

# The relationship between extroversion/ introversion, perceptual learning styles and success in English as a foreign language

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**The Relationship between Extroversion/Introversion,  
Perceptual Learning Styles and Success in English as a Foreign  
Language**

Diploma Paper

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## Summary

The most often mentioned individual differences affecting success in foreign language learning are: age, intelligence, motivation, language aptitude, knowledge of other languages, learning strategies, learning styles and personality. In this paper personality and learning styles will be described, but the main focus will be extroversion and introversion, perceptual learning styles, their main characteristics and their relationship with language learning success. A number of studies have been conducted in order to explore the relationship between extroversion/introversion and language learning success. It has often been hypothesized that extroverts are better language learners than the introverts, that they participate more in classroom activities and have better speaking skills. However, that theory has not always been proven. The results have often been diverse and contradictory. The researchers have also concluded that there are no disadvantaged personality types. Introverts have also their advantages as learners and language learning success cannot be determined by one personality trait or learning style only. There are also no absolutely wrong or right learning styles. The researchers also agree that more successful learners do not depend completely on one learning style only, but take advantages of more learning styles, so that they always have an alternative.

In this paper a research conducted with 7<sup>th</sup> and 8<sup>th</sup> graders of primary school will also be described. The aim was to determine the relationship between extroversion/introversion, perceptual learning styles (visual, auditory and kinesthetic) and success in learning English as a foreign language. The results have shown that there is no statistically significant correlation between any of these variables.

Key words: personality, extroversion, introversion, perceptual learning styles, language learning success

## Sažetak

Najčešće spominjane individualne razlike koje utječu na uspjeh u učenju stranog jezika su: dob, inteligencija, motivacija, sposobnost za učenje jezika, znanje drugih jezika, stilovi i strategije učenja te osobnost. U ovom radu se opisuju osobnost i stilovi učenja s posebnom pozornošću na osobine ekstrovertiranost i introvertiranost, perceptualne stilove učenja, njihove glavne karakteristike i njihovu povezanost s uspjehom u učenju stranog jezika. Brojna istraživanja su provedena kako bi se utvrdio odnos između ekstrovertiranosti/introvertiranosti i uspjeha u učenju stranog jezika. Često se pretpostavljalo da su ekstrovertirani ljudi bolji u učenju stranog jezika nego introvertirani, više sudjeluju u nastavi te imaju bolje razvijene govorne vještine, no ta teorija nije uvijek bila dokazana. Rezultati istraživanja su često bili raznoliki i kontradiktorni. Istraživači su došli do zaključka da ne postoji osobnost koja je u potpuno nepovoljnom položaju. Introvertirani učenici imaju također svoje prednosti. Uspjeh u učenju stranog jezika ne može biti određen samo jednom crtom osobnosti ili jednim stilom učenja. Ne postoje niti potpuno ispravni ili pogrešni stilovi učenja. Mnogi istraživači se slažu da uspješniji učenici ne koriste samo jedan stil učenja već koriste prednosti više stilova učenja tako da uvijek imaju alternativu.

U ovom radu će biti predstavljeno istraživanje koje je provedeno s učenicima sedmih i osmih razreda osnovne škole. Cilj istraživanja je bio odrediti odnos između ekstrovertiranosti/introvertiranosti, perceptualnih stilova učenja i uspjeha u učenju engleskog kao stranog jezika. Rezultati su pokazali da ne postoji statistički značajna korelacija između tih varijabli.

Ključne riječi: osobnost, ekstrovertiranost, introvertiranost, perceptualni stilovi učenja, uspjeh u učenju stranog jezika

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## 1. Introduction

There are many factors that influence success in foreign language learning. Some of them are: age, gender, intelligence, motivation, language aptitude, preferred learning styles and strategies and the learner's attitudes and beliefs. One of the main factors is also personality. Personality refers to "stable internal factors or traits which underlie consistent individual differences in behavior. These internal factors are called traits. It is assumed that individuals differ in terms of the extent to which they possess any given trait" (Fadi, 2003). Two personality traits whose impact on foreign language learning has been the most frequently examined are extroversion and introversion. These terms were first derived from Jung's type theories. "An extrovert is said to receive energy from outside sources, whereas an introvert is more concerned with the inner world of ideas and is more likely to be involved with solitary activities. This trait does not just describe whether a person is outgoing or shy, but considers whether a person prefers working alone or feels energized and at home working in a team" (Sharp, 2004). A lot of researches have been done to explore the relationship between extroversion/introversion and success in foreign language learning. "Some studies have shown a clear correlation between extroversion and success in foreign language learning, but some researches have failed to prove that there is any connection between an extroverted personality and language learning. Still, other studies have reached the opposite conclusion: that there is a negative correlation between the two" (Kezwer, 1987: 45). According to Zhang (2008), extroverts are willing to communicate and are not afraid of making mistakes, while introversion negatively affects SLA. According to Erton (2010), there is no significant relationship between personality traits and foreign language achievement.

Another factor that may influence language learning success is an individual's language learning style. Language learning styles are among the main factors that help determine how and how well the students learn a second and foreign language. "Learning styles are the general approaches that students use in acquiring a new language or in learning any other subject" (Oxford, 2003: 2). According to Felder and Henriques (1995), learning styles are defined as the ways in which an individual characteristically acquires, retains, and retrieves information. There are three main groups of learning styles: perceptual, cognitive and psychological. According to Jhaish (2009 – 2010), sensory or perceptual learning style has to do with the physical environment in which we learn and involves using our senses in order to perceive data. The main perceptual learning styles are visual, auditory, and kinesthetic.

According to Oxford (2003), visual students like to read and obtain a great deal from visual stimulation. For them, lectures, conversations and oral directions without any visual backup can be very confusing. Auditory students are comfortable without visual input and therefore enjoy and profit from unembellished lectures, conversations and oral directions. They are excited by classroom interactions in role-plays and similar activities. They sometimes, however, have difficulties with written work. Kinesthetic students like lots of movement and enjoy working with tangible objects or flashcards. Sitting at a desk for very long is not for them; they prefer to have frequent breaks and move around the room.

## 2. Personality

Personality consists of a number of individual differences in behavior and experience. There are a lot of different definitions of the term personality. The British psychologist Hans Eysenck has devoted his whole life to the study of personality characteristics. According to him, personality represents all models of the individual's behavior determined by inheritance and external factors. According to Fadi (2003), personality consists of a number of traits, which have been defined as "broad, enduring, relatively stable characteristics used to assess and explain behavior.

Development of the theories of personality has a long history. According to Eysenck (1973: 5), it begins with the Greek physician Galen, who lived in the second century AD. He is known for his doctrine of the four temperaments – the melancholic, the choleric, the sanguine and the phlegmatic. According to Eysenck (1973: 5), the theory of extraversion – introversion is intimately connected with this ancient theory. Eysenck (1973: 19) also says that Wilhelm Wundt pointed out that choleric and sanguine are considered to be changeable, while phlegmatic and melancholic are considered to be unchangeable. On the other hand, extraversion is considered to be a stable personality trait. Wundt connected traits extraversion and introversion with Galen's classification, so that introversion is analogous to melancholic and phlegmatic. Some typical characteristics of melancholics are: moody, anxious, rigid, sober, pessimistic, reserved, unsociable, and quiet. On the other hand, typical characteristics of phlegmatics are: passive, careful, thoughtful, peaceful, controlled, reliable and calm. Introverts may own characteristics of both melancholics and phlegmatics. On the other hand, extraversion is analogous to choleric and sanguine. Some typical characteristics of choleric are: restless, aggressive, excitable, changeable, impulsive, optimistic, and active.

