RANKING THE PERSONAL EXCELLENCE TRAINING NEEDS OF UNDERGRADUATE TOURISM STUDENTS

Jennifer Min† --- Hui-Wen Vivian Tang‡ --- Chun An Chen§
†Department of International Business, Ming Chuan University, Taipei, Taiwan
‡Teacher Education Center, Ming Chuan University, Taoyuan, Taiwan
§Department of International Business, Chung Hua University, Hsin Chu, Taiwan

ABSTRACT
Increased attention has been devoted to the issue of pursuit of personal excellence in the higher education in Taiwan in order to enhance the teaching quality and increase students’ competition. While the government has devoted considerable efforts and funding to education institutions through different academic excellence plans, there has been relatively little discussion of pursuit of excellence among student population, nor have there been any curriculum or training programs designed for students to improve their personal excellence. Thus, the present study aims to fill the research gap by designing a training program for the personal excellence of undergraduate tourism students in Taiwan. Grey Relational Analysis (GRA), a multi-criteria decision analysis method, is conducted to prioritize personal excellence training needs for tourism students. The training programs are then developed with a focus on enhancing weak areas of personal excellence competence for tourism students. It is hoped that the results can give students an advantage in entering and staying in their chosen industry, leading to success in both their professional and personal lives.

Keywords: Personal excellence, Training needs, Priority, Tourism students.

1. INTRODUCTION
Recently, many scholars and policymakers have focused on the problems and challenges of modern higher education. For example, Margaret Spellings, who was US President George W. Bush’s nominee for Secretary of Education, argued that some higher education institutions are in need of systemic change in order to achieve greater student success (Atwell, 2006). Similarly, Finnie and Usher (2005) emphasized that policy changes are needed for universities to realize their full potential and achieve excellence. Over the past year, in a process to select the winner of the Aspen Prize for Community College Excellence, the Aspen Institute has assembled national experts to define and determine how to measure “excellence”, to identify colleges with high levels of student
success, and to help more colleges understand what can be done to improve their outcomes and increase students’ success (Freeman, 2007; Schneider and Yin, 2011; Adam, 2012; Wyner, 2012; Perlstein, 2013).

This issue is not isolated to the US education system. In order to enhance its national competitiveness in the global market place, the Taiwan government has followed the US model by expanding the higher education sector (Mok, 2003; Hou, 2011; Mok et al., 2013). Over the last two decades, several new universities were established in Taiwan, and at present there are around 160 national or private universities in the country, which has resulted in an increase in enrollment of nearly 100 percent. However, the government’s efforts were aimed at not only increasing enrollment but also improving the quality of the education provided (Liu and Cheng, 2012). For this reason, excellence programs are becoming a national agenda item in Taiwan as a means of promoting academic excellence and the international competitiveness of higher education (Hou, 2012). The Program for Promoting Academic Excellence of Universities (PPAEU), for instance, was initiated by Taiwan’s Ministry of Education (MOE) in 1998 based on the ministry’s Action Plan for Educational Reform. The PPAEU outlined several specific goals, such as to improve infrastructure for research universities by promoting major areas in order to pursue academic excellence, and to direct universities towards developing top areas and effectively integrating university resources (Liu and Cheng, 2012; Chiang, 2013). In spite of the extensive efforts in promoting students’ excellence, there is almost a complete absence of models to measure and explain excellence, and there has been little research on the pursuit of personal excellence as a psychological construct for college students in academic institutions. Recently, the “Personal Excellence Map” (PEM) was developed by Nelson and Low (2003a;2003b) and Nelson et al. (2007) as an instrument to measure one’s ideal self. This instrument was based on nearly thirty years of research concerning how human cognition and emotion affect individual development and performance. The PEM integrates the a priori model of personal excellence and the transformational learning theory of emotional intelligence (EI) (Nelson and Low, 2003a;2003b). Nelson and Low (2003a) argue that after identifying the skills of personal excellence, people can learn and practice. Over time these new behaviors may become more automatic, and this has the potential to improve academic and career success. The authors refer to these new behaviors as “intentional success habits” (p. 137). Accordingly, the objective of this research is to devise suitable personal excellence training for undergraduate tourism students, which the volume of students studying in tourism departments grew from 11,393 in 1998 to 94,729 in 2015, over eight-fold growth (Ministry of Education, 2016) after Taiwan’s government has made many efforts to develop a more diverse travel environment and enhance competition to attract more inbound tourists and domestic travelers in recent years. In order to accomplish this, the empirical analysis is divided into three stages. First, the personal excellence assessment developed by Hammett (2007) and translated into Chinese by Tang et al. (2012) is used to assess tourism students’ levels of personal excellence. Second, Grey Relational Analysis (GRA), a multi-criteria decision analysis method, is used to prioritize the personal excellence training needs of tourism students. Finally, the training programs are developed for tourism students with a focus on enhancing weaknesses in their personal excellence competence. It is hoped that the results can give students an advantage in entering and staying in their chosen industry, leading to success in both their professional and personal lives.

