

The Invisible Classroom: An Empirical Study in a Pashto Classroom

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Abstract

As groups have “observable...rules and role behavior,” they also have an abstract structure. Groups can be observed in at least two ways. “The visible group is the individual ... members, [with] their one-to-one relationships, and ... their observable behaviors.” The invisible group is “the covert network of relationships that operate at the group-as-a-whole level through unconscious processes and communications.” As in any group, in educational contexts, the classroom group has an invisible structure, and “the same set of individuals” comprises both the visible group, and the invisible group, which may influence the overt classroom environment (Ehrman & Dörnyei, 1998, p. 77-78). This study compares the classroom dynamics of a class of 12 students in two sections enrolled in the Pashto Basic Course in a military institution in the United States. The study predominantly seeks to explore whether personality types of these students, which comprise class profiles, affect the classroom dynamics. Interviews with teachers, analysis of semester grades, Defense Language Proficiency Test (DLPT) results for reading and listening comprehension, and Oral Proficiency Interview (OPI) scores were considered in the analysis of findings. The preliminary findings indicate that the personality dispositions may shape unseen classroom dynamics in ways that can influence the overt classroom environment either positively or negatively.

Keywords: Personality types, classroom dynamics, learning outcomes

Introduction

In tribal cultures education was part of daily life. The human brain developed to learn through apprenticeships with “closely related others,” which explained “the natural synthesis of attachment, emotional regulation, survival, and learning.” When education was turned into a mechanized production for the masses, large classrooms and test scores substituted the “attachment, emotions, and apprenticeships.” Thus, the most important aspect of education has gradually become invisible. Assessment of outcomes became the primary concern of modern educators and the human aspect of education, e.g., social and emotional aspects of education have been mostly neglected. “The invisible classroom is the matrix of social and emotional connections that serve as the tribal glue of classrooms, schools, neighborhoods, and communities.” These “social and emotional connections” comprise the most important aspect of student experiences which have been disregarded “by policy makers, administrators and most teachers” (Cozolino, “Foreword,” 2014, pp. xvi-xvii).

As Olson states “[t]he *invisible classroom* refers to the microscopic neural connections inside all of us and the hidden human connections among us.” This network of neurological and human connections generates the setting for teaching and learning (2014, “Introduction,” p. xx). The invisible classroom is the unseen human connections among students and the minute neurological connections in their brains that create a favorable environment for learning to occur. In the visible classroom the focus is on the task of delivering information to students for their academic achievement. Interpersonal, emotional, and behavioral issues appear to be disruptions. However, these ever-active unseen emotional, interpersonal, and neurological forces among the instructors and their students affect what will really be learned. As students arrive in classrooms with diverse abilities, interests, personal experiences, and

backgrounds, the teacher's mission is to help them develop their abilities to become successful in the world, and contribute to their immediate community, and society at large. Making the invisible classroom visible, issues can be resolved in ways that may improve the quality of teaching and learning (Olson, 2014).

Olson defines the invisible classroom as “the web of neurological and human connections that create the context for teaching, learning and living...it is a web of interconnected relationships, with forces operating with their own rules that change the neurology of all involved.” Although educators may not grasp it, they constantly interact with these “forces,” in a manner that can enhance or inadvertently impede learning, thus making teaching less successful (2014, “Preface,” pp. xiii-xiv). All students deserve constructive and successful learning experiences to remain motivated to continue to learn and achieve. However, in contemporary classrooms instructors tend not to consider the individual differences of their students. The tradition of teaching every student alike without recognizing their individual traits and differences has been shown to result in an increased number of gifted dropouts (Leaver, 1998). Certainly, other professions practice individualization when they interact with their clients. Doctors do not treat all patients identically. Neither do dentists (Anonymous, 1960).

Individual learner differences in a classroom may cause learning difficulties when instructors' teaching styles, course design, or class profiles vary “from individual students' learning-style profiles” (Leaver, “Preface,” 1998, p. vii). Learners' personality variables and the ways in which they interact with others around them and their surroundings also affect their learning process. As Leaver claims “[t]he ways in which learners relate to other people and to the physical and intellectual world around them influence their learning” (1998, p. 29).

In ancient Greece Hippocrates postulated four temperaments: sanguine (optimistic, energetic), choleric (irritable, impulsive), phlegmatic (calm, slow), and melancholic (moody, withdrawn) (Itsines, 1996). The discussion of these temperaments has become passé in modern America, but they are still used by psychologists and pedagogics in a number of countries. Today in the USA and other Western countries the typology of personality variables stems from the work of Swiss psychologist, Jung (1971). Myers-Briggs Type Indicator (MBTI®) (Myers & Briggs, 1976) and the Keirsey Temperament Sorter (Keirsey & Bates, 1978) are the most widely used personality type indices in Western educational circles. The equivalent that is used in Eastern countries, the Socionics model, is not discussed in this paper.

