Preliminary Evidence of Mindsets and Training Satisfaction in Malaysia

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ABSTRACT
Dweck (2008) argues that individuals have a fixed or a growth mindset, which influences individuals’ effort, commitment, resilience, and learning. A critical aspect of Dweck’s work is that changing people’s mindset is a straightforward process. It can often be achieved with a 15 minutes briefing at the beginning of a workshop. This paper hypothesises that the mindset will influence the perceived satisfaction with training and development programmes. Through a survey of 100 employees, the study found a positive relationship between mindset and training satisfaction (r=0.435**).

Key Words: psychology, training and development, Malaysia

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Introduction
Most experts agree that training and development (T&D) is a major concern in organisations. This has always been the case (e.g. Goldstein & Ford, 2002). Goldstein and Ford (2002) note the following trends: the change in demographics will mean that more re-training will be necessary; most jobs are becoming more complex, requiring more training than before; the shift from manufacturing to service jobs require a new set of skills that are more difficult to acquire through training; as organisations become more and more global, cross-cultural training will become more important.

Many organisations are worried that T&D costs too much and does not have the impact on the bottom line that many trainers claim (Saks & Haccoun, 2010, Biech, 2012, pp. 365-376)). However, Dweck’s (2008) research on fixed and growth mindsets indicate that one can easily improve the effectiveness of T&D programmes. The research suggests that with appropriate support from top management, organisations can develop a “growth mindset corporate culture”. This study explores the relationships between mindset theory and training and development (T&D) in Malaysia. As this is a preliminary study, the sample was limited to non-academic staff in one Malaysian public university.

Training and Development
Training and Development (T&D) is a comprehensive and complex process. Most textbooks emphasise the similarity of approaches to T&D. Key phases include pre-training, training, and post-training. Lynton and Pareek (2000) note that many training programmes focus on problem solving. Although this seems like a good thing, the reality is that most people automatically defend their beliefs and will automatically dismiss material that contradicts their beliefs. In the training room, participants will often listen quietly, do the activities, eat nice food, while dismissing what they are being taught. They argue that a better approach is to focus on appreciative inquiry (Lynton & Pareek 2000, p.32). Appreciative inquiry allows individuals to strengthen their potential rather than feel threatened.

The debate on how to deal with these problems vary. Some argue that training needs to start with clear business objectives however most training is not aligned to organisational goals (Biech, 2012, p.367). Some experts argue that training is often conducted in a vacuum and that there are no organisational processes to support, monitor, and reinforce the training provided (Biech, 2012, p.369). Other scholars discuss the ways of making training programmes more effective (e.g. Lynton & Pareek, 2000, Saks & Haccoun, 2010, Biech, 2012, pp. 229-234). Other issues include increasing trainee’s readiness to learn and increasing the level of trainee motivation (Goldstein & Ford, 2002).

By and large, all the proposed solutions seem difficult to implement and are significant cost implications. Presently, little mention is made in the T&D literature about the theory of mindsets. Yet the theory of mindsets promises to substantially improve the effectiveness of training. It is easy to implement and almost cost-free. This is the research gap that will be explored in this study.
Training and Development in Malaysia

The issues facing training and development in Malaysia are similar to those mentioned above but with some local concerns. For example, Abdullah (2009) interviewed HR managers in 58 companies and found that major concerns included the lack of “intellectual HRD professionals”. She quotes one respondent, “We do provide training but our main problem is someone to do training needs analysis, evaluation and follow up. These tasks are tedious, complicated and require an expert.” Another major concern is developing a culture where learning is valued. Abdullah (2009) reports that on one side, many managers (including at the top management level) do not want to release employees to attend training programmes because it is seen as a distraction from their priority – which is achieving their department’s key performance indicators. On the other side, employees are often not committed to attending training and development programmes. Abdullah (2009) quotes various HR managers who agree that in training programmes, absenteeism varies between 15% and 30%. Generally, many employees have “embedded pessimistic attitudes towards training.”

Summarising the concerns of many managers, Abdullah (2009) quotes one manager, “Employees attitudes is the most challenging part of their development. Skills are easy to enhance but not their attitude.” Abdullah (2009, p. 20) concludes that, “the core and focal challenge is the lack of intellectual HRD professionals” which often leads to ineffective implementation of training programmes, which in turns create the impression that attending training programmes is a waste of time. Other researchers arrived at similar conclusions. However, some scholars note that these problems are made worse in small and medium enterprises (Omar, Arokiasamy, & Ismail, 2009).

