of Communication Sciences and Disorders. The reason behind this study is to investigate if or what impact becoming a speech-language pathologist may have on a person's personality. Can an academic degree course and professional experience change a

person's personality entirely, or have an effect on any of the individual dichotomies? Analyzing the personalities of speech-language pathologists and undergraduates will allow future students to better understand the personalities they will be working with in both their academic and professional careers. This thesis will compare and contrast the data that is gathered and data from neighboring professionals like special education teachers, as well as contrasting ones like accountants.

Method

Twenty speech-language pathologists and twenty-four speech-language pathology students completed a version of the MBTI test anonymously on an online server called Qualtrics. Because of the discrepancy in value, the data will be displayed on a percentage basis to accurately compare the data sets. The professionals were contacted requesting participation through personal emails. The students were contacted through the University email known as First Class. The professionals that were contacted ranged in occupational settings including schools, private practices, hospitals, and government funded agencies. The students who participated included undergraduate and graduate students. Participants who were contacted included people of both genders, a range of ages, although more females than males participated in the survey.

The approval to distribute the survey was given by Institutional Review Board (IRB) for the Protection of Human Subjects on October 24, 2013.

All participants were sent an email containing a link to the Qualtrics survey. Once the individuals agreed to participate, the first question asked if they were a practicing speech-language pathologist or student. The rest of this survey included 15 different pages with five questions per page. All of the questions contained two options to choose

from, a or b. Once the survey was complete, responses were recorded on a score sheet that discriminated each question by dichotomy preference. The data were then put into an Excel sheet, which indicated whether the participant was professional speech-language pathologist or student, and what four letter personality type they scored. In the result of a tie, the participant would be counted under both discriminants of that particular dichotomy as a half. For example, if an individual were recorded as an ENFJ/P they would be accounted for .5 ENFJ and .5 ENFP. Generally, when the MBTI is administered a tie would prompt the test taker to decide which dichotomy they feel that suits them. In addition, this data was statistically analyzed using the Mantel-Haenszel chi squared test (Pezzulo, 2013).

Normative Data

The Atlas of Type Tables is a text that discloses data gathered by the Center for Applications of Psychological Type, Inc. This text depicts data from many different professions spanning from nurses to education providers. The sample size obtained from The Atlas of Type Tables of speech-language pathologists was 385. This data reported all sixteen-personality types, and are organized into the chart below:

<u>ISTJ</u> 20	<u>ISFJ</u> 45	<u>INFJ</u> 23	<u>INTJ</u> 11
<u>ISTP</u> 8	<u>ISFP</u> 18	<u>INFP</u> 34	<u>INTP</u> 12
<u>ESTP</u> 4	<u>ESFP</u> 13	<u>ENFP</u> 46	<u>ENTP</u> 21
<u>ESTJ</u> 29	<u>ESFJ</u> 51	<u>ENFJ</u> 30	<u>ENTJ</u> 20

Figure 2

In this normative data three personality types stood out, introverted sensing feeling judging (ISFJ); extroverted intuiting feeling perceiving (ENFP); and extroverted sensing feeling judging (ESFJ). There are many that scored in the double digits but these three personality types held the highest number of participants.

Similar Professions

The Atlas reported data for many different professions. Social workers had a data set of 479, and within this grouping 73 were recorded as ENFP's. Fifty-five participants were recorded as INFP's; these two personality types stood out, and were the highest scoring in all personality types for this profession. It is important to note that the lowest scoring personality types for social workers were ISTP and ESTP; these were also the two lowest scoring personality types for the speech pathologist normative data (Macdaid, McCaully & Kainz, 1995).

Special education teachers were also evaluated. There were 173 in this data point and the highest scoring personality type was ENFP with 23 participants. The second-highest scoring was ESFJ with 19. Again, it is important to note that the lowest scoring personality types for this profession was ISTP and ESTP (Macdaid, McCaully & Kainz, 1995).

Contrasting Professions

Looking at professions that appear to be on the "opposite" end of the personality spectrum we find doctors of medicine and accountants. The doctors data set included 1603 participants, of all personality types recorded, the most were found in ISTJ with 210 participants, the next being ISJF with 164 participants. The lowest scoring personality

types for this profession are ESFP, ISTP, and ESTP (Macdaid, McCaully & Kainz, 1995).