This study investigates the personality types of 12 students enrolled in two sections of the Pashto Basic Course and of their instructors in a military institution in the United States. The study predominantly seeks to explore whether the personality dispositions of these students comprising class profiles influence classroom dynamics. Interviews with instructors, semester grades, Defense Language Proficiency Test (DLPT) results for reading and listening comprehension, and Oral Proficiency Interview (OPI) scores were considered in the analysis of findings. Preliminary findings suggest that the distribution of personality variables may affect the dynamics within a classroom, and the resultant classroom atmosphere, in positive or negative ways. Learner motivation can be described as the amount of time the learner is eager to dedicate to the learning task. “At the individual level, high motivation can result in persistent effort, which can compensate for low aptitude” (Clifford, 2020). A positive classroom environment increases student motivation, and promotes relatedness and relationship building, which in turn, enhance learning. A negative classroom environment may decrease

motivation and impede relationship building, and thus hinder learning (Macsuga-Gage, Simonsen & Briere, 2012).

Pashto is one of the official languages of Afghanistan and it belongs to the Indo-European language family. It is a subject-object-verb (SOV) language with split ergativity. Nouns, adjectives, and verbs are inflected for gender, number, and case. Pashto is written in modified Arabic script. The script of Pashto is cursive and read from right to left.

At this military language training institution initial acquisition of Pashto is taught in a 64-week course; the course length is determined by Pashto belonging to category IV, the most difficult category of languages for native speakers of English to acquire. In the early 1970s language difficulty categories were originally defined by the United States Foreign Service Institute (FSI). By way of comparison, based on longitudinal observation, FSI used a 3-category hierarchy of complexity/difficulty: World Languages, Hard Languages, and Super-hard languages. World languages are closely cognate with English. Hard languages are those with considerable linguistic and/or cultural differences from English. Super-hard languages are extremely challenging for native English speakers (U.S. Department of State, 2015). This military institution subsequently developed a hierarchy of these categories by splitting Germanic languages (Category II) from Romance languages (Category I). Appendix A shows the languages currently taught at the institution and the categories to which they belong.

Review of Literature

There appears to be a high correlation between relationships developing in the classroom and how students learn and apply what they learned. However, the strains teachers experience to teach the curriculum cause them to undermine the significance of relationships in the classroom. Empirical and observational research on

interpersonal neurobiology shows that when the significance of interpersonal relationships within a group is undermined, a large number of students may experience superfluous difficulty in learning. The interpersonal conflicts students experience in the classroom create barriers in their learning process. “Interpersonal neurobiology held the key to improving learning outcomes and contributing to a better world” (Cozolino, “Foreword,” 2014, pp. xv-xvi; Cozolino, 2013; Lieberman, 2013; Olson, 2014; Siegel, 2013).

Having been pressured to cover the curriculum in a certain amount of time, and emphasis on academic outcomes (a function of the left hemisphere of the brain), teachers concentrate on teaching rather than placing emphasis on student learning. They may not concern themselves too much with behavior problems in the classroom, which makes it more challenging to focus on interpersonal relationships (a function of the right hemisphere of the brain). The neurological circuitry begins in the right hemisphere of the brain, and triggers the circuitry of neurons throughout the brain. When students are dragged into primarily left hemispheric type of processing, preserving a relational focus may become challenging (McGilchrist, 2009). By attending to the relational aspect of the classroom and emphasizing the importance of connectivity and relationships, the student brain may become better prepared to absorb the content, which may facilitate the attainment of higher academic success rates (Cozolino 2013; Lieberman 2013; Olson 2014).

Olson adds that educators “are swimming in an invisible ocean of relationships” (2014, p. 85). He emphasizes the importance of understanding and nurturing the invisible network of relationships in educational settings that may help establish a classroom atmosphere conducive to student learning. He mentions that relational aspects of learning are not overtly taught in teacher education programs, and claims that few teachers have learned it and

are good at it. Cozolino posits that "...teacher-student attunement is not a 'nice addition' to the learning experience, but a core requirement" (2013, p. 18).

The classroom culture is an outcome of the "interactions of the minds, brains, and relationships" among students (Olson, 2014, p. 174). It is "[t]he social environment in which an individual lives. [It] shapes the context in which energy and information are shared among people by way of patterns of interactions, rituals of behavior, communicative symbols, and structural aspects of the environment" (Siegel 2012a, p. A1-21).

In her Master's thesis, Dow (2013) explored the introverted and extroverted temperaments and their effect on how students learn in the classroom and interact with others. She discussed the cultural fallacies associated with introversion which are often propagated by extroverted educators. She claimed that complimenting the extroverted students while lessening the introverts was unjust and prevented them from attaining full academic success and integrating fully into their school community. She offered solutions for better interactions among students and teachers and offered recommendations to nurture empathy and social behavior for a supportive community of learning. Dow asserted that since colleges, consultants, mediators, scientists, businesses, and governmental agencies are considering introversion and extroversion in deciding how to expand the abilities of their employees, public schools should be following this trend. She claimed that exploring this area may help teachers become better educators for their students. She also posited that bringing introversion and extroversion into discussions with others, introversion may become less stigmatized as compared to extroversion, which appears to be the ideal in the American culture and some other cultures.

Ehrman and Leaver (2003) explored understanding and using cognitive styles to improve language learning. They developed the

Ehrman-Leaver cognitive styles model (E&L) which comprises a superordinate construct, *synopsis-ectasis*, and ten subscales. They presented two short student case studies based on the E&L construct by incorporating MBTI findings, which provided a wealth of information about language learners and language learning.