Research on Mindsets

With these Malaysian T&D issues as a backdrop, new research indicates that T&D activities can become more effective without much effort. The key is to exploit the new knowledge related to mindsets. This section provides a comprehensive review of the theory of mindsets to stress its scientific underpinning. Prior to the 1990s, many aspects of human behaviour could not be established scientifically. Although behaviour could be observed, there was no way of knowing what happened inside the mind of individuals.

In the 1990s, the development of imaging technology (especially functional magnetic resonance imaging, or fMRI for short) meant that researchers in the field of neuroscience could study the way the brain worked in a non-invasive manner. Researchers started to develop a comprehensive map of the brain and could determine which part of the brain reacted based on certain stimuli. The technical details can be found in the excellent Oxford Handbook of Human Action by Morsella, Bargh and Gollwitzer (2009). Every chapter includes photographs of fRMIs (this has now become normal in many articles of organisational behaviour). More popular accounts have appeared in the press. For example, Doidge (2007) gives a lively account of neuroplasticity, the way the brain changes itself. In one case, a patient (Pedro) suffered a severe stroke that left him unable to speak and paralysed half of his body. His brother worked with Pedro to help recover from the stroke. After a year of stimulation, Pedro had recovered.
his ability to speak and move his body. After Pedro’s death, an autopsy and brain scan showed
that 97% of nerves that ran from the cerebral cortex to the spine had been destroyed. The
brother, Paul Bach-y-Rita, had a personal experience of the brain’s ability to reorganise itself
to recover functions after devastating strokes. This prompted Bach-y-Rita to do pioneering
research in neuroplasticity. He was one of a growing number of scientists to have demolished
the old pessimistic view of the brain and how it works.

The new view of the brain is simple. Every stimulation leads to the creation of new connections.
Scientists have been able to devise different exercises to stimulate different functions (Doidge,
2007). Neuroscientists have established that individuals have in fact two minds (Gardner, 2009).
Both minds process information in very different ways and all of this is now observable using
increasingly sophisticated imaging technology (Herbert, 2010). For a long time, neuroscience
was an obscure branch of organisational behaviour. Over the last decade, neuroscience has
become mainstream. In the future, neuroscience will influence the way T&D is conducted.

With this as the backdrop, the work of Dweck (2008) is fascinating. She argues that individuals
are divided into two groups:

- People with a fixed-mindset believe that intelligence and talent is fixed. Therefore, they are
  not willing to make any effort to improve themselves as they see intelligence and talent as
  “God-given” rather than something is nurtured over time. Rather than trying to improve
  themselves, they avoid social embarrassment.

- People with a growth-mindset believe that intelligence and talent is flexible. They believe
  that they are responsible for developing their intelligence and their talent. They believe that
  making effort is the key to success.

Dweck’s work provides insights into problematic behaviour at work. Individuals with a
fixed mindset will often cheat to avoid difficulty (Nussbaum & Dweck, 2008). They will feel
good about themselves by comparing themselves with others who are doing worse than them
(Nussbaum & Dweck, 2008). Many of the dysfunctional behaviours reported by Abdullah
(2009) are typical of fixed mindset employees.

There is an important twist to mindset theory. It is not enough that individuals build new
connections in the brain; individuals need to know that they are building new connections.
For example, Crum and Langer (2007) surveyed 84 employees working in housekeeping.
Housekeeping requires a lot of physical effort. Yet, these employees did not perceive their
work that way. They said that they “did not do any exercise”. Crum and Langer (2007) split the
group into two and explained to one sub-group the benefits of regular exercise. They informed
them of how much calories they burn every day at work. Within four weeks, the subgroup
that had been informed of the health benefits of their job started losing weight and reported
an increase in job satisfaction. The control group (which did the same amount of work) did
not see any changes in their health outcomes and job satisfaction. The point is that physical
exercise was not enough. The housekeeping staff had to understand its benefits before the
physical exercise led to better health outcomes and higher job satisfaction.

