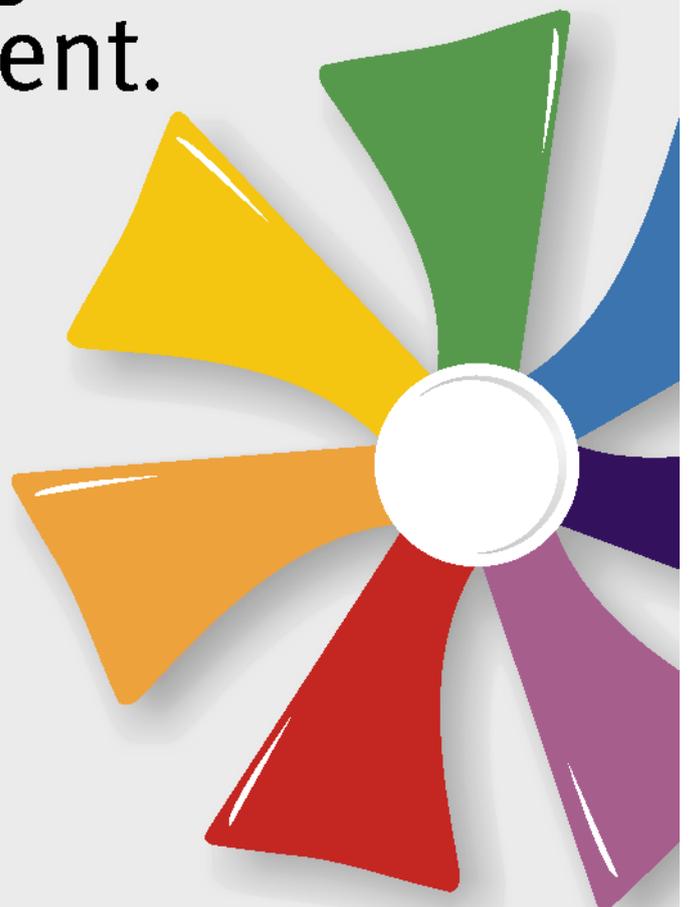


individual
**Role Engagement
Alignment
Profile™**

Reap the rewards
of engagement.



REAP™



Individual Role Engagement Alignment Profile (iREAP)

Psychometric Review of the Instrument

Executive Summary 2

Purpose 3

Development 3

Description of instrument 5

Use and interpretation 6

Description of validation population 7

Reliability 7

Item and sub-scale analysis 7

Internal consistency reliability 8

Test Re-test Reliability 8

Validity 11

Face Validity 11

Content Validity 12

1. Motivational Propeller 12

Abraham Maslow 12

Hertzberg 14

McClelland 16

Adams 17

1. Level of Engagement 18

2. Engagement Role Life Cycle 20

Predictive Validity 22

Construct Validity 24

Factor analysis 24

Outcomes: Association with other variables (age, employment status, LCTR, LCTO) 27

Future Developments for iREAP 28

Appendix 29

Figure 1. Motivational blades 4

Figure 2. Engagement risk and opportunity matrix... 5

Figure 3. Mean scores for iREAP blades (importance and satisfaction) and engagement across sample. 7



Executive Summary

The individual Role Engagement Alignment Profile (iREAP) is a diagnostic tool which measures an individual's levels of engagement towards their organisation and how aligned their motivations are in their current role. It is a tool designed to support career enrichment and decisions whether to stay and grow in their role, move internally or to exit the organisation.

The instrument is built on research from motivational theorists such as Maslow, McClelland, Adams and Herzberg. There are a series of seven scales and 52 aspects of work which address the motivational aspects (importance and fulfilment) of security, belonging, expertise, self-actualisation, work-life, community and world altruist. The engagement and commitment factors have been derived from more contemporary research from consulting firms such as Gallup and the Corporate Leadership Council.