2. LITERATURE REVIEW

The literature review section presents the theoretical background of the personal excellence measure developed by Nelson and Low (2003a;2003b) and Nelson et al. (2007).

2.1. The EI-Centric Model of Personal Excellence

A 2007 study conducted by Hammett sought to build upon (Nelson and Low, 2003b) a priori model of personal excellence. To accomplish this, Hammett devised the Personal Excellence Map (PEM) and developed one five-
dimension instrument (Hammett, 2007). PEM is essentially an EI-based model of personal excellence demonstrable in individuals who are capable of using both their rational and emotional minds and multiple intelligences, and who have a need for self-actualization (Tang et al., 2016).

EI theory was originally developed during the 1970s. In 1983, Howard Gardner, a psychologist at Harvard University, initiated *Frames of Minds: The Theory of Multiple Intelligences* and proposed that intrapersonal and interpersonal intelligence are as important as the type of intelligence typically measured by Intelligence Quotient (IQ) and related tests. Salovey and Mayer, who created the term “emotional intelligence” in 1990, use it to refer to a type of social intelligence that involves the ability to read emotions in one’s self and in others, and to be able to adopt this information to guide one’s thinking, actions and decision-making (Salovey and Mayer, 1990). It can play a significant role in organizational and educational development because it provides a new way to understand and assess people’s behaviors, management styles, attitudes, and interpersonal skills (Goleman, 1998). Since then, interest in EI in the fields of organizational behavior and management practice has increased dramatically, and it has been employed to assist in such areas as job satisfaction, leadership, work success, occupational stress, employee turnover, customer satisfaction, sales performance, etc. (Lassk, 2013; Liu et al., 2013; Min, 2014; Ouyang et al., 2015). The evidence has also been extended to demonstrate that emotional intelligence can be a positive indicator of students’ academic achievement (Costa and Faria, 2015).

Constructs for EI have been generalized into two competing models: the ability-based model and the trait-based model (Conte, 2005). The ability-based model, which was originally conceptualized by Mayer and Salovey (1993,1995,1997) defines EI as a type of intelligence reflecting the ability to process emotional information in four areas: (a) perceived emotion, (b) use of emotion to facilitate thought, (c) ability to understand emotions, and (d) management of emotions. The trait-based model of EI, endorsed by Goleman and Bar-On, defines EI as a set of non-cognitive attributes encompassing personal traits such as empathy, optimism, adaptability, warmth, and motivation (Watkin, 2000; Van and Wabeke, 2004; Conte, 2005). Although most researchers follow the two models of EI referred to above, there is also a third model of EI - Nelson and Low’s emotional learning system. Nelson and Low developed the Emotional Skills Assessment Process (ESAP) to help fill a gap in the literature by offering a psychologically sound yet practically sequential EI measure appropriate for academic use and career development. EI, as defined by Nelson and Low, is a learned ability to identify experience, understand human emotions, and express emotions in healthy and productive ways. The current study adopted the PEM model, which integrates the transformational learning theory of emotional intelligence and the a priori model of personal excellence.