Characteristic of a sanguine are: he is a born leader, sociable, outgoing, talkative, easy-going, lively, and carefree. A typical extrovert owns characteristics of both choleric and sanguine. According to Eysenck (1973: 10), B.M. Teplov differentiates strong and weak nervous system of the individuals. According to him, introverted individuals have a weak nervous system, while extroverted individuals have a strong nervous system. According to Eysenck (1973: 6), the Viennese physician O. Gross tried to give a psychological basis to the personality dimension of extraversion – introversion. He conceptualized mental and emotional processes in terms of a primary function and a secondary function, which subserved the preservation of primary processes; individuals differed according to the length of the secondary process – introverts had a long, extroverts a short secondary process. Eysenck (1973: 8) also says that Jung suggested that extraversion was connected to hysterical group of neurotic disorders and introversion to the psychostenic group (anxiety, reactive depression, phobias and obsessive – compulsive disorders). Eysenck accepted Jung's classification, according to which there are two personality types: extroversion and introversion and he added two: stability and neuroticism. Jung's classification is a result of mere speculation, while Eysenck's classification is based on experimental research. According to Fadi (2003), our every day experience indicates that most people have non – extreme personalities, flexibility always exists and he claims that his view is supported by personality research. Fadi (2003) also suggests that each individual varies from time to time in his or her desire to be expressive and in company or reserves and in seclusion.

There are different theories of personality: type theories, trait theories, theories of personality development, behavioral theories, humanist theories, etc. According to Fadi (2003), the most obvious difference between the type and trait approaches is that possession of type is regarded to as all – or none, whereas individuals can possess a trait such as sociability in varying degrees. The trait theory focuses mostly on individual differences. Personality consists of a number of traits. According to John and Srivastava (1999: 104), Cattell conducted several factor analyses and concluded that he had identified 12 personality factors, which eventually became part of his 16 Personality Factors (16PF) questionnaire. According to McRorie et al. (2009), Hans Eysenck developed a model based on traits which he believed were heritable and had a probable biological foundation. It consists of three major traits: extroversion-introversion, neuroticism-emotional stability and psychoticism. Muris et al. (2000), describe the main characteristics of each of these traits. The main characteristics of extroversion are sociability, expressiveness, assertiveness, and ambition. Extroverted people

seek out the company of other people easily and are generally happy and comfortable in social situations. The main characteristics of neuroticism are inferiority, unhappiness, anxiety, dependence, hypochondria, guilt, and obsessiveness. Neurotic people have a low opinion of themselves, are pessimistic, gloomy, depressed, and disappointed with their existence. They are easily upset by things that go wrong and think of themselves as helpless people. The main characteristics of psychoticism are risk-taking, impulsiveness, irresponsibility, manipulativeness, and sensation-seeking. Psychotic people like to live dangerously and do not worry much about consequences. They are interested in doing things rather than thinking about them. In comparison, the “Big Five” theory was a generally accepted taxonomy of personality which consisted of five broad dimensions of personality. The five factors which are typically labeled are: Extraversion or Surgency (talkative, assertive, and energetic), Agreeableness (good natured, cooperative and trustful), Conscientiousness (orderly, responsible and demandable), Emotional stability versus neuroticism (calm, not neurotic, not easily upset) and Intellect or openness (intellectual, imaginative and independent – minded). “The Big Five structure does not imply that personality differences can be reduced to only five traits. Rather, these five dimensions represent personality at the broadest level of abstraction, and each dimension summarizes a large number of distinct, more specific personality characteristics” (John and Srivastava, 1999: 105). According to McRorie et al. (2009), Eysenck’s traits of extroversion and neuroticism are identical to the similarly named dimensions of the “Big Five”.

The traits extroversion and introversion and the difference between them will be explained in more detail in the following sections.

## 2.1. Extroversion

According to Erton (2010), an extrovert is a person who has a tendency to focus on the outer world of people and events. Extroverted persons do not like reading a lot, spending much time alone, but enjoy talking to other people, attending parties and social gatherings. They are social and outgoing. They have a lot of friends and acquaintances. As they talk a lot, they do not think much before they say something, but rather think while talking. Such persons are lively, active, and often full of enthusiasm. They yearn for excitements, react quickly and are usually very impulsive. Extroverts are also unreserved, relaxed, careless and optimistic persons. They are constantly in the move. However, sometimes they can be

aggressive and change their mood very quickly. Extroverted individuals often need social stimulation. They are more interested in the world, events, things and people around them than themselves. They feel energized by the interaction with a lot of people. “In other words, extroverts are motivated from *without* and their attention is directed outward” (Zafar, 2011). Extroversion is usually characterized by the traits such as gregariousness, assertiveness, activity, confidence, excitement-seeking, positive emotions and warmth. According to McRorie et al. (2009), during conversation, extroverts tend to position themselves closer to others, and direct facial posture and eye contact is more likely to be maintained.

According to John and Srivastava (1999: 112), extroversion includes at least five distinguishable components: Activity level (active, energetic), Dominance (assertive, forceful, bossy), Sociability (outgoing, sociable, talkative), Expressiveness (adventurous, outspoken and show-off) and Positive emotionality (enthusiastic).

Extroverts are usually very friendly, energetic, they meet new people easily and often take leadership roles. They like cooperating with other people, group activities and have highly developed interpersonal intelligence. They have to experience things in order to understand them. Extroversion may also play an important role in choosing a career. The best jobs for the extroverted individuals would be those which require a lot of social interactions with other people such as social work, teaching, managing, public relations or politics. According to Ostojić (1983: 406), the extroverted people have underdeveloped working habits and intellectual abilities. They do not have patience to read a lot or study something on their own for a long time. They also have a low level of aspiration and do not tend to plan a lot ahead. According to Zafar (2011), extroverts are easily distracted from studying, partly as a result of their gregariousness and partly because of their weak ability to concentrate for long periods.

## 2.2. Introversion

According to Zhang (2009), an introvert is a person who is more interested in his or her own thoughts and feelings than in things outside himself. An introverted personality is quiet and introspective. They do not like being the center of attention. Introverted people have highly developed intrapersonal intelligence. Unlike extroverts, the introverted personality does not feel energized by being with a lot of people, but rather by their inner world. For

example, the introverted people feel very exhausted after attending a party or having to be with a large group of people for a long time. Then they have to spend some time alone to regain their energy. They are reserved towards everyone, except their closest friends. They like to plan things ahead and do not seek excitement. Introverts are very serious, responsible, and reliable persons. They are able to control their feelings and do not tend to show them. They do not change their mood quickly and do not tend to be aggressive. Sometimes they can be pessimistic, but they believe in moral standards. Introverts can also be nervous, passive and feel inferior in society. According to Ostojić (1983: 407), the intellectual abilities of the introverts are high. Although such persons may not be very talkative, they usually have a broad vocabulary. They are persistent in achieving their goals and have a high level of aspiration. The major characteristics of introverted people are: self-awareness, thoughtfulness, interest in self-knowledge and self-understanding, tendency to keep emotions private, being reserved to unfamiliar people, gregariousness only with close friends, and learning well through observation. It is not very easy for them to meet new people and make friends. However, they do not need contact with too many people because it takes too much energy. Unlike extroverts, introverts have few friends, but their friendships are more profound. They would rather have one-on-one conversation than talk in a large group of people about superficial things, which they do not find that interesting. Unlike extroverts, introverts think before they say or do something.

Introversion is not the same as shyness. Unlike shy people, introverted people do not necessarily feel nervous, uncomfortable or inhibited when being with other people; they do not avoid social interactions out of fear, but they simply feel energized by solitary activities such as reading a book or writing and find them more interesting. Moreover, people who are introverted, but not shy may have developed social skills, but they still need their inner peace, so that they can focus more on themselves, their personal problems, feelings, needs, and habits.

When choosing a career, introverts should choose the jobs which do not require a lot of social interaction, but more independent work like artist, writer, computer programmer, engineer, inventor or graphic designer. Unlike extroverts, introverts do not seek for varieties of activities. They want to focus only on one activity at the time. They do not like unpredictable situations, but prefer routine.