A psychometric review of this tool was conducted in 2011 to evaluate the validity and reliability of the instrument. A total of 523 respondents were involved in the data collection and analysis. The demographic profile of the respondents revealed that 36.5% were male and the mean-age was 45-54 years of age. Our sample was highly educated with 77% having a degree or higher level qualifications and most 68% were employed full-time. We also had a high proportion of respondents in leadership roles with 19% being team-leaders and 49% in management positions of varying levels of seniority. People had tended to be in their roles for substantial periods of time with 19% in the role for 5-10 years and 34% in the role for more than 10 years.

The research findings confirm that the instrument is a sound instrument with reliability (Cronbach's alpha) scores ranging from .51 through to .76 for the motivational scales and .90 for the level of engagement scale.

The instrument also has excellent face validity with 90% of respondents indicating that the engagement profile in the engagement risk and opportunity matrix is correct for them. A confirmatory factor analysis with RMSEA scores of 0.05 indicates the seven-factor model for the iREAP has acceptable fit.

A multiple regression analysis revealed that the individual motivational factors account for 53.8% of the variance on the level of engagement.

The iREAP is continuing to be developed over time and the next version of the instrument is expected to have increased reliability and validity measures. The final psychometric report for iREAP is expected to be published by March 2012.



Purpose

The individual Role Engagement Alignment Profile is a unique diagnostic tool designed to:

- Help individuals become more self-aware of what their engagement and motivational needs are and how well they are being fulfilled at work
- Support people to take responsibility for their engagement and to make choices to either stay and grow in their role, move internally or explore opportunities externally
- Facilitate people and organisations to reap the rewards of engagement through identification of specific interventions that will increase:
 - performance and profitability, career mobility and retention
 - the effectiveness of career development conversations between a manager and their staff,
 - the likelihood of behavioural change at the individual level
- Plug gaps left by engagement surveys which focus on the “we” instead of the “me” and do not account for individual motivation factors which drive 53.8% of engagement within an organisation.

Development

The instrument was developed from a mixture of practitioner experience and research into motivational theories and models of engagement. The research was developed by Pamela Frost over a period of 5 years.

The motivational model that the iREAP is based upon is shown in Figure 1.



Use and interpretation

The iREAP instrument should be used in a development context for executive coaching, leadership development, talent retention and career development. The instrument should not be used as an assessment input into performance reviews, recruitment and selection or decisions relevant to promotion or termination.

The iREAP instrument will profile people on the engagement risk and opportunity matrix outlined below. Each of the cells has a risk, an opportunity and recommended development actions.

The engagement factors on the y-axis are scored in a likert scale over seven. The breakdown of scores as low, moderate or high are respectively those averaged scores below 3.59, moderate are scores between 3.6 and 5.39 and high engagement scores are those averaged scores above 5.36.

For dissonance on the x-axis of the matrix, the scores again are calculated as the difference between satisfaction and importance or all of the 52 aspects of work. These scores are averaged across the matrix. The breakdown of scores for low, moderate and high is an averaged dissonance score of - 0.45 or higher for low, between -0.45 and -1.29 for moderate and less than -1.29 for high dissonance.

We have found that there are high (positive) correlations between:

- High engagement and low dissonance (Flying High = approximately 20%)
- Moderate engagement and moderate dissonance (Seat Belts On = approximately 19%) Low
- engagement and high dissonance (Stormy Weather = approximately 12%)

Hence there is a higher proportion of respondents who are profiled within these cells of the Engagement Matrix.

Conversely there is a negative correlation between:

- Low engagement and low dissonance (Stormy Weather = approximately 1.6%) High
- engagement and high dissonance (Red Alert = approximately 2.3%)

Subsequently there are lower percentages of people who are profiled in these cells of the Engagement Matrix.

The reason for these correlations is due to the psychological contract theory. See the section below on content validity for more information about this.

We strongly recommend that respondents seek the support of a professional coach to guide their decision making to make a transition or exit a company.