Finally, the accountant data sample was 427; the highest scoring personality type was ISTJ with 86 participants. The next highest scoring was ESTJ with 53 participants, the third ISFJ with 42 participants. Again, ESTP was among the lowest scoring personality type with 9 participants (Macdaid, McCaully & Kainz, 1995).

Results

The results for this study will be reported according to whole personality types. In the speech-language pathology data, eight personality types were accounted for, and can be seen in the table below:

<u>ISTJ</u> 1	<u>ISFJ</u> 1	<u>INFJ</u> 1	<u>INTJ</u> 0
<u>ISTP</u> 0	<u>ISFP</u> 0	<u>INFP</u> 2	<u>INTP</u> 0
<u>ESTP</u> 0	<u>ESFP</u> 2	<u>ENFP</u> 0	<u>ENTP</u> 0
<u>ESTJ</u> 1	<u>ESFJ</u> 10	<u>ENFJ</u> 2	<u>ENTJ</u> 0

Figure 3

The students also reported eight personality types, five being the same as the speech-language pathology data and three being new personality types. These results can be seen in the table below.

<u>ISTJ</u> 1.5	<u>ISFJ</u> 7.5	<u>INFJ</u> 3	<u>INTJ</u> 1
<u>ISTP</u> 0	<u>ISFP</u> 1	<u>INFP</u> 0	<u>INTP</u> 0
<u>ESTP</u> 0	<u>ESFP</u> 0	<u>ENFP</u> 2	<u>ENTP</u> 0
<u>ESTJ</u> 1	<u>ESFJ</u> 4	<u>ENFJ</u> 3	<u>ENTJ</u> 0

Figure 4

Discussion of Findings

Comparing the speech-language pathology and student data collected work it revealed differences, but even great similarities.

The most prominent personality type for speech-language pathologists was ESFJ. ESFJ is a personality type that prefers to engage in the frontline and practical service roles, they notice immediate needs of people and attend to them. They like to work in structured, predictable, and collaborative settings. They uphold traditions, social norms and enjoy celebrating successes. ESFJ's coordinate details and schedules so events run smoothly. Tips for working with ESFJ's are; following clear, structured, and step-by-step processes, being a practical contributor by setting and achieving concrete goals, providing and using practical and factual information, and sharing examples of real people and their success stories (Dunning, 2005).

This type is otherwise known as the Practical Contributor. Having a dominant E component, this personality is “outwardly decisive, collaborative, and sensitive to peoples needs”(Dunning, 2005). The S component allows for them to “inwardly focus on the practicalities and realities of each situation”(Dunning, 2005). The N component allows for this person to “consider broader possibilities to enhance human potential”

(Dunning, 2005). The J characteristic of this personality causes this person to “have the developmental challenge of assessing situations logically and objectively”(Dunning 2005).

In contrast, the most prominent personality type found for the students was ISFJ. ISFJ is a personality type who likes to focus their energy on others and are practical helpers. These individuals tend to celebrate and uphold traditions; they like to give and receive positive feedback, and observe people and notice what they need. ISFJ’s collaborate with others to coordinate projects and reach common goals. They like to organize and manage details so processes run smoothly for every one involved, and are comfortable working in supportive and structured settings. However, they are uncomfortable with discord or conflict and may avoid bringing up issues. Some tips for working with ISFJ’s are to get to know clients, acknowledge and carefully listen to their experiences, create a structured, collaborative, and cooperative plan to obtain results for clients. ISFJ’s do a great job at providing reassurance for their clients especially when clients are moving out of their comfort zone (Dunning, 2005).

The ISFJ personality is described as the Compassionate Assimilator. The I component allows for the individual to “inwardly take in and assimilate personally important information” (Dunning, 2005). The S component of this personality allows for this person to be “outwardly decisive, collaborative, and sensitive to needs of people” (Dunning, 2005) which in the case ESFJ comes from their E component. The F component of this personality allows for this person to “assess situations objectively as well as personally” (Dunning, 2005). The J component of this personality types causes

this person to have the “developmental challenge of seeking and acting on new ideas and possibilities” (Dunning, 2005).

