SELF EVALUATION OF HIGHER EDUCATION COLLEGES-THE CASE OF ISRAEL

Arthur Meidan¹, Kathy Ben-Haroush²

¹College of Law and Business, Ramat Gan, Israel
Email: a6195375@014.net.il
²Research Assistant, College of Law and Business, Ramat-Gan, Israel. Email: kbenharoush@yahoo.com

ABSTRACT

The issue of quality has become lately the key element of assessing performance in higher education throughout the world. In order to increase efficiency, continuous improvement and promotion of teamwork, the checking and assessment of quality in higher education has become of paramount importance. This paper presents the process of evaluation of higher education in Israeli colleges. This is a requirement by the Council of Higher Education (CHE) that supervises the standards and controls the quality of delivery through its Quality Assurance Division. This is done via a “Self Evaluation Process”, through which every department/faculty in each college is evaluated every 5 years or so, on a number of parameters. The study presents and discusses these parameters of evaluation and presents the main elements in the process of self evaluation problems, strengths and weaknesses, that are part of this process. It further enables to compare this method to other methods of evaluation of higher education in other countries. In addition, it presents the benefits of the self evaluation approach, to the individual institution and its staff (academic, managerial and support).

Keywords: higher education, performance, self evaluation.

INTRODUCTION

The evaluation of academic institutions has become recently absolutely necessary. The academic world is highly competitive and measuring performance provides the ability to reveal the strengths and weaknesses of an organization, and indicate where resources need to be allocated, changes that need to be made and where reorganization may be needed. This paper presents the process of evaluation of higher education in business and management colleges in Israel. The higher education system in Israel has undergone major changes in the last 20 years or so. The tertiary education in business studies/management is operated through the 8 old and well established universities that have total academic independence and are (mainly) funded by the Government, and some 24 Colleges of Higher Education that are usually privately funded or only partially and indirectly funded by the state. The colleges are allow to offer only BA and MBA/MA/MSc. degrees, and are not allowed to offer Ph.d programs. All the colleges are under the academic supervision and control of the Council of Higher Education (CHE), who controls the quality of delivery through its Quality Assurance Division. This is done through a process
called “The Self Evaluation”, (discussed below), through which each college has to report every 5 years or so, on a number of parameters, as indicated below.

**LITERATURE AND THEORY**

Whilst there are a number of alternative methods for evaluating performance of organizations (Meidan, 1981), in academia, the evaluation can not be based solely on financial criteria. In addition, as there are a variety of different stakeholders (or interested parties”), such as students, staff, colleges’ management, employers, students’ parents who often pay the students’ fees, etc., it is necessary to take into consideration all these factors. Consequently, the number of parameters evaluated refer to all these interested parties, or stakeholders and include studies curriculum assessment, evaluation of study programs (by students and separately by visiting/adjunct lecturers), problems in specific areas of specialization, students’ comments and reactions to the quality of tuition provided, quality of support and management staff, human resources, infrastructures (i.e. computer laboratories, accessibility, recreation areas, cafeterias, students’ facilities, etc., etc).

The issue of evaluation of higher education has received a lot of attention and research in the academia in the last decade. For example, there are a number of journals that do research and are dedicated entirely to this subject area, as follows (Bleske-Rechek, A. and Michels, K. 2010):

a) **Assessment & Evaluation in Higher Education** is an established international peer-reviewed journal, whose purpose is to advance understanding of assessment and evaluation practices, related to students learning and to staff and institutional development.

b) **Assessment in Education: Principles, Policy and Practice.** This journal focuses on issues of assessment, performance indicators and studies of achievement.

c) **Assessment Update** focuses on higher education assessment, including student learning outcomes and faculty instruction.

d) **Educational Assessment, Evaluation and Accountability.** This is an international journal that investigates the practice, theories and functions of high educational evaluation.

e) **Practical Assessment, Research and Evaluation (PARE).** This is an online journal that provides access to refereed articles that can have an impact on assessment and evaluation of teaching.

In this respect, one should mention that this subject area of education evaluation, is considered of a major importance. So much so, that a “Center of Teaching and Learning”, has been established at the University of Minnesota, in Minneapolis, USA. This center could be accessed via teachlrn@umn.edu. There are additional centers for evaluating and developing techniques of excellence in teaching, such as CETLA (Center
for Excellence in Teaching, Learning and Assessment) at Howard University, San Francisco, California. (This could be accessed on www.cetla.howard.edu). Table 1 (below) presents some of the main journals that deal with issues of higher education objectives and how to evaluate its performance.

THE SELF EVALUATION PROCESS MAIN ASPECTS

In various countries, the evaluation of higher education, differs according to the main purpose of the evaluation, as follows:

1) Often the principal objective of the evaluation is to evaluate academic staff. When that happens, it may affect the issue on how are colleagues viewed by their peers. These views and opinions may have negative influences on collegiality (Buller, J., 2013, Faculty Focus).

2) Another issue is how students assess the quality of teaching offered by the academic staff. In this respect, it is important to refer to who and how many students do evaluate/comment on the evaluation form. The argument being that if students are happy with the Lecturer, more students are likely to participate (and evaluate positively) that particular lecturer. (Weimer, M., 2012, Faculty Focus).

3) Assessing what students want from a course. Students’ evaluations do obviously affect tenure and/or staff’s promotions. This should also be taken into consideration when embarking on higher education evaluations. (Clement, M., 2012, Faculty Focus).

<table>
<thead>
<tr>
<th>Journals titles</th>
<th>Main evaluation issues and objectives</th>
</tr>
</thead>
</table>
| Assessment & evaluation in higher education | 1. To advance understanding of assessments and evaluation practices.  
2. Students learning  
3. Staff and institutional development |
| Assessment and education: principles, policy and practice | 1. Performance indicators in education  
2. Studies of achievements |
| Assessment update | 1. Higher education assessment  
2. Faculty instructions  
3. Students’ learning outcomes |
| Education assessments, evaluation and accountability | 1. Investigate practices, theories and functions of higher education evaluation |
| Practical | 1. Provide refereed articles that may have an impact on |
4) Performance is assessed not just in terms of students’ evaluations of individual lecturers, although this is a critical parameter in the evaluation procedure, but also in terms of the lecturer’s contribution to the departmental administration and his/her individual research and refereed publications. Often, being a “team player” in the department, is also taken into consideration (Buller, J. 2011, Faculty Focus).

Most of the developed countries today do operate a system of monitoring the quality of their higher education. This is necessary and prerequisite, as the higher learning institutions face a number of challenges as they strive to fulfill their roles in society. It should be remembered that there are different levels of increased autonomy, increased competition for staff and students, declining resources entering into higher education budgets and globalization. Institutions require additional capabilities to manage changes in the face of these challenges. This is generally achieved by the colleges, either through the ability to develop their strategic leadership and capacity to manage change, or via the evaluation by market forces, of the quality of education offered by the College to its students.

<table>
<thead>
<tr>
<th>The main objective of the evaluation</th>
<th>Main advantage(s)</th>
<th>Main limitation(s)</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate academic staff</td>
<td>How staff is viewed by academic peers</td>
<td>May have negative influences on collegiality</td>
<td>Buller, 2013</td>
</tr>
<tr>
<td>Assessment of quality of teaching</td>
<td>How students evaluate teaching staff</td>
<td>Students that are unhappy, are unlikely to participate in evaluation</td>
<td>Weimer, 2012</td>
</tr>
<tr>
<td>Students main expectations from the course</td>
<td>Could affect teaching staff tenure and promotion</td>
<td>Effect negatively staff promotion or tenure</td>
<td>Clement, 2012</td>
</tr>
<tr>
<td>Staff contribution to research,</td>
<td>Which staff are “team players”</td>
<td>Which staff members are not “part of the team”</td>
<td>Buller, 2011</td>
</tr>
</tbody>
</table>

**TABLE 2**

*The objectives of higher education evaluation – advantages and limitations*
In Europe, and indeed in other countries too, there is a systematic process of higher education evaluation that takes place as part of the IEP (Institutional Evaluation Program) activities. Created in 1994, IEP is an independent membership service of the European University Association (EUA) and at the same time, member of ENQA (European Association for Quality Assurance in Higher Education). IEP objective is to ensure that institution of Higher Education gain maximum benefit from a comprehensive evaluation by a team of higher education leaders. The evaluation teams of IEP have carried out over 450 evaluations (and/or follow up evaluations), in some 45 countries worldwide. These evaluations are normally commissioned by various ministries and NGOs. (source: http://www.eua.be/iep/Home/aspx)

In Israel, the evaluation of higher education is under the supervision of Council for Higher Education (CHE), that is part of the Israeli Ministry of Education. The process of evaluation has 3 stages:

1) Self-evaluation, performed by a team of Professors of the college that is to be evaluated, according to a well structured questionnaire. The outcome, which is a Self-Evaluation Report is written in English and is submitted then to an international panel of experts from the same fields of study;

2) Evaluation of the Self-Evaluation Report by the International Committee of experts, includes an one day visit at the College and this after the Report is read and discussed by the Committee. The membership of the International Committee is drawn from amongst distinguished Professors at leading universities in North America and Europe, in the same area of expertise as the subject areas of the college under evaluation. All the discussions, reports, questions, etc. are being conducted in the English language. During the visit, the International Committee meets with teams representing the 5 types of stakeholders, whose view are sought to enable to evaluate the college: a) full time academic staff; b) Part-time/adjunct academic staff; c) students; d) alumni; e) administrative, support and managerial staff.

3) Following the visit, the International Committee submits a Feedback Report on its visit and its conclusions on how the College could improve its performance. This Report may require a reply (or not) from the evaluated College, and could be used as a base for comparison for the next evaluation, in 5 years time. If there is a reply, it normally includes an indication of what the college intends to do in order to implement the recommendations (if any) that were suggested by the International Committee. What resources will be invested, in what form and on what time scale.

**HOW THE SELF EVALUATION PROCESS IS IMPLEMENTED**
The CHE (Council for Higher Education) who is responsible for implementing the evaluation process, is informing the individual college that it has passed now some 5 years from the last evaluation exercise (or from the college establishment) and it is now time for the college to be evaluated.

A formal document (or Questionnaire) including some 15 chapters with specific questions, is sent to the Head (or President of the College). The college is aware that it has to comply with this process of evaluation if it wishes to keep its license and official recognition by CHE. The Questionnaire includes the following sections:

1) The Institution.
A brief summary requiring a description of the institution and its development in the last 5 years; the name and location of the campuses, faculties and departments; the number of students studying the various degrees offered.

2) The Organizational Structure.
The description and a chart of the institution organizational structure, inclusive of the names of senior academic and administrative positions.

3) Study Programs.
Goals, structure and scope of the study programs, by faculty/departments

4) Mission statement.
Mission statement and the strategic plan of the Faculty/department under evaluation.

5) Committees organization.
The various Committees, how are they organized and operated.

6) The study program structure
The study program structure, specialization tracks, the courses included, their syllabi/content, and credits.

7) Planning, managing and collaboration
The bodies responsible for planning and managing the study program and how these operate; The relationships with other non academic bodies (e.g. manufacturers association) and how these influence the study programs; The extent of collaboration with other departments within/outside the institution; future development plans: what are these and how they were decided?

8) The strengths and weaknesses
The strengths and weaknesses of the existing programs.

9) Teaching.
How the department evaluates its teaching? How the department deals with negative findings? How the department foster excellence in teaching? Are excellent teachers rewarded? How?
What methods are employed to improve the quality of teaching?

10) Learning Outcomes.
What are the programs intended learning outcomes (LO)? How are these set?
What are the measures used to measure the LO? What are the methods of examinations? Who grades the exams and how feedback is passed on to students?
What methods are employed to grade assignments? What feedback apart from grades is passed on to students? To what extent the methods applied to measure the LO, achieved their objectives?

11) Students.
What are the entry requirements? The drop-out rate in each year? The reasons for the drop-out? What academic counseling is offered? Is there work placement on offer? How the college deals with students’ complaints? Financial support schemes on offer? Contacts with alumni? How many students continue their studies?

12) Faculty.
Areas of speciality/disciplines. Rules and criteria for promotion/tenure/dismissals/appointment. How is full-employment defined? How many contact hours are required? What are the plans for future requirement?

13) Technical and Administrative Staff.
The number of staff and their job descriptions; the type of support provided; the strengths and weaknesses of teaching staff/technical staff/administrative staff?

14). Research.
Strengths and weaknesses of research undertaken; Research funds obtained from all sources; Research infrastructure (labs, special equipment); Research thesis supervision; Papers/books published.

15) Consultancies and Membership of Learned Societies.
The focus of all the evaluation process is: The goals of the faculty and the college that is evaluated, the manner in which these goals have been achieved, as perceived by each of the 5 groups of stakeholders mentioned above.

CONCLUSIONS

Usually, colleges find the process of self evaluation extremely beneficial to them, as it enables the identification of strengths and weaknesses, opportunities and threats, in various spheres of activities, that were not thought about before this exercise. In addition, it enables the College management to identify parties that are not fully
satisfied with the current processes and activities and it enables the College to rectify and/or improve on these aspects.

Faculties and departments have to be evaluated in order to determine whether the extent of students’ learning outcomes correspond to the intended learning outcomes (LO). Most of the developed countries, (from Sweden to Taiwan, from the UK to Israel), do employ a system of evaluation of higher education that is generally similar to the one described here. It is normally based on qualitative descriptors that could be generally grouped under 3 headings or forms of knowledge:

- Knowledge and understanding
- Competence and skills
- Judgement and approach

The opinions that count are those of a) current students; b) alumni and in certain countries, e.g. Sweden, also c) employers. (See the parameters laid down by the Swedish National Agency for Higher Education, http://english.uka.se/qualityassurance/thequalityofhighereducationprogrammes.) The evaluation panel, that performs the evaluation, normally recommends the evaluation of a program on a 3 level scale, providing also the grounds for each evaluation/recommendation:

* Very high quality
* High quality
* Inadequate quality

Those that are assessed as having “inadequate quality” will be reviewed again within a year. Subsequently, the accreditation (or license) to award a particular qualification may be revoked if the performance has not been improved.