Description of validation population

The psychometric review of this instrument was based on the following demographic data of respondents:

- N=523
- 36.5% male
- Mean age is 45-54 years
- 77% have degree or higher level qualifications
- 68% employed full-time, 9% part-time and 23% self-employed / contractors 19%
- team leaders and 49% in management positions (various levels of seniority) 19% in
- the role for 5-10 years and 34% in the role for more than 10 years
- Mean length of time with the organisation is 2-5 years

Graphical representations of this data are available in the appendix.

Reliability

Item and sub-scale analysis

Descriptive analyses were performed for all 52 motivational items and all 14 engagement factors. Complete tables are shown in Appendix (Tables A1-A3). Figure 3 shows the mean importance and satisfaction scores for each subscale, as well as mean engagement.

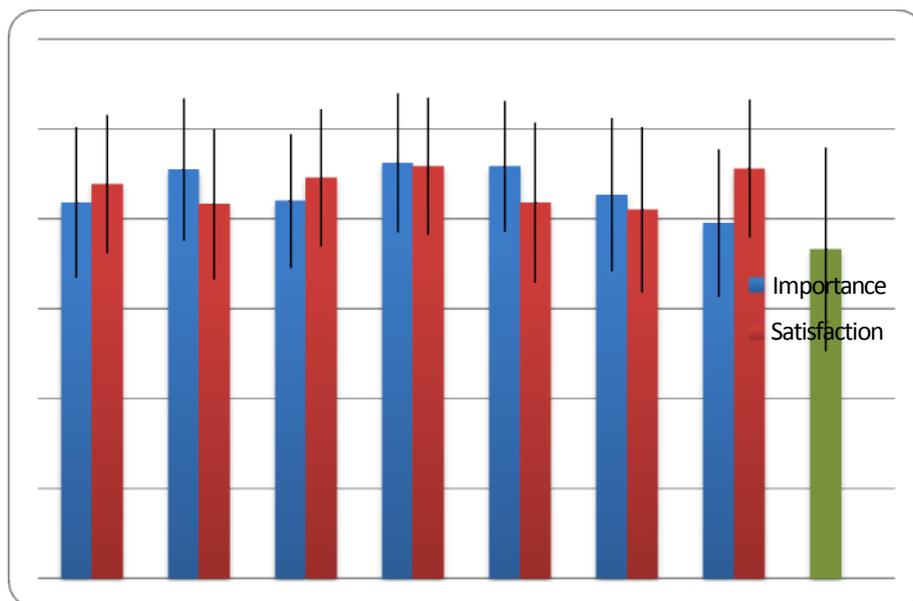


Figure 3. Mean scores for iREAP blades (importance and satisfaction) and engagement across sample.



Internal consistency reliability

The internal consistency reliability has been measured by Cronbach's alpha for both importance and satisfaction items. It is used to provide a mean coefficient for all of the split half pairings of items in the scale and regarded as a stringent test of reliability for instruments such as this. Alpha coefficients should ideally be in the range of 0.65-0.9 to be neither too low or too high.

The alpha coefficients obtained for the iREAP instrument are shown in Table 1.

Table 1

Cronbach's alpha for iREAP blades (importance and satisfaction) and individual engagement (n=523).

	Importance	Satisfaction
Security	.724	.645
Belonging	.678	.705
Expertise	.615	.676
Self-actualisation	.756	.737
Work-life	.688	.741
Community	.564	.716
World altruist	.512	.616
Engagement	.906	

Test Re-test Reliability

Test-retest reliability looks at the reliability of re-test results over time. Re-tests of the iREAP instrument were conducted for 40 respondents over a 2-3 week period.

The traits in the iREAP are expected to be relatively enduring over this time period. A series of paired sample t-tests found that there were no significant differences on mean scores for any importance, satisfaction or engagement variables between the first and second surveys. Table 2 shows the test-retest correlations.