These two personalities were among the most prominent in the normative data, as well. Along with ENFP, this personality type will advocate for others and foster development and growth. These individuals appreciate diversity, value individuality, and see people's potential and the possibilities. They will express themselves in a personal and creative ways and will approach situations with excitement and outward enthusiasm. ENFP's will seek participative, cooperative, and supportive work settings. Some tips for working with ENFP's are to approach them with enthusiasm, energy, and focus on opportunities for growth. Demonstrate interest in them as individuals by developing a rapport. Acknowledge and appreciate their idealistic ideas before returning to reality, focus on mentoring rather than directing, and support and encourage decision-making and follow through (Dunning, 2005).

While data obtained for this work reported eleven different personality types collectively. It is important to note that five personality types did not record any results including ISTP, INTP, ESTP, ENTP, and ENTJ. These included the two personality types ESTP and ISTP that are among the lowest scoring for the speech-language pathology, social workers, special education teacher, doctors of medicine and accountants in the normative data. This commonality among such differing professions was an interesting find and further research of this idea could be worthwhile.

Statistical Analysis of Dichotomies

Examining each dichotomy separately the extrovert/introvert portion reports the student data had 41.67% extroverts and 58.33% introverts, while the speech-language

pathologist data had 75.00% extroverts and 25.00% introverts. The group difference was not statistically significant. Even though the data didn't prove to be statistically significant, it is important to recognize that there are trends present. As the data shows the speech-language pathologists scored higher in the extroversion half of the dichotomy compared to the undergraduate students who scored higher in the introversion half. This difference could be attributed to the academic development that the CSD major and classes provide, or the experience individuals gain once completing the Master's program and working in the profession. It could be said that the classes taken by CSD students and experience they gain after completion of the degree program can alter the introvert and extrovert dichotomy of a personality.

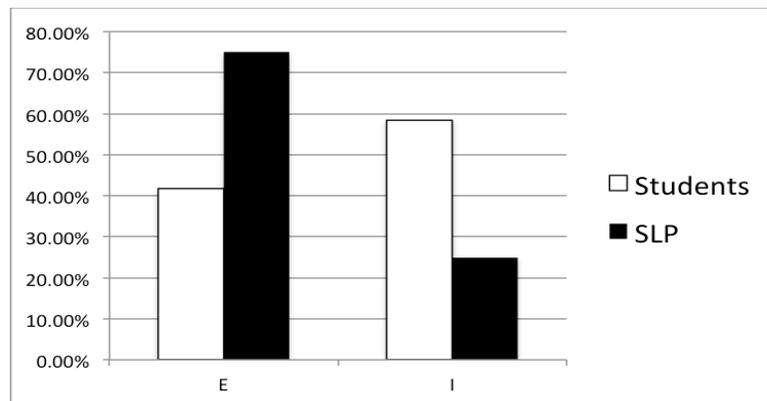


Figure 5

The sensing/intuiting dichotomy reports the student data as 62.50% sensing and 37.50% intuiting, the speech-language pathologist data reports 75.00% sensing and 25.00% intuiting. The group difference was not statistically significant. However, it is important to note that there is a trend in both the speech pathologist and student data of a more prevalent sensing portion of the personality. This makes sense as many students and speech pathologists need and use facts to learn about diagnoses, diagnosing, and understanding communication disorders.

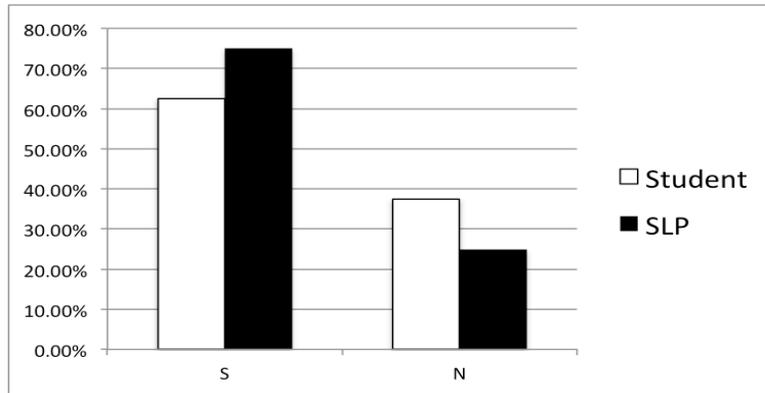


Figure 6

The thinking/feeling dichotomy reports the student data as 14.58% thinking and 85.42% feeling. The speech-language pathologist data reported being 10.00% thinking and 90.00% feeling. The group difference was not statistically significant. However, there are trends seen in this dichotomy as well with a high scoring feeling half for both speech-language pathologists and students. This could be attributed to the wealth of females within this profession, as this part of the personality is the only one influenced by gender.

