

Relationship between personality types and academic performance in class X CBSE exams

Vanshaj Vohra^{1*}

ABSTRACT

Every year, more than 1.8 million students appear for the All India Secondary School Examination (AISSE) or more popularly known as the Class X board exam. There is a lot of focus on performing well in these exams, which is complimented by an equal amount of stress and pressure. Everyone from students, parents, teachers, relatives to educational institutions recognises these exams as a critical academic milestone in a student's life. With the desire to dissect this enigma at the grassroots level, an exercise was undertaken to see if there exists a relation between the personality type of a student and his academic performance. A study was conducted with the intent of providing a unique approach to students looking to improve their grades. There are many resources available that focus purely on academics, like tutorials on subjects, notes or sample question papers, to name a few. This study focuses on the psychological aspect of this challenge. For this study, the Myers Briggs Test Indicator (MBTI) personality types test was chosen, and school students were surveyed for sample data. Over 100 students in grades 11 and 12, belonging to different socio-economic backgrounds, were surveyed. Different personality types were mapped with their class X academic performance with the intent of finding a trend in the subject-wise performance. The five subjects taken into account for this study are English, Mathematics, General Science, Social Science and Second Language. Students can find out their own MBTI personality types online and then look at the results for their personality types and consequently, improve their grades. They must understand their strengths and weaknesses to get better grades in their class 10 examinations. Overall, the primary objective of this study is to make students better prepared for their board exams and take some pressure off them.

Keywords: MBTI, CBSE, Boards, Class X, Academic Performance

Every year, more than 1.8 million students appear for the All India Secondary School Examination (AISSE) or more popularly known as the Class X board exam. The Central Board of Secondary Education organises these tests all over the country. It is a lifetime experience for everyone taking it. There is a focus on performing well in these exams, which is followed by an equal amount of stress and pressure.

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Relationship between Personality Types and Academic Performance in Class X CBSE Exams

In recent years, due to an increase in population and more importantly, competition, the ‘fear factor’ surrounding these tests has also grown. Everyone from students, parents, teachers, relatives to educational institutions recognises these exams as a critical academic milestone in a student’s life.

With the desire to dissect this enigma at the grassroots level, an exercise was undertaken to see if there exists a relation between the personality type of a student and his academic performance.

A study was conducted with the intent of providing a unique approach to students looking to improve their grades. There are many resources available that focus purely on academics, like tutorials on subjects, notes or sample question papers, to name a few. This study focuses on the psychological aspect of this challenge.

For this study, the Myers Briggs Test Indicator (MBTI) personality types test was chosen, and school students were surveyed for sample data. Over 100 students in grades 11 and 12, belonging to different socio-economic backgrounds, were surveyed. Different personality types were mapped with their class X academic performance with the intent of finding a trend in the subject-wise performance. The five subjects taken into account for this study are English, Mathematics, General Science, Social Science and Second Language.

Students can find out their own MBTI personality types online and then look at the results for their personality types and consequently, improve their grades. They must understand their strengths and weaknesses to get better grades in their class 10 examinations. However, as with all studies and surveys, there is no proof that these relations are definitive. As can be seen, there are exceptions in each personality type that prove the trends wrong, so maybe a student is one of those. It should be used as a tool to augment the study strategy, and students must not take these results and conclusions as absolute truth. Overall, the primary objective of this study is to make students better prepared for their board exams.

METHODOLOGY

The original versions of the MBTI were constructed by two Americans, Kathrine Cook Briggs and her daughter Isabel Briggs Myers. The MBTI is based on the conceptual theory proposed by Swiss psychiatrist Carl Jung, who had speculated that people experience the world using four principal psychological functions – sensation, intuition, feeling, and thinking – and that one of these four functions is dominant for a person most of the time.

The four categories are :
[I]ntroversion/[E]xtraversion,
[S]ensing/[I]ntuition,
[T]hinking/[F]eeling,
[J]udging/[P]erception

Each person is said to have one preferred quality from each category, producing 16 unique types,

ISTJ	ISFJ	INFJ	INTJ
ISTP	ISFP	INFP	INTP
ESTP	ESFP	ENFP	ENTP
ESTJ	ESFJ	ENFJ	ENTJ

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I designed an online survey which consisted of three sections. The first section comprised of twenty questions to determine the personality type of the person answering the survey based on the MBTI test.

The second section comprised of questions regarding the student's previous academic performance. It had questions asking about their performance in the five subjects - English, math, general science, social science and the second language. It also had questions asking them about the subjects they found the easiest and the most difficult.

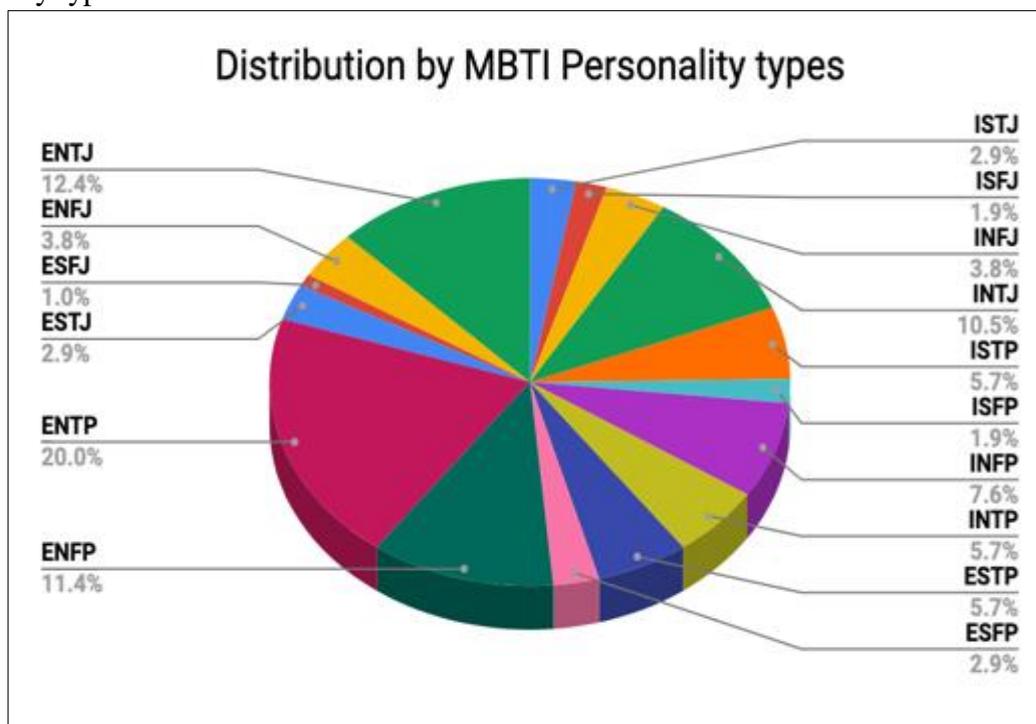
The third section comprised of one question - "Are both of your parents college graduates?" The following question was added to isolate the study from other factors that might affect a student's academic performance. A student might not be able to focus on his studies because he may be coming from an economically weak section or might have some other preoccupations which prevented him from scoring well in one set of exams. Hence, the trends have been calculated from the group of students whose parents are college graduates. A sample of 106 students currently studying in class XI and class XII who had already given their Class X exams were administered the online survey. The form can be found at <http://tiny.cc/personalitysurvey>.