Colleges are afraid of this process of evaluation, as the regulatory national bodies that are in charge of higher education may publicize the “ranking” of the various institutions. Therefore, a lot of effort and attention is given to the process of evaluation, despite the fact that rankings are normally not published. In certain countries, institutions that attain a “very high quality” evaluation could receive incentives or extra funding increments from the relevant educational authority.

The process of evaluation is a “self-evaluation” one, because the college is doing the job itself by looking inside, following a set of questions that were designed by the CHE. These questions and issues are applied to all the evaluated institutions. The answers provided in the Report are double checked and assessed by the International Committee of academics in their visits at the College and through the separate and confidential meetings that they have with students, alumni, and visiting teaching staff.

Finally, the colleges themselves find the self evaluation exercise extremely valuable as a tool for planning, monitoring and improving performance, both of the academic features of their programs as well as the technical and physical aspects of the institutions.

REFERENCES


Internet Sources


ABSTRACT

Teaching conceptual database design to novice database designers, like first year undergraduate students is a difficult task for students, and is also a major challenge for database educators. Moving even further deeper with database design to much more challenging topics like normalization of relations, from first to higher normal forms is often a problematic concept for students to understand and often working-through simplified examples in a 'step-by-step’ way greatly assist. This conceptual paper seeks to unearth a better way to teach database normalization to first year students for easy understanding.

For simplified teaching of relational database, the paper suggests the adoption of two general approaches: the top-down and bottom-up. In the top-down database design approach, the educator attempts to construct domain ontology by identifying highly abstracted data objects (things/entity types) that may exist within a specific domain. The educator should start by demonstrating how initial conceptual data model is drafted (without all data attributes) up until the logical data schema, showing mapping issues and entity-relationship diagrams. On the other hand, the educator should demonstrate how to apply the bottom-up design approach. In this approach database design proceeds from an initial analysis of lower-level conceptual units (attributes and functional dependencies), and then move towards logical data modelling through logical groupings of associated attributes. The bottom-up approach generalizes objects to achieve different levels of normal forms, defining relations to minimize redundancy and dependency.

The paper suggests that for a simplified teaching of database normalization, educators should integrate both top-down and bottom-up approaches in database design showing the differences and similarities between the two approaches to improve students’ mastering of database design and modelling. Furthermore, real life data examples should be used in a step-by-step demonstration to achieving database normalization through different normal forms.

Keywords: Database Design, Database Normalization, Entity Relationship Diagram, Functional Dependency, Relational Data Model.

INTRODUCTION

Database Management Systems (DBMS) DBMS comes with a set tools that allow the development and implementation of database system. The tools are used by database developers to design relations and related objects which are used to store and manipulate data. The challenge that exists is that, the design is human dependent. Different developers may come with different designs towards the implementation of a given business solution. A poorly normalized database systems results in anomalies such as update, deletion and insertion anomalies.
In design relation schemes (tables in general), different approaches are used such as using normalization process as first outlined by E.F. Codd (1972). Alternatively Chen’s Entity-Relationship (ERD) model by Chen, (1976), later enhanced to Extended Entity-Relationship model Teorey, Yang, & Fry, (1986), can be used to carry out database scheme designs. These two approach aims to achieve less data redundancy and minimize data anomalies. In practice ERD is used widely in industry as it offers a more natural way of representing data whereas database designed based on normalization is loaded with a strong mathematical foundation based on functional dependencies. Some of the reasons why ERDs are used more often is because some books on database design are void of normalization topics Hernandez (1997). Furthermore for those books that do, Muller (1999) pointed it out: “It is possible to write an entire chapter or book on normalization, though hard to make it fun to read”.

At institutes of higher learning, normalization is widely taught as a means to achieve sound database design. Normalization because of its mathematical jargons, students find it challenging. Even at higher degrees in Database systems, it is still difficult to conceptualize. As pointed out by Muller (1999), the challenge persists at all levels even though the main goal is to simply derive lossless decomposition table based on functional dependences.

In an attempt to ease the teaching and learning of normalization to under-graduate students, a variety of tools exists such as proposed by Antony S. R. and Batra D (2002), Diederich J and Milton J (1988) , Yazici A, Ziya K (2007). These tools also are not basic enough to allow the students to really do the normalization by themselves and later on put such techniques into practice at work place. Mathematical rigor and theorems are avoid by many books (Fleming & von Halle, (1989) Hernandez (1997); Muller, (1999); Harrington, (2002), in an attempt to simplify database normalization process. For example Rob and Coronel (2008), use a lot of examples and avoids the mathematical jargon of database normalization while Date, C.J. (2004) and Connolly, T., & Begg, C. (2005) introduced a separate chapter (advanced normalization) in which they focused on inference rules based on Armstrong axioms.

This study presents yet another approach which seeks to seamlessly achieve sound database design by trivializing database normalization process. This unorthodox approach is based on well-formed functional dependences. We start our study by identifying the Universal Relation (UR) which is amassed with related undesirable functional dependences.

**LITERATURE ANS THEORY**

Normalization theory (Codd 1972) formed the theoretical framework on which our study hedges on. In a general terms, the normalization theory is applied as a systematic reduction of data redundancies in the design and development of relational database table. The process generally results in more tables that reduces data anomalies. Normalization is divided into normal forms (First Normal Form (1NF), Second Normal Form (2NF), Third Normal Form (3NF), Boyce Codd Normal Form (BCNF) and so on. Each normal form is dependent on the preceding normal form. For example. A relation is in 2NF if it is in 1NF and there are no partial dependencies. 3NF is achieved when the table is in 2NF and there are no transitive dependencies. While BCNF is achieved when a table is in 3NF and all non-key attributes depend on nothing but the key. For most practical usages BCNF level is good enough.
A well-normalized database system tends to be more efficient in terms of data update, data insertions, and data deletions but generally suffers from data retrieval process. The low performance in data retrieval is largely attributed by many factors such as poorly constructed queries. Most database systems attempt to re-engineer the query submitted by the users thereby producing a more efficient solution that tends to speed up the query execution. The system generated version of the query is stored as an execution plan for later use. The execution plan can be overridden by the user if needed.

Another factor that affects the query execution time frame is the number of tables that are involved in the query. Generally the more the number of relations involved the more will be the execution time. For this reason, an over-normalized database system results in an inefficient data retrieval process. For applications purposes, normalization up to 3NF or BCNF is considered sufficient. Therefore normalization should be carefully done in conscience of performance bottleneck and the basis of the application purposes.

Although database systems performance is affected by many factors such as query execution plan which is generally informed by the relations targeted and the design of the query engine, this study focuses on the design of the relations of a database system based on normalization process and how such a process can be taught to first year students majoring in Information Technology.

**METHODOLOGY**

Thirty students were used in the study. The students were put into three groups. Three approaches were used for the first study. Each group was exposed to only one method and the result analysed. A set of questions that focus on different aspects of normalization were designed and given to the learners after having done a 55 minutes lecture on a particular approach.

The study is based on (Rob and Coronel 2008). Rob and Coronel simplify the normalization process by presenting an approach void of mathematical jargon and yet rigorous enough to provide a systematic and yet supposedly natural way to normalization. Based on the approach put forward by Rob and Coronel, the study designed a trivialized approach to normalization. The following minimal steps were used in the normalization process.

**Table 1: Notation Used**

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Relation</td>
</tr>
<tr>
<td>UR</td>
<td>Universal Relation</td>
</tr>
<tr>
<td>A → B</td>
<td>Attribute A determines attribute B</td>
</tr>
<tr>
<td>A</td>
<td>A key attribute is always underlined</td>
</tr>
</tbody>
</table>

Step 1: identify the Universal Relation (UR) scheme and all its dependences.
Step 2: If there exists, an attribute or attributes that determines a key attributes then swap such attributes. For example $A \rightarrow B$ in which $B$ is a prime attribute then swap the roles. Such that $B$ becomes a non-prime attribute and $A$ becomes the determinant.

Step 3: Represent the UR as a functional dependence in which all the attributes and their dependences are specified. The UR forms the numerator of our unorthodox method.

Step 4: For each subset of UR which is represented by a functional dependence (FD) put it as a denominator and mark all attributes on the numerator that also appear on the right side of the FD of the each denominator. Promote all attributes on the right-side of the numerator to key attribute.

Step 5: Delete all the marked attribute of the UR and represent each FD as a relation.

Three variation of studies were employed based on the above steps and a book by Rob and Coronel. Repeated division with marking some attributes for deletion from the main UR are then carried based on a graphical depiction and application of Armstrong axioms.

**Example**

In Table 1 we have summarized important symbols and notations used later, in order to help readers easily.

Let assume that there exists a UR given by

i) $A, B \rightarrow C, D, E, F, G, H, I$

And that the following functions dependencies hold:

ii) $A \rightarrow C, D$

iii) $B \rightarrow E$

iv) $F \rightarrow A$

v) $H \rightarrow I$

Graphically this can be represented as:

The idea is to do clean room approach in which all the dependences are key attribute. Swopping is done which involves promoting and demoting attributes. We remove part of the violation of the BCNF first before processing removing other undesirable dependences and creating additional relations.

Step One, is what we are starting with as given by the (UR) and the FD is (i)…(v).
Step two results in the following changes to out FD,

i) \[ F, B \rightarrow C, D, E, A, G, H, I \]
   this approach ensure that when the table is in 3NF it will be also in BCNF.

ii) \[ B \rightarrow E \]

iii) \[ F \rightarrow C, D \]

iv) \[ F \rightarrow A \]

v) \[ H \rightarrow I \]

We also know from Armstrong axioms and inference rules that FDs ii) and iii) can be combined to \[ F \rightarrow A, C, D \]

**Repeated division and marking UR attributes for deletion with a star (\(^*\)).**

**FINAL FDs**

\[
\begin{align*}
F, B & \rightarrow C, D, E, A, G, H, I \\
B & \rightarrow E \\
F, B & \rightarrow C, D, E, A, G, H, I \\
F & \rightarrow A, C, D \\
F, B & \rightarrow C, D, E, A, G, H, I \\
H & \rightarrow I
\end{align*}
\]

**RESULTS**

In the initial study three sets of students were used. The table below shows how each group was involved in the study.

**Study one results**

**Table 3: Student Participation rating and average time of completion**

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>Approach Used</th>
<th>Evaluation of Grade for the lesson. Based on a rating shown in the note(^1)</th>
<th>Average Time spent to complete the task(in minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>10</td>
<td>The students were taught normalization using an approach suggested by Rob and Coronel</td>
<td>3.5</td>
</tr>
<tr>
<td>Group Two</td>
<td>10</td>
<td>The students were taught based on the steps shown above without using repeated “division”</td>
<td>4</td>
</tr>
<tr>
<td>Group</td>
<td>10</td>
<td>The students were taught</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Rating : 1-not so good; 2-partially understood the concept; 3 –Good but more need to be done 4: Very Good; 5- excellent
Three based on the steps shown above with repeat “division” 4.8 2

Study Two results
In the second study all the students were taught the other approaches. The students were asked to select one approach they would definitely use when doing database normalization.

Table 4: Student participation normalization procedure selected

<table>
<thead>
<tr>
<th>Number of student will Consider using This method</th>
<th>Number of student will Consider using This method</th>
<th>Number of student will Consider using This method</th>
</tr>
</thead>
<tbody>
<tr>
<td>The students were taught normalization using an approach suggested by Rob and Coronel</td>
<td>The students were taught based on the steps shown above without using repeated division</td>
<td>The students were taught based on the steps shown above with repeated “division”</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>25</td>
</tr>
</tbody>
</table>

Study Three results
In this study, the students were given a question in on database normalization. The students were informed that their approach in answering the question, the pass rate and the time taken were to be used as part of the study. The researcher analysed test scripts to discover the approach used by the students in answering database normalization based question. The summarized results are shown in the table below.

Table 5: Student participation test assessment

<table>
<thead>
<tr>
<th>Number of student will Consider using This method</th>
<th>Number of student will Consider using This method</th>
<th>Number of student will Consider using This method</th>
</tr>
</thead>
<tbody>
<tr>
<td>The students were taught normalization using an approach suggested by Rob and Coronel</td>
<td>The students were taught based on the steps shown above without using repeated “division”</td>
<td>The students were taught based on the steps shown above with repeated “division”</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Pass rate</td>
<td>Pass rate</td>
<td>Pass rate</td>
</tr>
<tr>
<td>67%</td>
<td>70%</td>
<td>94%</td>
</tr>
<tr>
<td>Average time Taken</td>
<td>Average time Taken</td>
<td>Average time Taken</td>
</tr>
<tr>
<td>20 minutes</td>
<td>15 minutes</td>
<td>6 minutes</td>
</tr>
</tbody>
</table>

DISCUSSION
Based on the literature view section, it was pointed out that normalization although relevant to sound database system design and implementation, the usage of it is limited because of its mathematical jargon which tend to obscure the basic objectives of the process. The literature review also highlighted that, for those books that covers normalization it is not fun to read Muller (1999). This view is supported by the study in that the participant who used method 1 performed less than those that used the other methods. Table 5 shows that 83% of the participant
used repeated division (RD) approach. The research found it interesting in that (RD) is just an implementation of Method 2. Method 3(RD) is guided by Method 2 and yet those that used Method 2 alone did perform less than those using (RD). Yet another observation from in table 3-5 is that, the results of the first two methods are inclined to each other. This phenomenon can be attributed to the fact that both of them are descriptive in nature while the repeated approach is visual implementation of Method 2. The visual of repeated division and its reliance on division method could have contributed to it being a preferred approach. Furthermore high pass rate (94%) and high preference rate (17/30) based on the repeated division, might have been aided by the fact that it is less prone to mistakes.

**CONCLUSION AND FUTURE WORK**

The study applied both conventional and unorthodox methods in teaching and learning of database normalization. Text book approached based on Rob and Coronel formed the main source of deriving the unorthodox approach in carrying out normalization. The students were exposed to all the methods in various studies. Rating was done on each method. The students were then given some test and then the details of their preferred methods were tallied. The study revealed some interesting outcomes. One of the outcome from the study, showed that, those that applied the method proposed in the study outperformed other groups in two ways. Firstly the group obtained highest pass rate and lastly achieved the results in less than ten minutes. It was also observed that the students are not interested in the mathematical jargon that accompanies database normalization.