Introverts often find that other people try to change them or even think that there is something “wrong” with them. Introverts often have a feeling that extroversion is more

valued by society and that extroverts are better accepted by other people, while introverts are often seen as boring, strange, weird, friendless, lacking social skills or even antisocial and not normal, which sometimes makes them feel frustrated. However, there is no wrong or right personality type.

Not many people are completely extroverted or completely introverted, but there are always characteristics of one type which are more dominant within an individual. Moreover, some people may be extroverted in one situation, but introverted in another. According to Zafar (2011), everyone is extroverted or introverted in some degree, but not in the same degree.

### 2.3. Instruments for measuring personality

According to Liu (2012), among the hundreds of personality tests which have been developed for medical, educational and occupational purposes, two tests have been commonly used by the researchers in the field of language learning and teaching: The Myers Briggs Type Indicator (MBTI) and the Eysenck's Personality Questionnaire (EPQ). According to Tyagi (2008), the MBTI, developed in early 1950s by Katherine Cook Briggs and Isabel Briggs Myers, was designed to make Jung's theory more explicit and practical in its application to people's everyday lives. Katherine Cook Briggs and Isabel Briggs Myers first created pen – and pencil version and tested it on their family and friends. Then, they continued to develop it over the next two decades. MBTI measures 16 personality types which were introduced by Carl Jung. There are four basic scales. The first scale (extroversion - E/introversion - I) refers to where a person focuses his/her attention. People who prefer extroversion focus on the outer world, while people preferring introversion focus on their inner world, ideas, thoughts and emotions. The second scale (sensing - S/intuition - I) refers to how people take in information. People preferring sensing take in information through all five senses, while people preferring intuition focus more on possibilities. The third scale (thinking – T /feeling – F) refers to the way people make decisions. People preferring thinking make decisions based on logic, while people preferring feeling make decisions based on emotions. The fourth scale (judging – J /perceiving - P) refers to the way people deal with the outer world. People preferring judging are organized, while people preferring perceiving are more spontaneous and flexible. Each type is a combination of these four scales and has its four letter code. These 16 types represent 16 possible combinations: ISTJ, ISTP, ISFJ, ISFP, INFP, INTJ, INTP, ESTP, ESTJ, ESFP, ESFJ, ENFP, ENFJ, ENTP, and ENTJ. MBTI was first published in 1962 and since then, it

has been the most widely used personality assessment in the world. It helps people identify their personality in order to choose the best career or increase effectiveness at work.

Eysenck's Personality Questionnaire (EPQ) was developed in 1975. According to Liu (2012), 100 – item Eysenck's Personality Questionnaire was later reduced to 48 and has been used in various educational settings. It measures three dimensions of personality: extroversion, neuroticism, and psychoticism. According to Eysenck, extroversion and neuroticism are biologically based categories. Extroversion is characterized by outgoingness, dominance, and risk taking, while neuroticism is characterized by anxiety, depression, low self – esteem disability to control emotional reactions, and guilt feelings. Neurotic people are not emotionally stable and get easily nervous and upset. Psychoticism is characterized by aggression, hostility, anger, egocentricity, manipulation, impulsiveness, and orientation to achievement. According to Liu (2012), it also has a lie scale (L) to measure the extent to which respondents are influenced by social desirability in answering the questionnaire.

Another well known personality test is the Big Five questionnaire designed to measure the Big Five dimensions of personality. Big Five dimensions are extroversion, neuroticism, conscientiousness, agreeableness, and openness to experience abbreviated as OCEAN or CANOE. John and Srivastava (1999) report about developing the NEO Personality Inventory by Costa and McCrae in the early 1980s. It was designed to measure broad personality dimensions: Neuroticism, Extroversion and Openness to experience. In 1983, Costa and McCrae realized that their NEO system resembled three of the Big Five factors and extended their model with Agreeableness and Conscientiousness. John et al. (2008) report that Big Five Inventory (BFI) was constructed to address the need for a short instrument measuring the prototypical components of the Big Five that are common across investigators. The goal was to create a brief inventory that would allow efficient and flexible assessment of the five dimensions. It consists of 44 items and a five-point scale in which 1 means “strongly disagree”, 2 “disagree”, 3 “neutral”, 4 “agree”, and 5 “strongly agree”. According to John et al. (2008), the BFI uses short phrases based on the trait adjectives known to be prototypical markers of the Big Five. The test also measures six subordinate dimensions of each of the “Big Five” dimensions. Six subordinate dimensions of neuroticism are anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability, of extroversion warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotion, of openness to experience fantasy, aesthetics, feelings, actions, ideas, and values, of agreeableness trust, straightforwardness, altruism, compliance, modesty and tender-mindedness and of

conscientiousness competence, order, dutifulness, achievement-striving, self-discipline, and deliberation.

## 2.4. Research on success of extroverted/introverted learners

According to Moody (1988), personality is important because personality traits make a difference in how people learn and what they learn. Extroverted and introverted learners learn in different ways. According to Erton (2010), an individual's personality can have an effect on to what extent he is able to achieve information. An individual's personality can therefore have an impact on learning success. According to Reid (1998), extroverted learners learn more effectively through concrete experience, while introverted learners learn more effectively in individual, independent learning situations. A lot of research has been conducted to find a clear correlation between personality traits and success in school subjects, but also in success in foreign language learning. Ostojić (1983: 408) reports about the research in Staffordshire schools in Great Britain which was conducted on 4000 eleven year old learners has shown that extroverted learners had better success at school. The authors of this research came to the conclusion that introverts develop later and more slowly, but their success is better in high school. To conclude, success in primary school is more connected to extroversion, while success in high school is more connected to introversion, which has also been confirmed by further research.

Ostojić (1983: 408) also reports about another well known research on extroversion/introversion and success in school. The research was conducted by Radivoj Kvašček, whose aim was to determine which factors, except intelligence, influence success of the learners in school. The participants chosen for his research were 2170 learners of the seventh and the eighth grade of primary school, but also third and fourth graders of high school. The results have shown that not only intelligence influences success of the learners, but also some other characteristics such as strong ego, emotional stability, maturity, extroversion, ability to take risks, strong curiosity, and motivation.

## 2.5. Extroversion/introversion and success in SLA

Personality is one of the most important factors affecting success in language learning. According to Sharp (2008), language learning and academic success are highly correlated

with intelligence, but research suggests that the importance of intelligence declines after high school age, partly because of the stronger effects of personality. A lot of research has been conducted in order to explore and determine the relationship between extroversion/introversion and success in learning English as a foreign language. The results were diverse and often contradictory. As expected, a lot of studies have shown positive correlation between extroversion and success in foreign language learning, but some studies have also shown negative correlation, while some studies have not shown any significant correlation. According to Kezwer (1987) the reasons for the discrepancies in research results are wide variety and dubious validity of the personality assessment instruments used; the nature of the tasks used to determine second language proficiency; and the structure of classroom interaction. Kezwer (1987) also suggests that extroversion has some influence on second language learning, but the exact nature is still blurry and may be influenced by various contributing factors. According to Zafar (2011), most studies conducted to determine the relationship between personality and foreign language learning showed that extroverted students are more successful in L2 acquisition. "Extroverted individuals may be more fluent when speaking in a second language. When fluency in oral performance is concerned, people can feel obviously that extroverted students achieve greater fluency in an oral production task compared to introverts" (Zafar, 2010). It was often thought that extroverts are better language learners in general, even by the foreign language teachers. According to Kezwer (1987), many second language teachers somehow feel that a student with an outgoing personality is more likely to be successful as a second language learner than his less gregarious counterpart. It is also thought that they would be more ready to use language for communication, take part in all kinds of social interactions and are not afraid of making mistakes while speaking, so that they would probably have more developed communication and speaking skills. "Extroverts, who tend to be sociable, are more likely to join groups, more inclined to engage in conversations, both inside and outside the classroom. As such, they take full advantage of language-use opportunities. It has been suggested that extroverted learners will find it easier to make contact with other users of the L2 and therefore will obtain more input" (Zafar, 2011). However, the advantages of the introverted learners are that they would not depend that much on the interaction with other people and have no difficulties when having to work individually. The introverted learners are better as independent learners. They also prefer working in pairs and small groups. According to Sharp (2008), it is generally accepted that introverts have an advantage in learning and are more likely to have better study habits,

although contradictions remain. The advantage of the extroverts would be that they are more ready to ask questions or try to find help when necessary, while the introverts would rather try to find the answers to their questions and solutions to their problems in the books or on the Internet than ask others.