**Table 2**

Correlation coefficients for test-retest reliability for importance, satisfaction and engagement items.(n=40)

	Importance	Satisfaction
Security	.834	.709
Belonging	.716	.784
Expertise	.735	.856
Self-actualisation	.827	.823
Work-life	.822	.798
Community	.764	.704
World altruist	.785	.824
Engagement	.837	

The retest processes also evaluated whether there were any changes in the engagement risk and opportunity profile of the respondent over time. Based on the sample of 40 respondents the following outcomes were achieved from the test re-test process:

- 55% of respondents were profiled in exactly the same cell position in the matrix
- 33% of respondents were profiled within 1-cell of their previous placement (i.e. they remained constant in either the level of engagement or level of dissonance with the other variable changing)
- 13% of respondents were profiled in a radically different cell to their previous placement (i.e. they changed *both* level of engagement *and* level of dissonance)

The iREAP instrument is designed to encourage individuals to be more self-aware, take responsibility for their engagement and then make appropriate career related decisions. The very act of completing the instrument and reading the report can increase self-awareness and prompt at the very least a change in mind-set, conversation with key stakeholder or a more active step of changing roles.

The reasons stated for a change in their profile were as follows:

- Change in work demands in between completing the instrument Been
- on holidays since completing the instrument
- Had a conversation with manager about changing aspects of role Have
- moved through on-boarding stage in the role



- Changed jobs,
- Dealing with different equipment, people, clients and resources
- Decided to be more committed to the role, first report prompting a more positive outlook
- Prompted by first report to start actively looking for a role which changed mindset Was
- not feeling well when first completing the instrument
- Not sure why it had changed so much



Validity

Face Validity

Face validity refers to whether on the surface the report seems to fit the purpose and be true for the person. The outcomes of the report and the profile on the engagement risk and opportunity matrix do seem to have high face validity for the 1000's of respondents who have now completed the instrument. Consistent feedback is provided that people feel very comfortable about how they have been profiled in the engagement risk and opportunity matrix.

To evaluate face validity of the instrument the following process steps were adopted.

1. Respondents were sent an invite to complete the instrument online
2. Prior to receiving their report they were asked to "predict" where they would be profiled on the engagement risk and opportunity matrix. They were sent an email which asked them to make a rating as to whether they thought that they experienced high, moderate or low engagement. They were also asked to indicate whether they felt they are experiencing high, moderate or low levels of dissonance in their current role. A short description was provided to define each of these states and guide their selection.
3. Once they made their selection they were sent their report to peruse.
4. Finally they were asked to "validate" whether they agreed with how the iREAP instrument had profiled their result. They were also invited to make relevant comments.

The face validity results are shown below in Table 3: Predictive Validity Results. :Table

3

Predictive Validity Results for iREAP

Predictions	Number	Percentage (%)
Number of respondents who predicted 100% accurately	91	51.1%
Number of respondents who predicted 50% accurately	60	33.7%
Number of respondents who predicted incorrectly	27	15.2%
Number of respondents who did not provide prediction	0	0.0%
<i>Sample size</i>	178	
Validations		
Number of respondents validating Engagement matrix correct	161	90.4%
Number of respondents validating Engagement matrix incorrect	11	6.2%
Number of respondents who did not provide validation feedback	6	3.4%
<i>Sample size</i>	178	

This indicates that the iREAP instrument has very high face validity with 90% of respondents confirming the final placement in the engagement matrix as being true and correct for them.



Content Validity

The models underpinning the iREAP instrument do not come from a single theoretical model, they are derived from a number of different models. Some contemporary research and other research dating back to the 1950's but still relevant today. The section below will categorise the research background into three major sections:

1. Motivational Propeller – the various motivational theorists
2. Level of engagement
3. Engagement Role Life Cycle

1. Motivational Propeller

The theorists from which the motivational propeller has been derived is Maslow, McClelland and Herzberg's theories on motivation.

Abraham Maslow

Abraham Maslow's hierarchy of needs and study of human psychology which was first published in 1943 is the foundation of the motivational propeller. In Maslow's model there is a hierarchy of needs which is represented as a pyramid with lower order (deficiency needs) presented at the bottom of the triangle and higher-order needs represented at the top of the model. Please refer to the image over-page.