The test results showed that students who used repeated “division” achieved 94% percent. Mathematical foundation although necessary, especially the knowledge of Armstrong axioms, though forms an integral part of the normalization, bringing them in class tend to face resistance from the students. The students therefore tend to prefer an approach that transparently apply the necessary theorems.

Teaching normalization can be enhanced by using blending in some additional techniques like (RD) to transparently derive normalized relations. Repeated division approach based on a simplified algorithms contributed to high performance. The approach reduced the perception that normalization, although supported by strong mathematical jargon, is a difficult concept.

Although tables can be produced directly from the normalized relations, the students still needs to present an ERD. Therefore a sound database design is depicted using a variety of additional methods such as the ERD and Unified Modelling Language (UML) which were not considered in this study. Furthermore it will be of interest to research how other universities are modelling database systems and compare such approaches with the one outlined in this study.

**REFERENCES**


A(COUNTRY) IMAGE IS WORTH A HUNDRED (SLOGAN) WORDS

Anca TAMÂŞ

Phd student Bucharest University of Economic Studies
6 Romana Square, Bucharest, Romania
Email: ancatamasreiase@gmail.com

ABSTRACT

Purpose-the aim of this paper is to compare the visiting intentions and the visiting decision and to determine the correlation between them, as well as to find patterns for country slogans and country images for the better ranked European countries.

Design/methodology/approach-the study is using quantitative methods: 117 tables completed in online communities, online interviews and open databases; SPSS was used to analyze the correlation and a brief literature review was provided.

Practical implications-some patterns regarding the successful slogans and images of the countries were identified, serving as a base for the next slogan and country image creation.

Originality/value-this study contributes to a better understanding of European country slogans and country images, of travel intentions and decisions, providing a Romanian insight of antecedents of travel decision.

Limitations-the small ratio between the number of interviews and the number of tables.

LITERATURE REVIEW

The “made in…” labels were first used in 1918. The WW1 was finished, Germany was defeated and the winners imposed the “Made in Germany” labels on each product originated from Germany in order to punish the Germany industry and to warn the non-German consumers not to buy the product. The effect was soon to be proved as the opposite and “Made in Germany” became a quality mark due to high quality of the German products.[1]

The term country image was introduced in 1989 by Han, as “consumers’ perceptions of quality for products made in a given country”. He also introduced the concepts of “hallo” or “summary construct” for country image. The hallo construct means that consumers mentally transfer the country image attributes to unfamiliar brands or products, while the summary construct means that consumers made a mental image for a country based on their knowledge, beliefs and attitudes toward products or brands.[2]


Two years later, Ger comes with other definition of country image, “mental representations of the country and people, products, culture or symbols of the country”.[3] Another definition of country image “a construct created by products from a country, but also economical development, political status, technological advancement of the country”.[4]

The researchers found the dimension, the effect steps and the facets of the country. The four dimensions of the country image are innovativeness, design, prestige and workmanship.[5] The four steps of the COO(country of origin) effect: first step is the overall COO image; followed by overall COO image and influences from other products from the country; the third step is COO image plus beliefs and attitudes toward the product and the last one is comparison with products from other countries and behavior toward the product.[6] The three facets of COO are GCA-general country attributes: political system, economic development, culture, education level, technical skills, standards of living; GPA-general product attributes: prestige, value, service, attractiveness; SPA-special product attributes: style, maintenance, quality, availability of parts.[7] Another vision implies two facets of country of origin image: the macro-image, involving three dimensions: politics, economy, technology and micro-image: regarding product specific properties.[8]

One of the first task of researchers was to make a country profile, therefore Chasin and Jaffe used performance attributes, previous used as product attributes, namely: quality, workmanship, style, dependability, advanced technology, terms, value for money, on-time delivery, reputation and maintenance.[9] Later on, the attributes of the country enriched with: modern, exciting, entertaining, challenging, friendly, honest, sophisticated, romantic, picturesque and expensive.[10] Then it was Han’s turn to develop the country’s attributes using: technical advancement, prestige value, workmanship, price and serviceability.[11]

We can now talk about competences of the country and we have a scale to measure them, using five competence traits: competent, intelligent, confident, competitive and independent, as well as perceived competitive threats, using six warmth traits: friendly, well-intentioned, sincere, good-nature, warm and trustworthy.[12] We can model the country image effect using three

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components of attitude: cognitive-beliefs, affective-feelings, cognitive-responses\textsuperscript{[13]}, or evaluating cognitive, affective and normative components.\textsuperscript{[14]}

Another researching question was how can the country image become more effective. The researchers found that when consumers have less experience with the product, country image has a hallo effect.\textsuperscript{[15]} But, even though the country image acts as a hallo effect initially, it becomes a summary construct when the consumers become more familiar with the product.\textsuperscript{[16]} Among consumers with high knowledge on product, country of origin image could serve to summarize their beliefs about products and could affect brand attitude, therefore for these consumers country image acts as a summary construct.\textsuperscript{[17]}

Why is country image so important nowadays? Because consumers can reward “sympathetic” countries by buying their good and punish “antipathetic” countries by boycotting their products.\textsuperscript{[18]}

Is it a static or a dynamic concept? It is a dynamic concept, because consumers’ country image changes over time, owing to their experience with products made in the country.\textsuperscript{[19]} Over time, the role of country image can transfer from a halo effect to a summary effect, proving to be a dynamic concept.\textsuperscript{[20]}

What does country image affects? It influenced consumer’s perception of new products by transferring beliefs for well known products categories to the new ones.\textsuperscript{[21]} It also affects consumers’ behavior significantly because of product complexity, time pressure, lack of motivation and incidental learning conditions.\textsuperscript{[22]} It has a positive effect on consumers’ attitude toward the products.\textsuperscript{[23]} There is a positive interconnection between COO image and product evaluation.\textsuperscript{[24]} so the COO image is affected by consumers’ perception of similarity between the

consumers’ home country and the COO of the product, as well as by consumers’ political and cultural and belief system.\[25\]

According to The Country Brand Index-CBI, country image means our perceptions of how we describe our identity (as citizens), where do we choose to live (as people), who and where our products are from (as consumers), where we educate our children (as parents), where we set our companies (as business leaders), where we go on holiday (as travelers), what do we know and feel, how do we act and behave towards the others (as foreigners). CBI is releasing on annually basis a report ranking the countries based on experts and people opinion and following a hierarchical decision model-HDM.

**Table 1 Top 10 countries according to CBI**

<table>
<thead>
<tr>
<th>European rank</th>
<th>Country</th>
<th>World rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spain</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Germany</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>France</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Italy</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>UK</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>Austria</td>
<td>12</td>
</tr>
<tr>
<td>7</td>
<td>Switzerland</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>Turkey</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>Netherlands</td>
<td>21</td>
</tr>
<tr>
<td>10</td>
<td>Portugal</td>
<td>22</td>
</tr>
</tbody>
</table>

Romania is ranked 31 out of 41 European countries and 78 in the world.\[27\]

---


\[26\] www.futurebrands.com

\[27\] http://bloom-consulting.com
Table 3 Compared ranks according CBI and BC ranking system

<table>
<thead>
<tr>
<th>country</th>
<th>Spain</th>
<th>Germany</th>
<th>France</th>
<th>Italy</th>
<th>UK</th>
<th>Austria</th>
<th>Switzerland</th>
<th>Turkey</th>
<th>Netherlands</th>
<th>Portugal</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBI rank</td>
<td>23</td>
<td>3</td>
<td>17</td>
<td>18</td>
<td>12</td>
<td>10</td>
<td>2</td>
<td>53</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>BC rank</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>15</td>
<td>16</td>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>

Figure 1 Chart for CBI and BC ranks

Apart from Germany, which is number 3 in both world ranking systems, as well as UK and Austria, with closed ranks in both systems, the higher ranks for Spain, France, Italy, Turkey and Portugal in BC system showed a European preference for these countries as travel destinations, while Switzerland, Netherlands, UK, and Austria are more cosmopolitan destinations.

Regarding the two rankings, the CBI ranking measures perception and intension and, along with tourism, consideres economical development and quality of life, while the Bloom Consulting measures tourist arrivals and is focused on tourism only. I wanted to find out if the two type of rankings are correlated and if one of them could be a predictor for the other. I used SPSS to find correlation between the above rankings.

Figure 2 Correlation output

Pearson correlation between CBI overall ranking (intention to visit a country) and Bloom consulting for the world and Europe respectively is significant at 0.01 level, the correlation is positive, at moderate to big power of 0.674, respectively 0.690. Therefore, the intention to visit
and perception of the travel destination are antecedents of the visiting decision, but the correlation is not strong enough to be predictors as well.

Part of the country image is the slogan country as a tourism destination and below I will exam and classify some of the slogans of the countries.

Table 4 Country slogan for tourism

<table>
<thead>
<tr>
<th>Type of slogan</th>
<th>Country Slogan for European countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feelings &amp; nature</td>
<td>Albania A New Mediterranean love</td>
</tr>
<tr>
<td></td>
<td>Malta-Truly Mediterranean</td>
</tr>
<tr>
<td>Feelings</td>
<td>Hungary A Love for Life</td>
</tr>
<tr>
<td></td>
<td>Slovenia I Feel Love</td>
</tr>
<tr>
<td></td>
<td>Cyprus-in your heart</td>
</tr>
<tr>
<td>Nature</td>
<td>Croatia The Mediterranean As it Once Was</td>
</tr>
<tr>
<td></td>
<td>Montenegro Wild Beauty</td>
</tr>
<tr>
<td></td>
<td>Romania-Explore the Carpathian Garden</td>
</tr>
<tr>
<td>Using verbs</td>
<td>Visit Finland</td>
</tr>
<tr>
<td></td>
<td>Smile! You are in Spain</td>
</tr>
<tr>
<td></td>
<td>Switzerland Get Natural</td>
</tr>
<tr>
<td></td>
<td>Lithuania – See It! Feel It! Love It!</td>
</tr>
<tr>
<td></td>
<td>Jump into Ireland</td>
</tr>
<tr>
<td></td>
<td>Go to Hungary</td>
</tr>
<tr>
<td></td>
<td>Austria - Arrive and revive</td>
</tr>
<tr>
<td></td>
<td>Enjoy England</td>
</tr>
<tr>
<td></td>
<td>Taste Portugal</td>
</tr>
<tr>
<td></td>
<td>Visit Iceland</td>
</tr>
<tr>
<td></td>
<td>Add some orange-Holland</td>
</tr>
<tr>
<td></td>
<td>Luxembourg- Discover the unexpected</td>
</tr>
<tr>
<td></td>
<td>Visit Sweden</td>
</tr>
<tr>
<td>Descriptive</td>
<td>Rendez-Vouse En France</td>
</tr>
<tr>
<td></td>
<td>Germany the travel destination</td>
</tr>
<tr>
<td></td>
<td>Latvia – Best enjoyed slowly</td>
</tr>
<tr>
<td></td>
<td>Serbia – Life in the Rhythm of the Heartbeat</td>
</tr>
<tr>
<td></td>
<td>Norway – a pure escape</td>
</tr>
<tr>
<td></td>
<td>Belgium- Latin Europe in a nutshell</td>
</tr>
<tr>
<td></td>
<td>Bulgaria- Unique in its diversity</td>
</tr>
<tr>
<td></td>
<td>Czech Republike</td>
</tr>
<tr>
<td></td>
<td>Visit Denmmark</td>
</tr>
<tr>
<td>Quantitative</td>
<td>Italy Much More</td>
</tr>
<tr>
<td>General</td>
<td>Slovakia Little Big Country</td>
</tr>
<tr>
<td></td>
<td>Greece – You in Greece</td>
</tr>
</tbody>
</table>

I wanted to compare the kind of slogans and country images for the top 10 European countries in tourism in order to identify a pattern.
Table 5 Patterns

<table>
<thead>
<tr>
<th>Country rank</th>
<th>Country</th>
<th>Type of Slogan</th>
<th>Country image type</th>
<th>Colors in the Country image</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spain</td>
<td>Using verbs</td>
<td>Abstract images</td>
<td>Black, red, yellow</td>
</tr>
<tr>
<td>2</td>
<td>Germany</td>
<td>descriptive</td>
<td>National flags and/or colors</td>
<td>Black, red, yellow</td>
</tr>
<tr>
<td>3</td>
<td>France</td>
<td>descriptive</td>
<td>Using human figure</td>
<td>Blue, red, yellow</td>
</tr>
<tr>
<td>4</td>
<td>Italy</td>
<td>Quantitative</td>
<td>National flags and/or colors</td>
<td>Blue, red, yellow, green, black</td>
</tr>
<tr>
<td>5</td>
<td>UK</td>
<td>Using verbs</td>
<td>National flags and/or colors</td>
<td>red</td>
</tr>
<tr>
<td>6</td>
<td>Austria</td>
<td>Using verbs</td>
<td>National flags and/or colors</td>
<td>Red, black</td>
</tr>
<tr>
<td>7</td>
<td>Switzerland</td>
<td>Using verbs</td>
<td>Abstract images</td>
<td>Black, red, yellow</td>
</tr>
<tr>
<td>8</td>
<td>Turkey</td>
<td>Using verbs</td>
<td>Abstract images</td>
<td>Red, black, blue</td>
</tr>
<tr>
<td>9</td>
<td>Netherlands</td>
<td>Using verbs</td>
<td>Using human figure</td>
<td>Black, orange</td>
</tr>
<tr>
<td>10</td>
<td>Portugal</td>
<td>Using verbs</td>
<td>Abstract images</td>
<td>Black, red, green</td>
</tr>
</tbody>
</table>

Therefore, the type of the 70% of the top countries is “using verbs” and the slogans are using between 1 and 4 words, excluding the country name. All the words used in the slogans are basic, short, simply words, as opposed to the ones used in the non-European country slogans. The images used are either abstract images(40%) or national flags images(40%). The two images using human figures are characteristic for France, a chic woman and for Holland, a smart man dressed in orange. As for the colors, there are two or three, apart from England, only one and Italy, with five colors. Red is used in all images, black in 80% images, yellow in half of the images.

