

The Responses and Attitudes of the University of Nottingham Students toward Learning Styles

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Abstract

This research was carried out to add to the current literature on learning styles by explaining various understandings of the topic and the previous research on it. Studies and information on learning styles and strategies are abundant, and the need for more research stems from the recent move towards student-centered classes. This paper is an attempt to do more specific research on the subject and answer the question of what the correlations are between learning styles and different factors such as gender and learner's cultural background. This study was conducted at the University of Nottingham. Seventy students have participated in the survey, 34 males and 36 females. The participants' nationalities were mixed, which was essential for the study; Kurdish (20%), British (40%), European States (10%) and Asian (17.1%). The questionnaire results were analysed by using IBM SPSS Statistics 21 software. Frequency tests, Correlation analysis, T-Tests, and One-way ANOVA test of the available data were studied. The findings show that Kurdish learners are auditory learners compared to other nationalities. Also, the study showed that language learners are more visually inclined learners than learners from the other majors. Finally, future researchers may expand on the findings of this paper by getting a larger sample.

Keywords: attitudes, gender, learning, learning styles, nationality, responses, strategies

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Introduction

The interest in examining learning styles differs from one field to the other. For instance, in psychology, the interest in learning styles started earlier in the 1920s when the prominent psychologist Carl Jung wrote his theory regarding the psychological types, which became the foundation of studying learning styles. However, in education, the interest started much later in the 1970s.

Students preferentially process learning in different ways, such as seeing and hearing, acting, and analysing. Every student has a unique and different learning style, enabling them to fit best within the learning environment. Research has shown that many students have learning styles that vary in psychological dimensions, and such individual varieties may influence many types of mental operations. As a result, learners may learn through different methods and under different conditions. For instance, visual learners learn through seeing; they are facilitator/instructor dependent, and they obtain knowledge through non-verbal gestures. Auditory-style learners absorb information through hearing and vocalising information. These learners primarily obtain knowledge by hearing, and they may comprehend auditory information better than written information (Gilakjani, 2012).

Learning styles occupy a vast space in academia as there is a belief that these studies may assist learners in deciding the best strategies that work for them as exploring such differences is essential. As will be explained in the following parts of this article, learners are different, and many factors like gender or intelligence affect their learning preferences. This research aims to identify the responses and attitudes among students at the University of Nottingham regarding learning styles and determine the learners' perceived preferred ones. Also, the correlation between learning styles and gender will be examined. Furthermore, the participants from different backgrounds will be examined regarding the learning style they believe they possess. The results will be obtained through SPSS's technical procedures and discussed with the research literature in this area.

This paper will answer the following questions: what is the correlation between learning styles and the field of study? What is the correlation between learning styles and nationality? What is the correlation between learning styles and gender?

Literature Review

Learning Styles Concept

Researchers have defined learning styles, and mostly the definitions share some characteristics. Sadeghi, Kasim, Tan, and Abdullah (2012) have defined learning *styles* as various approaches used by language learners or any other learner to learn a new language, for instance, visual or auditory. Sadeghi et al. elaborated that different learning styles give the learner a sense of direction and set the behaviour one adapts to the learning process. Wong and Nunan (2011) has asserted that learning style is a term used for the ways a learner employs to learn new information or skills. The learner uses the ways they prefer or is used to in learning. According to Wong and Nunan, the learner uses learning styles regardless of the subject, and they are relatively unchanged.

According to Cimermanová (2018), learning styles are merely characteristics learners consider when choosing learning strategies. Cimermanova has stated that learners do not stick with one style; instead, they possess more than one. However, although learners have a profile of learning styles, dominant styles are used in most situations. Lee and Kim (2014) have defined learning *styles* based on previous research as the way a language learner “receives, retains, and retrieves new information, knowledge, and skills” (p. 119) in different situations in the language learning process. Lee and Kim elaborate by saying that a learning style may be nature or nurture, meaning that the learner might possess a learning style naturally, or the learning style might be learnt through nurturing.

In Sadeghi et al. (2012) and Wong and Nunan (2011), learning styles have been categorised into three major parts. The first category of learning styles is cognitive style. The cognitive style consists of reflective versus impulsive, analytic versus global, field-independent versus field dependent. The second category of learning styles is the sensory learning style. Cassidy, Kreitner, and Kreitner (2010) have agreed with Sadeghi et al. in sub-categorising this category to “a) perceptual learning styles: Auditory learner, Visual learner, Tactile learner, Kinesthetic learner, and Haptic learner; b) Environmental learning styles: Physical vs. Sociological learner” (Sadeghi, 2012, p. 117). The third learning styles category is called personality learning styles. This category consists of “Extroversion vs. Introversion; Sensing vs. Perception; Thinking vs. Feeling; Judging vs. Perceiving; Ambiguity-tolerant vs. Ambiguity-intolerant; and Left-brained vs. Right-brained learners” (p. 117).