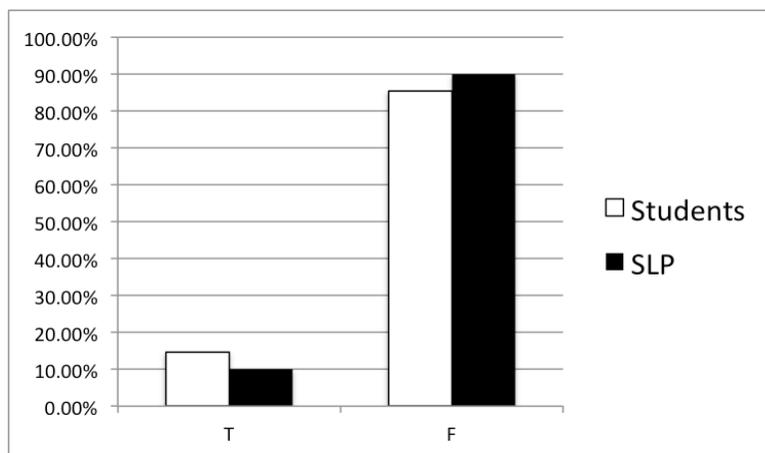


Figure 7

Finally, the judging/perceiving dichotomy reports the student data having 12.50% perceiving and 87.50% judging and the speech-language pathology data having 20.00%

perceiving and 80.00% judging. The group difference was not statistically significant; however, this trend shows that both speech pathologists and students within the communication sciences and disorders major like structured environments, organization, and schedules. This characteristic is important to the speech pathology profession as speech pathologists are usually on a schedule, and working toward goals and objectives with their clients.

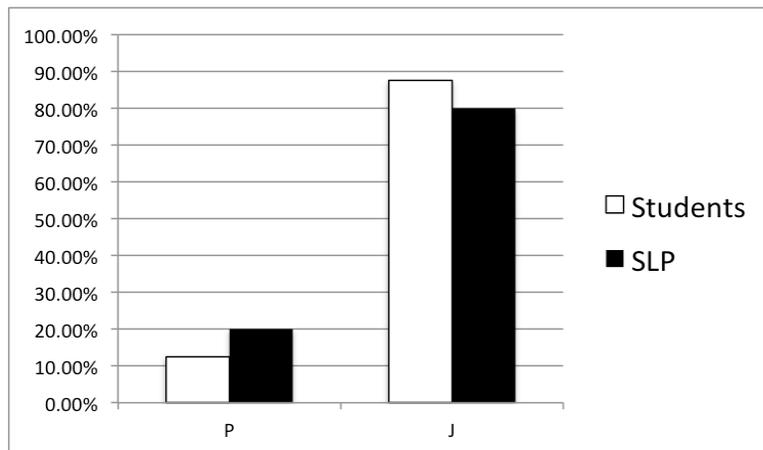


Figure 8

Because the data sample for this research is much smaller, it can be expected for fewer types to be recorded but it is important to note that ESTP and ISTP were among those types not recorded for.

Statistical Analysis of Whole Personalities

In addition to the analysis of each dichotomy a statistical evaluation was done for each personality grouping for the communication sciences and disorders students and speech pathologists. The speech pathologist and student data collected for this work was compared, as well as the normative data collected by the Center for Applications of Psychological Type, Inc. Each personality type was compared to the same personality type in the collected data; and the normative data of doctors of medicine and accountants.

It was found that the ISFJ ($\chi^2 = 4.71, p < .05$) and ESFJ ($\chi^2 = 5.46, p < .05$) personality group differences were statistically significant for the speech-language pathologist and student data collected for this work.