PEM measures five major domains, or key systems, as follows: (a) Guidance and Vision, (b) Balance and Change, (c) Beliefs and Purpose, (d) Support and Relationships, and (e) Power and Commitment (Nelson and Low, 2003a). Figure 1 below shows the key skills encompassed by each of these systems. The PEM is a five-point Likert-type response scale and the beginning of the instrument gives clear instructions on how PEM works, along with definitions of the key systems and skills. In addition, a scoring guide is included for finding and recording users’ T-scores (standardized scores), referred to as “Your Personal Excellence Profile”. These T-scores allow respondents to assess their personal excellence using the “Personal Excellence Map” (Figure 2). Finally, the total standardized score is presented on a continuum of personal excellence.
3. METHODOLOGY

3.1. Sampling and Instrumentation

In this study, quantitative data is collected and analyzed in order to prioritize the training needs of personal excellence for students in tourism-related fields. Before conducting this study, it was reviewed and approved by the Institutional Review Board (IRB). The study now meets IRB’s requirements, one of which states that all participants should be aged 20 or above. A convenience sampling strategy was used to recruit 230 undergraduate tourism management students from four universities throughout Taiwan, including one public university and three private universities, representing similar proportions of the overall number of tourism schools in Taiwan. In order to increase the survey’s response rate, every respondent was given an LED keychain upon completing the questionnaires. A total of 218 surveys were returned, for a 94.8% response rate. Of the returned surveys, 21 questionnaires were incomplete and thus eliminated from the final sample, resulting in a total valid sample of 207.

The present study adopted a Chinese translation of personal excellence measurement. Though previous studies have provided preliminary evidence for the construct reliability and validity (see Tang et al. (2012)) both the reliability and validity need to be further established by independent research. The reliability and validity of methods used in this study were achieved by using a triangulation of qualitative and quantitative research.
approaches, including in-depth interviews on the applicability of each item to tourism professionals. Regarding each item's applicability to the current study, seven expert opinions were collected via interviews; these experts consisted of one governmental officer, one practitioner, and five university professors in the field of tourism/education management. After collecting the experts' opinions and reaching common agreements, eight revisions were made in order to ensure that items were applicable to tourism management students. In the present study, Cronbach alpha reliability coefficients for *Dedication* (0.85), *Assertion* (0.83), *Motivation* (0.80), *Efficiency* (0.89), and *Change Orientation* (0.79) were considered acceptable. Cronbach alpha reliability coefficients (0.82) for all 76 items were deemed acceptable.

3.2. Grey Relational Analysis (GRA)

Grey System Theory was first proposed by Dr. Deng in 1982. It was developed to avoid the inherent defects of conventional statistical methods and to build up relationships between different model constructs in circumstances such as uncertainty, multi-data input, discrete data, and insufficient data. Grey System Theory, one of MADM techniques, has been used as a decision-making tool through value evaluation; its role involves setting standards for evaluation criteria, assigning weight for each criterion, grading each alternative under individual criteria, synthesizing utilities, and ranking alternatives (Deng, 1990). GRA is one model derived from Grey System Theory; it is widely used and has been studied in many diverse areas of social management science, particularly in ranking and prioritizing the preference order of alternatives and determining the optimal choice. Since the 2000s, tourism scholars have applied GRA to the tourism field, in areas such as tourism planning, evaluation, and decision making (Ruo and Liang, 2011; Wang et al., 2015; Mohammadi et al., 2016).

4. DATA ANALYSIS

In this section, the approach used for prioritizing the personal excellence training needs is based on the six steps of GRA (Tang et al., 2010). The total sample was 207 undergraduate students in the colleges of tourism.