An important aspect of Dweck (2008) is that changing mindsets is an easy matter. She explains
that one can often change mindsets by simply explaining how the brain works. Many fixed
mindset participants assume that naturally talented people do things without effort. If one needs to make an effort, it shows how “untalented” one is. Neuroscience however shows that every time you make an effort, you build more and stronger connections in the brain. Apart from understanding how connections are formed by making effort, appropriate praise is critical. Studies show that when people are praised for their intelligence, their level of effort and persistence is quite low. However, by praising people’s effort, their effort, engagement, persistence, and learning increase significantly (Mueller & Dweck, 1998; Dweck, 2015). Critics might dismiss mindset theory as just another “positive thinking” theory. However, Dweck’s research found its way into highly reputable journal such as the Personality and Social Psychology Bulletin and the Journal of Personality and Social Psychology. In June 2015, the British Journal of Education Psychology did a special issue on how growth mindset is changing educational policies and educational outcomes. These are references that cannot easily be dismissed and it is only a matter of time before these ideas reach Malaysia.

Initially confined to education, the work of Dweck (2008) is starting to enter management literature. For example, Francesca Gino, a professor at the Harvard Business School recently published with a colleague an article entitled, “Why Organisations Don’t Learn” (Gino and Staats, 2015). The entire article is based on Dweck’s work. In a short paragraph that summarises the dynamics of mindsets, they write,

“Individuals with a growth mindset regards mistakes as an opportunity to learn and improve. Individuals with a fixed mindset think that mistakes signal a lack of ability” (Gino & Staats, 2015, p.111).

The article contains photos of fMRI scans of a growth mindset person dealing with a mistake (significant brain activity) and a fixed mindset person dealing with a mistake (little brain activity). Gino and Staats (2015) conclude that an organisation must develop a “growth mindset corporate culture” in order to become a learning organisation.

Satisfaction with Training
In the literature, most experts refer to evaluation rather than satisfaction. However, the focus on the literature is on the evaluation specific programmes and discuss whether it has met its organisational goals (Lynton & Pareek, 2000; Saks & Haccoun, 2010; Biech, 2012). In contrast, this study assess the satisfaction of non-academic staff in one Malaysian public university with the training system as a whole and its perceived benefits for employees. We felt it more useful to talk about satisfaction rather than evaluation to distinguish between the concern of the human resource department and the perception of employees.

Some Anecdotal Evidence
Prior to completing this study, one of the authors started using mindset theory in the classroom. Since June 2014, at the beginning of the semester, MBA students were assessed on their mindsets. They were then showed a couple of videos on YouTube that explained what mindsets were and their importance to personal learning and personal growth. They were then asked to do a review of Dweck (2008). On average, 90% of MBA students started with a
fixed mindset. By the end of the semester (i.e. 12 weeks), they had shifted towards a growth mindset. Anecdotal evidence suggests that this leads to a significant improvement in their studies, in their performance at work, and in developing a positive mindset. In a series of action research in schools, the mindset of secondary school students was changed by getting them to watch videos and discuss their content (Fontaine, 2015). Although this data is anecdotal, it reinforced the desire to publish the study and it confirmed Dweck’s (2008) assertion that changing mindsets is a straightforward process.

The Research

In 2014, the authors of this paper decided to look at the satisfaction of non-academic staff in one Malaysian public university after receiving T&D activities. There were many constraints. Perhaps the biggest constraint was that this was a pilot project for both the supervisor and the master student. Theoretically, the literature on mindsets indicate that fixed mindset individuals would view training negatively. Although their statements included comments such as “this is a waste of time”, the underlying reason would be fear of other people thinking that they were lacking in intelligence or talent. Theoretically, individuals with a growth mindset would view training positively. Provided the training was done properly (i.e. good training needs analysis and a good delivery), it would be perceived as a learning opportunity. However, before applying for a research grant and engaging in a large-scale project, the supervisor wanted to test the water. After discussion, the following parameters were agreed:

a) The population was non-academic staff in one Malaysian public university.
b) The sample size would be 100 to allow for meaningful statistics. The population of non-academic staff is about 1,200 people so one out of 12 would have to be surveyed.
c) Sampling would be stratified. A research assistant estimated the size of every faculty and centre and sought the assistance of senior administrators to distribute the questionnaire.
d) The focus would be on satisfaction with the training system as a whole rather than motivation prior to attending a particular course.

The last item was debated intensely. Research indicates a very strong correlation between motivation and a successful training outcome (Goldstein & Ford, 2002; Saks & Haccoun, 2010). However, motivation can only be assessed before a training programme. This was not practical for logistical reasons. It was decided to focus on satisfaction about training activities in the university. Figure 1 shows the relationships wanted to test.
The authors of this paper were not necessarily interested in the satisfaction per se. It is quite possible that employees attend a good programme but are not satisfied with it. This research was interested in testing whether employees with a fixed mindset perceived T&D differently than employees with a growth mindset.