Each response was mapped to an MBTI type and then all responses for an MBTI type were averaged and compared against the average of the complete sample to spot trends and relationships for each subject.

RESULTS

Distribution of Students across the Personality Types

It was observed that most of the students belong to the ENTP type, followed closely by the ENTJ personality group. Interestingly, only 1 student out of the sample was in ESFJ personality type.



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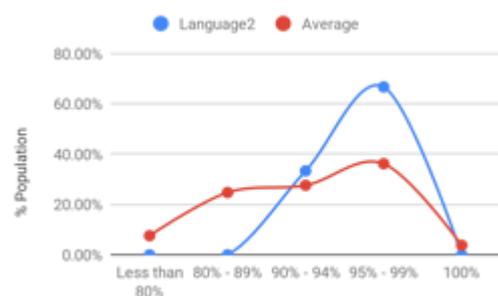
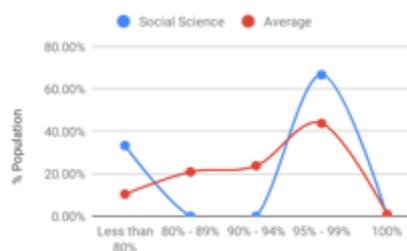
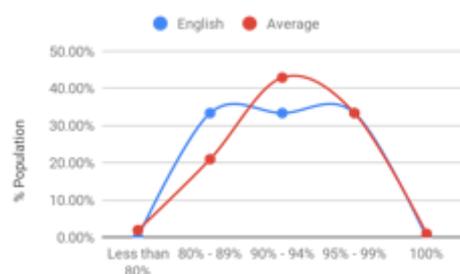
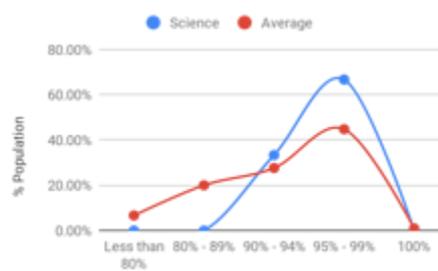
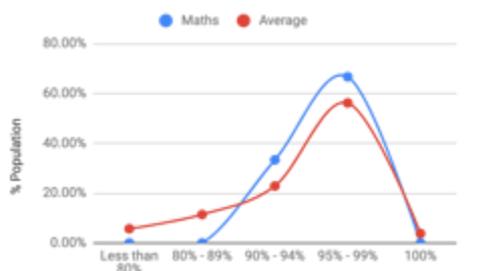
ISTJ Type Personality

ISTJs are individuals that are driven by facts and truth. They are practical and realistic. As they are driven by facts, they make for excellent analysts. They are known to be responsible and can be relied upon.

Better than Average: Science, Social Science, Language 2

Near to Average: Mathematics

Below Average: English



ISFJ Type Personality

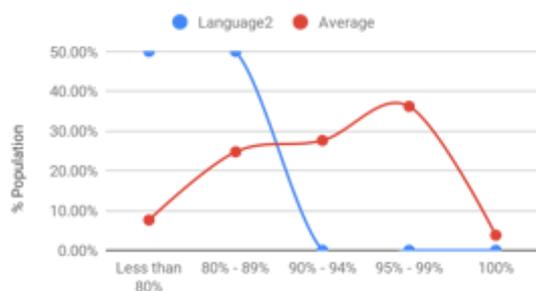
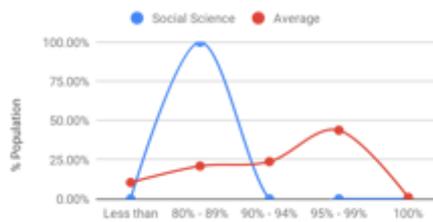
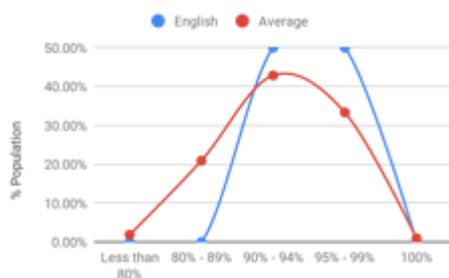
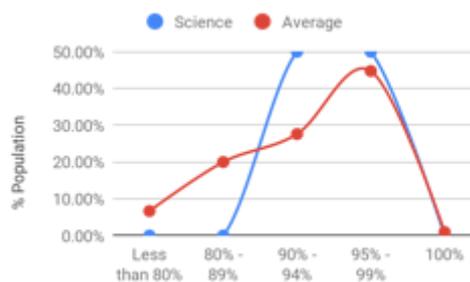
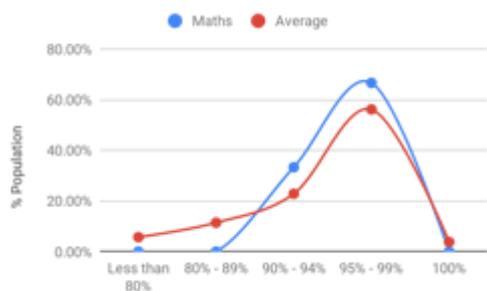
ISFJs are warm and generous individuals. They are sensitive and unselfish. They are empathetic and known to help, defend and uphold their loved ones. They can bring out the best in others.