In order to find out the awareness of the slogans of the countries and how important are they perceived, I used a table(as quantitative method) and an interview(as qualitative method). The table was sent in three online Romanian student communities, I’ve got 117 responses in 48 hours, from 59 students at Bachelor, 43 at Master Degree and 15 at Doctoral studies, all of them from Bucharest University of Economic studies. All the respondents had to match 15 country slogans with their countries: Austria, England, France, Germany, Greece, Hungary, Italy, Lithuania, Norway, Poland, Romania, Slovakia, Slovenia, Spain, Switzerland.
Table 6 Awareness percent

<table>
<thead>
<tr>
<th>Country slogan</th>
<th>Country</th>
<th>Recognise by…%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rendez-Vous</td>
<td>France</td>
<td>83%</td>
</tr>
<tr>
<td>The travel destination</td>
<td>Germany</td>
<td>35%</td>
</tr>
<tr>
<td>Enjoy….</td>
<td>England</td>
<td>55%</td>
</tr>
<tr>
<td>A Love for Life</td>
<td>Hungary</td>
<td>11%</td>
</tr>
<tr>
<td>Much More</td>
<td>Italy</td>
<td>18%</td>
</tr>
<tr>
<td>Little Big Country</td>
<td>Slovakia</td>
<td>0.8%</td>
</tr>
<tr>
<td>Explore the Carpathian Garden</td>
<td>Romania</td>
<td>95%</td>
</tr>
<tr>
<td>I Feel Love</td>
<td>Slovenia</td>
<td>0.8%</td>
</tr>
<tr>
<td>Smile! You are in…</td>
<td>Spain</td>
<td>27%</td>
</tr>
<tr>
<td>Get Natural</td>
<td>Switzerland</td>
<td>15%</td>
</tr>
<tr>
<td>See It! Feel It! Love It!</td>
<td>Lithuania</td>
<td>0%</td>
</tr>
<tr>
<td>You in…</td>
<td>Greece</td>
<td>43%</td>
</tr>
<tr>
<td>Arrive and revive</td>
<td>Austria</td>
<td>11%</td>
</tr>
<tr>
<td>….a pure escape</td>
<td>Norway</td>
<td>17%</td>
</tr>
<tr>
<td>Creative tension</td>
<td>Poland</td>
<td>0%</td>
</tr>
</tbody>
</table>

Is there a correlation between the country slogan awareness and the tourist arrivals at the travel destination? To answer this question, I used SPSS again and the output proved that there is no significant correlation between the two variables.
Figure 2 Correlations

<table>
<thead>
<tr>
<th></th>
<th>percents</th>
<th></th>
<th>Tourism European ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>percents</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-0.1585583</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sum of Squares and Cross-products</td>
<td>11851600</td>
<td>0.558</td>
</tr>
<tr>
<td></td>
<td>Covariance</td>
<td>846543</td>
<td>0.1748000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>15</td>
<td>124857</td>
</tr>
</tbody>
</table>

I used online interviews (through Messenger and Skype) in 10 travel agencies I used to work with in the past, three of them the Western part of the country, three from South and the rest from East of Romania. I wanted to find out what counts more in taking a travel decision for an average Romanian traveler. The tour-operates I interviewed agreed on following decreased order: price, distance from Romania, country image, special offers/discounts. Country slogan according the tour-operators seemed to have little importance for the travel decision. I used the Granger test to see if there is a Granger causality between OWR-Overall World Ranking and TWR-Tourism World Ranking or TER-Tourism European Ranking. The findings are that there is a Granger causality between OWR and TWR at 0.0021 probability and one between QWR and TER at 0.0031 probability.

Figure 3 Granger test

Pairwise Granger Causality Tests
Date: 05/26/15   Time: 11:09
Sample: 1 31
Lags: 2

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TER does not Granger Cause OWR</td>
<td>29</td>
<td>0.27195</td>
<td>0.7642</td>
</tr>
<tr>
<td>OWR does not Granger Cause TER</td>
<td>7.42048</td>
<td>0.0031</td>
<td></td>
</tr>
<tr>
<td>TWR does not Granger Cause OWR</td>
<td>29</td>
<td>0.20012</td>
<td>0.8200</td>
</tr>
<tr>
<td>OWR does not Granger Cause TWR</td>
<td>8.08817</td>
<td>0.0021</td>
<td></td>
</tr>
<tr>
<td>TWR does not Granger Cause TER</td>
<td>29</td>
<td>1.11326</td>
<td>0.3449</td>
</tr>
<tr>
<td>TER does not Granger Cause TWR</td>
<td>1.41162</td>
<td>0.2633</td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSIONS

Country slogan and country image are antecedents for the destination country awareness and for associations with destination qualities of the country. The higher ranked countries for visiting intention, as well as for visiting decisions used mostly simple, direct slogans (using verbs type slogans), the logo is mostly with abstract images, the most used colors are red and black. The lower ranked countries used more sophisticated slogans and the logos are more colorful. The correlation between the visiting intentions and the visiting decision is moderate. For Romanian average travelers, country image matters more than the country slogan.

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[23] www.futurebrands.com
A STUDY ON VISUAL ATTENTION BY SPATIAL COMPONENTS AND PERCEPTUAL CHARACTERISTIC IN HOTEL LOBBY

Yoon So Hee*, Kim Suk Tae**

*Yoon So Hee, Doctoral Course, Department of U-Design, Graduate School, Inje University, Korea, E-mail: yshh2678@naver.com

**Kim Suk Tae, Corresponding Author, Professor, Interior Design, College of Design, Inje University, Korea, E-mail: demolish@inje.ac.kr

ABSTRACT

Abstract—The lobby of a hotel is a symbolic space, which provides an overall feeling and implies a meaning of a place where the value is expressed through the various design elements and interior decorations. This research is about the empirical analysis using an eye tracking experiment, to research about the consumer’s visual and sensory perception elements of a hotel lobby image provided in the hotel website. The visual attention was analyzed using the clustering technique by extracting the space elements from the furniture, decorations, landscape, and the lighting. The experiment was conducted on 32 test subjects. A total of eight test subjects were left out as they were unreliable while only a total of twenty-four reliable test subject data were used in the analysis. The analysis results are as follows. First, the period of attention was equally set at 10 seconds, but the focus frequency and focus duration was different for every test subject and for every image. Second, visual attention was observed in the following order; furniture, decoration, landscape and lighting elements based on the analysis of the focus frequency and duration. Third, based on the analysis of the average eye focus duration, the order of decoration, showed the highest average while the furniture element showed the lowest. The landscape and the lighting element showed the same result in the analysis. It was observed that the test subjects spent more time on understanding the visual element of the decoration. Fourth, the frequency of the eye focus and duration was higher depending on the frequency of the placement of the space element location that was put in the center. Fifth, a high increase in visual attention was observed when the decorative element was placed or located near an architectural element. Sixth, there was higher visual attention in the lighting element for the pendant lighting fixture versus the down light and light stand fixtures.

Keywords—Hotel Lobby, Eye-Tracking, Perceptual Characteristic, Visual Attention

INTRODUCTION

1.1. Background and Purpose of Study

The advances in the development of communication technology in modern society have made it possible to use the Internet to search for travel information and accommodation. The number of consumers utilizing this technology to make a reservation is growing daily. According to this consumer culture, customers communicate directly through the hotel website and utilize the information about the hotel and at the same time utilizing the space for business and marketing.
In addition, the image of the hotel, which is provided online, serves as a factor to determine the direct effect on spending behavior of consumers and decision. The lobby area utilizes various design elements as a place worth seeking representation for the overall feel of the hotel as well as its meaning and implication.

The research on the design elements of the hotel lobby analyzes the visual characteristics that occur during the selection process along with the characteristics and interests of the involved factors whereby highlighting the factors to the consumers so that they can turn their attention to the visual image of the hotel. This favorable impression will lead to a more active consumer behavior to increase their spending.

Therefore, this study will analyze the process of understanding for the characteristics and spatial perception of the consumer in the image of the hotel lobby provided through the website by utilizing the eye tracking experiment. We will also evaluate the visual attention for the design elements that make up the interior environment of the hotel lobby.

1.2. Research Composition

This study conducted the experiment with the eye-tracking device in order to understand the visual characteristic and design elements of a spatial user who reacts to the image of hotel lobby and it was proceeded as follows.

Chapter 2 examines features and interior elements of the hotel lobby via a literature review as well as the reason and justification for using the analytical method based on the previous studies, which uses the eye tracking method to study the visual attention and cognitive process.

Chapter 3 describes the specific experimental procedures and analytical methods for the empirical analysis and the visual threshold characteristic was analyzed by extracting the spatial element of the hotel lobby using the cluster technique.

In Chapter 4, based on the extracted elements, the visual attention was analyzed in the areas of interest of the testers by using the data of the visual attention and data elements along with the number of gazes and the gaze duration. In addition, the ANOVA statistical analysis performed to compare and evaluate the differences in the visual characteristics for the specific elements that were involved.

Finally, in Chapter 5, the conclusion of the study and implications along with the summary in the measurement of visual attention for each area element of the derived information is presented. In addition, the implications and limitations are described in this study as well as the proposed directions for future research.

The images of the experiment were analyzed using the lobby image that is presented on the homepage of the domestic first-class hotel, which consists of various elements in its special interior décor.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Experiment Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Hotel</td>
<td>B Hotel</td>
</tr>
<tr>
<td>C Hotel</td>
<td>D Hotel</td>
</tr>
<tr>
<td>E Hotel</td>
<td>F Hotel</td>
</tr>
</tbody>
</table>
THEORETICAL STUDY

2.1. Function and Element of Hotel Lobby Space

Modern society is the time of over-supply of information and the selection became more difficult and complicated than before in terms of consumer perspective.

One of most important changes in modern society is awareness for the value. In this trend, a hotel also uses the unique visual elements in order to increase the value of space based on the space marketing.

The customers do the consuming practices through the visual activities, and the lobby space is the place that represents the value and design concept that the hotel tries to pursue and forms the space with various functions. Hotel lobby functions as a buffering space, a transitional space that forms spatiality, a place for meeting and interchange, a open space that induces smooth moving line, a passage and a waiting space.

In addition, hotel lobby falls into two dimensions, one for “structural factors” that organizes environment using the unique factors in various functions, and is basically structural and not easy to modify, the other for “non-structural factors” that is operational and strongly changeable. Dimensional classification of hotel lobby space and its spatial elements are shown in Table 2.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Spatial Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building</strong></td>
<td>Ceilings, Walls, Floors, Columns, Openings, Passages</td>
</tr>
<tr>
<td><strong>Surface</strong></td>
<td>Surface finishing materials, Colors, Molding</td>
</tr>
<tr>
<td><strong>Furniture</strong></td>
<td>Material and Form, The Kind of Furniture by Mode of Furniture</td>
</tr>
<tr>
<td><strong>Light</strong></td>
<td>Light Source Type, Lighting Scheme, Production Techniques</td>
</tr>
<tr>
<td><strong>Decoration</strong></td>
<td>Paintings, Sculptures, Vases, Tapestry, Installed Lighting, Artwork</td>
</tr>
<tr>
<td><strong>Landscape</strong></td>
<td>Plants, Stone, Pond, Waterfall and Natural Elements Together</td>
</tr>
</tbody>
</table>

2.2. Visual Attention and Visual Tracking

Visual navigation takes place by people in the course of watching a space while the visual characteristics depends on the number of gazes and time, which has deep relation with regard to the reaction to the factors in an area. In review of the series of processes, the number of the gazes with regard to question of ‘How many times have you looked?’ and the time of the gaze question of ‘How much time have you spent?’, we can analyze what affected the information of the viewer for any element that is located or configured in a space.

Therefore, we can analyze the weighted value of the visual cues element by using the visual tracking system, which will allow us to discuss objectively about the factors that causes visual attention in space.

Thereby, providing an important clue to understanding the activity measurement in the response to the quantitative figures of the visual stimuli if the gaze is fixed on a certain factor for a long time or when it is frequently observed.
3.1. Experimental Procedure and Analysis Method

3.1.1. Experiment Environment

1. Subject: 32 male and female students over 2,3 grade of the interior design division in universities.
2. Experiment Environment: The lighting abound the lab is darkly so that the subject can focus on only the image of monitor and the researcher provides and controls data required for experiment through the another monitor.
3. The eye-tracking device is equipped with the monitor of the subject and distance between subject and monitor is set 600mm, resolution is set to 1600x900 pixels.
4. Method of experiment: The experiment was conducted on at a time after explanation about details of experiment and agreement on the involvement of experiment from all subjects.
5. Experiment Image: 6 Images of hotel lobby shown in, Table 1.

3.1.2. Experiment Method and Sequence

1. Conducted the experiment after announcement on the experiment detail i.e. to see the on-line image of hotel lobby.
2. Performed a calibration that matches the focus of eyes to measurement point with watching the monitor.
3. In 6 of hotel images, the watching duration per each image was set to 10 seconds and tee white colored background image was presented for 1.5 seconds between images in order to eliminate the afterimage and preventing the error of first fixation for next image.

3.1.3. Selection of the Valid Data

The experiment, which uses the visual tracking device, tracks the location and movement of the pupil. In the process of recording, the movement of the head, repeated flashing of the eye, and the degradation of the concentration can occur which could cause the position of the pupil to change.

In this study, data results exceeding the validity rate of above 75% were considered valid as some of the invalid gaze data had been recorded. Eight testers out of the thirty-two testers were excluded, as they did not meet the validity rate while a screening was performed on the gaze data to increase the validity rate before the analysis began on the twenty-four testers (male 12, female 12).

3.2. Characteristics of Perception and Element Extraction

3.2.1. Analysis Methods of Clustering

The clustering problem has been studied a lot in database application such as identification of customers, sales analysis, pattern recognition and search for similarity, it is defined that a process to collect the point that has similar property into same cluster and the
point that has different property into different cluster with regard to the given data points in multi-dimensional space.