As already mentioned, a lot of studies have shown that there is positive correlation between extroversion and success in foreign language learning. For example, the aim of the research conducted by Ostojić (1983: 408) was to determine if there is any statistically significant correlation between personality traits of the learners (extroversion/introversion) and their success in learning English as a foreign language. The participants chosen for this research were 800 learners from primary and high schools in Sarajevo, Banja Luka, Zenica, and Mostar. There were 404 primary school learners, out of which 204 were girls and 200 boys. There were also 397 high school learners, out of which 247 were girls and 150 boys. The research has shown that the majority of the primary school learners are introverted. However, there was an obvious difference between boys and girls. This research has shown that more than 50% of the girls are introverted, while percentage of the introverted boys is lower and it is 42%. 33% of the boys own some characteristics of extroversion, while only 26% of the girls own the same characteristics. Correlation between the learners who own characteristics of extroversion and their success in learning English is positive. The majority of these learners have better success in English than their peers who own characteristics of introversion. Although the majority of the primary school learners are introverted, the results have shown that extroverted learners have significantly better success. The same research conducted in high schools has shown that the number of extroverted learners in high school increases significantly. Almost half of these learners (48%) are extroverted, one third of them are introverted, while 23% of them are ambiverts, who represent the combination between extroversion and introversion. The correlation between extroversion and success in learning English exists, but it is not statistically significant. It is obvious that there are also some other important factors connected to success in learning English in high school: different demands, the learners' attitude towards school and learning in general, age, intensity of motivation, etc.

Kezwer (1987) reports about the research conducted by Catchcart, Strong and Wong – Fillmore in 1979, whose aim was to determine the relationship between personality and language proficiency. The participants chosen for their research were twelve kindergartners and eight learners of the first and the second grade of primary school. They were all learning

English as a foreign language. The results of the research have shown that there was a positive correlation between extroversion and language proficiency for the first and second graders.

The aim of the research conducted by Wakamoto (2009) was to determine how different personality types (extroversion/introversion) influence foreign language learning in Japan. The participants of the research were 254 Japanese students learning English as a foreign language. Questionnaires measuring personality characteristics and English proficiency have been used. The methods and procedure consisted of three phases: the first phase was based on questionnaire data, the second on classroom observation data and the third on observations of individual learning conditions. Wakamoto concluded that extroverts are more successful language learners because they would ask for clarification more often and improve their chances for input essential for developing an inter-language. Moreover, they tend to focus more on meaning than on form, while introverts are more focused on form (grammar, vocabulary and pronunciation) and are more careful with speech. In other words, extroverts are focused more on communication, while introverts are more focused on how they are talking.

Zhang (2008) reports about the research which was conducted by Naiman in order to determine how personality (extroversion/introversion) influences second language acquisition. The participants were 72 Canadian high school students from grades 8, 10 and 12. They were all studying French as a second language. Questionnaires were distributed to them in order to establish their psychological profiles. They also did a French listening test and imitation test. About 70% of the students with higher grades (B or higher) considered themselves as extroverts. According to Naiman, extroversion positively affects SLA because extroverts are willing to communicate and are not afraid of making mistakes. On the other hand, introversion negatively affects SLA. Students that are afraid of making mistakes or not being able to speak avoid opportunities that would otherwise aid their learning. Naiman concluded that personality influences SLA significantly and that extroverted students acquire second language better than introverts and his further research may deal with adapting teaching methodology to individual differences in personality in order to improve language learning.

However, some studies have shown that there is no significant relationship between personality and success in learning a foreign language. Kezwer (1987) also reports about Suter's research conducted in 1977, in which he measured the influence of different variables on the accuracy of English pronunciation of non – native speakers of English. Some of the

variables tested were age, native language, amount of conversation with native speakers and extraversion/introversion. The research has shown that the most important factor influencing accuracy in pronunciation was not personality, but native language.

Kezwer (1987) also reports that in 1984 Scheibner-Herzig and his colleagues did not find any significant correlation between extroversion and second language performance in English of West German high school students.

In her research Busch (2006) explored the relationship between extroversion/introversion and the proficiency in English as a foreign language of Japanese students. It was thought that extroverted students would be generally more proficient in English because they are more ready to use the opportunities to communicate with native speakers. The participants of the research were 80 Junior college English students and 105 adult school English students. They took a standardized English test and completed a personality questionnaire. 45 junior college students participated in English interviews, which were rated for proficiency. The results have shown that there was statistically significant negative correlation between extroversion and pronunciation. On the other hand, introverted students had higher scores in reading and grammar. According to Busch (2006), extroversion correlated positively with length of time spent studying English at adult school.

All studies conducted to explore the relationship between personality and success in foreign language learning are useful to foreign language teachers. They can help them to organize their teaching better, adjust it to the needs of the learners and their individual differences and use teaching methods and techniques that would be an advantage for different personality types. For example, individual or pair work can be very useful to introverted learners, whereas group work is more useful to extroverted learners.

### 3. Learning styles

Not everyone learns in the same way. Learners differ in the ways they acquire and retain information. While learning, the learners employ different learning styles. There are a lot of different definitions of that term. "The ways in which learners process information, or in other words learn, are generally called learning styles" (Fadi, 2003). According to Reid (1998), learning styles are internally based characteristics, often not perceived or consciously used by learners, for the intake and comprehension of new information. Every person has one

or more learning styles, which are the result of nature, but also some other factors like age, gender, motivation, prior knowledge or teaching styles.

According to Reid (1998), learning styles have been recognized widely in the United States elementary school classroom for more than a decade; teacher preparation programs in schools of education have included learning styles training in their curricula for nearly as long. In 1990s, many ESL teachers have begun to investigate the applications of learning styles in their multicultural classrooms. According to Reid (1998), gathering and reflecting upon the learner's result, they raise the learner's awareness about the existence of different learning styles and try to improve their teaching styles to the learning styles of their learners.

There are three major categories of learning styles: perceptual, cognitive and psychological. The three main subcategories of perceptual learning styles are visual, auditory and kinesthetic learning styles. Visual learners learn the most effectively through their eyes. They remember best when they see or read something. They need visual support when acquiring new information (charts, diagrams, pictures). They may also use different highlighters while reading and take detailed notes during lectures. "Visual learners need to see the teacher's body language and facial expression to fully understand the content of the lesson. They may think in images and learn best from visual displays including: diagrams, illustrated text books, transparencies, videos and hand-outs" (Fadi, 2003). On the other hand, auditory learners learn the most effectively by hearing. They remember best when they hear or discuss something. They do not necessarily need visual support to acquire new information. "Auditory learners learn best through verbal lectures, discussions, talking things through and listening to what others have to say. They interpret the underlying meanings of speech through listening to the tone of voice, pitch, speed, and other aspects of the voice" (Fadi, 2003). Kinesthetic learners learn through complete body experience. The most effective learning for them is learning through exploring and experience. They have to be constantly active and in the move, so that they may find it difficult or even frustrating when they have to sit still for a long time. "Tactile/kinesthetic learners learn best through a hands-on approach, actively exploring the physical world around them" (Fadi, 2003).