The Myers Briggs Personality Type Indicator

The Myers-Briggs Type Indicator® (MBTI®) (Myers & Briggs, 1976; Myers with Myers, 1980; Myers, McCaulley, Quenk, & Hammer, 1998) and the Keirsey Temperament Sorter (Keirsey & Bates, 1978; Keirsey, 1998) derived from the work of Swiss psychiatrist Carl Jung (1971). With the development of personality inventory, type theory became more accessible to psychotherapists and counselors (Myers, McCaulley, Quenk, & Hammer, 2009). Mendelsohn and his associates (Mendelsohn, 1966; Mendelsohn & Geller, 1963, 1965, 1967; Mendelsohn & Kirk, 1962) reported on counseling applications for students who requested help from the counseling center of the University of California at Berkeley. Carskadon (1979) reviewed the clinical and counseling aspects of the MBTI®. The implementation of this personality inventory in counseling and psychotherapy has continued. Quenk and Quenk (1996) reported on its use in clinical research literature. Shelton (1996) reported on research about type effects on health, stress, and coping. The MBTI® instrument was also used with couples, e.g., assessing satisfaction ratios for men and women who married opposite and similar types (Marioles, Strickert & Hammer, 1996). Type concepts were found to be useful in family counseling as well. For a review of research on type influences in families, see Meisgeier and Meisgeier (1989), Murphy (1992), Ginn (1995), Penley and Stephens (1994). Explorations with type concepts continued in education, career counseling, organizations, and multicultural settings (Myers et al., 2009).

The MBTI depicts 16 different personality types which come from the groupings of traits found in four personality type domains, as described below:

The Introversion-Extraversion continuum is one of the three domains proposed by Jung (1971). In MBTI categorization, introverts are classified by the letter I, and extraverts are classified by the letter E. According to Jungian typology, introverts' energy stems from within; they feel exhausted when interacting with large numbers of people. Extraverts gain energy from interaction with people. Their energy lessens when they are alone. This continuum shows the direction of energy flow (Leaver, 1998).

Sensing-Intuitive "differences in approaches to life" comprise the second Jungian typology. In MBTI categorization, sensing types are classified by the letter S, and intuitives are classified by the letter N. Sensing individuals attend to details, facts, reality, probabilities, and the here and now. They need empirical results and evidence to be convinced. Intuitive types focus on intuition, possibilities, and the future. They work with their "sixth sense," and trust their "gut feeling." This continuum shows people's means of absorbing data (Leaver, 1998, p. 30).

Thinking-Feeling differentiation forms the third Jungian domain, and this preference pair describes how individuals like to make decisions. In MBTI categorization, thinkers are classified by the letter T, and feelers are classified by the letter F. Thinkers in general place principles over people. For them, being fair is very important, so is being treated with fairness. They build systems and want to be appreciated for their competence. Feelers in general place people over principle. They show compassion and desire mercy. They build relationships and generally want to feel appreciated for their efforts. Because of these reasons, style-conscious managers motivate T workers by complementing their work and withholding praise until they have achieved something worthy of praise. Otherwise, they may

lose their credibility with T employees. On the other hand, they motivate their Fs by complimenting their efforts. While T managers are still focused on a good outcome, they realize that their F workers will produce it if they are encouraged right from the beginning (Leaver, 1998).

Judging-Perceiving differences, which entail an emotional need for closure vs. flexibility as well as a preference for polyactivity or mono-activity were contributed by Myers and Briggs. In MBTI categorization, judgers are classified by the letter J, and perceivers are classified by the letter P. Judgers have a tendency to plan and be decisive. Their need for closure helps them work to deadline. They tend to be mono-active; typically, they begin a new activity after the previous activity has been completed (mono-active). Perceivers, on the other hand, are more likely to be flexible and lenient. Due to their need for independence and flexibility, they want to explore alternatives before taking action. They are inclined to be polyactive (Leaver, 1998; as cited in Leaver, Ehrman and Shekhtman, 2005).

According to Jung, one end of each continuum is generally preferred and consciously used. The opposing variable is expressed through unconscious functioning (1971). None of the 16 types is considered better than the other; however, some settings deliver a better fit for some personality types than for others (Leaver, 1998; Leaver, Ehrman, & Shekhtman, 2005). These 16 types are summarized in Appendices B, C and D.

The Keirsey Temperament Sorter

Keirsey and Bates (1978) describe four temperaments: sensing-judging types (SJ), sensing-perceiving types (SP), intuitive-feeling types (NF), and intuitive-thinking types (NT). Keirsey, in 25 years of work as a practicing psychologist, found these four combinations to be the most significant at school, at home, and in the workplace.

Called “Guardians” by Keirsey, the SJs (sensing-judgers) want organization, guidelines, and order. These are the individuals who ascertain the passing of cultural values from one generation to the next. They comply with authority and expect compliance when they are in positions of power. Labelled “Artisans” by Keirsey, the SPs (sensing-perceivers) like freedom and choice. They in general are fearless, willingly take physical risks, thus, appear to be “larger than life.” More often than not, they are artists in real life and are attracted to nature. Considered “Idealists” by Keirsey, the NFs (intuitive-feelers) seek harmony and enjoy “growth activities.” They cultivate relationships with others and may appear glitzy to the non-idealist. They are “people people,” giving “warm fuzzies” and anticipating them in return. Referred to as “Rationals,” the NTs (intuitive-thinkers) “put principles first, build systems and question authority.” NTs like teaching even when they are not teachers. In leadership positions, they guide and train their personnel. For NTs it is important for their subordinates to reach their full potential (Leaver, 1998, p. 33).