The logic of the model is that the lower-order needs must be met first in order for the high-order needs to be satisfied. For example if someone does not have their physiological needs met (food and water for survival) the human body will not function properly. Once those physiological needs are met, then that person will seek out safety and protection of their body, property and health and this is where security becomes more important. Furthermore, once those needs are met they will then seek out other needs such as creating a sense of belonging by developing relationships with friends and family, social contact, sexual intimacy and so on.

It is only after these lower-order needs met that they are in a position to concentrate on higher-order needs such as doing well, delivering results, reaching potential, testing limits and so on.

Esteem is important because it relates to a person's desire to be accepted and valued by others in a social or group context. People have a need to engage themselves in such a way to get recognition and the feel-good factor. Maslow also spoke about different degrees of esteem in his research. The lower order esteem is dependent on external recognition or validation through status symbols, remuneration, public recognition, fame and prestige. The higher-order self-esteem is through internal validation through self-ownership of capability, competence, self-respect, self-assurance and independence.

Self-actualisation relates to the actualisation of one's potential. Maslow described it as becoming what you are capable of becoming – to reach one's limits and go beyond. This may be in the context of being the best person you can, or the best athlete or the best artist. Self-actualisation was grounded in the person's desires or intention to be the best they possibly could.



The motivational propeller is based on the Maslow Hierarchy of needs with similarities and some fundamental differences which are outlined below:-

- Maslow's physiological and safety categories were integrated into the **Security** motivational blade in the individual Role Engagement Alignment Profile™. As the instrument was developed primarily as a tool to examine motivations in a western organisational context; aspects such as food, water, sex, sleep are needs which are ostensibly addressed in a home environment. So these dimensions are not strongly represented in the instrument. What is regarded as important however is being able to conduct work in an environment that is reasonably comfortable – for example operating with ambient temperature, appropriate levels of lighting, access to water, toilet facilities and so on. These relate to the work aspect of “comforts”. Safety needs are more strongly represented in the Security blade which concentrates on being able to have the financial means or income to provide for the family, accommodation, eat healthily and so on. Security draws on aspects of occupational health and safety as well as the need for psychological safety. The love / belonging and some of the esteem dimensions relate to the **Belonging** motivational blade. Instead of a sense of connection to friends and family the connection is described in terms of feeling connected with colleagues and managers, being able to socialize and have fun with others. The lower order dimensions of esteem are also incorporated into this blade in so far as external recognition is important. Therefore belonging in the iREAP™ relates to external recognition, being appreciated by others and understanding how the role performed fits into the larger scheme of things. Or how well it is recognised within the organisation. The **Expertise** motivational blade in the iREAP™ draws more on the higher self-esteem needs described by Maslow. Being able to solve problems, deliver results for clients, keep up with the latest developments, improving the way work is done and so on are more relevant for the notion of personal mastery and building ones expertise.
- The thinking behind the **Self-Actualisation** blade is very much aligned with Maslow's model. In the iREAP™, the self-actualisation blade recognises that people have many different roles. They can be a father, mother, sports coach, volunteer in a charity, writer of poetry, musician, and senior executive and so on. So self-actualisation is about actualising your potential across all of these various roles and building your multiple intelligences (emotional, intellectual, spiritual and other). It is about actualising potential for potential sake rather than for a specific “work contribution” like being the best you can in your particular professional area. It acknowledges that human beings are very complex and have many different facets rather than just employee or self-employed workers. Self-transcendence relates to the desire to improve and better ourselves and in many ways has a spiritual connotation. To self-transcend is to do more than self-actualise. To transcend the self; the intention or focus is much less on the self and more on others. It is about contribution to the benefit of others rather than a focus on the self for self-sake. An awareness that our personal growth and development (higher order needs) did not just involve betterment of the “I” or “me” but the in the interests of the greater good, betterment of the collective or “we”.
- Maslow recognised this dimension in his research when he spoke about two different flavors of self-actualisation.
 1. to be free of the good opinion of others;
 2. to do things not simply for the outcome but because it's the reason you are here on earth
- The way in which these philosophies have been integrated into the individual Role Engagement Alignment Profile™ is in the last three blades: Work/Life, Community and World
-



Altruist. Each of these blades is about making a contribution to others and they are differentiated by degrees of scale or complexity.