The second category is cognitive learning styles. Witkin et al. (1997) define cognitive styles as the individual ways a person perceives, thinks, learns, solves problems and relates to others. "With the help of cognitive styles an individual acquires knowledge (cognition) and processes information (conceptualization)" (Kirton, 2003). The main subcategories of cognitive learning styles are: field-dependence/field-independence, global/analytic,

reflective/impulsive, and right/left-brained learning style. According to Fadi (2003), various studies and research suggest that learners may approach a learning task with a field-independent tendency or the opposite field dependent one. Field-independent learners learn the best by analyzing facts, while field-dependent learners learn from context. Field-dependent learners perceive the whole field, while field-independent learners can perceive parts of it, but not the whole unit. According to Fadi (2003), field-independent learners are able to break up organized visual field and keep parts of it separate, while field-dependent learners are unable to separate figures from the background. Fadi (2003) also describes different learning behavior of field-dependent and field-independent learners. For example, field-independent learners prefer working on their own and do not need much interaction, while field-dependent learners prefer group work. The second subcategory is global/analytic learning style. Analytic learners learn rather individually, while global learners learn best through experience and interaction with other people. Another important difference is that global learners see the whole picture, while analytic learners see only its parts and are more focused on details and specific problems. Next category is reflective and impulsive learning style. The main difference between them is that reflective learners need time to do particular task, consider options before they make a decision or solve a problem. They are considered to be slower, but more careful. On the other hand, impulsive learners do not need much time and are the most effective when they can respond immediately. The last subcategory of cognitive learning styles are right and left brained learning styles. According to Reid (1998), right-brained learners learn the most effectively through visual, analytic and self-reliant learning, while left-brained learners learn the most effectively through auditory, global, impulsive, and interactive learning.

The third category refers to psychological learning styles. Psychological or “affective/temperament learning style takes students' emotions, values and feelings into consideration. The focus is on the learner (i.e. his or her motivation, level of engagement, interaction and reception to feedback) and how he or she reacts to learning opportunities” (Renou, 2008). According to Vermunt and Vermetten (2004), psychological learning styles are directed to coping with the feelings that arise during learning, and lead to an emotional state that may positively, neutrally, or negatively affect the progression of a learning process. The main subcategories are sensing/intuition, thinking/feeling, and judging/perceiving. The learners with sensing preference pay more attention to what they see, hear, touch, taste or smell and think in a more concrete way, while the learners with intuition preference learn the

best from meaningful experiences and think in a more abstract way. “Sensing involves observing, gathering data through the senses; intuition involves indirect perception by way of the subconscious – accessing memory, speculating imagining” (Felder and Henriques, 1995). According to Felder (1993), sensors tend to be practical; intuitors tend to be imaginative, sensors like facts and observations; intuitors prefer concepts and interpretations. The main difference between thinking and feeling preference is that the learners with thinking preference are more objective, rational and driven by thought, while the learners with feeling preference are subjective and driven by emotions. “A thinking person is more likely to prefer decisions made in an impersonal and objective manner. A feeling person will make decisions based more on personal values, relationships and feelings of others” (Sharp, 2004: 3). According to Reid (1998), learners with thinking preference learn the most effectively from impersonal and logical circumstances, while learners with feeling preference learn the most effectively from personalized circumstances. Next subcategory is judging/ perceiving. According to Sharp, (2004), this refers to how a person deals with the outside world. Learners with judging preference are organized, controlled, and responsible, while learners with perceiving preference are more spontaneous, flexible, relaxed and not very organized. According to Reid (1998), learners with judging preference learn more effectively by reflection, deduction, analysis, and processes that involve closure. On the other hand, learners with perceiving preference learn more effective through negotiation, feeling, and inductive processes that postpone closure.

“Learners of compound learning styles refer to those who have more than one strong learning style. It is possible that a learner may be a visual learner and an impulsive learner at the same time” (Xu, 2011).

### 3.1. Perceptual learning styles

The learners learn by seeing, hearing and experiencing things. According to Jhaish (2009 – 2010), perceptual modality refers to the primary way our bodies take in information. According to Felder and Henriques (1995), perceptual learning styles are defined as the ways people receive sensory information. “Sensory preferences refer to the physical, perceptual learning channels with which the student is the most comfortable” (Oxford, 2003). Visual learners need a lot of visual stimulation for learning new information. Auditory learners, on

the other hand, need to hear information to remember it or discuss things with others, but they do not depend much on visual stimulation. In other words, they learn by listening and talking. Kinesthetic learners need a lot of movement and learn best through their own experience. However, the learners do not always use only one of these styles to learn new information, but every learner has one style that is more dominant. According to Reid (1998), learning styles exist on wide continuums; although they are described as opposites. Each individual has some stronger and some weaker preferences. "Learning styles are not dichotomous (black or white, present or absent). For example, a person might be equally visual and auditory, but with lesser kinesthetic involvement. Few if any people could be classified as having all or nothing of these categories" (Oxford, 2003). Moreover, the learners can use visual learning style in one learning situation, while in another learning situation they would prefer kinesthetic style. According to Reid (1998), in a formal learning setting where the target language is learned as a foreign language and linguistic accuracy is the major concern, students tend to be more visual, while in an informal learning situation in which communicative fluency is emphasized, students tend to be more auditory or kinesthetic.

Joy Reid (1998) reports about Perceptual Learning Style Preferences Survey (PLSP), which she developed in 1984. It was a questionnaire in which the learners had to identify their preferred learning styles among six categories: visual, auditory, kinesthetic, tactile, group, and individual learning. The participants chosen for her study were 1300 ESL students: Arabic, Korean, Spanish, Chinese, Indonesian, Thai, and Japanese students. The results have shown that most ESL students studying English in the United States are kinesthetic and tactile learners. Most ESL students also do not prefer group learning. In addition, ESL students from different language and cultural backgrounds differed significantly in perceptual learning styles. For example, Asian students were mostly visual, while Spanish students were mostly auditory. The results have also shown that the ESL students who stayed longer in the United States adapted their perceptual learning styles to the educational culture in which they were studying. According to Reid (1998), the longer ESL students stay in the United States, the more their learning style preferences resemble the preferences of native English speakers. So, most of these ESL students became less tactile and more auditory. Reid (1998) suggests that students studying English as a foreign language in their native countries – who plan to attend school in the United States might benefit from learning about learning styles and from training and extending their learning styles in order to be more prepared for U.S. classrooms.

### 3.1.1. Visual learning style

Visual learning style is one of the three main perceptual learning styles. Visual learners learn best by seeing things. “Visual learners prefer that information be presented visually – in pictures, diagrams, flow charts, time lines, films, and demonstrations - rather than in spoken or written words” (Felder and Henriques, 1995). Visual learners prefer reading and writing tasks. However, they may have problems with listening comprehension. According to Felder (1993), if something is simply said and not shown to visual learners, (e.g. in a lecture), there is a good chance that they will not retain it. They like illustrated textbooks, magazines, films, using computers and writing on the blackboard. Lectures with a lot of visual aids like different illustrations, flashcards, power-point presentations, overhead transparencies, videos, maps, charts or diagrams are very helpful to them. In classroom they prefer sitting at the front. They like colorful material and have to highlight important information in the books to remember it easier. They also circle or underline some important words or sentences. Drawing, doodling and color coding also help them a lot with learning and remembering information. Visual learners have little or no use of the information provided without any visual support. It can be quite confusing or frustrating to them. They remember things better and faster if they note them down, make lists and take a lot of detailed notes during the lesson or even illustrate them. They prefer written instructions rather than the oral ones and follow them more easily. They have a vivid imagination and use it for visualizing things, people or places. Visual learners prefer studying in peace and solitude, because background sounds, noise or surrounding may distract them from seeing and visualizing things to remember them. Their place for learning is well designed, organized, and tidy. According to Fleming, a visual learner is good at spelling, but forgets names, needs quiet study time, has to think awhile before understanding lecture, likes colors and fashion, dreams in color, understands and likes charts and is good with sign language. They often forget people's names, but they remember well what these people looked like and how they were dressed. They are also able to notice and remember details. However, often they need more time to complete task because they pay a lot of attention to details. Visual learners make up about 65% of the population. The best professions for the visual types would be designers, photographers, engineers, interior designers, visual artists or architects.