Better than Average: Science, English

Near to Average: Mathematics

Below Average: Social Science, Language 2

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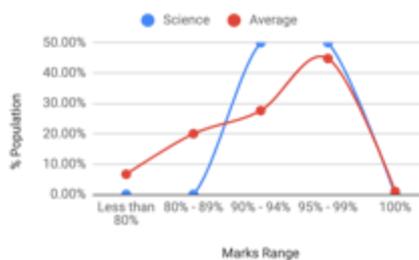
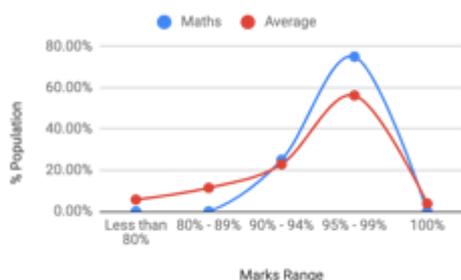
INFJ Type Personality

INFJs are visionaries who have a different and deep way of looking at the world around them. They can seem to be mystical in the way they challenge the conventional interpretation of things. They are idealists who are very imaginative as well as creative and can come up with brilliant ideas.

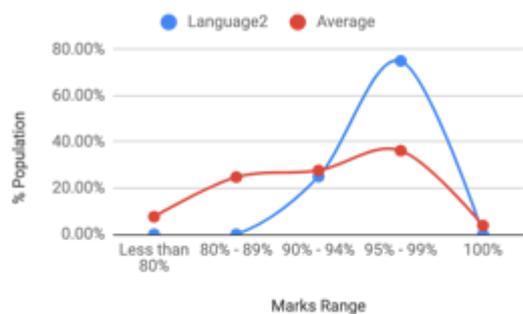
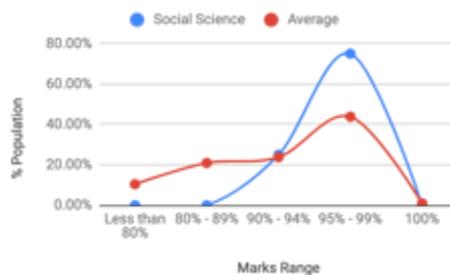
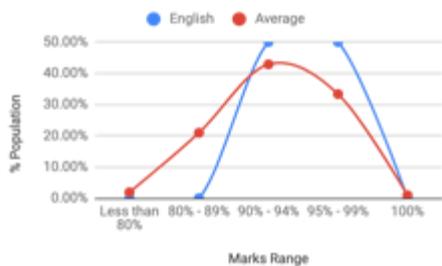
Better than Average: Mathematics, Science, Social Science, English, Language 2

Near to Average: None

Below Average: None



Relationship between Personality Types and Academic Performance in Class X CBSE Exams



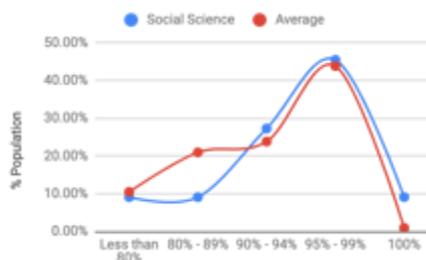
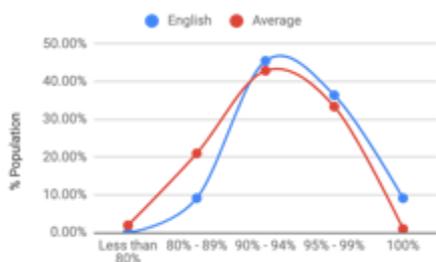
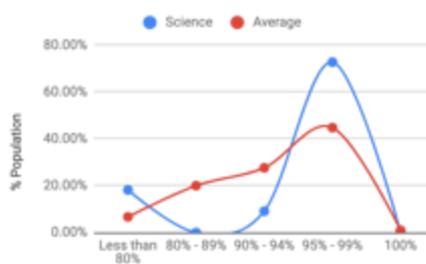
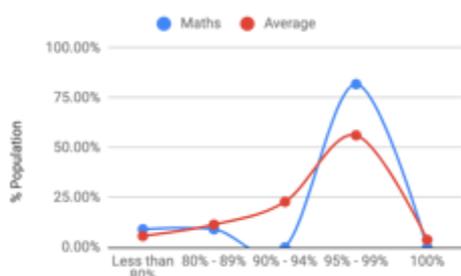
INTJ Type Personality

INTJs, are basically introverts who like to work alone rather than in a group. However, they are excellent at developing strategies and making plans. When observing the world they are always questioning why things happen the way they do.

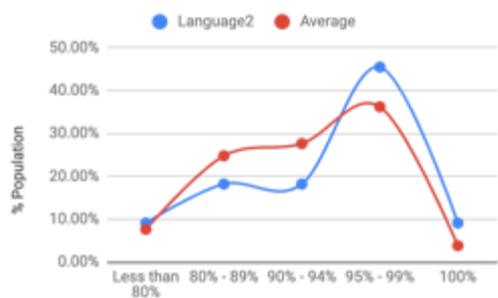
Better than Average: Mathematics, Science, Language 2

Near to Average: English, Social Science

Below Average:



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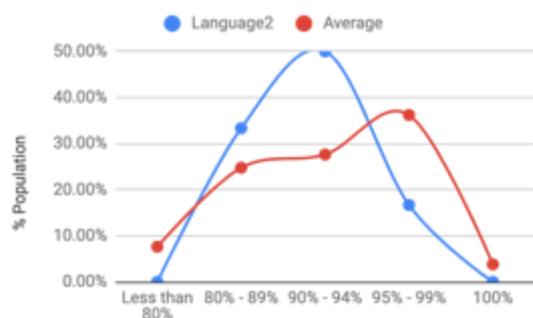
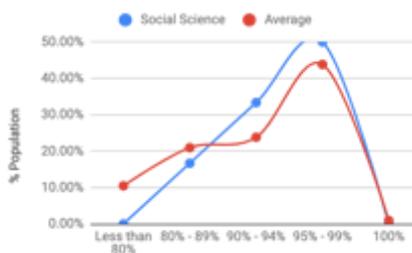
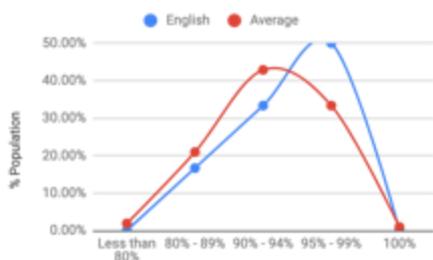
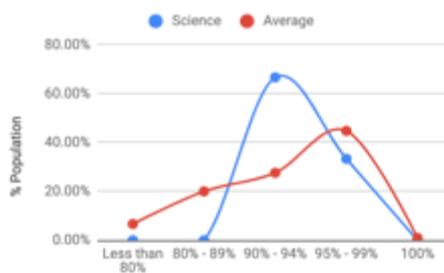
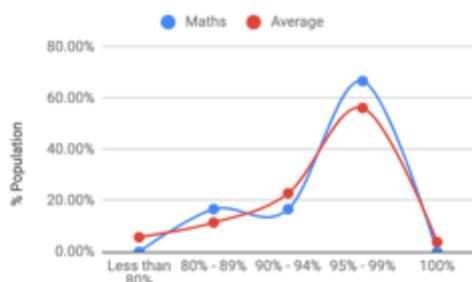
ISTP Type Personality

ISTPs personality individuals are usually very rational and logical. However, deep inside they are quite spontaneous, unpredictable and enthusiastic. Sometimes it can be difficult to recognize or anticipate their reactions.

Better than Average: Science, Social Science, English

Near to Average: Mathematics

Below Average: Language 2



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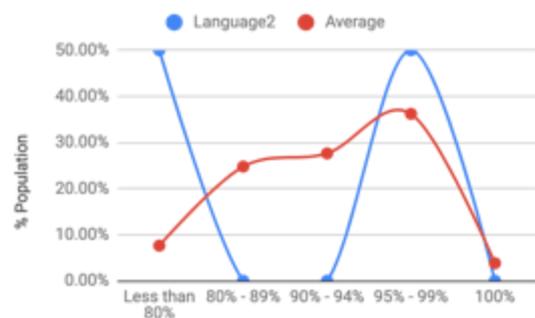
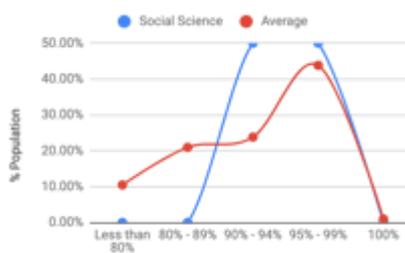
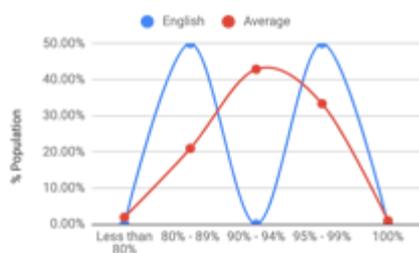
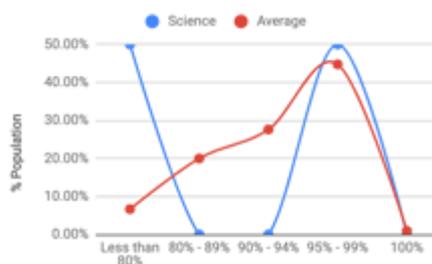
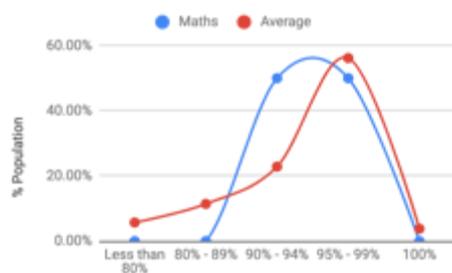
ISFP Type Personality

Although introverts, ISFP can connect with people and become good friends eventually. They are fun loving and like to live their life to the fullest. They are warm and friendly.

Better than Average: Social Science, English

Near to Average: Mathematics

Below Average: Science, Language 2



INFP Type Personality

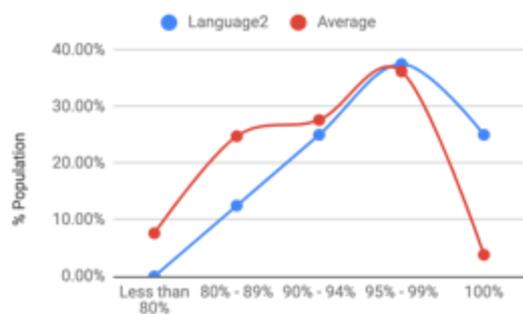
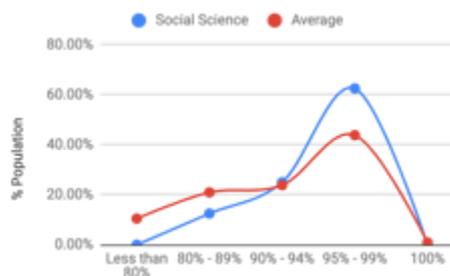
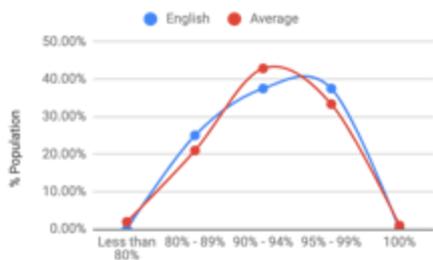
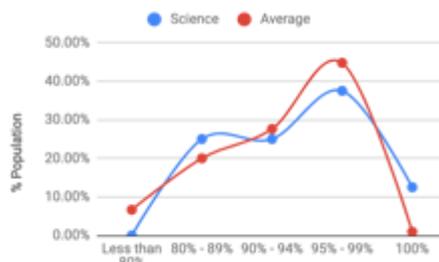
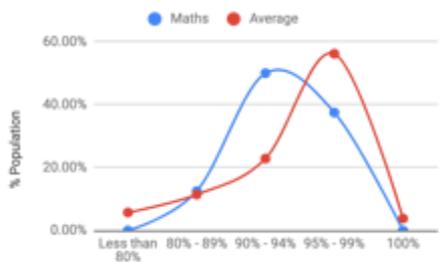
INFPs are introverts who like to remain aloof. They like to spend time alone analyzing situations and are searching for deep meanings in things around them. Many at times you will find them lost in their imaginative world deep in their thoughts and fantasies.