**Step-1. Construct the decision matrix**

GRA was conducted to detect the competency levels of personal excellence variable, and the procedure of detecting ranking of priority is based on arranging data collected from personal excellence measure profiles of participants representing students in the fields of tourism management for GRA. First, each alternative is processed in the quantitative way to obtain the performance value of each attribute and construct the following decision matrix, as shown in Table 1 below:

<table>
<thead>
<tr>
<th>Alternative</th>
<th>$C_1$</th>
<th>$C_2$</th>
<th>$C_3$</th>
<th>……</th>
<th>$C_n$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$A_1$</td>
<td>$a_{11}$</td>
<td>$a_{12}$</td>
<td>$a_{13}$</td>
<td>……</td>
<td>$a_{1n}$</td>
</tr>
<tr>
<td>$A_2$</td>
<td>$a_{21}$</td>
<td>$a_{22}$</td>
<td>$a_{23}$</td>
<td>……</td>
<td>$a_{2n}$</td>
</tr>
<tr>
<td>$A_3$</td>
<td>$a_{31}$</td>
<td>$a_{32}$</td>
<td>$a_{33}$</td>
<td>……</td>
<td>$a_{3n}$</td>
</tr>
<tr>
<td>……</td>
<td>……</td>
<td>……</td>
<td>……</td>
<td>……</td>
<td>……</td>
</tr>
<tr>
<td>$A_m$</td>
<td>$a_{m1}$</td>
<td>$a_{m2}$</td>
<td>$a_{m3}$</td>
<td>……</td>
<td>$a_{mn}$</td>
</tr>
</tbody>
</table>

Source: Deng (1982)
Step-2. Normalized decision matrix

According to the procedure reviewed on processing GRA, the decision matrix must first be normalized. The normalized decision matrix is tabulated in Table 2. It is necessary to note that the survey results were with responses in both the positive and the negative directions. For the purpose of detecting the priority of variables affecting overall personal excellence competencies, the processing method for maximum value was used to handle the following four variables with responses in the positive direction: Dedication, Assertion, Motivation, and Efficiency. The processing method for minimum value was used to compute the variable of Change Orientation with responses in the negative direction.

Step-3. Estimate a standard alternative $A_0$

The standard alternative picks out the value of each comparing index under the best condition, which is defined as:

$$A_0 = [1, 1, 1, 1]$$

### Table-2. Summary of Data Normalization

<table>
<thead>
<tr>
<th>Students</th>
<th>Dedication</th>
<th>Assertion</th>
<th>Motivation</th>
<th>Efficiency</th>
<th>Change Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.541667</td>
<td>0.569444</td>
<td>0.500000</td>
<td>0.583333</td>
<td>0.650000</td>
</tr>
<tr>
<td>2</td>
<td>0.666667</td>
<td>0.680556</td>
<td>0.552083</td>
<td>0.437500</td>
<td>0.625000</td>
</tr>
<tr>
<td>3</td>
<td>0.750000</td>
<td>0.652778</td>
<td>0.687500</td>
<td>0.687500</td>
<td>0.625000</td>
</tr>
<tr>
<td>4</td>
<td>0.520833</td>
<td>0.708333</td>
<td>0.708333</td>
<td>0.625000</td>
<td>0.100000</td>
</tr>
<tr>
<td>5</td>
<td>0.770833</td>
<td>0.555556</td>
<td>0.489583</td>
<td>0.520833</td>
<td>0.600000</td>
</tr>
<tr>
<td>6</td>
<td>0.729167</td>
<td>0.638889</td>
<td>0.677083</td>
<td>0.687500</td>
<td>0.400000</td>
</tr>
<tr>
<td>7</td>
<td>0.750000</td>
<td>0.666667</td>
<td>0.697917</td>
<td>0.625000</td>
<td>0.725000</td>
</tr>
<tr>
<td>8</td>
<td>0.750000</td>
<td>0.750000</td>
<td>0.750000</td>
<td>0.750000</td>
<td>0.250000</td>
</tr>
<tr>
<td>9</td>
<td>0.583333</td>
<td>0.597222</td>
<td>0.562500</td>
<td>0.520833</td>
<td>0.600000</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>198</td>
<td>0.916667</td>
<td>0.555556</td>
<td>0.854167</td>
<td>0.958333</td>
<td>1.000000</td>
</tr>
<tr>
<td>199</td>
<td>0.520833</td>
<td>0.569444</td>
<td>0.552083</td>
<td>0.583333</td>
<td>0.700000</td>
</tr>
<tr>
<td>200</td>
<td>0.604167</td>
<td>0.680556</td>
<td>0.656250</td>
<td>0.625000</td>
<td>0.500000</td>
</tr>
<tr>
<td>201</td>
<td>0.625000</td>
<td>0.611111</td>
<td>0.572917</td>
<td>0.500000</td>
<td>0.550000</td>
</tr>
<tr>
<td>202</td>
<td>0.625000</td>
<td>0.666667</td>
<td>0.604167</td>
<td>0.479167</td>
<td>0.175000</td>
</tr>
<tr>
<td>203</td>
<td>0.666667</td>
<td>0.569444</td>
<td>0.625000</td>
<td>0.583333</td>
<td>0.575000</td>
</tr>
<tr>
<td>204</td>
<td>0.583333</td>
<td>0.569444</td>
<td>0.531250</td>
<td>0.583333</td>
<td>0.500000</td>
</tr>
<tr>
<td>205</td>
<td>0.625000</td>
<td>0.430556</td>
<td>0.562500</td>
<td>0.666667</td>
<td>0.450000</td>
</tr>
<tr>
<td>206</td>
<td>0.416667</td>
<td>0.652778</td>
<td>0.531250</td>
<td>0.166667</td>
<td>0.275000</td>
</tr>
<tr>
<td>207</td>
<td>0.687500</td>
<td>0.722222</td>
<td>0.697917</td>
<td>0.666667</td>
<td>0.425000</td>
</tr>
</tbody>
</table>

Step-4. Construct the different matrix

The deviation between each index and standard alternative is calculated, so as to establish the following difference matrix:

$$\Delta = \begin{bmatrix}
\Delta_{11} & \Delta_{12} & \Delta_{13} & \cdots & \Delta_{1n} \\
\Delta_{21} & \Delta_{22} & \Delta_{23} & \cdots & \Delta_{2n} \\
\Delta_{31} & \Delta_{32} & \Delta_{33} & \cdots & \Delta_{3n} \\
\vdots & \vdots & \vdots & \ddots & \vdots \\
\Delta_{m1} & \Delta_{m2} & \Delta_{m3} & \cdots & \Delta_{mn}
\end{bmatrix}$$

Here, $\Delta_{ij}$ is the deviation between the $i$-th and the $j$-th phenomena’s competitiveness comparing index and the standard alternative after normalization, i.e.
\[ \Delta_{ij} = |x_{0j} - x_{ij}| \]

The difference matrix is then constructed.

**Steps 5. & 6:** Calculate the grey relational coefficient & work out the grey relational grade

After difference matrices were constructed, grey relational coefficients were computed, and the last step was to compute relational grades in order to determine the rank grade. The relational grade between each alternative and the standard alternative can be worked out from the following formula:

\[ \Gamma_i = \sum_{k=1}^{m} \beta_k \gamma \left( x_i(k), x_j(k) \right) \]

Where \( \beta_k \) is the weight values and \( \sum_{k=1}^{m} \beta_k = 1 \). In this case, we assigned equal weights for all items under analysis. In other words, the average grey relational coefficients are used to indicate the degrees of grey relations. Therefore, \( \beta_k = \frac{1}{m} \), \( \Gamma_i \) is the grey relational grade between the \( i \)-th phenomenon and the standard alternative.

The larger the value is, the closer the distance will be between this phenomenon and the standard alternative, and the higher its competitiveness comparing performance. The results of grey relational coefficients and grey relational grades were tabulated in Table 3.