In this study, based on the above, the threshold 10 ~ 50 is partitioned by an unit of 10 and the interested area of the subject was analyzed depending on the threshold changes and the interior composition elements was extracted.

Through this process, the graphic information that is able to intuitively analyze the area of the watching point that the subject actually watched was derived as the threshold setting and it was intended to increase the accuracy by extracting the interested elements based on the objective data that is able to know the researcher’s intention.

3.2.2. Clustering Analysis by Threshold

Based on the clustering result depending on the threshold setting, it is known that the intuitive analysis with regard to the watching pattern of the subjective is possible in some point and the delicate information for the composition elements were investigated as the threshold goes to lower.

In result of analysis, it is considered that with threshold setting 20, the accurate information and area are showing and the spatial elements were extracted based on the derived graphic information.

3.2.3. Spatial Element Extraction

The majority of testers generally stayed focus on furniture, decor, art, landscaping, and lighting elements, which are the non-structured elements of the prior research using the clustering technique.

The selected spatial elements are show in the following.

These factors create an atmosphere of space and depending on the situation and trend, they can be regarded as an element used is displayed. An AOI analysis was carried out to determine objectively what elements visually attracted the attention of the consumers and the extracted elements of the image in order to determine the attention level of the testers.

4.1. Setting the Area of Interest

AOI is that a researcher specifies in advance the interested area of experimental image of test material and analyzes the data of such area in integrated.

The purpose of experiment and area of interest were set, the detail visual attention specified is investigated by extracting the statistics value based on watching time, number of watching, ratio.

The level of attention and concentration was analyzed by using the data on the number of visual attention for the frequency of the gaze and time for the different areas based on the derived elements of the setting in the interest area from the image for each of the hotels as shown in Table 3.
4.2. Visual Attention Analysis of the Fixation Count

4.2.1. The Total Number of Fixation Count

The fixation count refers to the number of visual fixations made and the number of points for the stimulus that occurred in the given experiment. In addition, the fixation count can be used as an indicator to determine its interest in the subject for any area.

Based on the analysis of the total fixation count, the total fixation count showed a minimum of 614 and a maximum of 718 for each of the hotels. Using this data, we can assume that the twenty-four testers visually fixed their eye for 28.48 times per image.

![Table 3](image)

<table>
<thead>
<tr>
<th>Setting AOI</th>
<th>A Hotel</th>
<th>B Hotel</th>
<th>C Hotel</th>
<th>D Hotel</th>
<th>E Hotel</th>
<th>F Hotel</th>
</tr>
</thead>
</table>

4.2.2. The Fixation Count per Element and Ratio

This section classifies the elements of the interior space of the hotel lobby and derives the gaze level ratio per element for the percentage of each element in the number of testers based on their fixation count.

Table 5 shows the analysis result.

![Table 4](image)

<table>
<thead>
<tr>
<th>Total Fixation Count (unit: number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
</tr>
<tr>
<td>A Hotel</td>
</tr>
<tr>
<td>B Hotel</td>
</tr>
<tr>
<td>C Hotel</td>
</tr>
<tr>
<td>D Hotel</td>
</tr>
<tr>
<td>E Hotel</td>
</tr>
<tr>
<td>F Hotel</td>
</tr>
<tr>
<td>Sum</td>
</tr>
</tbody>
</table>

Based on the analysis above, the fixation count excluding the spatial element accounts for 32.53% of the total area and the sum of the fixation count ratio per element was 77.14%, which is ¾ of the total fixation count number. The visual attention of the testers was significantly higher for the spatial element. In addition, the ratio of the fixation count per element was higher, based on the following order: furniture (26.15%), decorations (23.13%), landscaping (18.00%), and lighting (9.86%).

4.2.3. The Analysis of Visual Attention based on the Fixation Count
In order to compare the difference in each of the spatial element of the perceived hotel lobby according to the fixation factor for the testers, an ANOVA analysis was performed which results are shown in Table 6.

Table 6
Visual Attention based on the Fixation Count (unit: number)

<table>
<thead>
<tr>
<th></th>
<th>A Hotel</th>
<th>B Hotel</th>
<th>C Hotel</th>
<th>D Hotel</th>
<th>E Hotel</th>
<th>F Hotel</th>
<th>F-value</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fur.</td>
<td>8.12±3.11</td>
<td>12.50±4.53</td>
<td>3.91±3.14</td>
<td>4.70±2.57</td>
<td>8.54±5.21</td>
<td>16.304***</td>
<td>7.45±4.63</td>
<td></td>
</tr>
<tr>
<td>Deco</td>
<td>9.25±3.44</td>
<td>1.04±1.08</td>
<td>3.75±2.19</td>
<td>12.25±4.42</td>
<td>4.50±3.27</td>
<td>5.79±3.67</td>
<td>38.119***</td>
<td>6.09±4.85</td>
</tr>
<tr>
<td>L.s</td>
<td>-</td>
<td>7.91±3.59</td>
<td>4.87±3.05</td>
<td>2.41±3.16</td>
<td>4.58±2.10</td>
<td>-</td>
<td>13.392***</td>
<td>4.94±3.57</td>
</tr>
<tr>
<td>Light</td>
<td>2.70±1.92</td>
<td>2.91±2.16</td>
<td>1.70±1.39</td>
<td>-</td>
<td>3.54±2.02</td>
<td>3.25±1.91</td>
<td>3.255***</td>
<td>2.82±1.97</td>
</tr>
<tr>
<td>F-value</td>
<td>34.923</td>
<td>64.928</td>
<td>6.594</td>
<td>44.185*</td>
<td>1.061</td>
<td>11.367*</td>
<td>4.35±2.54</td>
<td>3.86±4.37</td>
</tr>
<tr>
<td>Average</td>
<td>6.69±4.05</td>
<td>6.09±5.45</td>
<td>3.56±2.75</td>
<td>7.19±3.40</td>
<td>4.33±2.54</td>
<td>3.86±4.37</td>
<td>4.35±2.54</td>
<td>3.86±4.37</td>
</tr>
</tbody>
</table>

Based on the analysis, results for each of the hotel element showed a significant difference in all the hotels except for E Hotel (p = .000), and the element-specific analysis showed a significant difference in all the elements.

In the element-specific analysis the fixation count was higher in the following order of elements: furniture (7.45 ± 4.63 times), decorative elements (6.09 ± 4.85 times), landscape elements (4.94 ± 3.57 times), and lighting elements (2.82 ± 1.97 times). And, Based on the results above, the furniture element had a high visual fixation. In addition, depending on the arrangement of the hotel lobby, the choice and placement of the furniture has significant impact while the mood of the hotel and the various display of furniture to meet the flow of age in the furniture element would seem necessary. With regard to the lighting element, the pendant lighting structure compared to the down light fixture and the light stand, likely attracted high visual attention among the testers.

4.3. Visual Attention Analysis of the Fixation Duration

4.3.1. The Total Fixation Duration

The area where the gaze duration is the longest is where the visual interest is the preferred place by the testers, and it means that more time was spent in interpreting the spatial information. In order to secure the value of the hotel, highlighting the location or area with the longest visual attention and the elements involved, could result in an effective marketing strategy.

Table 7
Total Fixation Duration (unit: sec)

<table>
<thead>
<tr>
<th></th>
<th>A Hotel</th>
<th>B Hotel</th>
<th>C Hotel</th>
<th>D Hotel</th>
<th>E Hotel</th>
<th>F Hotel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum</td>
<td>182.72</td>
<td>193.12</td>
<td>185.82</td>
<td>178.16</td>
<td>187.75</td>
<td>187.47</td>
</tr>
<tr>
<td>Average</td>
<td>7.61</td>
<td>8.05</td>
<td>7.74</td>
<td>7.42</td>
<td>7.82</td>
<td>7.81</td>
</tr>
</tbody>
</table>

Among the 24 testers, the lowest gaze duration time per hotel was 7.42 seconds, which the maximum allotted time was ten seconds while the highest time consumed was 8.05 seconds.

This data shows that testers visually fixed their eye for an average of 7.74 seconds per image.

4.3.2. Fixation Duration per Element and its Ratio
The ratio of the gaze duration per element by the testers is shown in Table 8.

### Table 8

<table>
<thead>
<tr>
<th></th>
<th>A Hotel</th>
<th>B Hotel</th>
<th>C Hotel</th>
<th>D Hotel</th>
<th>E Hotel</th>
<th>F Hotel</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Furniture</strong></td>
<td>50.55±27.7%</td>
<td>90.20±46.7%</td>
<td>26.07±14.1%</td>
<td>43.22±24.3%</td>
<td>30.55±16.3%</td>
<td>44.41±23.5%</td>
<td>47.5±25.4%</td>
</tr>
<tr>
<td><strong>Deco</strong></td>
<td>62.41±35.1%</td>
<td>7.91±4.1%</td>
<td>29.13±15.7%</td>
<td>81.24±45.6%</td>
<td>29.93±15.9%</td>
<td>46.38±24.7%</td>
<td>42.82±23.5%</td>
</tr>
<tr>
<td><strong>Landscape</strong></td>
<td>-</td>
<td>54.01±28.0%</td>
<td>39.43±21.2%</td>
<td>15.51±8.7%</td>
<td>31.19±16.6%</td>
<td>-</td>
<td>35.03±18.6%</td>
</tr>
<tr>
<td><strong>Light</strong></td>
<td>17.68±9.7%</td>
<td>23.48±12.2%</td>
<td>12.35±6.7%</td>
<td>-</td>
<td>25.68±13.7%</td>
<td>19.11±10.2%</td>
<td>19.66±10.5%</td>
</tr>
<tr>
<td><strong>Without AOI</strong></td>
<td>52.08±28.5%</td>
<td>17.52±9.1%</td>
<td>78.84±42.4%</td>
<td>38.19±21.4%</td>
<td>10.43±7.5%</td>
<td>77.92±41.6%</td>
<td>45.82±30.08%</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td>182.72±100%</td>
<td>193.12±100%</td>
<td>185.82±100%</td>
<td>178.16±100%</td>
<td>187.75±100%</td>
<td>187.47±100%</td>
<td>187.47±100%</td>
</tr>
</tbody>
</table>

Based on the analysis of the gaze duration per element, the ratio of the gaze duration of the area excluding the spatial element was 30.08% while the sum of the gaze frequency per element against the time was 78.16%. The following order represents the gaze duration per element from the highest to the lowest: furniture (25.43%), decorations (23.51%), landscaping (18.62%), and lighting (11.50%).

In addition, we can see that the frequency and duration of the gaze is somewhat proportional based on our analysis of the gaze duration time. In the case of F Hotel, our analysis in the gaze frequency ratio is higher for the furniture element when compared to the decoration element which means that the testers was focused more on the decoration element based on the longer time spent on the decoration element. It also means that they spent a lot of time in processing the information.

Based on the analysis above, there is a difference in the ratio analysis of the gaze frequency and duration based on the how the spatial element is displayed in a hotel. In addition, the decoration element emphasizes the visual effect and highlights the aesthetic effect that awakens the attention based on our investigation.

#### 4.3.3. Analysis of the Visual Attention from the Fixation Duration

The following Table 9, is the result of the ANOVA analysis performed on the gaze duration time.

Based on the analysis result of the hotel elements, we observed that there was no significant difference in all the hotels, except for E Hotel (p = .000), but in the analysis of the element, they were all different in terms of element. Furthermore, the analysis of the statistical comparison in gaze frequency showed the same result.

### Table 9

<table>
<thead>
<tr>
<th></th>
<th>A Hotel</th>
<th>B Hotel</th>
<th>C Hotel</th>
<th>D Hotel</th>
<th>E Hotel</th>
<th>F Hotel</th>
<th>F-value</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fur.</strong></td>
<td>2.10±1.04</td>
<td>3.75±1.73</td>
<td>1.08±.97</td>
<td>1.80±1.09</td>
<td>1.27±0.94</td>
<td>1.83±1.11</td>
<td>15.591*</td>
<td>1.97±1.45</td>
</tr>
<tr>
<td><strong>Deco</strong></td>
<td>2.60±0.97</td>
<td>0.33±0.39</td>
<td>1.21±0.86</td>
<td>3.38±1.06</td>
<td>1.24±0.85</td>
<td>1.92±1.10</td>
<td>34.768***</td>
<td>1.78±1.34</td>
</tr>
<tr>
<td><strong>L.s</strong></td>
<td>-</td>
<td>2.25±0.90</td>
<td>1.64±1.65</td>
<td>0.64±0.89</td>
<td>1.30±0.95</td>
<td>-</td>
<td>8.16**</td>
<td>1.46±1.27</td>
</tr>
<tr>
<td><strong>Light</strong></td>
<td>0.73±0.67</td>
<td>0.97±0.67</td>
<td>0.51±0.49</td>
<td>-</td>
<td>1.07±0.69</td>
<td>0.79±0.50</td>
<td>2.981</td>
<td>0.81±0.63</td>
</tr>
<tr>
<td><strong>F-value</strong></td>
<td>26.72***</td>
<td>49.706***</td>
<td>4.437**</td>
<td>43.330***</td>
<td>.344</td>
<td>10.548***</td>
<td>15.084***</td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>1.81±1.20</td>
<td>1.82±1.67</td>
<td>1.11±1.14</td>
<td>1.94±1.51</td>
<td>1.22±0.85</td>
<td>1.52±1.06</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSION

The aim of this study was to use a visual tracking device to analyze the visual attention of the elements that make up the interior environment of the hotel lobby and to understand the cognitive activity in response to visual stimuli.

The spatial elements that make up the hotel lobby were derived using the clustering technique from the visual tracking experiment, while the comparison and analysis was performed on the frequency and duration of the gaze data, which was derived from the visual attention data based on the quantitative figures in order to identify the elements of the visual attention. The specific differences were evaluated using the ANOVA method. Summarizing the conclusions from the above study are as follows.

First, in this study, the same visual attention time was given at 10 seconds per image but showed different results by image in the frequency and duration of the gaze.

Second, visual attention was higher based on the analysis of the gaze frequency and duration in the following order of elements: Furniture>Decorative elements>Landscaping>lighting. In addition, a proportional relationship is established to some extent for elements in the gaze frequency and duration but there is a difference in ratio, which is dependent on the image of the hotel and what is displayed in the spatial element.