Better than Average: Social Science, Language 2

Near to Average: Science, English

Below Average: Mathematics

Relationship between Personality Types and Academic Performance in Class X CBSE Exams



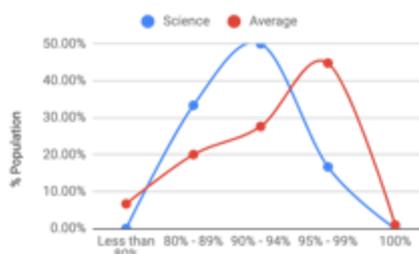
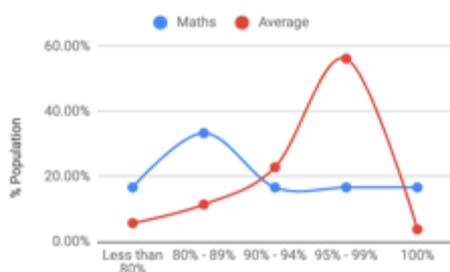
INTP Type Personality

INTPs are known as the logicians for their brilliant sense of logic. They are innovators whose creative genius thrives in the right kind of environment.

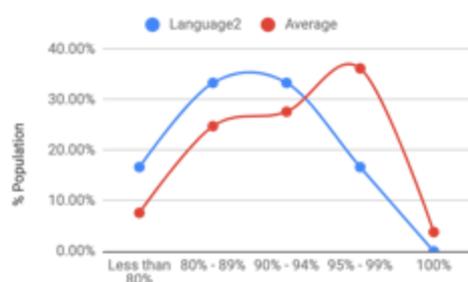
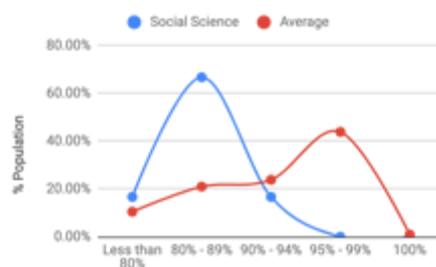
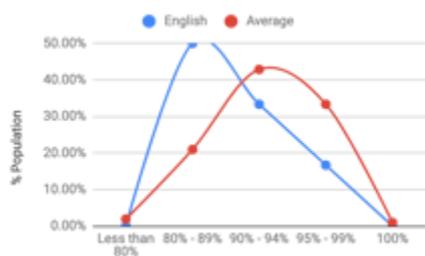
Better than Average: None

Near to Average: Language 2

Below Average: Mathematics, Social Science, English, Science



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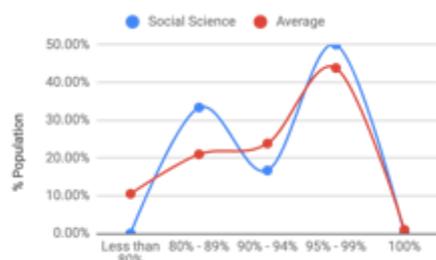
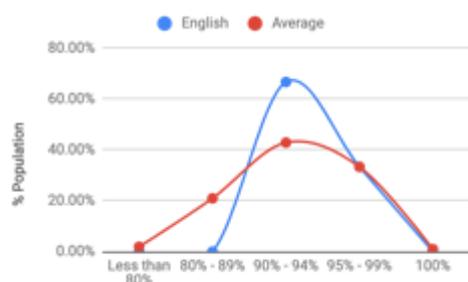
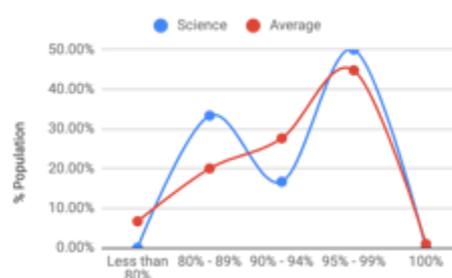
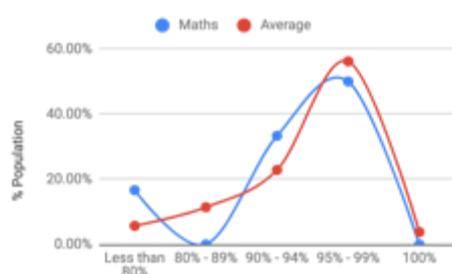
ESTP Type Personality

ESTPs are lively personalities that like to have an active social life. They like to go with the flow and would like to start something rather than wait for the complete fool proof plan. They are logical with a good sense of reasoning.

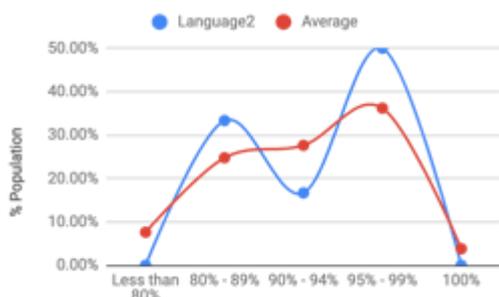
Better than Average: English, Social Science, Language 2

Near to Average: Mathematics, Science

Below Average: None



Relationship between Personality Types and Academic Performance in Class X CBSE Exams



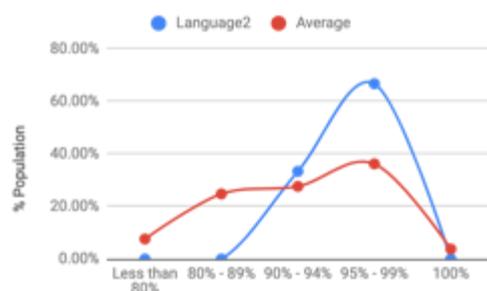
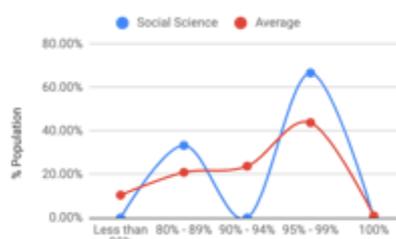
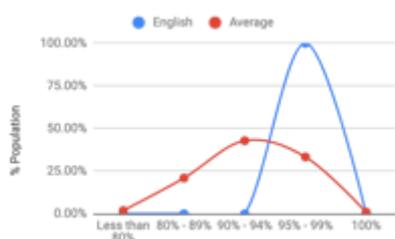
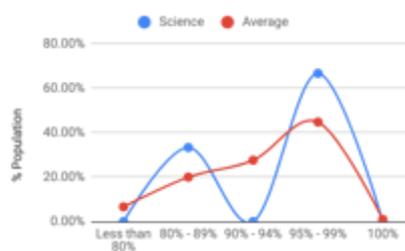
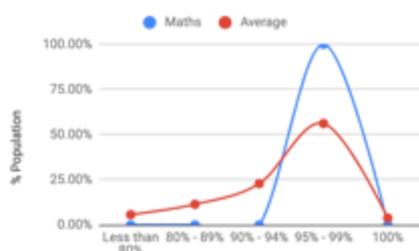
ESFP Type Personality