### 3.1.2. Auditory learning style

“Some students, categorized as auditory learners, tend to process information through listening to instruction via lectures, tapes or films”(Yeh and Wang, 2003). Auditory learners learn new information best by hearing. They make up about 30% of the population. “Auditory learners, also referred to as verbal learners, prefer to learn by listening. For them, they may enjoy to have interactions with others by talking. They may dislike reading books. So in formal instruction settings, they would rather to listen more than to see more” (Xu, 2011). They do not need visual support or written instruction to learn and remember things. Instead, they prefer oral directions, follow them easily and do what they are told to do. They pay more attention to what is said, than to visual material. They remember words better than pictures. They are focused mostly on sounds, speech, music and verbal communication. As they remember a lot by listening, they do not pay attention only to what somebody says, but also how somebody says something, particularly to pronunciation, tone of voice, speed, and intonation. Everything that has to do with sounds is helpful to them. For example, the best way for them to recall the information is to remember how it sounded. They also use rhythm and rhymes to remember things easier. Auditory learners like group work, oral reports and explaining things and are not afraid to speak in class. They differ from visual learners in many ways. Unlike visual learners, auditory learners do not need peace and solitude while learning, but prefer group work and enjoy participating in discussions. They usually remember people’s names, but not their faces. Unlike visual learners, auditory learners do not take a lot of detailed notes during lectures or discussions. They do not have much use of circling, underlining or color coding. However, they may benefit a lot from recording lectures, using CDs or audiotapes, reading out loud, participating actively in class discussions and debates, group work, studying with others, projects, brainstorming activities, reciting, role plays, dialogues or any activities that require social interactions and cooperation. They find it very useful to discuss the things they have learned with others. They usually participate in class actively and frequently ask questions. According to Ahmad et al. (2009), auditory learner needs to express what he/she learns, solve problems by talking about them and discusses the material in the class. Auditory learners are usually very talkative, outgoing by nature and have developed social skills. They have also developed listening and speaking skills. They are very good at oral exams, explaining things, telling jokes, and story-telling. However, they may have problems with reading comprehension, writing tasks or having to read silently.

Sometimes they move their lips while reading silently. Sometimes they also talk to themselves when they are alone. As they tend to connect everything to sounds, they often sing, hum, or whistle. When trying to memorize the facts, they repeat them out loud. According to Nilson (2010: 232), they learn best when they hear themselves express an idea. They also learn better when they have music in the background. They may have problems with understanding graphs and diagrams. Most auditory learners have a broad vocabulary and developed communication skills. They express their thoughts, arguments and ideas freely while speaking. A lot of auditory learners also have talents for music and foreign languages. The best professions for auditory learners would be teachers, lawyers, journalists, politicians, translators, or musicians.

### 3.1.3. Kinesthetic learning style

Kinesthetic learners need a lot of movement. They learn by doing, actively exploring, experiencing, acting out, imitation, practice, feeling and touching things. They are also called tactile learners or touch-oriented. They belong to the third group of perceptual learning styles. However, Felder and Henrique (1995) suggest that since five human senses are seeing, hearing, touching, tasting, and smelling, “kinesthetic” does not belong properly on a list of sensory input modalities. According to them, a student's preference for motion or physical activity of some sort during the learning process belongs in a separate learning style category. “Our proposed system and Kolb’s (1984) model place it in the active/reflective dimension, and the familiar model based on Jung’s typology (Lawrence 1993) includes it in the extrovert-introvert dimension” (Felder and Henriques 1995). However, classification in which kinesthetic learning style belongs to the group of perceptual learning styles or sensory preferences makes sense because kinesthetic learners do not learn only by movement, but also through their own experience in which their senses are included, especially the sense of touch. Moreover, they really need to “feel” things to remember them.

Kinesthetic learners make up about 5% of the population. According to Xu (2011), this type of learners feels comfortable when teacher uses the total physical response approach. Unlike auditory learners, they find listening to long lectures quite boring and quickly start losing concentration. Moreover, having to sit still for a long time could be very frustrating to them and make them nervous. They also do not have much use of reading facts from books or

handouts unless they have experienced it. They prefer active participation in class rather than just observing, listening and being passive. However, they may be considered as hyperactive and not disciplined enough by their teachers. Kinesthetic learners learn best through hands-on approach. According to Ahmad et al (2009), working on an experiment in the laboratory is the best way for such students to learn new material. They have a good eye-coordination. They are usually not good at spelling and do not have a good handwriting. Kinesthetic learners may benefit from group work, all activities requiring social interactions and movements, experiments, projects, role plays, miming, using memory games and taking field trips and excursions to the places they are learning about. They also like painting, making diagrams, and simulations. They are not good at writing long tests and essays, but they do well on shorter tasks such as multiple choice tasks or fill-in the blanks tasks. Kinesthetic learners often do not remember what they saw or heard, but they remember well who did what in the past. They are full of energy and may be easily distracted from studying. Sometimes they can be very impulsive and have quick reactions. They have to be constantly active and do something while learning, for example, touch physical objects and play with things like pencils or rubbers. When trying to memorize facts or solve a problem, they often walk or move around. They talk fast and often use hands and body language while communicating to express their emotions. They often need breaks while studying to get up and move around. Kinesthetic learners also like drawing, dancing, doing something with their hands. They like everything that requires movement, but also interaction. Most of them are talented for sport and dance. Their bodily kinesthetic intelligence is highly developed. As they always tend to be on the move, jobs which require sitting for a long time such as working in an office are not for them. The best professions for kinesthetic learners would be firefighters, actors, professional dancers, artists in painting or sculpture, police officers, athletic trainers, physical therapists, physical education teachers and all other jobs which require a lot of movement and physical activities. Kinesthetic learners have some common characteristics with visual and auditory types of learners. For example, like visual learners, they like drawing, doodling, highlighting, color coding and making charts, maps, and diagrams. On the other hand, like auditory learners, they like music, singing, rhythmic movements, role plays, discussions in small groups, tend to be actively involved in all activities and like social interaction.

### 3.2. Learning styles and SLA

A lot of research has been conducted to explore the relationship between learning styles and success in learning English as a foreign language, but also to determine how different personality types use different learning styles. According to Erton (2010), learning styles are connected to personality types in a way that the learners develop different learning styles according to their different personality types, which then determine their success. “It is hypothesized that personality may be a dominant factor in achieving the educational goals through several learning styles in foreign language achievement” (Erton, 2010). The participants chosen for his research were 102 Bilkent University Freshman students studying at the Faculty of Engineering, Science, Business Administration, Economics, Fine Arts, Education and Humanities and Letters, who received the English 101 course in their first year at the University. The aim of his research was to investigate the relationship between personality traits of the students (extroversion – introversion) and which learning styles these two personality traits use for foreign language achievement at the university level. Eysenck’s Maudsley personality inventory and Barsch’s learning style inventory were distributed to the students. Maudsley personality inventory was used to measure extroversion and introversion. The internal consistency of reliability is 0.96. The items were listed in a yes/no form, where “Yes” was counted as 1, while “No” was counted as 0. The highest score was 16, so that the students who scored between 10 and 16 were counted as extroverts, those who scored between 1 and 6 introverts, while those who scored between 7 and 9 as ambiverts. The Barsch learning style inventory was applied to measure whether a person is visual, auditory or kinesthetic type. The internal consistency of reliability is 0.65. It is a questionnaire consisting of 24 mixed items for visual, auditory and kinesthetic style with a scale from 0 to 4 in which 4 means “almost always”, 3 “usually”, 2 “sometimes”, 1 “seldom” and 0 “never”. The results were evaluated statistically. The results have shown that most of the students were successful language learners. The majority of students were visual learners. Most introverts were found among the students studying Fine Arts, Humanities and Letters and Engineering. There was no significant difference between learning styles of extroverts and introverts. The introverts were mostly visual and then auditory learners, the same as the extroverts. The extroverted students were the most successful (45%), then ambiverted (31%) and then introverted (24%). However, in contrast to numerical data, the graphics do not show that there is a big gap between extroverts and introverts in terms of success. Visual learners were the most

successful (49%), then auditory (31%) and then kinesthetic (9%). However, there were also no big gaps between learning styles when graphics taken into consideration. According to Erton (2010), the findings showed that there is not a statistically strong, but a low relationship between the personality traits of the learner, the way he/she establishes the learning styles and reflects these characteristics into success while learning a foreign language.

