

PERSONALITY FACTORS IN DISTANCE EDUCATION

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ABSTRACT

The authors describe an investigation into how personality factors affected the attitudes and behaviour of students in distance learning settings. A Myers-Briggs personality inventory (MBTI) was administered to 26 students who completed set tasks in a learning environment. Students also completed a profile measure, which recorded their existing use of and attitudes towards technology, and pre-exposure and post-exposure self-reporting questionnaires which measured their attitudes towards various parts of the collaborative learning environment and their behaviour in the system. Results showed statistically significant differences between the personality factors in the use of the learning environment and attitudes towards the components of the on-line learning system.

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INTRODUCTION

In previous studies we have found significant differences in computer attitudes and behavior associated with major personality factors [1]. These promising findings prompted us to undertake further research, leading to the current study using the Myers-Briggs Personality Test. The Myers-Briggs Type Indicator (MBTI) is a self-report personality inventory designed to give people information about their Jungian psychological type preferences. The MBTI results indicate the respondent's likely preferences in four dimensions: Extroversion (E) OR Introversion (I), Sensing (S) OR Intuition (N), Thinking (T) OR Feeling (F), and Judging (J) OR Perceiving (P). The history of the use of the Myers-Briggs Type Inventory within education is relatively long and there is growing support and recognition for both the validity and reliability of the MBTI in education [2] [3].

METHOD

We asked 26 students to take part in an evaluation of the TeamWave Workplace collaborative learning environment. This evaluation concentrated on the use of various component parts within TeamWave Workplace. As well as an online collaborative activity within TeamWave the students were required to complete three questionnaires, a profile questionnaire, which recorded their background, their views on group work and their experience with technology. A pre-session questionnaire was also administered which enquired on the clarity of the task that had been explained to the students, their preconceptions about TeamWave and the components of the

Address Book, the Brainstormer, Calendar, Concept Map, Database, Doorway, File Holder, File Viewer, Image Whiteboard, Meeting Roster, Message Board, Post-It, To Do List, URL Ref, Vote, Web browser, Chat, Page and Whiteboard. After completing their tasks within TeamWave the subjects were asked to complete a post-session questionnaire. This questionnaire attempted to record the student's views about the clarity of the task they were given and the work tools. In addition they were asked questions about how effective they felt the teamwork was within TeamWave and what was the nature of their interactions with the other students.

The MBTI personality surveys were hand coded according to the self assessment schemas provided by the Myers Briggs corporation. These codings resulted in a raw score in each of the major dimensions of personality recorded by the Myers Briggs personality test. Normally these raw scores are converted into a single set of four primary personality measures such that the respondent is provided with a four letter combination representing their personality preferences. This process leads to 16 possible ways to combine the preferences and result therefore in the 16 MBTI types. Rather than using these simple letter codings we took the raw numerical scores in the primary eight preferences and used these to provide each respondent within our survey with a score for their preferences in extroversion, introversion, sensing, intuition, thinking, feeling, judging or perceiving. We did this because the simple letter types lose the strength or degree of the respondent's preference on the four major personality dimensions recorded by the Myers Briggs personality test.

It is also possible within the Myers Briggs personality test for an individual to be rated for example as an introvert (I) when in fact their extroversion score was nearly balanced to their introversion score. This is because a single number difference results in the larger score being taken as the primary personality dimension. By just using the raw scores within the four dimensions we therefore retain the original information about the respondents personality. After the data had been manually decoded into the primary scores of the four dimensions of the Myers Briggs personality inventory, they were then entered into a statistical package (Minitab v.10) combined with the data from the profile, pre-session and post-session questionnaires. An exploratory analysis was then performed on the data looking for significant correlations, using a Pearson correlation test, between the primary eight measures of personality provided by the MBTI.

RESULTS AND CONCLUSIONS

In this study we have investigated the possible link between MBTI types and the attitudes and behaviour of students using computer supported collaborative learning environments. We have found statistically significant differences between the major personality factors in terms of the use of the learning environment and attitudes towards the various components of the online collaborative learning system. Based on our findings we strongly support the idea that the MBTI can provide a useful tool in configuring such online learning environments to student's personalities and preferred learning styles. Of the MBTI types investigated in our study the dimensions of Extrovert/Introvert and Sensor/Intuitive appear to be most promising as major predicting factors in learning styles and system component preferences.

These can be summarised such that Extrovert / Introvert dimension appears very useful in determining primary learning and interacting style and preference and the Sensing / Intuitive dimension appears most useful as a predictive tool for the use or avoidance of certain system components. The remaining dimensions Thinkers / Feelers and Judgers / Perceivers appear more related to attitudes toward group work and may reflect some previous experience within our subject population. Although Myers-Briggs and Jung did not include maturity of the individual within their personality types in our subject population there does appear to be a strong trend within the Thinker/Feeler and Judger/ Perceiver dimensions correlated with greater age and experience. Within our sample the older and more experienced individuals disliked group work and were more likely to report system based problems linked to group based activities. It is uncertain if these findings related to the Thinker/Feeler and Judger /Perceiver scales will be reflected in a more general subject population.

As a result of this study it is to be hoped that future research will investigate methods in which MBTI type tests for Extrovert / Introvert and Sensor/ Intuitive can be directly linked to real time online changes within the collaborative learning environment to more closely match students preferred interaction styles and preferred learning tools.

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