

# LEARNING TECHNOLOGIES 2007

## Why Learners Learn: Personality and Motivation to Learn

Script to accompany the presentation "Why Learners Learn", presented by Howard Hills at the Learning Technologies Conference 1<sup>st</sup> February 2007

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### Background to the research

e-coaches.co.uk and Howard Hills Associates have been conducting a long-standing study of personality and learning. The research is being used to provide guidance to learners based upon an understanding of their personality. This is provided to adults through the [www.YourPreferences.net](http://www.YourPreferences.net) web-site, and through [www.iviva.com](http://www.iviva.com) and its associated i-portfolio™. The latter is a lifestyle and career guidance web-site for young people between the ages of 14 and 25. A personality inventory is built into this site based upon work e-coaches has completed with basic skills learners (for learndirect) and young people through a number of trials<sup>1</sup>.

### Teaching and Temperament

Teachers and tutors have expressed considerable interest in this research. and we are developing this further to look at tutor personality and how it might affect the situation in the classroom.

For this purpose we've taken a model related to the MBTI®: that of temperament. Although considered separately by Keirse and Bates and in turn based upon the ideas expressed by Hippocrates, temperament and type theory are two separate models of personality each with an independent theoretical base.

For the purpose of the initial look at research into this area we decided to analyse findings in relation to temperament. The four temperament types are described similarly but with different titles by a number of associated models. For the purpose of this presentation I have used the terms defined in the MBTI® manual 1998. This relates the temperaments to personality types, even though their foundation rests on different theories.

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<sup>1</sup> The Jungian personality model that underpins this work has been most widely available through the Myers-Briggs Type Indicator®.

### ***The Rational Temperament***

Those with this temperament are interested in opportunities and global measures. They are interested in the **big picture** and are driven by a desire to **understand concepts** and to develop their **personal competency**. They enjoy developing consistent and linked **theories**, seeking **patterns** in a **theoretical** understanding.

Unless it is a test of detail, they tend to do better in tests than they do in job performance. Percentages present in the population vary dependent upon the source of the data and the type tool used. The Rational type is considered to be approximately 10% of the US population. Recent research using the YourPreferences.net learning guidance tool reports 16% of males and 4% of females with this preference. In Myers-Briggs terminology, this is the NT type preference. *(See later discussion on the distribution of type and temperament.)*

### ***The Idealist Temperament***

People of this temperament are interested in the **greater good** and **relationships** within life. They see the potential good in everyone. They have a sense of **purpose** and **value** relationships. They enjoy **helping** others, promoting **harmony** and preventing conflicts. They are motivated to meet the needs of other people.

They will tend to do well in tests comparable with their job performance. US research reports 17% of the population are of this temperament. Recent research based upon the YourPreferences.net tool reports 18% of females and 12% of males fall into this type. This is the NF preference.

### ***The Guardian Temperament***

Individuals of this temperament like **structure** and **order** and will value learning based upon **previous experience**. They prefer **stability** and **dependability**, with a primary motivation of **being useful**. They enjoy **taking charge** and organising things in the pursuit of **achievement**, **efficiency** and **effectiveness**.

They are motivated by the practical application of learning and tend to do less well in tests than they do in job performance. They are driven by group membership and accepting responsibility. They are reported as representing 46% of the population of the US. Recent research from YourPreferences.net reports figures of 48% of females and 42% of males. This is the SJ preference.

## ***The Artisan Temperament***

The Artisan is driven by the need to **see results**. They like **variety** and **stimulation** but are extremely **practical**. They tend to see and meet **immediate needs** and like working with a **practical tool**. These might be software, language or paintbrush but something that requires **hands-on learning**.

Above all they like the immediate benefit of learning and therefore do less well in tests than in actual job performance. They are reported as representing 27% of the US population and recent research on YourPreferences.net has produced figures of 30% of females and 30% of males. This is the SP preference.

### **Distribution of temperament and type**

Although temperament and type are based upon two different theoretical principles the work of Keirsey and Bates (1978) in *"Please Understand Me; An Essay on Temperamental Styles"* has linked temperament to the 16 personality types of the MBTI®. This research shows that the **Sensing** preference (practical, hands-on, based upon the how, when and where learning needs) is represented by approximately **75%** of the population and the **Intuitive** types (N) (those with a learning need to understand why and interested in theoretical concepts) are represented by approximately **25%** of the population.

Both the **Guardian** and **Artisan** are drawn from Sensing types and therefore we might expect an imbalance of this temperament distribution.