According to Leaver, if each temperament is viewed as a different type of “creator,” the difference between temperaments might appear as follows (p. 34):

WHAT THEY DO		HOW THEY APPLY IT
NT	Create Systems	ENTJ - get others to implement their systems ENTP - get others to buy their systems INTJ - write books about their systems INTP - invent systems that others may (not) use
NF	Create Friendships	ENFJ – support and nurture friends ENFP – influence and understand friends INFJ – empathize with friends INFP – sacrifice for friends
SJ	Create Order	ESTJ – administer organizations ESFJ – nurture organizations ISTJ – preserve organizations ISFJ – implement procedures for organizations
SP	Create Artistry	ESTP – play games ESFP – play with friends ISTP – play risky, physically challenging games

		ISFP – play music (or some form of the arts)
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Myers depicted the NTs as having a “rationale for everything they do” – as “analytical” and “systematic” – as “abstract,” “theoretical,” and “intellectual” – as “exacting,” “independent,” “technical,” “scientific,” and “research-oriented” (as quoted in Keirse, 1998, pp. 19-20). NT students prefer a “hands off” approach . . . and like to control their environment through understanding it.” NTs in general do not feel any dependency on their teachers since they do not see them as authority figures just because they hold positions of power. NTs usually pay no attention to what their teachers deem important. “Scholars by nature,” they like to determine for themselves what to study (Leaver, 1998, p. 34).

Myers described the NFs as friendly and nurturing. They are conflict-averse and they strive for keeping the morale high in their circle. She described them as “humane” and “sympathetic”- as “enthusiastic” and “religious” – as “creative” and “intuitive” – and as “insightful” and “subjective” (as quoted in Keirsey, 1998, p. 19). NF students, by nature, are “self-reflective” and committed to individual development and “self-actualization.” NFs like to establish rapport with their instructors and want to be distinguished in the classroom. They anticipate to like their teachers and want to be liked by them. Since NFs want harmony, they will try to please and acclimate to their instructor’s style or the style of their classmates (Leaver, 1998, p. 34).

Myers defined the SJs as carefully probing around their immediate surroundings “for scheduling their own and others’ activities” so that everyone is doing what they have to. She described the SJs as “conservative” and “stable” – as “consistent” and “routinized” – as “sensible,” “factual,” and “unimpulsive” – as “patient,” “dependable,” and “hard-working” – as “detailed,” “painstaking,” “persevering,” and “thorough” (as quoted in Keirsey, 1998, p. 19). SJ students like to observe tradition and have “respect for authority figures.” SJs want to find out what will be on the test so that they study what is deemed most important by their teacher. They want deadlines ahead of time, guidelines and a clear explanation of expectations (Leaver, 1998, p. 35).

Myers portrayed the SPs as observing their surroundings in order to identify and explore advantageous options within their grasp. It is very important for SPs to have the freedom to choose when opportunities present themselves. She described the SPs as “adaptable” and “aware of reality and never fighting it” – as “open-minded” and “on the lookout for workable compromises” – “as easygoing,” “tolerant,” “unprejudiced,” and “persuasive” (as quoted in Keirsey, 1998, p. 18). Since they are fascinated by nature, they like

to be out of the classroom to create things and to craft things (Leaver, 1998).

Method

Participants

The participants in this study were 12 Pashto students enrolled in the Pashto Basic Course in a military institution in the United States. They were divided equally into two sections (A and B) based on the alphabetical order of their last names. In Section A one student was an SP, and five students were SJs including the class leader. Two SJ students in Section A were disenrolled from the program early in the first and second semesters for non-academic reasons. On the other hand, in Section B there were three NFs including the section leader, two NTs and one SJ. One of the NF students was disenrolled from the program immediately after he completed his third semester studies due to lack of effort. It was believed that he would be unsuccessful on the DLPT Reading and Listening Comprehension tests and the OPI. In section A, none of the students attended the evening Study Hall, whereas all students in Section B were reported to have attended the Study Hall. Appendix E shows participants' personality types, their respective sections, study hall attendance and course disenrollment information. Both sections were taught by the same five instructors who were SJs as shown in Appendix F. The teaching team who was unaware of the class profile differences between Section A and Section B used the same teaching methodology in both sections.

Procedures

An adaptation of the Myers-Briggs Type Indicator[®] (MBTI[®]) was administered to 12 students and their five classroom instructors in the beginning of the Pashto Basic Course upon their arrival in the schoolhouse from the Student Learning Center, where they were offered an introductory course to language learning with strategies.

The questionnaires were carefully scored and the results were considered in the analysis of findings. The instructors were also interviewed about the nature of interactions among the students and between the students and themselves. Students' first, second and third semester grades, Defense Language Proficiency Test (DLPT) results for reading and listening comprehension, and Oral Proficiency Interview (OPI) scores were considered in the analysis of the findings.

Findings

Results of Interviews with Instructors

The 12 students in both Section A and B were taught by a team of five instructors. As shown in Table 1, class profiles of Section A and Section B differed considerably. While in Section A 25% of students did not match the class profile, 60% of students did not match the class profile in Section B.