- In the **Work-Life** motivational blade it is about making a positive and lasting difference to the organisation that you work for. Where what is most important to you is that the work that you do aligns with your vision and values (the reason you are here on earth) and provides a sense of meaning and purpose. Work-life balance is considered from the perspective that there are often many priorities on our time and we need to balance between the time and energy we devote to work against that which we spend on other aspects in our life.

- **Community** takes this theme of focusing on others and making a contribution to a more extensive playing field. Instead of the contribution being towards the organisation or even being concerned with the need for work provide “you” with a sense of purpose – the emphasis is definitely on the greater “I” in the form of the community you interact with. Those communities could be your local communities, charities or even professional networks.

This theme is extended even further in the **World Altruist** blade which is firmly centred in being part of something bigger than yourself and being motivated to make the world a better place for others and future generations of people.

-



Predictive Validity

The predictive validity of the iREAP instrument has been considered in the context of whether the career development or engagement actions predicted by the iREAP instrument actually transpired. This research does require longitudinal research which is difficult and costly to conduct so there is limited information to report here.

A study was conducted on a client in 2008 however which does provide some evidence of predictive validity. The iREAP instrument (formerly called the Work Engagement Tool) was used in a career enrichment training program delivered to eighty-nine participants over the period of November 2006 to April 2008 in NSW and Victoria in an Australian manufacturing company. The participants ranged in length of service in their current role from three months through to 13 years. The median tenure in the participant's current role was two to three years. The median tenure for time at the company overall was four to five years.

The program essentially targeted people who may have been:

- experiencing career plateau
- desiring a career transition
- ready for their next career step

The program also made a comprehensive review of participant's talents, capabilities, aspirations and career opportunities, and, to make a choice about whether they wanted to:

- stay and re-engage in their current role
- explore other opportunities within the organisation exit
- the organisation

Of the 89 employees that attended the Career Enrichment program, 66 people (74%) stayed working in the company and 23 people or 26% chose to exit the company. Out of those people who stayed and completed the qualitative survey:

- 72% stayed working in the same role 18%
- were transferred or seconded and 18%
- were promoted

Furthermore, for those staying in the company; since attending the program:

- 72.5% indicated that they had changed as a person
- 37.5% changed career plans
- 50% said that things had improved

When asked to rate their level of engagement post program, for those who indicated they were "more" and "much more" engaged, two key variables for those employees seemed to be:

- proactively engaging their manager in a career development conversation



- taking on more challenging projects

Post course engagement had a significant but weak negative correlation with overall tenure at the company ($r = -.32, p < .05$) suggesting that as the length of tenure at Canon increased, the level of engagement fell. This is consistent with the notion of an engagement role life cycle occurring in organisations.

Statistical analyses conducted on the pre and post course engagement levels revealed a significant difference ($p < .001$) between levels of engagement for those still at the company (mean engagement score of 64.04) and those who had left (mean engagement score of 55.73).

Of the 26 people that chose to leave the company (either through redundancy or resignation); the pre-testing of the iREAP revealed that:-

* Only 6% of those were considered highly engaged (Flying High, Turbulence and Red Alert) *

25% were moderately engaged (Automatic Pilot, Seat-Belts On and Transit Lounge (high)

* 53% reported low levels of engagement (Departure Gate, Transit Lounge (Mod) and Stormy Weather)



Construct Validity

Factor analysis

A confirmatory factor analysis was conducted to determine how well a seven-factor model fits the iREAP. The overall chi-square goodness of fit was significant as is normally expected with a large sample size (Kenny, 2011⁷), therefore more reliable fit indices were investigated. These are shown in table 6.