Furthermore, those who make objective, rational decisions (**Thinking** (T) decisions), are represented by 60% of males and 40% of females. The **Rational** type is drawn from thinking types and this explains the difference between the percentages of male and female amongst those of a Rational temperament.

Similarly those who make decisions based on **Feeling** (F) (values-based decision that weighs opinions equally with facts) are more heavily represented amongst females, with a distribution of approximately 60% females and 40% males. This may also go some way towards explaining the typical male and female stereotypes in their relationships and decisions in relation to other people.

This uneven distribution of type will be reflected in an uneven distribution of temperament. Of a general population:

- 75% are motivated to learn practical answers to the questions how, what, when and where;
- 25% are motivated by a need to answer the question why.

We also know from career research that the **Idealist** temperament (NF) is over-represented amongst teachers, tutors and trainers. This raises the question as to whether or not those of an Idealist temperament create a learning environment which is less than effective for the three-quarters of the population represented by the **Guardian** and **Artisan** temperaments.

The research conducted by e-coaches and Howard Hills Associates sets out to investigate this question.

### **Role of other people**

Understanding individual personality preferences also enables us to classify the role that other people play in the learning process. Four needs for other people to assist in the learning process may be identified as:

1. To **lead, identify and organise** others. It may appear unusual that within the process of learning some individuals have to lead, organise and develop others. The experienced teacher knows that this happens in the classroom and the learner who behaves in this way is fulfilling a need that is based upon their personality.
2. To **create harmony and agreement**. Such individuals are people who value the opinions of others as being equally as important as conclusions and facts. They are interested in the results of learning which are of benefit all.
3. To **generate debate in discussion**, either to help formulate one's own ideas or as a source of energy and interaction. There are those who thrive on energetic discussions, seeking to debate simply for the enjoyment it creates. Such individuals frequently "play the devil's advocate" and enjoy the cut and thrust of an argument. For them ideas and learning are formulated in a crucible of critical thinking.
4. To **gain a feeling of solidarity**; a reinforcement that what I am learning is valuable because others are learning the same. People with this need in learning do better if they are part of a team or group working towards a common aim. For many people **who** they are learning with is almost as important as **what** is being learnt.

Table 7.1 from *Individual Preferences in e-learning* should not be taken as indicating black and white differences between personality types. For example, while all learners benefit from praise, some personality types have a greater need for it than others. Table 7.1 indicates where a need for others is a major influence on the learning motivators of the individual.

MBTI Type	Praise needed	Create ideas with others	Debate needed	Organise Others	Value harmony	Need for role models	Develop others
ISTJ						YES	
ISFJ		Support	YES		YES	YES	
INFJ	Some			YES			YES
INTJ							
ISTP							
ISFP	YES	Support			YES		YES
INFP				YES			YES
INTP							
ESTP	Some	Challenge	YES	YES			
ESFP	Some	Support		YES	YES		
ENFP	Some						YES
ENTP							
ESTJ				YES			
ESFJ	YES	Support			YES		
ENFJ	YES	Support		YES	YES		YES
ENTJ		Challenge		YES			

What we can say from this table is that the majority of learners are motivated by learning with others (93% of females and 80% of males). The remainder are much more driven by content and a need in many cases to either create concepts or structure and order. For the minority of us (7% of females and 20% of males) there is either one or the other of two important drivers

- either a **curiosity for concepts and theory** and a **need to understand**,
- or a **drive for effectiveness and efficiency** and **using learning to get things done**.

## Is there a risk that teachers, tutors and instructors impose their own personality preferences on other learners?

Personality theory tells us there are a number of differences between individuals. Some of these are distinct dichotomies. For example, the need to learn with others in an harmonious situation with common agreement conflicts strongly with the need to argue and debate.

e-coaches has constructed a questionnaire to investigate whether or not it is feasible to:

1. Identify these differences.
2. Determine if they do impact on classroom behaviour.
3. Devise support strategies to minimise the impact of different types in a learning situation.

The survey consisted of two similar sets of questions; one written from a tutor or teacher's perspective and the other written from the perspective of the learner. Respondents were asked to use a four-point scale to determine their preference for a particular activity and these activities were mapped to their personality type. In some cases respondents were able to give their type.

A previous study by e-coaches had investigated the validity of these questions in determining personality type. This was based on individuals who took the questionnaire in a similar format who knew their type, with a resulting 50% validity score. I believe that the validity of the MBTI® compared to best-fit type varies from 53% to 85%. Therefore a 50% correlation between indicators means that we have a workable set of questions on which we can build a more reliable and valid research instrument for the future.