The Difference between Learning Styles and Learning Strategies

To learn the differences between learning styles and learning strategies, a description of learning strategies is needed. Widharyanto and Binawan (2020) has stated that the “main categories of language learning strategies; they are memory strategy, cognitive strategy, compensation strategy, metacognitive strategy, effective strategy, and social strategy” (p. 481). According to Widharyanto and Binawan, these learning strategies have been divided into two different groups, direct and indirect, “The direct strategy consists of memory strategy, cognitive strategy, and compensation strategy. The indirect strategy involves metacognitive strategy, effective strategy, and social strategy” (p. 481). The first group is called direct, directly related to using the language. Since it is indirectly related to the use of the language, the second group is called the indirect strategy group.

Researchers have distinguished between what learning styles constitute and the various strategies; although the differences might be unclear for a reader, it is important to point them out. According to Oxford (2003) who is a seminal figure in research on language learning, especially learning style and strategies, a learner’s preferred way of learning is related to style. On the other hand, the strategies of learning are the specific steps learners undertake to learn new information or skills. Based on her analysis, it can be said that learning styles, to a certain extent, are subconscious decisions while choosing the learning strategies are conscious decisions by the learner. For instance, a learner might have a sensory learning style without knowing why. However, s/he then controls what actions are needed to learn the new information, “the learner consciously chooses strategies that fit his or her learning style and the L2 task at hand, these strategies become a useful toolkit for active, conscious, and purposeful self-regulation of learning” (p. 2). Choosing suitable learning strategies, according to Oxford, is viable when the

learner is aware of their preferred learning style; otherwise, the learners might struggle in taking the necessary steps.

Previous Research on Learning Styles

As mentioned before, many studies have been conducted on learning styles, either theoretical or practical research. Experts like Dörnyei (2006) have lamented the lack of well-established understanding and measures for learning styles. Dörnyei has asserted that learning style is sometimes a personality type. Sometimes, it is referred to as a learner's learning preference or aptitude, and these different understandings create unnecessary confusion that makes research on the subject difficult. According to Lee and Kim (2014), some studies question the usefulness of learning styles and the awareness of them to both teachers and learners, "several studies confirmed that matching learners' styles with a teacher's methodology or materials had little or no effect on the learners' achievement" (p. 119).

Viriya and Sapsirin (2014) have declared that a prominent study was conducted in 1987 by Reid on 1388 students regarding their preferred learning style. The study has shown "Statistical analyses of the questionnaires indicated that NSS (native speakers of English) learning style preferences often differ significantly from those of NNSS (non-native speakers of English)" (p. 79). However, a study conducted by Wasanasomsithi in Thailand in 2003 has shown different results than the ones of Reid. According to Viriya and Sapsirin (2014), Wasanasomsithi's study results "show that the learners prefer group learning and auditory style than individual or visual style" (p. 79).

Another study was conducted by Maubacha and Morgan (2001) to learn about the differences between males and females concerning their preferred learning style. Ahmed has found significant differences between the two genders regarding kinesthetic and auditory learning styles. The study showed that male learners preferred both of these learning styles while the female learners were almost indifferent. The females seemed to prefer one organised style. Ahmad's study has found what previous research has found concerning the correlation between style and gender; (Maubacha & Morgan 2001; Wehrwein et al., 2007).

Nikolaeva and Synekop (2020) have said that, "learning style is a complex phenomenon which reflects different dimensions of an individual who needs variations in the ways teaching and learning take place" (p. 170). These two researchers have focused on the motivational learning styles and they have found that these learning styles, "influences the development of their skills" (p. 180).

Derkach (2018) has conducted a research learning styles amongst students from four different departments. Derkach found that there are several differences amongst the students in favouring a specific type of learning style. For instance, "Chemistry and pharmacy students have similar learning profiles" (p. 60).while they differ from the other two departments, technology and design.