**Design of the Questionnaire**

Designing the questionnaire proved to be a challenge. Many questionnaires are copyrighted. Some questionnaires are publicly available but their validity is unknown. The same problem exists for measuring the satisfaction of training activities. In the literature, most experts refer to evaluation rather than satisfaction. However, the evaluation of a programme can be quite subjective. Is one evaluating the personality of the trainer? Is one evaluating the usefulness of the content? Is one evaluating whether the content will be applied in the future? By thinking of satisfaction with training as an overall concept, it is hoped to generate data that was less subjective than the evaluation of a specific programme.

In the end, the authors decided to design the questionnaires by themselves. Relying on the literature, but without specifically adapting anybody else’s instrument, a questionnaire was designed after many iterations and two pilot studies. The questionnaire had 8 items to measure mindsets and 12 items to measure satisfaction with T&D in the university (see Appendix). The underlying factors of the items used to measure the relationship between mindsets (fixed and growth) and satisfaction of training programmes were subjected to principal component analysis (PCA) in order to summarise the structure and determine the psychometric properties of the constructs. The PCA produced three dimensions with their respective items. Items that measured mindsets (fixed and growth) and satisfaction of training and development programmes were reflected in the three factors. The output of the factor analysis is shown in Table 1.
Table 1 indicates that the psychometric instrument was acceptable. The first two constructs have a Cronbach’s alpha over 0.7 while only one construct had a Cronbach’s alpha below 0.7. However, it was only slightly below 0.7 so it can still be considered acceptable.

**Data Collection**

The sample for this study was 100 non-academic employees comprising 54 women and 46 men. There is no indication that males and females respond differently to mindset theory so differences between gender were ignored. Respondents did state their age but that information was not useful for analytical purposes. Table 2 shows the analysis of the results with the Pearson product-moment correlation coefficient.
The analysis shows that there is no significant relationship between a negative mindset and the satisfaction of T&D programmes ($r=-.028$, $n=100$ $P=0.782$). Although there is a slight negative relationship, the relationship was not significant. This does not mean that they do not benefit from the training provided as the instrument simply measures respondents’ perceptions. However, these training and development programmes have not had any lasting impression on these employees. One can assume that fixed mindset employees attend training sessions because they have to. Once they finish the training, they simply work in their usual manner.

On a more positive note, the analysis indicates that there is a significant relationship between employees who have a growth mindset and their satisfaction with T&D programmes ($r=0.435^{**}$, $n=100$, $P=0.000$). This is to be expected and confirms the growing literature on mindsets.

With regards to the sample, the choice of non-academic employees helps the process of generalising the results. In any university, academics are different from the majority of the working population because they have a master or a PhD. They tend to be researchers that do their own thing. Surveying academics would not have been helpful for generalisations. However, non-academic employees in universities are more representative of the working population. All of them have completed their SPM, many have a diploma and many of degrees. They tend to do administrative work that is similar to the administrative work in commercial organisations.

**Table 2: Correlations between mindsets and satisfaction**

<table>
<thead>
<tr>
<th>1. GROWTH MINDSET</th>
<th>2. FIXED MINDSET</th>
<th>3. SATISFACTION ON TRAINING AND DEVELOPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth mindset</td>
<td>1</td>
<td>0.435**</td>
</tr>
<tr>
<td>Fixed mindset</td>
<td>-0.028</td>
<td>-0.028</td>
</tr>
<tr>
<td>3. SATISFACTION ON TRAINING AND DEVELOPMENT</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed)**

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**Discussion**

These authors started by reviewing the literature on mindset theory and linking it to the satisfaction with regards to training and development. In this section, the question of generalisation will be addressed. In particular, the question is how this study links to the challenges facing Malaysian organisations. Table 3 attempts to address this question.
As Table 3 indicates, research on mindset theory suggests that fixed mindset leaders have a negative perception of their employees. They simply do not believe that they can or will change. When reviewing Abdullah (2009), it is striking that it is not only employees who do not treat T&D seriously, it seems that many leaders in senior management don’t take T&D seriously either. Growth mindset leaders have a more optimistic view. The difference is that they create the policies and procedures that reinforce that view. For example, when it comes to recruiting employees, potential employees can be tested to see whether they have a fixed mindset or a growth mindset. When it comes to improving managerial skills, all managers and supervisors can be taught to praise effort. Switching from praising talent to praising effort is a small thing but its impact can be significant (Dweck, 2014). The performance management system can be adapted to reinforce a growth mindset culture. Some organisations in the United States have started making this transition and found successful organisational outcomes (Dweck, 2014). Typically, employees in organisations where a growth mindset dominates felt that they could trust their colleagues more, they were more committed, and more likely to say that the organisation supported innovation (Dweck, 2014). However, more research has to be done in this area.