Third, the analysis result for the average gaze duration time shows a high average value based on the following order of elements: decorative>Landscape=furniture. This result tells us that the testers spent a relatively long time in understanding the visual decorative element.

Fourth, the gaze frequency and duration time became higher as the location of the spatial element became closer to the center of the screen. This would mean that there is a difference in visual attention level, which is dependent on the location of the image for how the elements are arranged in the hotel lobby. This also means that it would bring a positive effect if the center portion of a design were given an identity during the design phase or design plan.

Fifth, an increase in the visual attention level was observed when the decorative element was placed or located near an architectural element.

Sixth, the visual attention was higher for lighting element if it was raised in a pendant manner and if it was bigger the better.

A distinctive design for hotels are in demand in our modern society while the lobby of the hotel is core area that is the key in determining the image of the hotel and in order to establish a distinctive image of the hotel, it is constantly required to upgrade the lobby.

Therefore, purpose of this study is to provide an effective marketing strategy by passing on information regarding the effective deployment and composition of spatial elements when planning for a new hotel lobby or what visual element must be provided on a Web page to attract people’s attention along with what elements affect the decision making process.

As for future follow-up study, the trends and preferences of the consumer will be identified using a qualitative method along with the quantitative analysis of the individual manipulation of the spatial element and changes that occur in the visual attention which are determined that a close follow-up study is needed.
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ASSESSING ELEMENTS OF THE TURKEY’S GIFTED AND TALENTED INDIVIDUALS STRATEGIC IMPLEMENTATION REPORT IN ACCORDANCE WITH RELEVANT SCIENTIFIC STUDY REPORTS AND SUGGESTIONS FOR IMPLEMENTATION

Ahmet KURNAZ, Prof. Dr. Hakan SARI
Necmettin Erbakan Un. A. Kelesoglu Education Faculty
Konya/TURKEY Email: ahkurnaz@hotmail.com

ABSTRACT

Human resources are highly important for countries. The Gifted and Talented Individuals (GATI), who make up 2.3 percent of the population, constitute the most significant part of the qualified work force. Policies and implementations concerning the GATI in Turkey have not been formed yet. Considerable scientific studies have been conducted and reports have been prepared particularly since 2009. In 2013, a Strategy Implementation Plan for the Gifted and Talented Individuals (SIPGATI) was drawn. However, there are reservations about the suitability of the report to Turkey. This study examines the SIPGATI’s vision, mission, rationales, needs, values, principles, compatibility with other reports with respect to its strategic goals, and importance placed by the SIPGATI on creativity and innovation. The study was conducted by a qualitative approach. The data were collected by analysis of documents. For this purpose, the reports of the scientific meetings on the education of the GATI held in the last five years were examined. Content analysis method was employed for the analysis of the data. The study concluded that the SIPGATI is consistent with the results of the scientific meetings held in the last five years with respect to its vision, mission, rationales, needs, values, principles, inclusion of creativity and innovation, and its strategic goals and targets and that it can respond the needs of Turkey’s GATI in the case that it is implemented.

INTRODUCTION

States have desired to benefit from the gifted humans for the purpose of raising the leaders and staffing managerial positions to perpetuate their administrations, and to reach the cutting edge in science, arts, and sports. Various studies have historically been done for the education of talented individuals. These special individuals demonstrated their talents sometimes by correct guidance and usually by their own efforts. The number of the talented
but unrecognized people who are treated like a regular individual and lost in the society is not low (Baykoç Dönmez, 2001).

Education policies and particularly the studies on the talented individuals are of the most important components of security and future strategies of states. One of the prerequisites to become a country that has a voice in the modern world and is potent in global policies is to have innovative and productive human resource that is able in such fields as arts and sports. Certain countries which have made well use of the talented manpower can increase their respective strategic importance by exporting, with scarce human resources, information and technology to the world in strategic fields as agriculture and arms industry.

Generally, two different political trends in the education of the gifted and talented individuals (GATI) draw attention. The first trend which is common in the European countries shows a political tendency on the basis of offering individual education opportunity at high standards to all individuals at the same setting through integration. The second trend which is prominent in the United States, Germany, and the United Kingdom is to expose the special students to a customized education towards their talents at separate settings. Several outstanding points that draw attention when the education practices towards the GATI in the developed countries are examined can be summarized as follows:

1. There are institutionalized, systematically operating practices for the talented in almost all of the developed countries,
2. In most of the developed countries, nation-wide intelligence and aptitude tests, which are self-developed by the countries and used for identifying the general cognitive characteristics and individual talents, are run,
3. Education opportunities that are developed and enriched in line with the talents of students and individualized as much as possible are offered,
4. It is noted that education programs to develop positive attitude are implemented in order to increase the awareness of the families, teachers, and the society,
5. These countries highly regard professional development of educators in this field,
6. A variety of government agencies, particularly universities, actively take part in the process of educating the talented and support the implementation,
7. It is ensured that the non-governmental organizations and families actively join the process.
It was aforementioned that there are two global approaches, the first one being based on offering individual education opportunity at high standards to all individuals at the same setting through integration, and the second one being exposure of the special students to a customized education towards their talents at separate settings, which is prominent in such countries as the United States, Germany, and the United Kingdom. A political approach, in which both trends can be evenly sustained by providing all students with education at high standards while ensuring that the special students receive special education, can be suggested for Turkey.

It can be argued that we have considerable experience when our historical practices such as the Enderun School (a special school in the Ottoman Palace) that not only contributed to raising human resources enabling perpetuation of the state (Akarsu, 2004) but also secured the social peace by increasing interclass permeability are considered. After the establishment of the Republic, many attempts were made for the education of the GATI, but serious problems were experienced with respect to sustainability (Kurnaz, 2014). In the following years, ideas such as opening private schools devoted to the education talented children were put into practice, and high schools of science and social sciences and high schools of fine arts opened. Science and arts centers, a practice peculiar to Turkey in this field (Baykoç Dönmez, 2011), have accumulated remarkable experience along with a need for restructuring. Ministry of National Education (MoNE) sends 1000 students abroad for education (MoNE, 2013), which is among the recent practices. It is difficult to argue that a linear progress has taken place although the special practices concerning the talented date back to old times in our country.

The efforts are made to continue the studies on the education of the GATI in our country, and the associated major issues are discussed under the below main dimensions (MoNE, 2013).

1. The sustainable policies for the talented individuals who have special educational needs are below the expected levels, and their talents cannot be improved within the education system designed for regular individuals,
2. Educators fail to acquire professional approach required specific to this field by means of pre-service and in-service trainings,
3. The families’ level of awareness about their children’s talents are low; therefore, these children face many overwhelming problems during their early childhood,
4. A systematics which enables reliable and early identification of the talented children has not been established, the existing identification system is composed of uniform, standard tests whose validity and reliability is open to question,

5. The available resources are not used efficiently because a common policy has not been formed in coordination with agencies other than the agencies of the Ministry of National Education (MoNE),

6. Enriched in-school and out-of-school supportive education opportunities are not offered,

7. Our schools do not have sufficient facilities that can provide the necessary support physically.

8. An assessment of functionality cannot be performed by monitoring educational and occupational processes of the students.

Each country applies a model for the talented in accordance with its education system, political goals and human resources (Sarı, 2008a). Acceleration, upper special class, education for those grouped by their talents, in-class and out-of-class enrichment, extracurricular activities, differentiating in-class learning experiences, individualized teaching, and education at separate schools are among the most common education models (Enç, 2005; Sarı, 2008b). There is a need for developing essential policies and practices concerning the education of the GATI in Turkey. Therefore, a Strategy Implementation Plan for the GATI (SIPGATI) needs to be prepared.

Since the first half of the 20th century, countries have sped up the education of the talented individuals first in sports and arts then in sciences and mathematics as a proof of their superiority, and ensured that these individuals demonstrated their talents at the Olympic Games and competitions. The basic purpose of education is to ensure the highest progress for each individual in line with each individual’s potential, considering their personal differences. Among the development goals of many countries, including our country, is to increase the opportunities for improving the talented individuals’ areas of interest, talents, creativity and to ensure that they serve as citizens beneficial both to their country and to the world.

The criteria for identifying the talented individuals vary by country. The percentiles used by some countries to identify talented students are as follows: 2-10 % in the USA, 10 % in the Gulf countries, 4 % in South Korea, and percentiles varying school by school in New
Zealand (Sak, 2010). According to common acceptance presented by the researches, educating the talented individuals who constitute the 2 to 3 % of each society, rendering them productive, and enabling them to use their potential for development of the society is important for the welfare, future, and ranking of the society among other world countries (Sarı, 2008b). Considering that the number of births in our country is 1.250.000 on average annually, it is assumed that there are 18 million children aging between 3 and 18. If the commonly accepted 2 to 3 % percentile is taken into consideration, it is estimated that there are 350 thousand to 500 thousand talented children at the primary education level in our country. Accordingly, around 350 to 500 thousand talented children in our education system are among the strategic resources of our country. It is evident that the education of the gifted and talented students is important in political, strategic, scientific and technologic, economic, sociologic and psychological terms.

**Problem**

The need for SIPGATI in Turkey is obvious. Intensive studies were made between 2009 and 2013 to satisfy this need. However, no study to put together the conclusions of these studies has been done. Therefore, it has not been possible to express a holistic view. Meanwhile, it is continuously discussed to what extent the strategy action plans prepared by the MoNE in 2012 and 2013 overlap with the past studies and how much these plans can respond to the needs of the country. For this reason, it is necessary to reveal the SIPGATI’s consistency with the past studies.

**Purpose**

This study aims to present the consistency of the SIPGATI, which was prepared by the MoNE in 2013, with the field specific reports that have been produced to date in Turkey. For this purpose, this study aims to present the consistency of the SIPGATI with the reports prepared until 2013 with respect to its rationales, needs, values, vision, mission, and strategic goals and targets. It therefore aims to determine an innovative side of the SIPGATI.

**METHODOLOGY**

The study was conducted by survey model based on a qualitative approach. In qualitative research, the researcher’s involvement is a feature that enhances the quality of the research (Yıldırım ve Şimşek, 2013). The researchers are involved in the research process because they had held office in BİLSEM and joined many high level scientific studies about
the GATI at the level of TÜBİTAK and MoNE. Of the qualitative approaches, content analysis method was selected. Document analysis technique was used for data collection. Document analysis examined the reports published in our country in the last five years on the education of the GATI.

Data Collection


Data Analysis

The data pertaining to the research were analyzed by meta-synthesis (thematic content analysis) technique. Content analyses are research syntheses that play an important role in spreading the information under research and in shaping the future researches, policies, practices, and public perception (Suri ve Clarke, 2009). Meta-synthesis (thematic content analysis) includes critically synthesizing and interpreting the researches on the same field by organizing them in themes. Therefore, it assists in-depth understanding of the general structure of the research subject with a holistic view (Au, 2007) and determining priority areas. Furthermore, qualitative synthesizing and sampling of common and similar aspects of studies which discuss different dimensions of the same research subject constitutes a rich reference guide for researchers, teachers, and decision makers who do not have access to all of the studies (Çalık,, Ayas ve Ebenezer, 2005; Ünal, Çalık, Ayas ve Coll, 2006; Ültay ve Çalık, 2012). In other words, meta-synthesis studies include a comparison of similarities and differences between qualitative studies on a certain field with a qualitative understanding.
The number of researches (sampling size) taken into examination by these studies is usually limited when compared to meta-analyses and descriptive content analyses (Çalık ve Sözbilir, 2014). This research uses thematic content analysis due to this sampling constraint. This research aims to critically synthesize and interpret the scientific reports on the education of the GATI in Turkey by creating themes or main topics, thereby presenting an in-depth understanding of the subject under research with a holistic view.

**FINDING AND INTERPRETATION**

One of the purposes of the research is to assess, on the basis of other reports, the SIPGATI’s vision and mission. The fundamental mission of the SIPGATI is defined as “to ensure that individuals fulfil their potentials as much as possible by recognizing their abilities and characteristics, to raise future’s national and international leaders, scientists, artists, and athletes who produce knowledge, technology, and innovative solutions, contribute to the progress of humankind, have ethical and aesthetic values, and are inquisitive and distinctive.” In line with this mission, there are two final visions of the strategy and implementation plan: the first one is to raise talented individuals who will steer the world, the second one is to transform our country into a center where the development of the talented is supported at national and international scale, and all opportunities that provide basis for enthusiasm, learning, and creativity are offered and seized.

Upon examination of the previously prepared scientific study reports, it is seen that vision and mission are mentioned by the (BİLSEM MODEL) Report of the Workshop held between February 13 and 15, 2009 titled “The Talented/Gifted” (TÜBİTAK, 2009) and I. Strategy and Implementation Plan for Improvement of Talents 2012-2016 (MoNE, 2011). When the expressions of vision and mission in TÜBİTAK (2009) and TÜBİTAK (2010) reports are studied, it is seen that they are substantially consistent with the expressions of vision and mission in the SIPGATI and that they refer to the education of the individual. MoNE (2011) report underlines the second vision by its emphasis that Turkey should become the world leader in educating the GATI.

One of the question that this research seeks to answer is to determine the consistency of the SIPGATI’s rationales with those of the reports previously prepared. The rationale for the SIPGATI is as follows “Since the first half of the 20th century, countries have sped up the education of the talented individuals first in sports and arts then in sciences and mathematics as a proof of their superiority, and ensured that these individuals demonstrated their talents at
the Olympic Games and competitions. The basic purpose of education is to ensure the highest progress for each individual in line with each individual’s potential, considering their personal differences. Among the development goals of many countries, including our country, is to increase the opportunities for improving the talented individuals’ areas of interest, talents, creativity and to ensure that they serve as citizens beneficial both to their country and to the world. For this purpose, it is stated that the education of the gifted and talented students is important in political, strategic, scientific and technologic, economic, sociologic and psychological terms for our country.