Methodology

The aim of the study was to investigate which style the students at Nottingham University prefer in different studying areas within various nationalities, ages and sexes. The methodology used and the decisions are outlined in the following sections

Participants

Data for this study were collected using a questionnaire distributed to students at the University of Nottingham. The survey was conducted at both Jubilee and University Park campuses. The data were collected from 70 students (34 male and 36 female) of several nationalities, including Kurdish (20%), British (40%), EU States (10%), Asian (17.1%), and other nationalities (9%) As it is shown in table 1. Approximately 47.1% of the participants were male, and 52.9% were female. All the participants who were above the age of 18. The participants included undergraduate and postgraduate students studying different disciplines at the university, including languages, social sciences, engineering, natural sciences, health, math, business, and economy. The students were selected randomly from different departments to illustrate their responses toward learning styles.

Table 1 the percent of the nationalities

Nationalities	Frequency	Percent
Kurdish	14	20.0
British	28	40.0
EU States	7	10.0
Asian	12	17.0
other nationalities	9	13.0
Total	70	100.0

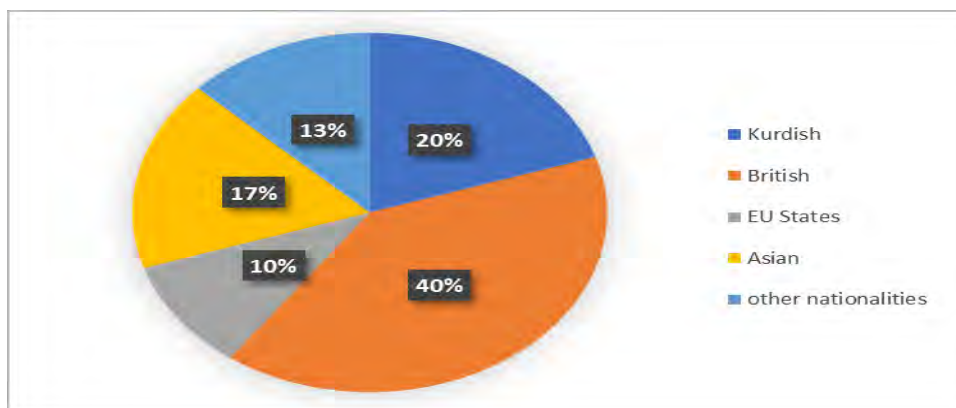


Figure 1 the percent of the nationalities

Research Instruments

The questionnaire used in this study was composed of four multi-item scales. Several criteria were in mind when preparing the questionnaire. The authenticity and simplicity of the questionnaire were of the utmost importance. That is why before conducting the research, a pilot

study was done. Five participants were chosen, and they were given the questionnaire. The participants found no difficulty in completing the task. Also, processing the data was a smooth process which gave the researcher confidence in using the questionnaire.

Participants were asked to rate on a five-point Likert scale (strongly disagree, disagree, neither agree nor disagree, agree and strongly agree). The self-administered questionnaire was designed in such a way that it aimed to capture the informants' attitudes on the different learning styles. Four variables were targeted with a total of 24 questions: six questions on the visual learning style (s2, s5, s9, s11, s13, s16, and s23), six on the auditory learning style (s1, s7, s10, s14, s17, s19), six on the kinesthetic learning style (s3, s6, s12, s15, s20, and s22), and six on the interpersonal learning style (s4, s8, s13, s18, s21, s24).

The questionnaire also included questions on some personal background information: gender, nationality, age, and area of study. The final version of the questionnaire is presented in Appendix A. The questionnaire was piloted by distributing it to five students to measure the reliability of Cronbach's alpha coefficient.

Research Procedures

The questionnaire was carried out manually at various places at the University of Nottingham, as the students were located at different campuses. The questionnaires were distributed to the students in Hallward Library, Djanogly Library, and standard study rooms. This procedure was chosen because it was believed to be a more efficient procedure for accessing many students, and it is easy to hand out questionnaires.

All participants were briefed on the importance of the study; then, it was explained that they had the right to stop at any point with no questions asked. The participants then filled out the consent forms.

All the respondents were ensured of total privacy and confidentiality as they were expected to provide their personal views and opinions regarding the subject under study. This was to ensure that the participants felt very secure. All were informed that immediately after completing the questionnaire; all the responses would be treated anonymously to divulge participants' identities. Completing the questionnaire took approximately five minutes. This process of administering the questionnaires lasted for three days.

The problems and obstacles encountered in this study included difficulty convincing the participants to allocate their precious time to respond to the questionnaire. Since many students were busy reading for their exams and continuous assessments, many seemed to think that the study was wasting their time. This may have led to the reckless answering of questions to quickly complete the questionnaire without thinking thoroughly about the questions. This, in turn, may have led to the collection of erroneous data as it would not have represented the students' genuine views on the subject under study.