We compared the preferences selected by tutors in their **tutor role** and in their **learning role**. Overwhelmingly all those in a tutor role had a preference for activities that they valued as learners.

- 57% of respondents selected more than 90% of all comparable items with only a one-point difference between preferences in the tutor role and preferences in the learner role.
- 85% selected more than 80% of all items either the same as or within one grade of their preferences both as tutors and trainers.

There is a strong indication therefore that tutors value organising classroom activities that they themselves prefer as learners.

Respondents were then classified into their temperaments. This provided a significantly non-representative distribution of temperament. Communication

with respondents was through various mailing lists of individuals known to be interested in learning and personality. We might also expect to find a non-representative sample amongst tutors and trainers themselves.

Extensive research on the career potential of the MBTI® shows that NF types (the Idealist) are over-represented in the education and training profession. Based upon the results of a questionnaire we measured those activities each temperament regarded as of least importance (this is not a priority for me). Each questionnaire was composed of 26 activities.

The results show that Idealists will, on average, regard half of the activities of benefit to learners of a different temperament as of no priority for them when setting up the learning environment.

Based upon the small sample it would appear that those of the Idealist temperament are likely to construct classroom environments that pay little attention to the needs of different temperaments. Bearing in mind that the Guardian and Artisan temperaments consist of almost three-quarters of the population, it is no wonder that this particular three-quarters tend to do less well in the academic environment than they do when performing on the job.

This situation might be considered acceptable if we knew that Idealists in general appreciated these differences and could manage their classroom environments paying due attention to the preferences and needs of those of a different temperament.

We also compared the results for Extraverts and Introverts. (Note: because this comparison divides the population into halves rather than into quarters the percentage of activities Extraverts select as of low priority for personality types different to them is lower.) It would appear that Extraverts are more likely to establish a classroom environment that is not particularly favourable to Introverts.

A workshop organised by e-coaches divided participants into Extraverts and Introverts and asked them to create the ideal classroom environment. They were allowed 15 minutes for the task. (*Note that the workshop was held during the annual conference of the British Association of Psychological Type where all participants were familiar with type in general, and their own type preferences in particular*).

The two type-alike groups tackled the task in very different ways. The **Introverts** formed a circle, allowing individuals to make their contribution in a quiet and reflective manner. Careful and well-structured notes were taken. The **Extraverts** worked in a much more energetic and noisy manner, with little apparent organisation. A flip chart was filled with notes while people moved around and talked over one another.

Each type-alike group then set up their classroom environment and invited the different group into it. The Introverts created a variety of spaces with different functions; a stimulus area where people might meet and talk to the trainer, a small table was provided for sharing between just a few people and chairs were placed near the window to provide a space for personal reflection.

The Extraverts had a number of tables scattered around with no formal organisation of chairs and a large horseshoe shape of chairs in the middle for large group discussion.

There were further differences when each group invited the other group to share their space.

- The Introverts stood back and waited for the Extraverts to walk into it and it was sometime before they offered to talk to the Extraverts or offer any welcome or explanations. (*In comments later some said they were so enjoying their space that they were very reluctant to have it "invaded"*).
- The Extraverts on the other hand were overwhelmingly enthusiastic, with more than one member pointing out several features of the space at once.

Both these two small-scale studies, Quantitative and Qualitative, indicate that teachers and tutors are likely to establish environments that mirror their own personality and temperament preferences. They may well prioritise activities that are not most suitable for the learning of those different to them.

The first step in understanding how to manage the situation is for tutors and trainers to understand their own personality preferences and there are a number of on-line Web sites and books which provide word sketches for individuals, which they can read to determine which is most like them. An initial step would be to establish one's own preference and which temperament category best describes you.

## **Culture**

The simplest culture model that it is possible to construct is one that compares an attitude to people relationships with a preference for particular types of task.

Relationships with people can be determined on a scale from extremely **harmonious** to highly **performance-driven**.

- at one end of the scale who you learn with and how well you fit in with their wishes is of paramount importance.
- at the other end of the scale the purpose of people is to help you drive forward your own learning and perhaps theirs as well.

The task axis goes from

- highly **practical** and **procedural** tasks where how and what is done is of prime importance,
- through to highly **conceptual** learning driven by a need for **understanding** and **establishing theory** irrespective of its practical application.