Table 1. Class profiles of Section A and Section B

Section A	Class Leader - Section A	Section B	Class Leader - Section B	Teaching Team
SJ	SJ	X NF X X	NF	SJ

The interviews with instructors revealed that they enjoyed teaching students in Section A more than those in Section B. Predominantly SJ Section A seemed to be more organized, proactive, motivated, and eager to learn. They were realistic, serious, responsible and dependable. They collaborated with each other to get things done as soon as they received teachers' instructions. They were able to focus on a distant goal, e.g., graduating with success from the Pashto Basic Course. They had self-discipline, followed their teachers' instructions thoroughly, and completed their assignments successfully in a timely manner by the set deadlines. They studied hard because they knew they had to and were very orderly, organized, and methodical in their approach to learning the target language. It is also worthwhile to mention that the class leader of Section A was an SJ, and SJs tend to schedule "their own and others' activities" (Keirse, 1998, p.19), as they are "administrators by nature" (Leaver, 1998, p.31). He was very organized, decisive, and guided his fellow classmates in getting results in the most efficient way possible. He set standards and was forceful in making others follow them. The instructors also admitted that they felt teaching the students in Section A was much easier for them due to aforementioned reasons than teaching those in Section B.

As mentioned previously, SJ students "want to preserve tradition. They respect authority figures. [They] like to know what will be on the test so that they review what the teacher considers most important. They want deadlines in advance, policies, and explicit expressions of expectations" (Leaver, 1998, p. 35). Myers described the SJs as scheduling "their own and others' activities so that needs are met and conduct is kept within bounds...for SJs everybody should be doing what they're supposed to...all of them demand their ways and means of getting things done are proper and acceptable."

They are “consistent,” “routinized,” “sensible,” “factual,” “unimpulsive,” “dependable,” “hard-working,” “detailed,” “persevering,” and “thorough” (as quoted in Keirse, 1998, p. 19). Leaver (1998) explains it well: “SJs who find themselves in the classroom of SJs...know that all is well with the world” (p. 76) as was the case with students in Section A. Their instructors, the class leader and all their classmates except for one SP were all SJs.

The lone SP student in section A was not expected to cause disruption and did not affect the overall dynamics of the classroom. Myers defines them as investigating their immediate environment to identify and pursue any favorable alternatives within their reach. They ensure the practicality and efficacy of what they do to reach their goal. They are “adaptable,” “aware of reality and never fighting it,” “open-minded,” “on the lookout for workable compromises,” aware of “what’s going on around them,” capable “to see the needs of the moment,” “easygoing,” and “tolerant” (as quoted in Keirse, 1998, p. 18). Due to his adaptable nature, awareness of the reality of his surroundings and “never fighting it” attitude, open-mindedness, “being on the lookout for workable compromises,” “easygoing” and tolerant, and his capability “to see the needs of the moment,” (as quoted in Keirse, 1998, p.18) the SP student might have adapted to the dynamics of his classroom. All SPs ensure that “what they do is practical and effective in getting what they want” (p. 18), which, in this case, was graduating from the Pashto Basic Course successfully.

In Section B there were three NFs including the class leader, two NTs, and one SJ. The instructors mentioned that they did not enjoy teaching this section as much as they enjoyed Section A, where the priority was “getting the job done.” As Leaver (1998) posits, NF students are characterized as being “self-reflective,” and committed to personal growth, and “self-actualization.” They are idealists, and exhibit creativity in their work. They anticipate to like their instructors and they want their instructors to like them. They want

harmony with their classmates, and thus, they make every attempt to please and avoid conflict (pp. 33- 34). Myers characterizes them as “humane,” “sympathetic,” “creative,” “intuitive,” and “subjective” (as quoted in Keirse, 1998, p. 19).

Because of their skeptical and critical nature, NTs make every effort to understand their environment. They question authority and “do not feel any particular need for them.” They do not perceive them as figures of authority just because they hold a position of power. Since NTs are scholars by nature, they prefer to determine for themselves what to study. “They do not care what will be on a test or what a teacher considers important” (Leaver, 1998, p. 34). Myers depicts NTs as “insist[ing] that they have a rationale for everything they do, that whatever they do and say makes sense.” They are “analytical,” “abstract,” “theoretical,” “intellectual,” “inventive,” “independent,” “scientific,” and “research-oriented” (as quoted in Keirse, 1998, p. 20).

To conclude, Section A was more homogenous than Section B. In section A the hidden classroom was (I). All students were introverted (I) except for one student who was extroverted (E), and this one (E) student was disenrolled from the program in the first semester due to non-academic issues which perhaps could not have occurred had his profile been a better fit to the (I)s. One (I) student in Section A was also disenrolled, but his disenrollment in the second semester was none other than for medical reasons.

In Section B the hidden classroom was a fractured (P) due to divided preferences for harmony vs. confrontation. While NFPs are outgoing and form groups outside of class, the NTPs as researchers by nature, are loners and could feel left out. The NFPs and NTPs are not the same kind of N; while NTs opt for logic, NFs opt for idealism, socialness, and harmony. Despite the class leader’s efforts to build harmony, the divisiveness of the personalities proved to be an insurmountable challenge contributing to the disenrollment of the

INFP, the student with the most delicate personality in class. The teaching team's favorable attitude toward Section A may be attributed to the sharing of the same personality type, which might, in turn, have contributed to class atmosphere, teacher comfort level, and motivation.