Jhaish (2009 – 2010) investigated whether there is a relationship between students' learning style preferences, learning strategies and the academic achievement among the third year English majors at Al Aqsa University. 60 students participated in his research. They completed two questionnaires: one identifying learning styles and the other identifying learning strategies. Then they did the test measuring their knowledge level. Data analysis has shown that most of the students favored metacognitive strategies. The results have shown that there is a statistically significant correlation between achievement and auditory learning style, but there is no statistically significant correlation between achievement and visual and kinesthetic learning style.

According to Reid (1998), highly successful students often have multi style preferences, and some research suggests that students adapt their learning styles with experimentation and practice. Yamauchi (2008) also suggests that more experienced learners are likely to possess more alternative ways to learn. Reid (1998) suggests that higher student achievement relates to a match between student learning styles and teacher teaching styles. “What has given rise to increasing interest in learning styles is that research points to the relationship between learning styles and teaching styles as being factor in the success of postsecondary students” (Jhaish, 2009 – 2010). According to Dunn (1995), students who are taught by an approach compatible with their learning do better than those whose learning styles are not matched to teaching approaches. Entwistle (1991) also suggests that academic success and failure in higher education is influenced by “the match between how material is presented and how students process it”. As a lot of studies conducted show that learning styles influence success in foreign language learning, it is important to raise awareness of the learners about it to improve their learning, but also the awareness of the teachers to improve their teaching styles and adjust it as much as possible to different styles of the learners. “A broad understanding of learning styles will enable students to take control of their learning and maximize their potential for learning. And a teacher, who truly understands culture and learning styles and believes that all students can learn, will offer opportunities for success to all students” (Reid, 1998).

#### 4. Research on the relationship between extroversion/introversion, perceptual learning styles and success in learning English as a foreign language

In this chapter the research conducted to explore whether personality traits (extroversion/introversion) and perceptual learning styles (visual, auditory and kinesthetic) are connected to success in learning English as a foreign language will be presented. The research aimed to determine which personality type and learning style would have a statistically significant correlation with success in learning English as a foreign language in primary school.

It is a good way to raise motivation by rewarding the learners who actively participate in class with a good grade. However, the introverted learners may still not be very talkative in class and the teachers may not be sure about their real knowledge. That is why learners' different personality types can sometimes make the teachers get a wrong perception of the learners' knowledge and abilities. The teacher can sometimes get an impression of an introverted learner as uninterested, unmotivated and unwilling to participate. Participation can often affect the learner's grade, especially when it is on the borderline. It is important for the language teachers to understand the individual differences among the learners, to be objective and to adjust their teaching to different learning styles, but also to improve communication in their classroom and help all the learners to become more successful in language learning.

##### 4.1. Aims of the study

The aims of this study are to explore the relationship between personality types (extraversion/introversion) and success in language learning, but also the relationship between learning styles (visual/auditory/kinesthetic) and language learning success. The main research questions are: What is the relationship between personality types and success in foreign language learning? What is the relationship between learning styles and success in foreign language learning? In what way are personality types and learning styles correlated to language learning success?

## 4.2. Participants

The participants of the research were 100 primary school learners. They were 7<sup>th</sup> and 8<sup>th</sup> graders. They had all been learning English from the 1<sup>st</sup> grade. Their language learning success in general can be seen from the Figure 1 which shows the frequency of their grades in English from the previous school year.

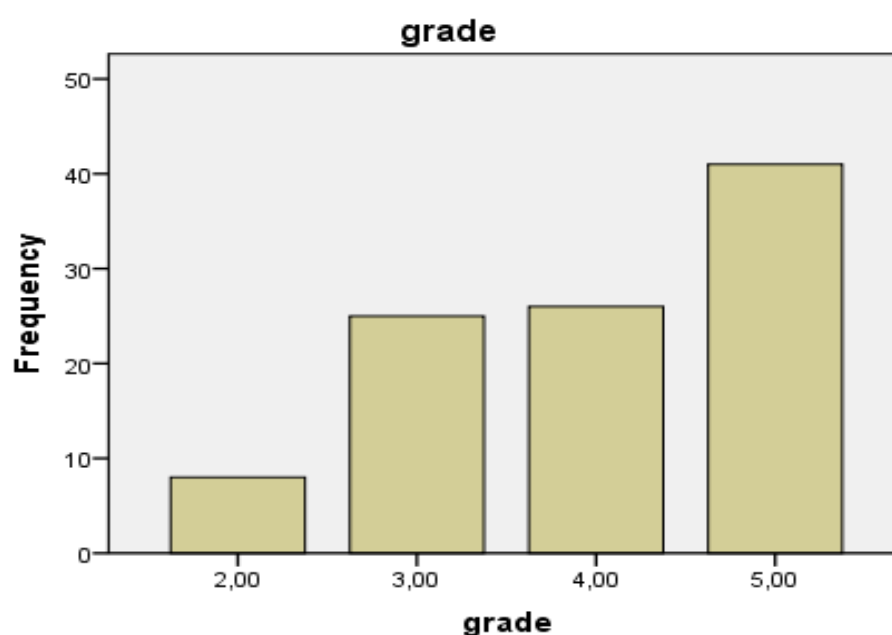


Figure 1: Grades in English

As can be seen from the Table 1, only 8% of the learners had a 2 in English, 25% a 3, 26% a 4, and 41% had a 5 last year. This means that 67% of the learners have good grades in English (4 and 5) and that they are generally successful language learners.

Table 1: Grades in English

	Frequency	Percent	Valid Percent	Cumulative Percent
2.00	8	8.0	8.0	8.0
3.00	25	25.0	25.0	33.0
Valid 4.00	26	26.0	26.0	59.0
5.00	41	41.0	41.0	100.0
Total	100	100.0	100.0	

Table 2 shows the average grade in English across the sample.

Table 2: Descriptives for grades

	N	Minimum	Maximum	Mean	Std. Deviation
Grade	100	2.00	5.00	4.0000	.99494
Valid N (listwise)	100				

Descriptive statistics shows, as can be seen from the Table 2, that the minimal grade in English from the previous school year is 2.00, while maximal grade is 5.00. The average grade in English is 4.00, which means that they are generally very good in English.