Table 6

iREAP Factor Analysis Results

Fit indices	Value
RMSEA	.05
CFI	.69
SRMR	.08

RMSEA

The root mean square error of approximation (RMSEA) is probably the most popular measure of fit used. Values of .01, .05, and .08 indicate excellent, average, and poor fit respectively. The confidence intervals of the iREAP RMSEA are .05-.06. As the RMSEA value is acceptable, and the upper confidence interval does not exceed .08, it indicates the seven-factor model for the iREAP has acceptable fit.

CFI

The CFI is another measure of fit. Essentially it is a measure of item correlations, comparing the predicted model to an independent model where it is assumed that the variables are not correlated. The closer this value is to 1, the better the fit. Ideally this should be higher than .90. However, this value is negatively affected the lower the item correlations. It is expected that this value will increase after adjusting items, i.e. rewording.

SRMR

The standardised root mean square residual (SRMR) is another measure of fit that compares correlations between the target model and another model. It is thought to be acceptable if below .08, but ideal if it is less than .05. This too is expected to improve with item changes.

The actual factor loadings in the confirmatory factor analysis is shown in Table 7. **Table**

7

<http://www.davidakenny.net/cm/fit.htm>



Factor Loadings for iREAP Instrument

Community		Work/life	
Q46I	.42	Q38I	.33
Q43I	.74	Q39I	.29
Q42I	.70	Q33I	.58
Q41I	.78	Q34I	.28
Q45I	.64	Q35I	.48
Q44I	.72	Q37I	.60
		Q40I	.65
		Q36I	.56
World altruist		Belonging	
Q47I	.72	Q11I	.29
Q50I	.63	Q14I	.32
Q51I	.57	Q10I	.34
Q49I	.74	Q16I	.55
Q48I	.52	Q15I	.29
Q52I	.72	Q12I	.44
		Q09I	.53
		Q13I	.41
Security		Expertise	
Q08I	.20	Q18I	.29
Q03I	.50	Q20I	.50
Q01I	.64	Q23I	.47
Q02I	.54	Q22I	.56
Q06I	.62	Q24I	.62
Q04I	.56	Q21I	.51
Q05I	.63	Q17I	.54



Q07I	.53	Q19I .52
Self-actualisation		
Q29I	.29	
Q25I	.50	
Q30I	.47	
Q32I	.56	
Q27I	.62	
Q28I	.51	
Q31I	.54	
Q26I	.52	



Outcomes: Association with other variables (age, employment status, LCTR, LCTO)

A set of multiple regression analyses was performed on the data, with engagement as the dependent variable, and importance and satisfaction variables as the predictor variables (see Table 8). Importance variables together accounted for 53.8% of the variance in engagement, while 46.3% was accounted for by the satisfaction variables. When entered into the regression analysis together, importance and satisfaction variables together accounted for 57.5% of the variance in engagement.

Of the importance variables, self-actualisation was the strongest predictor of engagement, followed by security and belonging. Of the satisfaction variables, the strongest predictors of engagement were world altruist, self-actualisation and security. However, when both importance and satisfaction variables were entered into the regression analysis, importance of belonging and satisfaction with self-actualisation were no longer significant predictors of engagement.

Table 8 - Multiple Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
IV: Importance			
(Constant)	-1.874	.301	
ImpSecurityMean	.207	.060	.154**
ImpBelongingMean	.127	.060	.089*
ImpExpertiseMean	-.057	.067	-.038
ImpSActualMean	.751	.068	.515***
ImpWLIIntMean	.093	.079	.060
ImpCommunityMean	.066	.055	.050
ImpWAltruistMean	-.008	.052	-.006
IV: Satisfaction			
(Constant)	-1.363	.320	
SatSecurityMean	.161	.079	.110*
SatBelongingMean	.017	.067	.012
SatExpertiseMean	-.078	.070	-.052
SatSActualMean	.249	.078	.169**
SatWLIIntMean	.114	.074	.090
SatCommunityMean	.078	.068	.064