Data Analysis

The questionnaire was coded to avoid difficulties while entering the data. The next step was entering the data using the IBM SPSS Statistics 21 software. The coding used was as

follows: nationalities were coded numerically as Kurdish one, British two, European three, Asian four, and Others five. After that, the study area was numerically coded to distinguish participants easily while analysing the data: Languages 1, Social Sciences 2, Engineering 3, Natural Sciences 4, Health 5, and Math, Business, and Economy 6, to make the analysis clearer. Upon completion of coding, a frequency analysis was performed, and spelling mistakes were corrected. Subsequently, a reliability analysis was conducted to check the internal consistency of the items related to the variables and, at the same time to check Cronbach's alpha coefficient.

Regarding the visual learning style, six items were included in the questionnaire. It is worth mentioning the reasons for excluding some items. After conducting the reliability analysis, Cronbach's alpha was .028, an insignificant result. Items two, five, nine, and 11 were omitted to increase the significance of the variable, and Chronbach's alpha of .523 was reached, which is still insignificant. The insignificance of the results tends to be how the items were interpreted. Consequently, the variable relates to visuality, but the items were more related to writing, which may have confused the participants and caused them to neglect the addressed items.

In the study, six items addressed the auditory learning style. The reliability analysis of Cronbach's alpha was .404. When items one and 19 were discarded, the reliability increased to .567. Based on this, it seems the participants misunderstood items one and 19. Perhaps if the items had more explicitly involved listening, the participants might have understood the items and chosen correctly.

Cronbach's alpha for kinesthetic learners was .525, and when item 3 was excluded, the value rose to .549. One reason for discarding this item was an assumed lack of accuracy in choosing this item since most of the participants spent less than five minutes completing the questionnaire. This, in turn, means that Cronbach's alpha might have achieved significance if the participants had spent more time understanding the item, which is an essential item in the variable.

Furthermore, it is interesting to mention the reliability of the followers of the interpersonal learning style. The reliability of Cronbach's alpha was .505 for the six items. For this reason, the noticeable misinterpretation of items 24, 21, and 18 should be considered, as when they were removed, Cronbach's alpha reached significance (.797). Additionally, a new variable coded as "Sub age" was generated, dividing the variable "age" into three groups:

- 23 and under = 1
- 24-29 = 2
- 30 and above =3

A correlation between the newly computed variables with their mean scores and the "age" variable was calculated to determine their relationship.

Independent sample T-tests were done on the correlation between gender and the variables. The genders were coded as one for males and two for females. After conducting the T-tests, a significant difference could not be found in the results. The genders were subcategorised according to the countries: "Kurdgender, Engender, Eurgender and Asianger." to obtain a more identifiable difference. For every subgroup of the genders, various independent T-tests were conducted.

Finally, a one-way ANOVA was run to determine the potential relationships among the age groups and the target variables. The results did not yield significance. The sample size might have caused this, or it may be due to the variety of the age groups.

Results

After the data was collected, several statistical tests were conducted to determine the significance of the data concerning the different learning styles of students from different nationalities, ages, genders, and areas of study.

Frequency Tests

According to the frequency results, the students from the language area of study had the highest participation rate at 35.7%, and the natural sciences students had the lowest turnout at 7.1%. 40% of the participants were British compared to European students, at 10%.

Table 2 study area

Area	Frequency	Percent
BIOLOGY	1	1.4
BUSINESS	4	5.7
ECONOMY	2	2.9
EDUCATIO	1	1.4
ENGINEER	2	2.9
ENGLISH	21	30.0
ENGNEER	6	8.6
ENVIRON	1	1.4
FINANCE	2	2.9
FOOD	1	1.4
FRENCH	1	1.4
GEO	1	1.4
HISTORY	4	5.7
HUMANITY	4	5.7
LAW	6	8.6
MATH	2	2.9
MEDICAL	4	5.7
MODERN L	3	4.3
NATURALS	1	1.4
PSYCHOLO	1	1.4
PYSICS	1	1.4
SOCAILS	1	1.4
Total	70	100.0