<table>
<thead>
<tr>
<th>Students</th>
<th>Dedication</th>
<th>Assertion</th>
<th>Motivation</th>
<th>Efficiency</th>
<th>Change Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational Grade (Summary)</td>
<td>0.4525</td>
<td>0.4559</td>
<td>0.4548</td>
<td>0.4538</td>
<td>0.4178</td>
</tr>
<tr>
<td>Ranks</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 3 showed that GRA determined the ranking of PE variables affecting overall PE competencies in the sample of tourism participants from the most competent to the least competent variables, as follows: (1) Assertion, (2) Motivation, (3) Efficiency, (4) Dedication, and (5) Change Orientation.

5. **DISCUSSION AND CONCLUSION**

The objective of this study was to examine Taiwanese undergraduate tourism students’ self-reported strengths and weaknesses in personal excellence abilities, with the ultimate goal of developing training programs to strengthen their personal excellence competencies and thereby better equip them for success in the professional realm. The GRA technique was adopted to prioritize their personal excellence training needs by evaluating the perceived strengths and weaknesses of their pursuits of excellence competencies. According to the results, tourism management students’ ranking of competencies were (from best to worst): Assertion, Motivation, Efficiency, Dedication, and Change Orientation.

The results of the present study show Change Orientation to be among the most deficient skill areas, which suggests that tourism students may lack strong convictions about the need to make personal changes. By making students more aware of this deficiency, they may be able to achieve greater personal success. Therefore, training sessions could incorporate peer interviews and focus group discussions as a means of enhancing self-awareness and nurturing students’ desires to make necessary changes. Change processes can only occur if students have the ability to describe specific behaviors for change and make the necessary changes. Moreover, students must be able to identify personal or situational factors that may cause their behaviour to change, and they must recognize and dispute self-defeating and irrational beliefs that may obstruct positive changes.
In addition, the content of the training course may also focus on relatively high skill areas. For example, one of the keys to improving the skills of Assertion, Motivation and Efficiency is to focus on achieving goals that enhance self-esteem, self-efficacy and self-responsibility. Students should therefore be given opportunities to reflect on their past successes and share their feelings of pride and accomplishment when achieving personal excellence.

This study marks the first attempt to explicitly identify the appropriate content of a training program for undergraduate tourism students. Such training programs are important, as these students may otherwise have few opportunities to learn these valuable interpersonal and conceptual skills. The findings of this study contribute to the existing tourism literature by identifying tourism students’ current levels of personal excellence and by helping tourism departments to prioritize training needs within budget and student credit hour constraints.

5.1. Limitations and Directions for Future Research

The findings of this study may be constrained by certain limitations. First, the use of self-administered data may carry a bias of general method variance, as respondents’ answers to questions may reflect what they believe is expected rather than what they truly feel. In addition, there was no comparison of the personal excellence skills of tourism students with those of the general public. Further studies can also examine whether there are significant differences in personal excellence characteristics between tourism students and students in other disciplines. Moreover, it would be useful for future research to interview experienced employers or managers in the tourism industry in order to better understand what kind of competencies should be taught in school and which competencies are most needed for graduates to become successful entry-level industry professionals.

Funding: This research was funded by a research grant from the Ministry of Science and Technology in Taiwan (MOST 103-2410-H-130-042-). Competing Interests: The authors declare that they have no competing interests.

Contributors/Acknowledgement: All authors contributed equally to the conception and design of the study.

REFERENCES


Hou, A.Y.C., 2012. Impact of excellence programs on Taiwan higher education in terms of quality assurance and academic excellence, examining the conflicting role of Taiwan’s accrediting agencies. Asia Pacific Education Review, 13(1): 77-88.


Tang, V., M.S. Yin and J. Min, 2010. The application of GRA to prioritizing IT professionals EI training needs. Proc. of the ASBBS 17th Annual Conference (American Society of Business and Behavioral Sciences), Las Vegas, USA.