It is noticed that TÜBİTAK (2009), TÜBİTAK (2010) and MoNE (2012) reports do not explicitly give the rationales chapter by chapter but they underscore the rationales within the body of the reports. However, *I. Strategy and Implementation Plan for Improvement of Talents 2012-2016* (MoNE, 2011) report explicitly provides rationales for the plan. The rationales for the MoNE (2011) report highlights that the improvement of talents have not been discussed jointly with all the stakeholders, that education models have not been developed, that scientific studies are not supported and there is lack of experts, that the teachers and managers are incompetent, that we lag behind the global developments, that the country has not taken serious steps to make up for the lack of qualified manpower necessary for creating innovation and distinction although the country is inclined to competition in the globalization context. In this respect, it can be argued that the rationales for the strategic action plan which are mentioned in the MoNE (2011) report are more comprehensive and functional.

When the SIPGATI is studied as to why there is a need for a strategy action plan in Turkey, it is seen that the needs are not mentioned explicitly. These needs are not mentioned in TÜBİTAK (2009), TÜBİTAK (2010), (Demirci, 2010), MoNE, 2012), and Turkish Grand National Assembly (2012) reports under a chapter, either. These reports, however, present the basic needs concerning the education of the GATI in our country while pointing out the relevant issues. MoNE (2011) report, on the other hand, mentions the needs of the strategy plan under a main chapter. Adoption of novel and radical policies in the education of the GATI; diversified, enriched, and differentiated education settings which are suitable for these students’ development and learning characteristics; early identification and guidance; lack of guidance which brings about associated problems; and sufficiently successful and sustainable practices and education models for the education of the talented individuals are presented as
basic needs, accordingly. Although there is no chapter titled ‘needs’ in the SIPGATI, the above mentioned needs are covered in the report.

Respect for human rights, priority of the child’s interest, respect for personal differences, scientific and ethical rules in practice, high quality service, qualified and sufficient staff, innovation and creativity, lifelong learning, distinctness, flexibility, dynamism, an education setting that exploits and supports differences, cooperation, and teamwork are emphasized when the SIPGATI is considered with respect to its values and principles. Although TÜBİTAK (2009), TÜBİTAK (2010), Demirci (2010), MoNE (2012), and Turkish Grand National Assembly (2012) reports do not have a chapter under which principles and values are discussed, they touch on the basic principles and values of the SIPGATI. In addition, it is noted that respect for personal differences, respect for the areas of interest, freedom to scientific and individual production, the culture of support and encouragement, and the right to upbringing and right to improve talents are included in the I. Strategy and Implementation Plan for Improvement of Talents 2012-2016 (MoNE, 2011) report. Distinctness/creative idea, quality (material, operation, technical skill, depth of knowledge), level of difficulty, level of complexity, utility/function/value added, aesthetics, cost efficiency, and ethical/sharing criteria are defined in the MoNE (2011) report. Expressions of early intervention, compliance with the formal education and lifelong learning (non-formal education), project-based, learning by discovery, practicing, and experience, interdisciplinary/multiple models and different practices, self-sustainability, richness and diversity, differentiation, flexibility and dynamism, enrichment, distinctness, factuality, practicability, settings that exploit the differences, and sensitivity to social and emotional needs are included for the improvement of talents. The SIPGATI (2013) and the MoNE (2011) reports overlap with one another with respect to principles and values for the strategic plan.

The research aimed to determine to what extent the creativity and innovation are included in the scientific reports about the education of the GATI in Turkey. An examination of the reports comes up with the result that innovation and creativity are stressed at 7 instances in the TÜBİTAK (2009) report, at 18 instances in the TÜBİTAK (2010) report, at 2 instances in the internal audit report prepared by Demirci (2010), at 5 instances in the MoNE (2012) report, at numerous instances in the Turkish Grand National Assembly Report (2012), at 16 instances in the MoNE (2011) report, and at a total of 58 instances in the SIPGATI report 39 of which is about innovation and 19 of which is about creativity. From a
chronological point of view, the emphasis on creativity and innovation increases as the time progresses. The Turkish Grand National Assembly Report on the Talented Individuals (2012) and the SIPGATI particularly attach great importance on creativity and innovation.

The SIPGATI, which is an outcome of the scientific studies done since 2009 in relation to the education of the GATI in Turkey, presents strategic purposes and practices to be implemented in Turkey. These strategic purposes are collected under three main chapters and targets of the strategies are set. The report mentions a strategy to be implemented for each target.

One of the strategic goals and targets in the report is about the education models. The strategic goal about the education models is “to apply different education models that are integrated with our formal and non-formal education system in order to ensure improvement of the features of the talented”. The targets of this strategic goal are as follows:

1. To create flexible and efficient education applications that will enable students to demonstrate, identify, and improve their abilities at preschool and primary school,
2. To execute different education models based on the performance of the talented students at the secondary school,
3. To ensure that the standard tests designed for determining the features of the talented are used properly, efficiently and effectively,
4. To provide learning settings that will enable the talented students to demonstrate their creativity and productivity in their special talents at high schools,
5. To ensure the continuation of the talent improvement by monitoring the whole education process of the talented students at each and every educational level.

One of the strategic goals and targets in the report is about human resources. The strategic goal about the human resources is “to raise staff who will plan and implement the education of the talented efficiently and effectively within different education models.” The target of this strategic goal is set as “to improve the knowledge and skills of all stakeholders about the education of the talented.” Educators, managers, auditors, and families are referred to as stakeholders of developing human resources; students are mentioned in connection with mentorship practices; and universities are included for the teacher training process.

Of the strategic purposes of the SIPGATI, the generalizability and sustainability are as follows: “to generalize and regularize the different education policies and practices
towards the talented children across the country”. For this strategic purpose “to provide the talented individuals with the formal and non-formal education they need”, “to give support by information and communication technologies to education services offered to the talented individuals”. “To ensure cooperation with the public, corporate and private agencies in the field of educating the talented.” “To ensure sustainability of the services provided to the talented individuals” and “to establish a supreme council for planning, implementing and developing education for the talented”.

It can be argued that the strategic goals and targets presented by the SIPGATI are consistent with the content of TÜBİTAK (2009), TÜBİTAK (2010), (Demirci, 2010), MoNE (2012), Turkish Grand National Assembly (2012), MoNE (2011) and that they are formed as a holistic expression of all the reports.

CONCLUSION DISCUSSION AND SUGGESTIONS

When the expressions of vision and mission are examined, it is seen that the expressions of vision and mission in the SIPGATI are substantially consistent with the scientific reports prepared to date and that they refer to the education of the individual. Accordingly, it can be argued that the mission of the SIPGATI is to ensure that individuals fulfil their potentials as much as possible by recognizing their abilities and characteristics, to raise future’s national and international leaders, scientists, artists, and athletes who produce knowledge, technology, and innovative solutions, contribute to the progress of humankind, have ethical and aesthetic values, and are inquisitive and distinctive. In line with this mission, the vision of the strategy and implementation plan is to raise talented individuals who will steer the world and to transform our country into a center where the development of the talented is supported at national and international scale, and all opportunities that provide basis for enthusiasm, learning, and creativity are offered and seized. MoNE (2011) report, however, underlines with emphasis that Turkey should become the world leader in educating the GATI. As can be understood from all the reports, managing the education settings suitable for the GATI optimally and elevating Turkey to the level of the industrialized countries are considered important. Therefore, it would beneficial to assign the tasks that fall on the shoulders on all stakeholders ranging from the managerial units to the implementing bodies so that they adopt this mission and vision and they do their share.

As the rationale for the strategy implementation plan on the education of the GATI, it is regarded important that Turkey should become the world leader in educating the GATI.
Among the rationales for drawing the strategy implementation plan are to consider personal differences, increase the opportunities for improving the talented individuals’ areas of interest, talents, creativity and to ensure that they serve as citizens beneficial both to their country and to the world. On the basis of this rationale, it is stated that the education of the GATI is important in political, strategic, scientific and technologic, economic, sociologic and psychological terms. The rationales for preparing a strategy implementation plan for the GATI in Turkey are considered appropriate by the studies done to date (TÜBİTAK, 2009; TÜBİTAK, 2010; Demirci, 2010; MEB, 2012; Turkish Grand National Assembly, 2012; MoNE, 2011). Of these rationales, that the improvement of talents have not been discussed jointly with all the stakeholders, that education models have not been developed, that scientific studies are not supported and there is lack of experts, that the teachers and managers are incompetent, and that we lag behind the global developments are regarded significant. Additionally, that the country has not taken serious steps to make up for the lack of qualified manpower necessary for creating innovation and distinction although the country is inclined to competition in the globalization context is another significant rationale. Proper analysis of these rationales and addressing them during the preparation stage of the strategy implementation plan are vital for the success of the strategy action plan.

Adoption of novel and radical policies in the education of the GATI; diversified, enriched, and differentiated education settings which are suitable for these students’ development and learning characteristics; early identification and guidance; lack of guidance which brings about associated problems; and sufficiently successful and sustainable practices and education models for the education of the talented individuals are presented as basic needs as a response to the question of why Turkey needs a SIPGATI. These needs are stated with a common language by all the reports about the education of the GATI in Turkey (TÜBİTAK, 2009; TÜBİTAK, 2010; Demirci, 2010; MoNE, 2012; Turkish Grand National Assembly, 2012; MoNE, 2011). The most important role of the strategy implementation plan is to satisfy these needs. For this reason, all practices concerning the education of the GATI should contribute to satisfying these needs urgently.

It is crucial that a strategy implementation plan possess basic values and principles. Respect for human rights, priority of the child’s interest, respect for personal differences, scientific and ethical rules in practice, high quality service, qualified and sufficient staff, innovation and creativity, lifelong learning, distinctness, flexibility, dynamism, an education setting that exploits and supports differences, cooperation, and team work are emphasized
when the SIPGATI is considered with respect to its values and principles. It is noticed that respect for personal differences, respect for the areas of interest, freedom to scientific and individual production, the culture of support and encouragement, and the right to upbringing and right to improve talents are also included.

Expressions of early intervention, compliance with the formal education and lifelong learning (non-formal education), project-based, learning by discovery, practicing, and experience, interdisciplinary/multiple models and different practices, self-sustainability, richness and diversity, differentiation, flexibility and dynamism, enrichment, distinctness, factuality, practicability, settings that exploit the differences, and sensitivity to social and emotional needs are included as principles of the improvement of talents. These values and principles play an important role in putting the implementation plan into practice.

It is noted that the emphasis on creativity and innovation in the reports about the education of the GATI increases as the time progresses. The Turkish Grand National Assembly Report on the Talented Individuals (2012) and the SIPGATI particularly attach great importance on creativity and innovation. This indicates that the focus will be on creativity and innovation in the education of the GATI. The education planners of Turkey are aware of the importance of creativity and innovation. Placing importance on creativity and innovation (Davis and Rimm 1989; Vaughn, Feldhusen, and Asher 1991; Coleman, and Cross 2001; Colangelo and Davis 2002; Seo, Lee and Kim 2005) matters for the education of the GATI. Such basic skills as problem solving, decision making, critical/reflective/Socratic/metaphorical thinking, learning the learning, and research skills also matter for the education of the GATI (Davis and Rimm 1989; Maker and Nielsen 1995; Colangelo and Davis 2002; Omdal and Leppien, 2002; Davis, 2006).

The strategic goal about the education models is “to apply different education models that are integrated with our formal and non-formal education system in order to ensure improvement of the features of the talented.” The strategic goal about the human resources is “to raise staff who will plan and implement the education of the talented efficiently and effectively within different education models.” The strategic goal about the generalizability and sustainability is “to generalize and regularize the different education policies and practices towards the talented children across the country.” When the working reports about the education of the GATI prepared since 2009 (TÜBİTAK, 2009; TÜBİTAK, 2010; Demirci, 2010; MoNE, 2012; Turkish Grand National Assembly, 2012) are examined, it is
recognized that the strategic goals of strengthening the legal and organizational structures devoted to improving and exploiting the talents; of creating education practicing models; of developing methods for identifying, monitoring, assessing the talents and decision making; of creating qualified human resources that will work for/support the learning settings where the talents will grow; of developing standards for education and practices aimed at talent development; of developing differentiated, enriched, advanced programs for education, arts, music, and sports aimed at improving talent development at each type and level of education; of compiling criteria and standards concerning the selection and use of real and virtual learning materials that will be used for talent development; of raising public culture and awareness about the talented; of taking measures for maintaining the continuation of services for talent development; of forming cooperation with public and private institutions, non-governmental organizations, and universities to coordinate talent development (MoNE, 2012) come to the forefront. It is noted that the strategic goals collected under three chapters in the Strategy Implementation Plan for the Gifted and Talented Individuals (2013-2016) cover the strategic goals in other reports. This indicates that Turkey has properly determined the strategic goals concerning the education of the GATI in Turkey. What needs to be done at the next step is to carry into effect the policies and practices that will materialize these strategic goals.

Turkey has formulated its basic vision, mission, rationale, needs, values, principles, and strategies concerning the education of the GATI. However, Turkey is far from the policies and practices that would materialize them. It has been two years since the preparation of the Strategy Implementation Plan for the Gifted and Talented Individuals (2013-2016), and no steps have been taken although the work to be done until the end of 2016 has been specified. What matters for Turkey is to materialize these strategies rather than to formulate them.

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ABSTRACT

Burnout, which was separately defined by Freudenberger, Maslach and Pines, is a concept on which studies have been conducted at full stretch in the recent years. A number of researchers came to an agreement that burnout is an inner psychological experience that covers expectations, attitudes, motives and emotions and occurs at the individual level. Teachers experiencing burnout not only experience a decline in their performance but also changes in their attitudes towards students and their professions. Accordingly aim of this study is to measure the burnout level of the teachers and study the impacts of burnout levels on the attitudes of the teachers towards the disabled students. As the screening model, relational screening model is used in this study to show the current situation of the group. The research is made up of 153 special education teachers working in Konya province. As data collection tool, two data collection tools were determined. A negative relationship was found out between the attitude and emotional exhaustion, which is among the Emotional Exhaustion, Desensitization, Personal Achievement dimensions that are sub-dimensions of Burnout scale, by means of Maslach Burnout Scale and Attitude Scale for the Disabled Persons.