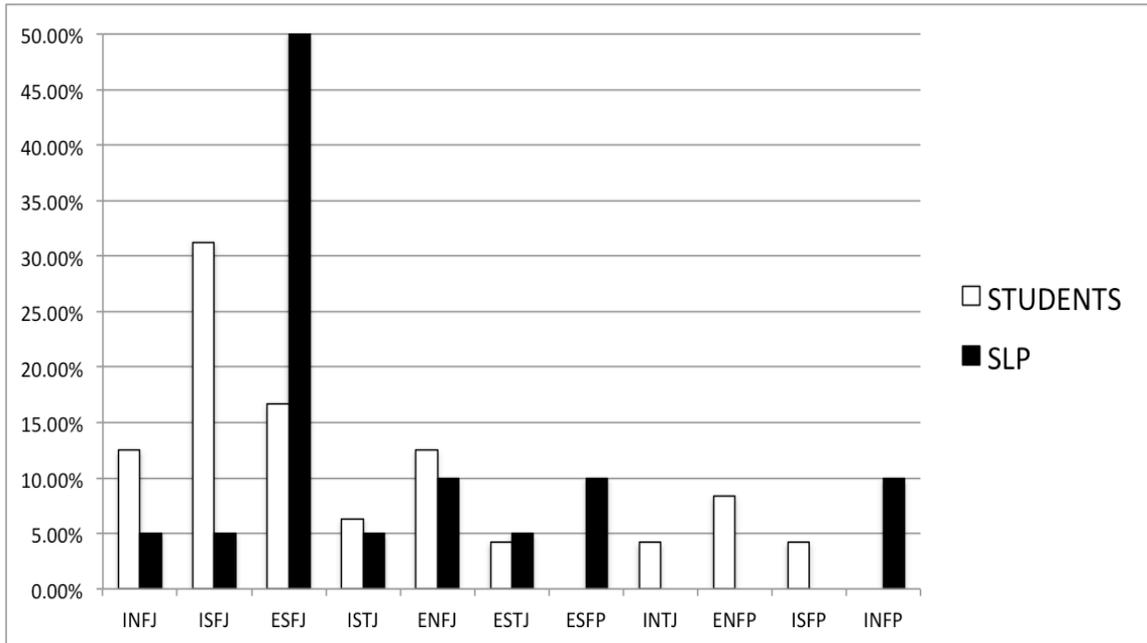


Figure 9

In the comparison of the speech-language pathologist, student, and doctors of medicine data it was found that the personality grouping of ISFJ was statistically significant between doctors and students ($\chi^2 = 11.07, p < .05$). In addition the personality grouping of doctors, students ($\chi^2 = 4.479, p < .05$) and speech pathologists ($\chi^2 = 6.859, p < .05$) showed statistical significance within the ESFJ personality grouping.

Continuing the analysis, the comparison of the speech-language pathologist, student and accountants showed statistical significance for the group differences between accountants and CSD students within the ISFJ ($\chi^2 = 10.64, p < .05$) and INFJ ($\chi^2 = 4.78, p < .05$) personality types. In contrast, the analysis showed statistical significance for the

group differences between accountants and speech-language pathologists within the ESFP ($\chi^2 = 8.012, p < .05$) and ESFJ ($\chi^2 = 39.18, p < .05$) personality types.

The statistical evaluation of the data shows that the probability of the effect is not due to chance alone. It implies that the results found have an acceptable amount of error and that differences found between these groupings are “real” and are not because of chance. This procedure was done to examine differences in outcomes between the groups. Applying the idea to this research it can be said that it is not by chance that the speech-language pathologists and students had the differing personality types of ESFJ and ISFJ, respectively. Additionally, it can be said that it is not because of chance that the doctors of medicine and students differed among the ISFJ personality type, just as it can be said that it is not by chance that the doctors differed from the students and speech pathologists within the ESFJ personality type.

To expand on this idea it can be said that within the accountant and student comparison it is not by chance that they differed within the ISFJ and INFJ personality types. It can also be said it is not by chance that the accountants and speech-language pathologists differed within the ENFP and ESFJ personality types. These evaluations and the data collection results show that there are many personality differences among doctors, accountants, speech-language pathologists and communication sciences and disorders students that are not by accident.