ESFPs are extroverts who love to take center stage and enjoy the spotlight. They enjoy being the center of attraction and have strong interpersonal skills. Overall, they are warm, generous and empathetic.

Better than Average: Mathematics, Science, English, Social Science, Language 2

Near to Average: None

Below Average: None



Relationship between Personality Types and Academic Performance in Class X CBSE Exams

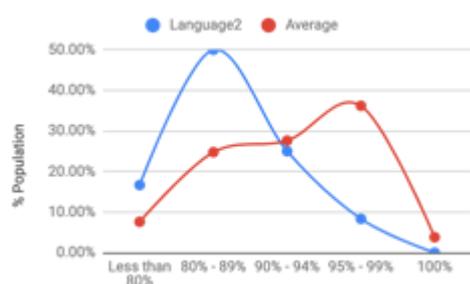
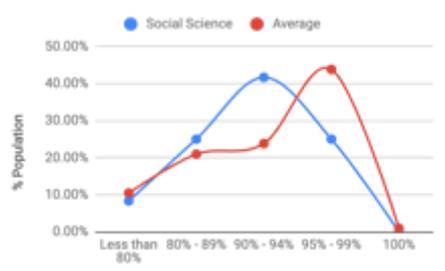
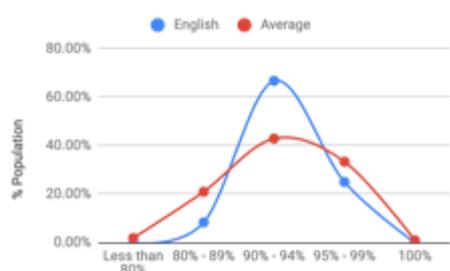
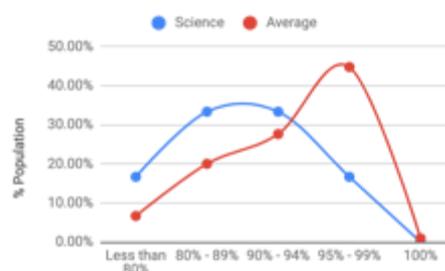
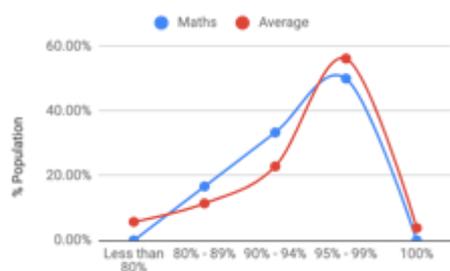
ENFP Type Personality

ENFPs are extroverts with strong individual traits. Highly perceptive, they go by their instincts and feelings most of the time. They do not like conventional thinking and try to find out of box solutions to problems.

Better than Average: English

Near to Average: Mathematics,

Below Average: Science, Social Science, Language 2



ENTP Type Personality

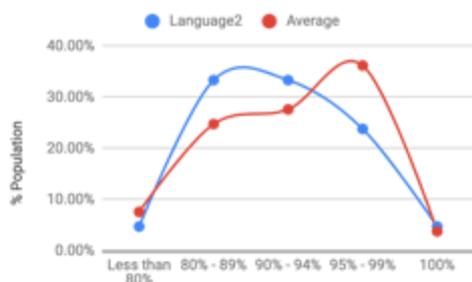
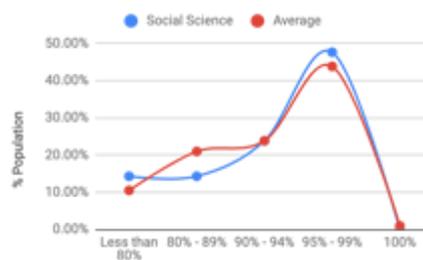
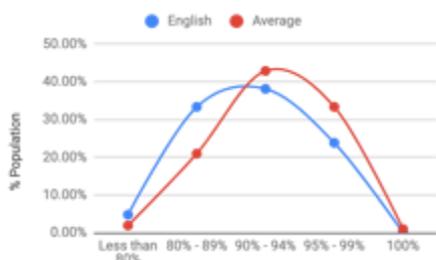
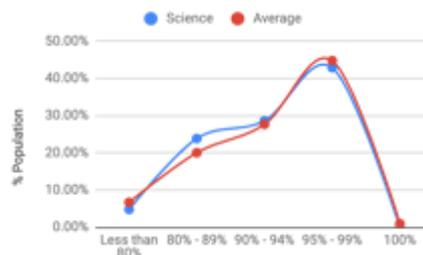
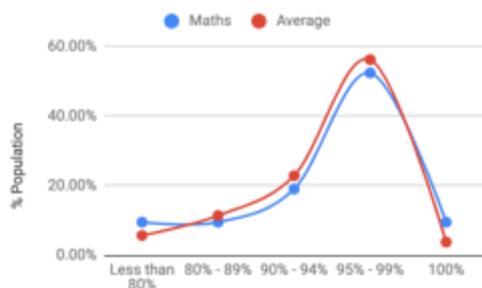
ENTP personalities are the smart and curious types that love to engage in logical and rational discussions. Though extroverts, they do not like social situations that do not challenge their intellect.