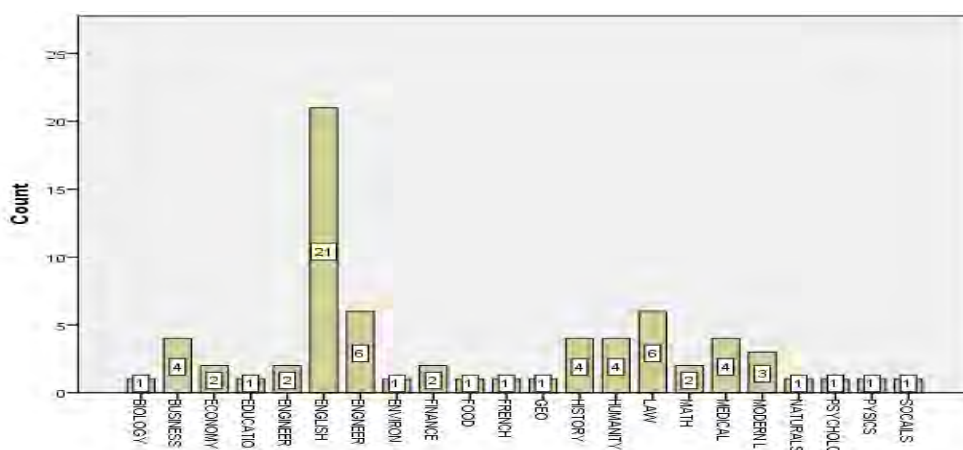


Figure 2 study area

Correlation Analysis

A bivariate analysis was conducted using the Pearson correlation coefficient (r) to obtain all the significant related trends between the responses by the students on the different learning styles.

The variables correlated with the students' responses in the study included the four learning styles: visual, auditory, kinesthetic, and intrapersonal. Additionally, age, gender, nationality, and the areas of study of the individual students were included. The variables of age ($r = -0.357$, $p < 0.01$) and gender ($r = -0.363$, $p < 0.05$) were weakly negatively correlated in the responses of the participants, while Kinesthetic ($r = 0.267$, $p < 0.05$) and visual were both positively correlated with the responses of the participants.

Amongst these individually significant variables, age strongly negatively correlated with the area of study of the participants ($r = -0.357$, $p < 0.01$). Furthermore, a correlation was determined between certain learning styles. The auditory learning style ($r = 0.267$, $p = 0.05$) was positively correlated with the kinesthetic learning style, and it was also found out that there was a positive correlation between the visual and auditory learners ($r = 0.319$, $p < 0.5$). There was a positive relationship between visual learners and auditory learners. Moreover, a positive relationship was identified between auditory and kinesthetic learners.

T-Tests

An independent sample T-test was conducted for every unique subgroup. It was found that Kurdish males were more inclined towards the auditory style than Kurdish females. There was a significant difference in scores for men ($M = 3.67$, $SD = 0.39$) and women ($M = 2.70$, $SD = 0.41$), $t(12) = 4.33$, $p < 0.05$. However, the effect size was large ($eta\ squared = 0.60$), with gender providing 60% of the variance in auditory. S-N-K post hoc revealed that Kurdish males are more likely to be auditory learners than Kurdish females. In the subgroups of the other countries, a difference could not be identified.

One-way ANOVA Test

The basic assumptions in this ANOVA test were a normal distribution across the entire population involved in the study. All the samples used in the study had the same standard deviation or variance and were selected randomly and independently.

The differences between the age groups and the variables was found using ANOVA, but it did not achieve a significant result. It seems that age is not a factor in preferred learning styles in this study. The relationship between nationality and variables was sought by using ANOVA but did not reach significance. It is supposed that nationality may not be a factor in learners preferring a particular learning style.

Additionally, a one-way ANOVA was conducted between areas of study and the target variables. It was indicated that there was a significant difference in the perception of the visual learning style between the students studying languages ($M = 3.90$, $SD = 0.52$) and the students in the fields of math, business, economy ($M = 3.10$, $SD = 0.80$). Students in the language field were more visually oriented than students in math, business, and economy. Moreover, students from the engineering school ($M = 3.93$, $SD = 0.62$) were more visually inclined than those studying math, business, and economy. In addition, students in the natural sciences ($M = 4.10$, $SD = 1.08$) and students in the health and medical fields ($M = 4.08$, $SD = 0.86$) were more likely to be visual learners than those studying math, business, and economy.

The effect size was large ($\eta^2 = 0.14$). The S-N-K post has revealed that math, business, and economy students are less visual than those in the other areas.