This two-by-two culture matrix is documented in *Team-based Learning* (Hills 2001). e-coaches.co.uk has developed an interactive assessment tool that can help you determine where your own team is positioned on this two-by-two culture matrix. The tool goes further and enables you to determine a third culture and develop a route map for changing the culture of your team and/or organisation to transform it into the desired state.

### **Global culture changes**

The culture model described here is one that is closely related to the mental functions based upon the work of Carl Jung and embedded into the Myers Briggs Type Indicator®. This allows us to draw some comparative conclusions based upon the global differences reported by the use of the MBTI® in different cultures.

The simplicity of the culture model means that it is applicable to a large number of cultures. The main difference will be the base-line or norm of the various populations. Some cultures are naturally more performance-driven than others. Some cultures are more people-orientated and sociable than others.

One of the obvious differences is the North to South European dimension. A variety of studies have been completed which indicates Southern Europeans socialise in greater numbers and have larger family groups. Thus an Extraverted Northern European may appear Introverted to a Southern European.

Recent research into the phenomena of blogging provides some interesting differences between North and South Europe, with many more bloggers in Southern Europe. 3% of Europeans overall are active bloggers; effectively writing public diaries expressing their opinions to anyone with access to the Internet. The population of bloggers is highest in Southern European, with France, Italy and Spain making 50% of all those who blog in Europe, whilst Germany only has 13%.

## **Communicating with learners to motivate them to learn**

*The Skills for Business Network* has recently funded a major study into e-learning which is managed by E-SKILLSUK, the Sector Skills Council for the IT and Telecom Industry.

This surveyed well over 1000 learners who, amongst many other questions, were asked what kept them interested in e-learning:

- over 50% selected email,
- around 30% a briefing from their line manager,
- just less 20% comments from other learners in situations similar to themselves (peer testimonies),
- 10% responded to posters,
- 8% to open days and
- 2% to text messages on their mobile phone.

At this stage of the study we have no indication as to the merits of email and what particular feature in the email keeps a learner's interest.

Learners were also asked who encouraged them to learn and the significant majority (just under 50%) selected their line manager as the prime influence, although the importance of a colleague should not be underrated since over 25% of respondents said that a colleague was the most important individual who encouraged them to learn.

However some interesting differences emerged for those in a management role. The importance of the line manager was significantly reduced where individuals did not manage their own time. In this sub-set only 36% selected their manager as the prime influence (compared to 47% of those manage their own time). The role of a colleague is very much more important, with 30% of those who do not manage their own time citing a colleague as the individual who encouraged them to learn, compared to 24% of those who did manage their own time.

It is perhaps ironical that those who are directly supervised pay less attention to their line manager when deciding whether they should learn or not.

There are also some interesting trends with age. Older learners are less likely to be encouraged by a colleague (drops from 49% under the age of 25 to 40% for those over the age of 55), whereas the training manager becomes more significant for older workers (19% of those under 25 cite the training manager as a prime influencer, compared to 28% of those over the age of 55).

Clearly a better understanding of the motivation levers on the workforce will assist organisations in planning the implementation of learning and some of these differences are based in personality.

## **CONCLUSION**

We know from extensive research into personality, primarily based upon the work of Isabel Briggs Myers and Katharine Cook Briggs, that this personality model indicates differences in learning preferences, in career preferences and in working relationships. It is therefore possible to use this personality model in understanding the relationship between the tutor/trainer and their learners/students.

There is some indication that tutors may unwittingly create learning environments that do not suit their learners. It is possible that the particular types who are more attracted to teaching may in fact have personality preferences which make it more likely that they will create environments not fully suitable for the majority of the population.

Based upon MBTI® research we know that about 70% of learners are likely to do less well in the learning environment than they would do on the job. It is this 70% that are most likely to be disadvantaged by those of the temperament that we know is more attracted to teaching.

The role of other people in the learning situation is important and it is vital that this must be considered by those designing on-line systems for learning. Over 85% of people use interactions with others as part of their learning.

It is also relevant that there are very different purposes in why other people are important in the learning process; indeed some are in direct opposition to each other. It is perfectly possible that an individual with a particular preference might find other people inhibit learning because those around them have an opposite need. For example one person's debate is another person's argument. Some learners thrive on debate; others wish to avoid argument. Understanding these differences is an important part of managing the classroom and learning environment.

The majority of learners will cite more than one communication channel as important to them in encouraging them to learn. The pattern of evidence from the Towards Maturity Study indicates that multiple channels work better. The supposition from our research into personality preferences is that they work best when they appeal to different personality preferences.

Howard Hills  
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