### 4.3. Instruments

The instruments used for this research were taken from a battery of instruments consisting of questionnaires which were measuring personality types and different learning styles: extroversion/introversion, visual/auditory/kinesthetic, sensing/intuition, field dependence/ field independence, global/analytic, impulsive/reflective, tolerance/intolerance of ambiguity and deductive/inductive. The instruments were designed by Andrew D. Cohen, Rebecca L. Oxford, and Julie C. Chi (2001) to assess learners's general approach to learning. The battery consisted of 11 parts. The first part was called *How I use my physical senses* and

referred to perceptual (visual, auditory and kinesthetic) learning styles. The second part was called *How I expose myself to learning situations* and referred to extraversion and introversion. The other nine parts were called *How I handle possibilities*, *How I approach tasks*, *How I receive information*, *How I further process information*, *How I commit material to memory*, *How I deal with language rules*, *How I deal with multiple inputs*, *How I deal with response time*, and *How I literally take reality*. The first two parts were taken for the purpose of this research. The first part called *How I use my physical senses* was a 30-item learning styles questionnaire which consisted of 10 items for each learning style (10 items for visual, 10 for auditory and 10 for kinesthetic learning style). The items were mixed and translated into Croatian. The internal consistency of reliability of the learning styles questionnaire (Cronbach's alpha) is 0.6. The second part called *How I expose myself to learning situations* was a 12-item personality questionnaire which consisted of 6 items for extraversion and 6 items for introversion. The internal consistency of reliability of that questionnaire was 0.55. These items were also translated into Croatian. There was also a five-point scale for each questionnaire in which 1 means never, 2 rarely, 3 usually, 4 often and 5 always. There was one special question to determine success of the participants in language learning: "What was your grade in English last year?"

#### 4.4. Procedure

The learners were given questionnaires to complete. It took them about ten minutes to do that. The data collected from the learners were analyzed by using IBM SPSS 20. After entering all the data, there were three variables to analyze: grades in English from the last school year, personality, and learning styles. Descriptives were used to determine the mean for personality types, but also for the learning styles, to determine the distribution of personality type and learning style across the sample. After that, Pearson correlation was used to determine the relationship between personality types and grades in English, but also between learning styles and grades.

## 4.5. Results

Descriptive statistics shows, as can be seen from the Table 3, that the mean for extraversion is 3. 2733 and for introversion 3. 4733. This means that the learners are generally slightly more introverted.

Table 3: Descriptives for personality

	N	Minimum	Maximum	Mean	Std. Deviation
extroversion	100	1.33	4.50	3.2733	.68186
Introversion	100	1.67	4.67	3.4733	.54881
Valid N (listwise)	100				

Table 4 shows which learning style is the most and which the least common among the learners in general.

Table 4: Descriptives for learning styles

	N	Minimum	Maximum	Mean	Std. Deviation
Visual	100	1.90	4.10	3.0560	.45800
Auditory	100	2.10	4.80	3.4380	.53782
kinesthetic	100	1.00	4.50	2.5550	.66612
Valid N (listwise)	100				

As can be seen from Table 4, the mean for the visual learning style is 3. 0560, for auditory 3. 4380 and for kinesthetic 2. 5550. This means that the auditory learning style is the most common among the learners in general, then follows visual, and then kinesthetic.

Table 5 shows the results of the correlation analysis between grades and personality types.

Table 5: Correlation between personality types and grades.

	Grade
Pearson Correlation	-.047
extroversion Sig. (2-tailed)	.641
N	100
Pearson Correlation	.059
introversion Sig. (2-tailed)	.563
N	100

As can be seen from the Table 5, there is no statistically significant correlation between any of the personality types and grades in English. This means that there is no relationship between personality types and grades in English.

Table 6 shows the correlations between learning styles and grades in English.

Table 6: Correlation between learning styles and grades in English

	Grade
Pearson Correlation	.067
Visual Sig. (2-tailed)	.511
N	100
Pearson Correlation	.183
Auditory Sig. (2-tailed)	.068
N	100
Pearson Correlation	-.059
Kinesthetic Sig. (2-tailed)	.557
N	100

As can be seen from the Table 6, there is also no statistically significant correlation between any of the learning styles and grades in English. This means that there is also no relationship between learning styles and grades in English.

#### 4.6. Discussion

Although it is assumed that there are much more extroverts than introverts in population, descriptive statistics has shown that the learners who participated in this research are generally slightly more introverted. It is a bit surprising that, according to descriptive statistics, the learners are mostly auditory types because it is usually expected there are mostly visual types in general. It is also quite surprising that the results in this research show that there is neither significant correlation between personality types and grades in English nor between learning styles and grades. This means that there are no more or less successful personality types as there are no wrong or right learning styles. Visual learners, for example, can get easily confused if they do not have any visual backup for lectures or oral directions. On the other hand, auditory learners do not need visual backup, but they can have difficulties with written work. Kinesthetic learners get the most easily nervous if they have to sit still for a long time, while for the other students it would not be a problem and some of them would not like having to move around a lot, etc. Learning styles are important for success in foreign language learning, but not in a way that one learning style is superior over the others. According to Reid (1998), learning styles are value-neutral; that is, no one style is better than others. Not every learning style is applicable to all learning situations. Most researchers agree that more successful learners are those who combine more learning styles and not only one, so that they take advantages of each. Moreover, very few people depend on only one learning style. Some researchers also suggest that more successful learners are those whose learning styles are similar to the teacher's teaching styles. According to Reid (1998), teachers should allow their students to become aware of their strengths and weakness and students must be encouraged to "stretch" their learning styles so that they will be more empowered in a variety of situations. It is important for the learners to be aware of their learning style, their advantages and how to combine them. All personality types and learning styles are equally worth, but the learners should be aware of the advantages of each learning style and personality type. Each personality type, as well as each learning style has its advantages and

disadvantages. There is no personality type which could be described as more successful in every way as there are no completely right or wrong ways of learning. Moreover, not only one or two factors determine complete success in foreign language learning. In addition, personality is also not determined by extroversion and introversion only, but also other dimensions like self-esteem, inhibition, empathy, anxiety level and readiness to take risk, which may to some extent have an impact on language learning success.

As already mentioned, the results of the studies relating to the relationship between personality and language learning success have often been diverse. Even the results from this research can not be completely reliable. Cronbach's alfa of the learning styles questionnaire is 0.6, while that of the personality questionnaire is 0.55. This means that the internal consistency of reliability of both questionnaires is quite low and even questionable, especially that of the personality questionnaire. Cronbach's alfa of the personality questionnaire is even lower due to the smaller number of items. Personality can not really be determined by the questionnaire consisting of 6 items for each personality type. The problem is also whether the participants were really honest in their answers. For example, they may also not always be sure whether to answer with "sometimes", "often" or "always".

Another interesting fact from this research is the success of the participants. The research showed that most of them are very successful language learners. 41% of them have a 5 and 26% a 4, which means that totally 67% of them have good grades in English. Descriptive statistics shows that their average grade in English from the previous school year is 4.00. It is usually expected that most learners have an average achievement, but these participants are mostly above average. According to statistics, they are generally successful language learners. The question is whether this is a realistic picture of their success or not. This research can not tell anything about the real knowledge that stands behind the grades of the participants, but further research may deal with the relationship between the grades and knowledge of English.

## 5. Conclusion

This research was conducted in order to explore the relationship between personality types (extraversion/introversion) and success in foreign language learning as well as between perceptual learning styles (visual/auditory/kinesthetic) and success and also to determine in

what way personality and learning styles influence success in language learning. The research showed that there is neither significant relationship between personality types and success in foreign language learning nor between language learning styles and language learning success. However, personality and learning styles are important for language learning success, but there is no learning style or personality type which is superior over the others. Each personality type and learning style has its advantages necessary for success in language learning. The learners should be aware of the advantages of each personality type and learning style in order to improve their learning. They should also be encouraged to combine learning styles and not depend on one style only. Although there are generally no wrong or right learning styles, it is not possible to use only one style in all learning situations. Some researchers also suggest that more successful learners have multi-style preferences. The differences among the learners like personality or learning styles are only partially due to nature and partially due to external factors. This means that these characteristics are not fixed and unchangeable. It is possible to improve them by working on them. The teachers should not have prejudices towards the learners. If necessary, they should conduct research in their classes to get to know their learners better and be aware of individual differences of their learners in order to organize their teaching better and provide instruction which would be acceptable to all learners. They should use varieties of teaching methods, techniques and aids. The teachers could give all learners opportunity for success in that way.

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