Discussion

The results show that learning styles have a real place within the learning environment. Regarding the research question, the correlation between learning styles and gender and nationality, among Kurdish males and females, males account for 80% of Kurdish auditory learners, while females make up only 20%. These findings may be explained through several reasons. Particularly among people from Kurdish backgrounds, a preference for this learning style may develop for male students, who may interact more and verbally express what they are learning. In contrast, females from such cultural backgrounds tend to be more intrapersonal learners. Another reason behind this preference for hearing information overseeing it could be that auditory learners find it easier to listen to a teacher than to read handouts (Gilakjani, 2012). Furthermore, perhaps the teaching strategies of the Middle Eastern countries suit auditory learners more. This result perhaps counters the theory that visual learning is the most widely used learning style. These results line with Viriya and Sapsirin (2014) in which non-native speakers' learning style differ from the on of native speakers.

To answer the research question, the correlation between learning styles and the fields of study, a one-way ANOVA was conducted for the areas of study using visual learning styles. The highest scores belong to the language students, who strongly correlate with the visual learning style. A possible explanation for this result could be the area of the study itself; people who study in this field tend to retain information through pictures, images and graphs. Students studying languages might thus prefer the visual learning style, which is unpreferable to math, business, and economics students. Those students would likely incorporate active participation experiences since these subjects are best learned through experiences and involvement within a physical

learning environment. It is interesting to note how Gilakjani's (2012) research on Iranian EFL (English as Foreign Language) students supports this study. The majority of those students—50%—preferred the visual learning style. That research suggests that students use visual learning styles above all other styles. Another possible reason could be that the students with visual learning styles tend to have higher academic achievement levels (Gilakjani, 2012).

The findings of Derkach (2016) lines with the results of this paper. Derkach studied the field of chemical fields and found a similarity among students from the same field in learning style. Moreover, Ishak and Awang (2017) found the same similarities amongst history students. These findings further implement the idea that students in similar professions might have the same learning styles. Based on the findings regarding the field of study, it seems like nurture plays a stronger role than nature since students who enter a field get used to the learning style of their peers.

Conclusion

To summarise, this paper addressed the University of Nottingham's students' responses and attitudes towards various learning styles. A qualitative research method was conducted to obtain the main points. The significant findings for this sample can be summarised in two: First, due to a large number of Kurdish participants, it could be concluded that Kurdish males are more likely to be auditory learners than Kurdish females. Second, students of languages are more visually oriented learners than those in other areas of study at the University of Nottingham.

Limitations

Despite some exciting findings reported in this paper, there were a few limitations, without which it is believed that the paper could have achieved a better result. It is crucial to recruit more participants to achieve more significant results, particularly in balancing the participants concerning nationality and age. Therefore, a call for future research with more participants from different backgrounds is necessary.

I recommend that future researchers collect more data to make the findings more reliable; the number of participants was 70 and it is not enough to arrive at definite answers to the questions. Moreover, using more than one questionnaire adds to the authenticity of the results and makes the file richer.

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Appendices
Appendix A
Students' Questionnaire

Dear participants,

The aim of this survey is to find out about the preferred learning styles of students of the University of Nottingham. It is completely confidential and there are no right or wrong answers, so you can be as honest as you like! The answers you provide are used solely for academic purposes in this project. In fact, if you decide in the end that you would prefer not to participate in this survey, you will be free to opt out without any consequence and the answers that you have given will be discarded and not analysed. Thanks.

Instructions:

Please cross X in the appropriate box to indicate whether you agree or disagree with the statements as shown in the example below

1.	I find classroom discussions useful for learning	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1.	I find classroom discussions useful for learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I can remember people's faces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I use gestures to describe things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I believe individual study is more beneficial than group study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I can remember how the pages of my textbooks look	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I dislike proof-reading my essays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I remember things better if I hear them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I find it easier to concentrate on my homework when I study alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I remember things better if I write them down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	When I read, I read out loud or move my lips to hear the words in my head	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	I like looking pictures / maps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12.	I tend to touch the words or papers when I read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	I can remember things better if I study alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	I prefer hearing a lecture or a tape rather than reading a textbook	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	I need frequent breaks while studying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	I remember better if I make lists or charts when I study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	I like talking to myself when solving a problem or writing something	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	I am aware of my own strengths, weaknesses and needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	I can remember the theme tunes of my favourite TV shows / films	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	I dislike sitting still for a long time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.	I can enjoy my time when I am alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	I think I learn better when I have the freedom to move around	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	When I have a new idea I write it down or draw a picture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.	I feel uncomfortable when I discuss my work with my friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Now, could you please specify this background information?

Age:

Gender: Male Female

Nationality:

Area of study

By submitting this questionnaire, I agree that my answers, which I have given voluntarily, can be used anonymously for research purposes.