Better than Average: None

Near to Average: Science, Social Science

Below Average: Mathematics (slightly), English, Language 2

Relationship between Personality Types and Academic Performance in Class X CBSE Exams



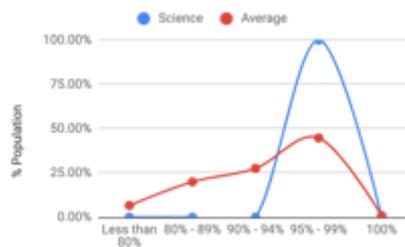
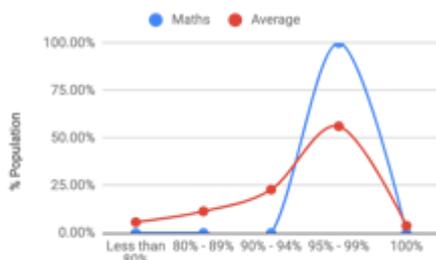
ESTJ Type Personality

ESTJs are excellent administrators. They exhibit leadership qualities and have good organizational skills. They manage teams and people well and are often looked up to for guidance and counsel.

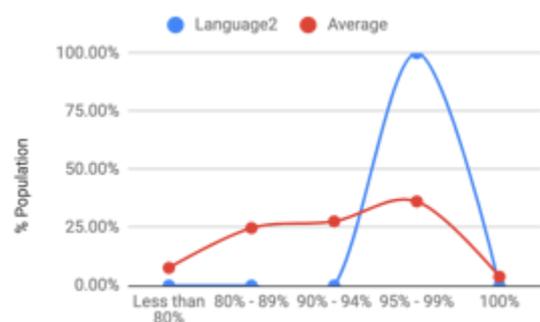
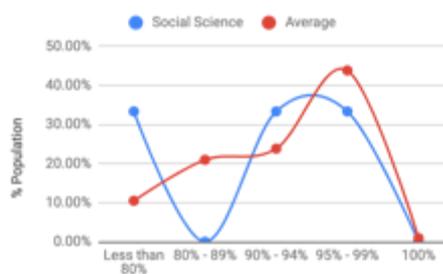
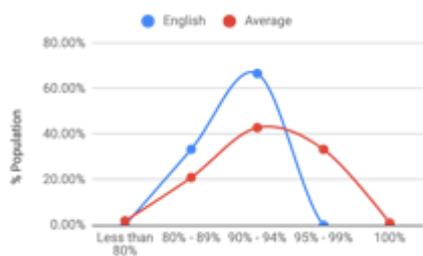
Better than Average: Mathematics, Science, Language 2

Near to Average: None

Below Average: English, Social Science

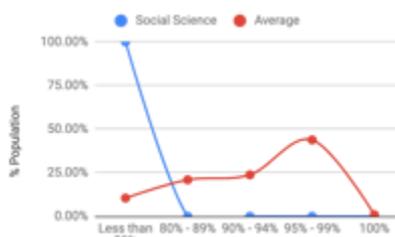
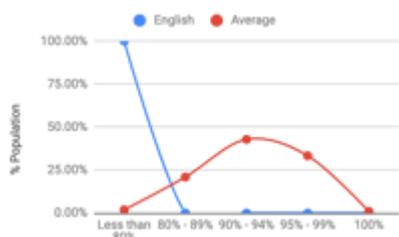
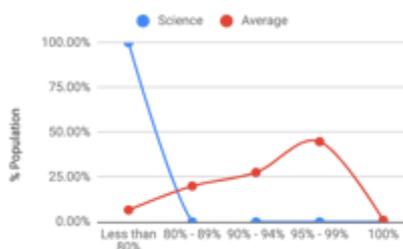
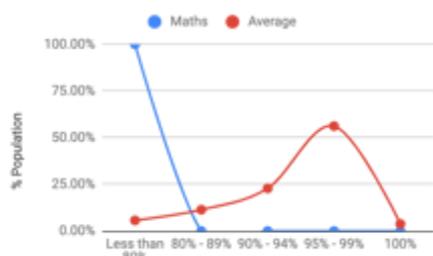


Relationship between Personality Types and Academic Performance in Class X CBSE Exams



ESFJ Type Personality

ESFJs personalities are the typical extroverts. They are usually very popular and liked by one and all. **The sample size was too small to get meaningful results.**



Relationship between Personality Types and Academic Performance in Class X CBSE Exams

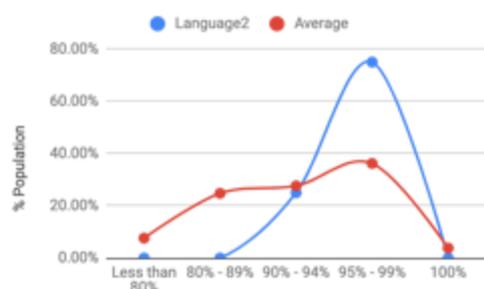
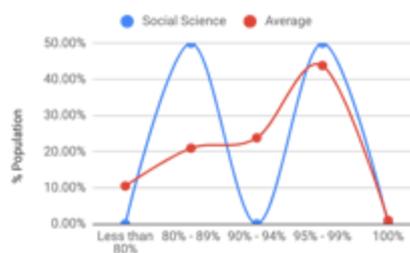
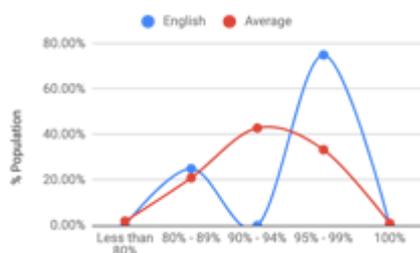
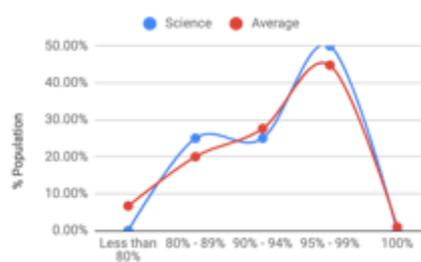
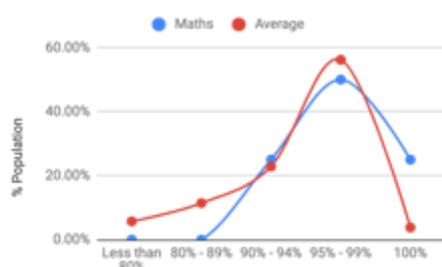
ENFJ Type Personality

ENFJs are charismatic personalities that can hold their audience captive. They can connect with people of various other personalities and backgrounds. They are highly imaginative and often think about the endless possibilities that the future holds rather than living in the present.