Results of Student Data

In an effort to find out whether class profiles (invisible classroom) influence student learning outcomes, first, second and third semester grades, Defense Language Proficiency Test (DLPT) results for reading and listening comprehension, and Oral Proficiency Interview (OPI) scores were compared. Table 2 shows the means and standard deviations of Semester I, II, and III GPAs of students in Sections A and B.

Table 2. Means and Standard Deviations of Semester I, II, and III GPAs

Semester	Section	Mean	Standard Deviation	N
Semester I	Section A	3.80	.29	4
	Section B	3.77	.19	6
Semester II	Section A	3.65	.39	4
	Section B	3.52	.52	6
Semester III	Section A	3.60	.36	4
	Section B	3.27	.67	6

A multivariate analysis of variance (MANOVA) was conducted on the three dependent variables measuring student learning outcomes, e.g., Semester I, II and III GPAs of students in Sections A and B. There was no statistically significant difference between the two sections based on the three measures of student learning outcomes, $F(3, 6) = .82, p = .527$; Wilk's $\Lambda = .708$, partial eta squared = .292.

Table 3 shows the means and standard deviations of Defense Language Proficiency Test (DLPT) for reading comprehension, listening comprehension, and Oral Proficiency Interview (OPI) results of students in Sections A and B.

Table 3. Means and Standard Deviations of DLPT Reading, DLPT Listening and OPI Results

DLPT/OPI	Section	Mean	Standard Deviation	N
DLPT_LC	Section A	2.75	.50	4
	Section B	2.80	.27	5
DLPT_RC	Section A	2.75	.29	4
	Section B	2.80	.45	5
OPI	Section A	1.75	.29	4
	Section B	2.00	.00	5

A multivariate analysis of variance (MANOVA) was conducted on the three dependent variables measuring student learning outcomes, e.g., DLPT listening comprehension, DLPT reading comprehension, and OPI results of students in Sections A and B. There was no statistically significant difference between the two sections based on the three measures of student learning outcomes, $F(3, 5) = 1.20$, $p = .401$; Wilk's $\Lambda = .582$, partial eta squared = .418.

Table 4 shows the combined means and standard deviations of Semester I, II, and III GPAs, Defense Language Proficiency Test (DLPT) for reading comprehension, listening comprehension, and Oral Proficiency Interview (OPI) results of students in Sections A and B.

Table 4. Combined Means and Standard Deviations of Semester GPAs, DLPT Reading and Listening Comprehension, and OPI Results

GPAs/DLPT/OPI	Section	Mean	Standard Deviation	N
Semester I	Section A	3.80	.28	4
	Section B	3.80	.19	5
Semester II	Section A	3.65	.39	4
	Section B	3.70	.28	5
Semester III	Section A	3.60	.36	4
	Section B	3.52	.28	5
DLPT_LC	Section A	2.75	.50	4
	Section B	2.80	.27	5
DLPT_RC	Section A	2.75	.29	4
	Section B	2.80	.45	5
OPI	Section A	1.75	.29	4
	Section B	2.00	.00	5

A multivariate analysis of variance (MANOVA) was conducted on the six dependent variables measuring student learning outcomes, e.g., Semester I, II, and III GPAs, DLPT listening comprehension, DLPT reading comprehension, and OPI results of students in Sections A and B. There was no statistically significant difference between the two sections based on the six combined measures of student learning outcomes, $F(6, 2) = .769, p = .661$; Wilk's $\Lambda = .303$, partial eta squared = .697.

These results show that although both sections were comparable in terms of their Pashto language learning abilities, the teaching team viewed Section A students more favorably than those in Section B.

Discussion/Conclusion

The theoretical framework underlying this study was formulated based on the theory of Ehrman (1996) and Leaver (1998) who posit that students learn differently, and that many difficulties in the classroom arise from disparities between student learning styles, and the teaching methodology implemented in the classroom. They further claim that cognitive styles, affective factors, and personality have an impact on what individuals do and how they learn. Personality dispositions, in particular, shape the invisible classroom, influencing the classroom dynamics in a positive or negative way. They focus on the personality typing of Carl Jung's model as adapted by Myers and Briggs through Myers-Briggs Type Indicator (MBTI®) (Myers with Myers, 1980; Myers et al., 1998, 2009), and the Keirsey Temperament Sorter (Keirsey & Bates, 1978; Keirsey, 1998), used extensively for educational purposes. The assumption behind this model explicates personality characteristics, giving rise to a model that comprises introversion, extraversion, information gathering, decision making, and need for flexibility in an individual's lifestyle. The data demonstrated that student personalities do shape the

dynamics within a classroom, and therefore, affect the classroom dynamics positively or negatively.

There was no statistically significant difference between students in section A and section B in terms of their semester GPA's, DLPT results and OPI scores, which might be indicative of students in both sections being similar with respect to their language learning abilities. Despite the fact that students in both sections were comparable in their abilities for learning Pashto, the teaching team viewed students in section A more favorably than those in section B. The teaching team who shared the same personality type with students in section A considered them to be more organized, proactive, motivated, serious, responsible, and dependable. They were portrayed by the teaching team as having self-discipline which they demonstrated by following their teachers' instructions thoroughly and completing their assignments successfully in a timely manner by the set deadlines.