In short, incorporating mindset theory in the existing practice of HR professionals (whether it comes to recruiting, training, or retaining talent) seems like a win-win situation. It benefits employers and employees. It is also inexpensive as many videos explaining growth and fixed mindsets are freely available on YouTube. For trainees, attending a workshop that has been developed based on growth mindset principles will probably be a different learning experience. The content might be similar but the experience might differ greatly.

**Conclusion**

This study sought to clarify mindsets theory and how it could be used to resolve the challenges faced by Malaysian HR professionals. It was fortunate that as this research was being conducted, articles started appearing in professional journals – like the Harvard Business Review.
Preliminary Evidence of Mindsets and Training Satisfaction in Malaysia

Review – linking mindset theory, innovation, and organisational learning. By far the greatest problem faced was developing an instrument that was not copyrighted. The psychometric properties of the instrument seem satisfactory so that one could argue that this is only a minor concern. However, future research would have to be based on a more robust instrument. Be that as it may, the analysis of the data shows that there is a positive relationship (r=0.435**) between growth mindset and how trainees perceive T&D. Based on growing literature related to learning and management, there is reason to believe that mindset theory can be easily, cheaply, and successfully integrated into the current practices of Malaysian organisations to make them more effective.

The obvious limitation with this study is its generalisability. As has been highlighted, a case can be made that non-academic employees are similar to administrative employees in commercial organisations. Nonetheless, we cannot be certain. Are the issues related to T&D in one public university the same as T&D issues in commercial organisations? Is the breakdown of growth mindset and fixed mindset in one public university similar to the breakdown of fixed mindsets and growth mindsets in commercial organisations? Future research needs to be conducted before any generalisations can be made.

Appendix: The Questionnaire

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No matter how much intelligence you have, you can always change it a good deal</td>
</tr>
<tr>
<td>2</td>
<td>You can learn new things, but you cannot really change your basic level of intelligence.</td>
</tr>
<tr>
<td>3</td>
<td>I like my work best when it makes me think hard</td>
</tr>
<tr>
<td>4</td>
<td>I like my work best when I can do it really well without too much trouble</td>
</tr>
<tr>
<td>5</td>
<td>I like work that I’ll learn from even if I make a lot of mistakes</td>
</tr>
<tr>
<td>6</td>
<td>I like my work best when I can do it perfectly without any mistakes</td>
</tr>
<tr>
<td>7</td>
<td>When something is hard, it just makes me want to work more on it, not less</td>
</tr>
<tr>
<td>8</td>
<td>To tell the truth, when I work hard, it makes me feel as though I’m not very smart</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In the past, the training that I have received at IIUM has been useful</td>
</tr>
<tr>
<td>2</td>
<td>The training that I have received helped to do my job better</td>
</tr>
<tr>
<td>3</td>
<td>The training that I have received has improved my chance of promotion</td>
</tr>
<tr>
<td>4</td>
<td>When I attend training inside IIUM, I am motivated to apply the concepts after the training is over</td>
</tr>
<tr>
<td>5</td>
<td>If there are things that I don’t quite understand, I will ask my colleagues to better understand them</td>
</tr>
<tr>
<td>6</td>
<td>Training programmes help IIUM employees become more productive</td>
</tr>
<tr>
<td>7</td>
<td>Training programme help IIUM employees become more motivated</td>
</tr>
<tr>
<td>8</td>
<td>My colleagues inside IIUM take training programmes seriously</td>
</tr>
<tr>
<td>9</td>
<td>I am more interested in training programmes that develop specific skills</td>
</tr>
<tr>
<td>10</td>
<td>I am more interested in training programmes that develop overall knowledge of management</td>
</tr>
<tr>
<td>11</td>
<td>I am more interested in training programmes that develop overall knowledge of Islamic matters</td>
</tr>
<tr>
<td>12</td>
<td>Overall, the training system at IIUM works well</td>
</tr>
</tbody>
</table>
REFERENCES