Better than Average: English, Language 2

Near to Average: Mathematics, Science

Below Average: Social Science



ENTJ Type Personality

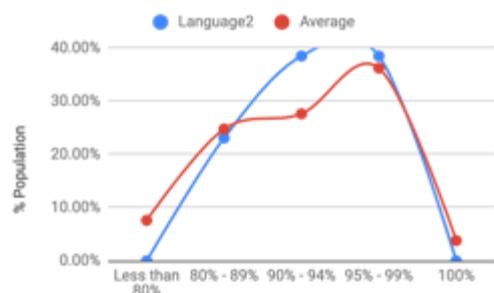
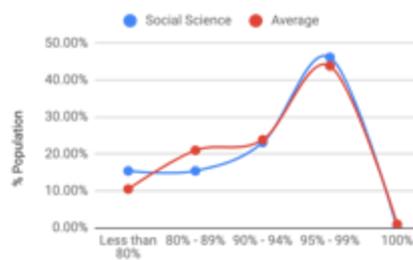
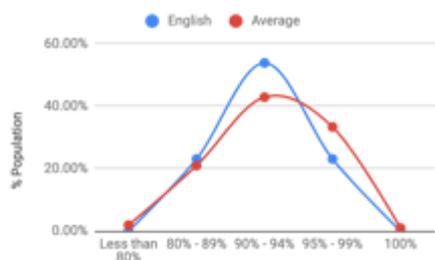
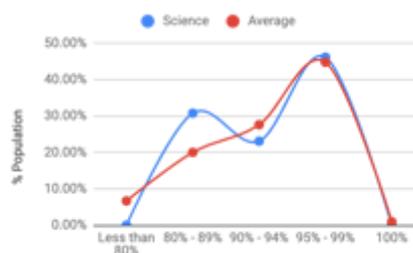
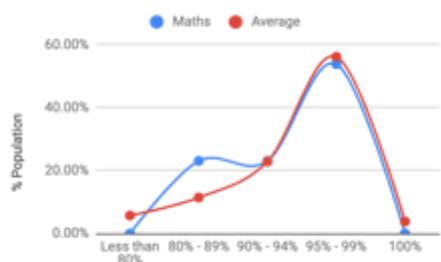
The ENTJ's are the best leaders amongst all the 16 personality types. They are bold, imaginative and strong willed. They often end up taking charge in a situation and driving people and taking decisions.

Better than Average: Language 2

Near to Average: Mathematics, Science, English, Social Science

Below Average: None

Relationship between Personality Types and Academic Performance in Class X CBSE Exams



CONCLUSIONS

It is essential to understand that this study is based on a sample of a little over 100 students. The results and conclusions seen at best indicate some trends and should not be taken as absolute truths. Each personality type has exceptions to the rule, and a student may be one of them. The results should be used to augment a preparation strategy, but the entire plan should not be based on this study alone. Every student knows his strengths and weaknesses and can use these results and conclusions as they deem fit.

The table below summarises the results of the study. For each subject in the first column, the relative strength is given for each MBTI type in the following columns.

1. A Green marker indicates the strength
2. A Red marker indicates relative weakness and indicates an area for improvement
3. A Yellow marker indicates an area where the MBTI group is not weak, but neither is it strong as compared to others. Can be a focus area for improvement as well.

Note that ESFJ type has been excluded from the analysis as the sample size for that particular MBTI group was very small, and no definitive trends were seen.

Relationship between Personality Types and Academic Performance in Class X CBSE Exams

Subject / MBTI	ISTJ	ISFJ	INFJ	INTJ	ISTP	ISFP	INFP	INTP	ESTP	ESFP	ENFP	ENTP	ESTJ	ENFJ	ENTJ
Mathematics	Yellow	Yellow	Green	Green	Yellow	Yellow	Red	Red	Yellow	Green	Yellow	Yellow	Green	Yellow	Yellow
Science	Green	Green	Green	Green	Green	Red	Yellow	Red	Yellow	Green	Red	Yellow	Green	Yellow	Yellow
English	Red	Green	Green	Yellow	Green	Green	Yellow	Red	Green	Green	Green	Red	Red	Green	Yellow
Social Science	Green	Red	Green	Yellow	Green	Green	Green	Red	Green	Green	Red	Yellow	Red	Red	Yellow
Language 2	Green	Red	Green	Green	Red	Red	Green	Yellow	Green	Green	Red	Red	Green	Green	Green

Mathematics seems to be a potential area of improvement for most types. Only INFJ, INTJ, ESFP and ESTJ seem to be strong in mathematics. All other types should focus on the subject and can potentially improve their scores. INFP and INTP types especially need to pay attention to mathematics.

Science emerged as a strength for 7 out of the 15 types. It is an area for focus for ISFP, INTP, ENFP types the most.

English is significantly weaker for ISTJ, INTP, ENTP and ESTJ. They should focus more on English to improve their overall scores.

Social Science along with the Second language was rated weak in maximum types, 5 out of 15 types. At the same time, the Second language was also the strength area for the maximum 9 out of the 15 types, so the second language showed extreme behaviour. While Social science is a focus area for ISFJ, INTP, ENFP, ESTJ and ENFJ personality types.

Second Language is an area for improvement for ISFJ, ISTP, ISFP, ENFP and ENTP personality types.

As far as personality types go, **INFJ** scored consistently higher than the others in all five subjects. Their trends were significantly higher than the average trend. Similarly, **ESFP** scored higher than average in all five subjects. However, out of the five subjects, Science and Social Science were only a little above the average so this could be an area where some improvement could be achieved.

ESTP types have the potential to achieve more if they can improve slightly in Mathematics and Science. They are already strong in Social Science, English and Second language, and compare well to average trends in Mathematics and Science.

INTP types need to focus on all subjects except the second language. They should pick the subject they feel they are most comfortable and start with it.

ENTJ types are doing well but can slip down if they lose focus on any subject. They need to keep on pushing so that they can improve and not go below the average. They are similar to average trends in four core subjects and only stronger than average in the second language.

Relationship between Personality Types and Academic Performance in Class X CBSE Exams

ENTP are also precariously placed as they almost all subjects identified as average or below average with none above average. Special focus should be given to languages - English and second language.

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Conflict of Interest

The author declared no conflict of interests.

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