Student sensing session results were reported to have reflected more favorable comments about classroom instruction from students in section A than those in section B. It should also be noted that the teaching methodology was the same for both sections. The teaching team who was unaware of the class profile differences between Section A and Section B used the same teaching methodology in both sections. It is worthwhile to mention that students in section B attended a combined total of 44.5 hours of study hall which amounted to approximately one-and-half weeks of instruction, in addition to their regular instructional hours, whereas students in section A did not attend any study hall. It appears that students in section B felt a need to keep up with the pace of progress by attending study hall as a means of extending their structured learning hours. Despite study hall attendance of section B, there still was no statistically significant difference in semester GPAs, DLPT results, and OPI scores between students in section A and section B.

The findings of this study indicate that class profiles will almost certainly influence the classroom dynamics positively or negatively. This study demonstrates positive findings in support of placement of students in their respective sections in accordance with their personality types. This would most likely prevent potential conflicts arising in the classroom and result in increased motivation and, possibly, decreased disenrollment. It may also promote better collaboration among students to get the job done. Increased awareness of personality types also may influence teachers' lesson planning and creation of classroom tasks and activities for better accommodation of students. This study shows clear and positive findings about the importance of motivation and teacher comfort level which contributes to a classroom atmosphere conducive to learning.

Limitations and Future Directions

The significance of this study lies in its experimental nature as there has not been much research done in this area. The data demonstrated that class profiles do affect the classroom dynamics positively or negatively. The following issues warrant further investigation. The present study is limited in scope in that it did not include a wider sample of participants. It would be worthwhile to conduct the same study with a greater number of participants. This experiment focused on a relatively smaller sample of students studying in the Pashto Basic Course, and the conclusions mostly were drawn from the instructors' viewpoint. An alternative approach would be to examine the classroom dynamics and interactions within the classroom from the student perspective. It would particularly be interesting to look at Interim Student Questionnaire (ISQ) and End of Course Student Questionnaire (ESQ) to explore student perspectives. Given the nature of the two sections, the difference in how students perceived their experiences would likely be revealed, which would affect their

future study, motivation, mental, and emotional state. At this military institution the way ISQs and ESQs are administered does not distinguish between different sections. It might be beneficial if the ISQs and ESQs would differentiate student comments by class section. Finally, it would be worth exploring the impact of class profiles in a variety of other languages taught at the same military institution. The aforementioned expansions to this study can pave the way to more comprehensive research in personality dispositions and class profiles.

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Appendix A

Languages Taught at DLIFLC and Duration of Courses

Category I&II languages – 36 week-long courses:	French Spanish Indonesian
Category III languages – 48 week-long courses	Hebrew Persian Russian Tagalog Urdu
Category IV languages - 64 week-long courses	Modern Standard Arabic

	Arabic – Egyptian Arabic – Iraqi Arabic – Levantine Arabic – Sudanese Chinese Mandarin Japanese Korean Pashto
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(Defense Language Institute Foreign Language Center, n. d.)

Appendix B

The 16 MBTI Personality Types (Characteristics Frequently Associated with Each Type)

“**ESFJs** (extraverted-sensing-feeling-judgers) are cooperative learners. As SJs, they listen to authority, and as EFs, they relate well to peers. They work happily in small groups, seeking praise and harmony” (Leaver, 1998, p. 31).

“**ESTJs** (extraverted-sensing-thinking-judgers) are administrators by nature. They organize things and learn best with clear instructions, overt organization, and deadlines. They seek utility” (Leaver, 1998, p. 31).

“**ENFJs** (extraverted-intuitive-feeling-judgers) are like the ESFJs in terms of being cooperative learners. Natural teachers, they enjoy assisting teachers in their work. They seek feedback on what others think and want” (Leaver, 1998, p. 31).

“**ENTJs** (extraverted-intuitive-thinking-judgers) are natural leaders, but more than one ENTJ in a group can be a natural disaster. They die for leadership of the group. The ENTJ whose modality preferences and cognitive style needs are met can be a strong positive force in the classroom and an assist to the teacher. However, the ENTJ whose learning-style needs are not met can make everyone miserable with his or her defiance or acting out” (Leaver, 1998, p. 32).

“**ESFPs** (extraverted-sensing-feeling-perceivers), like other SPs, are often present in the classroom only physically. The ESFPs, because of their EF nature, are likely to join in group activities, especially if

those activities are active. They tend to be friendly and popular, often earning their claim to fame through sports” (Leaver, 1998, p. 32).

“ESTPs (extraverted-sensing-thinking-perceivers) like hands-on activities in which they are required to think. For them, games, negotiations, and simulations represent ways to actively apply their thought processes with other students. They are natural problem-solvers” (Leaver, 1998, p. 32).

“ENFPs (extraverted-intuitive-feeling-perceivers) like activities that relate to real life. For them, applications of principles are more important than the learning of principles themselves. Projects have more meaning than exercises. They have great imaginations and are usually ready to help anyone in distress” (Leaver, 1998, p. 32).

“ENTPs (extraverted-intuitive-thinking-perceivers) enjoy complicated ideas and systems. They are entrepreneurs by nature. They enjoy analytically creative processes, such as evaluation, invention, and the development of new procedures” (Leaver, 1998, p. 32).

“ISFJs (introverted-sensing-feeling-judgers) are thorough and accurate in their schoolwork. Details neither attract nor repel them; they manage details. They like to pass on values, but they want to make sure that the methods they use for doing so are well-researched” (Leaver, 1998, p. 32).