Conclusion

To conclude, it can be seen that there are different personalities amongst the speech-language pathology profession and that of the communication sciences and disorders student. The data collected shows that the students are categorized as ISFJ's

and that the speech-language pathologists are categorized as ESFJ's. These personalities are similar in many ways, as they both tend to retain information in concrete and literal ways, they make decisions based on what they feel is right, they are sensitive to other peoples needs, they enjoy structure; and work hard to complete goals. However, the most noticeable difference between the professionals and students is within in the introvert and extrovert dichotomy. This outcome, though contrasting, is not worrisome as the introverted personality gathers energy from within; while the extrovert gathers their energy from others and their surroundings. The reason for this difference may be represented in the rigorous academic and professional standards that are involved with becoming a speech-language pathologist. The ISFJ person may become more of extroverted person during their interactions throughout their academic and professional career. These individuals may become more expressive, better oral communicators, and more apt to take action in certain environments after they have gained more experience within the field. A discovery that is even more interesting is found in the number of feeling and judging (FJ) individuals found in both the speech pathologists and student data. Collectively, there where 31.5 FJ's within the forty-four results collected for this work. That only leaves 12.5 individuals with any other two-letter combination. This shows that both speech-language pathologists and students are generally described as individuals, who absorb data in literal and concrete ways; they make inferences using all five senses, they enjoy positivity, and are very sensitive to other people's needs.

A suggestion for further research is to complete this study with a larger sample size. By including more participants trends could be more easily seen in personalities as a whole, validating similarities and differences amongst students and speech-language

pathologists. A recommendation is to administer the MBTI to incoming CSD classes as a longitudinal study, from freshman year to graduation of the Masters program. Comparing each year to see if personalities really do change over time.

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Appendix 1

(KEEP THIS PAGE AS ONE PAGE - DO NOT CHANGE MARGINS/FONTS!!!!!!!!!!)

APPLICATION FOR APPROVAL OF RESEARCH WITH HUMAN SUBJECTS

Protection of Human Subjects Review Board, 114 Alumni Hall, 581-1498

PRINCIPAL INVESTIGATOR: Not Applicable, Two people so both are under Co-Investigators

EMAIL: amelia.stevens@maine.edu and whitney.norton@maine.edu TELEPHONE: 207-316-3729

CO-INVESTIGATOR(S): Amelia Stevens and Whitney Norton

FACULTY SPONSOR (Required if PI is a student): Dr. Allan Smith

TITLE OF PROJECT: Similarities and Differences in the Personalities of Speech-Language Pathologists, Audiologists, and Graduate Students in both fields.

START DATE: October 4, 2013 - 10/29/13 PI DEPARTMENT: Communication Sciences and Disorders

MAILING ADDRESS: 5724 Dunn Hall, Orono ME 04469

FUNDING AGENCY (if any): NA

STATUS OF PI: Undergraduates

FACULTY/STAFF/GRADUATE/UNDERGRADUATES

1. If PI is a student, is this research to be performed:

- Checkboxes for: for an honors thesis/senior thesis/capstone?, for a master's thesis?, for a doctoral dissertation?, for a course project?, other (specify)

2. Does this application modify a previously approved project? N (Y/N). If yes, please give assigned number (if known) of previously approved project: NA

3. Is an expedited review requested? Y (Y/N).

SIGNATURES: All procedures performed under the project will be conducted by individuals qualified and legally entitled to do so. No deviation from the approved protocol will be undertaken without prior approval of the IRB.

Faculty Sponsors are responsible for oversight of research conducted by their students. By signing this application page, the Faculty Sponsor ensures that he/she has read the application and that the conduct of such research will be in accordance with the University of Maine's Policies and Procedures for the Protection of Human Subjects of Research.

Signatures and dates for Principal Investigator, Faculty Sponsor, and Co-Investigators.

FOR IRB USE ONLY Application # 2013-09-07 Date received 9/27/13 Review (F/E): E Expedited Category:

ACTION TAKEN: Judged Exempt; category 2. Modifications required? Y (Y/N) Accepted (date) 10/29/2013

Date: 10/1/13 Chair's Signature: Cynthia A. Erdley 12/2012

Author's Bio

When Whitney graduated from Jonesport-Beals high school in 2010, with 15 other classmates she never imagined she'd get to this point. She never thought she would be graduating with a major, two minors and honors from this college. Graduation was like a mirage far in the distance that she thought must be something in her imagination. But, she is here today, and graduation, though it seemed like eons away has come and gone. It happened so fast that she forgot to remember it. It was a whirlwind of laughter, smiles, and tears. Looking back on that day, and her experience here at UMaine, Whitney's advice to anyone reading this would be to enjoy the life you live, EVERYDAY. Take pictures. Stand outside in the freezing cold for student seating at a hockey game. Don't be afraid to introduce yourself to that person sitting next to you in psychology class. Soak up every experience and chance you get to meet new people, make new memories, and have fun!