“ISTJs (introverted-sensing-thinking-judgers) are also characterized by thoroughness. Organization is a forte, and they are able to focus on a distant goal and march toward it, regardless of external distractions” (Leaver, 1998, p. 32).

“INFJs (introverted-sensing-feeling-judgers) work for the common good. Their work is usually quietly well-done. Whatever is needed to

succeed is what they will do. They tend to be good students who display creativity in their work” (Leaver, 1998, p. 32).

“INTJs (introverted-intuitive-thinking-judgers) expect people and activities to have a purpose. They develop theories and build models. They follow classroom procedures if they find them useful. Like other NTs, they do not particularly consider a teacher to be an authority figure. Their ideas come from within, and they do not change those ideas simply because someone says that they are incorrect” (Leaver, 1998, p. 32).

“INFPs (introverted-intuitive-feeling-perceivers) prefer independent projects. They may be full of ideas, but they do not usually share these without prompting. They may appear oblivious to possessions or physical surroundings. In general, they are enthusiastic, loyal, and capable of independent work” (Leaver, 1998, p. 32).

“ISFPs (introverted-sensing-feeling-perceivers) need harmony and avoid disagreements. Socratic approaches puzzle them at best and frighten them at worst. Deadlines amuse them. Even when very talented, they are typically modest” (Leaver, 1998, p. 33).

“ISTPs (introverted-sensing-thinking-perceiving) are nature-lovers. They seek the natural world, are physical risk-takers, and often choose professions such as forestry and zoology. Many are artistic and combine their love of nature with artistic form, such as nature drawings and nature photography” (Leaver, 1998, p. 33).

“INTPs (introverted-intuitive-thinking-perceivers) focus on thought and ideas. They enjoy research, instinctively systematize the chaotic world around them, and theorize readily. They look for logic and expect intelligence from their teachers. They concentrate well

and are good at remembering new information once they understand it. Their preference is for quiet, uninterrupted, independent work” (Leaver, 1998, p. 33).

Appendix C

Personality Types: How They Like to Learn

Type	How They Like to Learn
ESFJ	cooperative groups
ESTJ	organization, clear instructions, deadlines
ENFJ	one-on-one or with peer groups
ENTJ	leading a group of peers in a project
ESFP	activity with a group and with choice
ESTP	games, negotiations, simulations
ENFP	real-life applications, projects
ENTP	analysis, invention, develop new procedure

ISFJ	manuals, assisting others
ISTJ	details, calculations
INFJ	plays, poetry, visual images, archetypes
INTJ	manipulation of theory, logical problems
INFP	creative writing, metaphor, impressionism
ISFP	practice, play, action, concretization
ISTP	outdoors activities, artwork
INTP	research, systematize, theorize

(Leaver, 1998, p. 31)

Appendix D

Keirsian Temperaments

Extraversion (E) vs. introversion (I): “...the external world is attractive to the extravert and at the same time energizes him or her. Some of the traits like gregariousness and so on are often characteristic of extraverts, but they are not extraversion. The same is true of introverts: the internal world is attractive and energizing; introverts may be quiet and reserved, but those traits are not introversion...”

Sensing (S) vs. intuition (I): "Sensing and intuition have to do with how you take in information and whether you focus more on the present or the future. If you prefer sensing, you probably like factual information more than speculation and more interested in the present than the future.....On the other hand, if you prefer intuition, you are likely more interested in what the facts mean than in the facts themselves and are future-oriented, interested in possibilities...."

Thinking (T) versus feeling (F): “...Thinking individuals seek to deal with the world through logic and cause-effect; feeling individuals look more at right-wrong, good-bad, that is, values.... In the classroom, thinking types tend to be more comfortable with competition and argument than feeling types; a class that consists largely of feeling types will generally feel more harmonious. In terms of learning strategies, thinking types tend to like analyzing language; feeling types tend to reject it...”

Judging (J) vs. perceiving (P): “... Judging-perceiving indicates how you like to relate to your outer world, and how much structuring

you want from it. Judges generally like a planned and relatively predictable life; they want things decided so they can get on with the task (whatever the task may be). Perceivers prefer to keep their options open and maintain flexibility, and they often prefer to delay decisions so they can get more information....”

(Leaver, Ehrman, & Shekhtman, 2005, pp. 114-116)

Appendix E

Participants' Personality Types and Study Hall Attendance

Student	Personality Type	Section	Study Hall	Status
S1 (Class Leader)	ISTJ (SJ)	A	0	Graduated
S2	ISTP (SP)	A	0	Graduated
S3	ISTJ (SJ)	A	0	Graduated
S4	ISTJ (SJ)	A	0	Graduated
S5	ESFJ (SJ)	A	0	Disenrollment (Semester I)
S6	ISFJ (SJ)	A	0	Disenrollment (Semester II)
S7 (Section Leader)	INFJ (NF)	B	3	Graduated
S8	INTP (NT)	B	10	Graduated
S9	ESTJ (SJ)	B	8	Graduated
S10	ENTP (NT)	B	8	Graduated
S11	INFP (NF)	B	5	Disenrollment (end Sem. III)
S12	ENFJ (NF)	B	10.5	Graduated

Appendix F

Instructors' Personality Types

Instructor	Personality Type
1	ISFJ (SJ)
2	ISFJ (SJ)
3	ESFJ (SJ)
4	ESTJ (SJ)
5	ESTJ (SJ)

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