INTRODUCTION

“Burnout” concept took its place in literature with the article by Freudenberger (1974) published in “Journal of Social Sciences”. According to Freudenberger burnout was the total of the failure, wear and fatigue experienced as a result of extreme desires of energy and power sources. Burnout, which was separately defined by Freudenberger, Maslach and Pines, is a concept on which studies have been conducted at full stretch in the recent years. A number of researchers came to an agreement that burnout is an inner psychological experience that covers expectations, attitudes, motives and emotions and occurs at the individual level. Maslach defined burnout as a physical, mental and emotional exhaustion state becoming evident in chronic fatigue, desperation and feelings of hopelessness, negative identity development, negative attitudes towards work, life and other people (Akt. Özyurt, 2004). Burnout, which is also defined as a kind of work stress, arises out of exhaustion, emotional exhaustion, increase in desensitization and decrease in the feeling of achievement (Izgar, 2001).

Individuals working in the field of education are one of the risk groups most susceptible to burnout as burnout is a frequent situation among the members of professions in face-to-face relation with people (Barut and Kalkan, 2002). Education is one of the areas with the most intense interaction with people and includes emotional interaction. Due to its
inclusion of emotional interaction, responsibility felt for people is far more stressful than the responsibility felt for the objects and those engaged in these professions are open to burnout (Ensari and Tuzcuoğlu, 1999). Therefore possibility of burnout in teachers is considered to be high.

Burnout is also seen as an important problem for the teachers working in the field of special education (Barut and Kalkan, 2002). Burnout-related problems of the teachers working in the field of special education can be more significant compared to the problems of the teachers working with normal students. As is known, teaching is a profession requiring patience and tolerance. Disabled students’ being behind their peers depending on the type and degree of their handicaps, teachers’ lacking the knowledge and skills to provide the education suitable for the type and degree of the handicaps of these children, the fact that teachers are not educated as special education teachers, their unrealistic expectations from the students may cause the teachers to experience burnout and consequently to develop negative attitudes and behaviors (Özgür, 2005). In general the attitude stands out as a key concept in behavioral sciences. If we accept attitude as the tendency of a human being to display a stand or behavior pattern against an incident or situation in general, we also need to accept that attitude takes part in the origin of all kinds of behaviors. From this point of view, it is natural to address attitude as one of the key concepts of behavioral sciences. Even according to Murphy and Newcomb, no other concept but the attitude has a more centralized place in the whole social psychology field. It is known that social psychologists in particular have been allocating more time on the development and change of attitudes than other subjects since 1940s.

In our day, duties placed by the professions on the individuals are extremely high. Professional and emotional exhaustion becomes indispensable when the various independent variables affecting the individuals are added to these. Teachers experiencing burnout not only experience a decline in their performance but also changes in their attitudes towards students and their professions. During literature review, it was seen that the number of studies addressing the relation between burnout and attitude was very limited. In parallel with these, aim of this study is to measure the burnout level of the teachers and study the impacts of burnout levels on the attitudes of the teachers towards the disabled students.

**METHODOLOGY**

**II.1. Research Methodology**

As a screening model, relational screening model is used in this study to show the current situation of the group. Screening models are research approaches aiming to define a past or current situation in the way it is. As emphasized by Verma and Mallick (2005), the individual, issue or the object subject to the study is tried to be defined in the manner it is and within the framework of its own conditions. No effort to change or affect these is made. Research models aiming to determine the occurrence or degree of change between two or more variables are called as relational screening models. Relations discovered by means of screening cannot be interpreted as a real cause and effect relation; however if the situation with a variable is known, estimating the other may generate beneficial results (Dey, 1993; Balci, 2009; Büyüköztürk, Kılıç, Çakmak, Akgün, Karadeniz and Demirel, 2009).
II.2. Population and Sample

The research is made up of 153 special education teachers working in Konya province.

II.3. Data Collection Tools

As data collection tool, two data collection tools were determined. These are;

II.3.1. Maslach Burnout Scale

Maslach Burnout Inventory developed by Maslach and Johnson (1981) is made up of three sub-dimensions and 22 items in total. In this study 5 point likert scale (1-5) type grading was used. Validity and reliability of the Turkish version of the scale developed by Maslach and Jackson was carried out by Ergin (1992). Reliability regarding the scale was examined by Ergin (1992) by means of two methods. First one is the calculation of the internal consistency of the scale. Cronbach Alfa factors of the study group made up of 552 doctors and nurses in total: Emotional exhaustion .83, Desensitization .65, Personal Achievement .72. Secondly reliability was examined by means of the test-retest method. For this purpose 2-4 weeks after the first implementation it was aimed to reach 99 subjects. Test-retest reliability factors regarding the sub-dimensions of the scale: Emotional exhaustion .83, Desensitization .72, Personal Achievement .67.

II.3.2. Scale of Attitude towards the Handicapped People

In this study, ‘O’ form of the Scale of Attitude towards Disabled Persons developed by Yuker, Block and Young (1970) was applied to determine the attitudes of the students towards the disabled persons. Test-retest reliability factor of the scale developed by Yuker et al. (1970) varied between r= .57 and r=.83. Test-retest reliability of the O form of the scale, which was adapted to Turkish by Özyürek (1998), was found .76 and opinions of the experts were asked for the validity of the scale scope. The scale is made up of 20 items and is prepared in the form of 6 point likert scale. Items 2, 5, 6, 11 and 12 of the scale are scored inversely. After adding up all items considering their marks, total score is obtained by adding +60 to eliminate negative values. The highest score to be obtained from the scale is 120. High score obtained from the scale means that disabled persons are perceived in a similar way to those without disabilities. Low score shows that disabled persons are perceived in a manner different from those without disabilities (Özyürek, 2006).

II.4. Data Analysis

Data were evaluated with the SPSS statistics program. Simple Regression Analysis was used in determining the relations and impacts asserted in the models.

FINDINGS

As demographic attributes of the participants, genders and working statuses were considered. 38% of the teachers participating in the study was male while 62% was female.
52% of the teachers participating in the study was permanent while 48% was working on a contracted basis.

Research problem is to address the impacts of professional burnout on the attitudes of the teachers of the mentally handicapped towards disabled children. To examine the relations between the variables in the model, simple regression analyses were conducted. In the analysis, the attitudes of the teachers were dependent variables while the burnout levels of the teachers were accepted as independent variables. Findings are given below:

Table 1: Simple Regression Analysis to Determine the Impact of Teachers Burnout Statuses on Their Attitudes

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>Standard Error</th>
<th>R</th>
<th>R²</th>
<th>Standardized β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>burnout</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional exhaustion</td>
<td>-.269</td>
<td>.128</td>
<td>.227</td>
<td>.52</td>
<td>-.227</td>
<td>-2.09</td>
<td>.039*</td>
</tr>
<tr>
<td>Desensitization</td>
<td>-.302</td>
<td>.244</td>
<td>.136</td>
<td>.19</td>
<td>-.136</td>
<td>-1.23</td>
<td>.219</td>
</tr>
<tr>
<td>Personal Achievement</td>
<td>-.297</td>
<td>.165</td>
<td>.196</td>
<td>.38</td>
<td>-.196</td>
<td>-1.79</td>
<td>.076</td>
</tr>
</tbody>
</table>

When the above table is taken into account, it is seen that burnout has an impact of 52% in terms of emotional exhaustion on the attitudes. Beta value’s being negative shows that there is a reserve relation. In other words, as the emotional exhaustion level increases, the attitude towards the students shows a decline. It is significant at the level of p <0.05.

When the above table is taken into account, it is seen that burnout has an impact of 19% in terms of emotional exhaustion on the attitudes. In the desensitization dimension, no significant relation was found between the burnout and attitude (p ˃0.05).

When the above table is taken into account, it is seen that burnout has an impact of 38% in terms of emotional exhaustion on the attitudes. In the personal development dimension, no significant relation was found between the burnout and attitude (p ˃0.05).

DISCUSSION

It is thought that teachers of special education, teachers working with special children such as the visually handicapped, hearing impaired and the gifted get exhausted and burn out more than the teachers working with the children defined as “normal” in physical, mental and social terms. Challenges such as the disability level of the children, sufficiency of the education teachers receive and the necessity to improve oneself on a continuous basis are also experienced. It is possible to say that all these unfavorable conditions drive the teachers to quit their profession and cause significant problems such as stress and burnout. Therefore it is a result which is likely to generate a negative attitude towards the students. A number of studies in the field also support this (Sucuoğlu and Kuloğlu-Aksaz, 1996; Akçamete et al., 1998; Zebel, Dettmer and Zebel 1984; Strassmeier, 1992; Akbuğa and Gürsel, 2007).
Akçamete et al. (1998), in their study comparing the burnout levels of the teachers of special education and teachers working at normal schools, investigated whether there was a difference between the burnout and work satisfaction levels of the teachers working with normal children and teachers of special education or not. 261 normal school teachers and 153 special education teachers participated in the study. In the study, Maslach Burnout Scale was used to determine the burnout levels and Work Satisfaction Questionnaire was used to determine the Work Satisfaction Levels. Findings obtained showed that desensitization and emotional exhaustion sub-scale scores and total scores of burnout in Maslach Burnout Scale were significantly higher than the average scores of the teachers of special education and that there was no significant difference between two groups in terms of Work Satisfaction levels.

In the study reviewing the burnout of the teachers working with the mentally handicapped, Strassmeier (1992) used MBS and applied it to 98 teachers. As a result of the study; it was found out that the burnout was not related to demographic attributes and that characteristics of the teacher were highly related to burnout. Especially it was emphasized that feeling of over-load caused by working with extreme mental handicaps was the most important personal variable in burnout. Referring to the limited collaboration among the teachers, personnel insufficiency and limited discussion with regards to the learning content and methods as the main reasons of burnout, Strassmeier stated that factors regarding the institution and social support had an important place in burnout and that teacher’s not receiving support from the colleagues was related to burnout.

Also some studies found out that although the education had an impact on the attitudes towards disabled persons, it did not permanently change the attitudes towards the disability (Flower et al., 2007; Stachura and Garven, 2007). Panel held within the scope of a study researching the impact of knowledge levels and attitudes of the university students of a short-term disability education program covered the disabilities, stories of people with disabilities and physical evaluation of the individuals with disabilities. Following this informing session, a positive change at a significant level occurred in the knowledge levels and attitudes of the students. Knowledge levels of the students on the disabilities did not persist for a long period of time but their positive attitudes lasted up to 3 months.

CONCLUSION AND SUGGESTIONS

Following results were obtained in this study investigating the impact of burnout levels of the teachers of mentally handicapped on their attitudes towards disabled children. A negative relation was found out between the attitude and emotional exhaustion, which was one of the Emotional exhaustion, Desensitization, Personal Achievement dimensions that are sub-dimensions of burnout scale. In other words as the burnout level of the teachers increases, there is a decline in their positive attitudes. Another finding of the study is that no significant relation between the attitude and desensitization and personal achievement is found out. Based on these results, following suggestions can be proposed.

1. The relation between the burnout and attitude can be examined considering the branches of the teachers working in the field.
2. Measures can be adopted to decrease the emotional burnout levels of the teachers based on the results of the study.

REFERENCES


SERVICE INNOVATION IN HOTELS: READINESS FOR ASEA

Jantima Banjongprasert

Silpakorn University International College
22 Borommarachachonani Rd. Talingchan,
Bangkok 10170 Thailand
Tel. + 66816194619, +66805500759
jantima_b@yahoo.com

ABSTRACT

As the ASEAN Economy Community (AEC) will come into full operation by 2015, entrepreneurial firms should brace themselves for the potential changes. On one hand, firms can expand their markets, which provide them opportunity to reach new customers. On the other hand, they have to compete with more competitors. To deal with the pressure of new competition and win new customers, innovation is considered as a critical factor that determines whether an organization can handle new challenges. Moreover, companies normally introduce more innovative services in order to be more competitive and to attain the competitive advantage (Noorani, 2014). It is vital for the organizations to establish readiness for the changes. Therefore, this research aims to explore the impacts of the emerging AEC on service innovation. Specifically, it endeavours to investigate the readiness for the forthcoming AEC, and the associations between the readiness and the service innovation. This study proposes that service innovation performance can be improved depending on the readiness for change of employees in the organization, which are the recognition of the need for change (Tichy and Devanna, 1986), Employees’ needs for the prospective change (Holt et al., 2007), and employees’ response to changes (Daft and Weick, 1984; Milliken et al., 1992). In Thailand, service sector accounts for half of the national income, and almost 50% of GDP mostly derives from private sector services (Koonnathamdee, 2013). Additionally, tourism is a primary source of its national income (Wonglorasichon and Wiriyakitjar, 2013). According to the dynamic nature of the hotel industry, the hotel business is chosen for this research because competitiveness in tourism depends on innovation, which should lead to lower costs and higher quality services (Ottenbacher, 2005). Focusing on hotel services, this research aims to provide an insight into high contact based service innovation. The survey is conducted in the hotel sector in Bangkok, Thailand. Moreover, hypotheses are tested by Structural Equation Modeling (SEM) technique using Amos 21. The research findings provide guidance to managers as to how service innovation performance is influenced by the readiness for the changes due to the upcoming AEC. The theoretical and managerial implications of this research will be presented.

Keywords – service innovation, readiness, AEC 2015
INTRODUCTION

Firms around the world have recently realized that the global economy and economic growth have now become services dominated. This is supported by Vargo and Lusch (2008, p.4) noted that “…many national economies have now become service economies”. Furthermore, a report of the World Bank Group (2015) presented that the average annual growth of service industry from 2002 to 2012 had been increasing constantly. In addition, today businesses are in the competition on services, and not on the physical products basis (Grönroos, 2000 cited in Kandampully, 2002). Yet, innovation research remains focused on products rather than on services (Meyer and DeTore, 2001 cited in Nijssen et al., 2006). Despite “Business Week’s top twenty five most innovative companies includes a number of service businesses such as Google, Walt Disney, Wal-Mart, Starbucks, Amazon and E-Bay” (Bitner et al. 2008, p.2), there is a lack of rigorous attention to the service innovation.

The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand. In October 2003, the ASEAN leaders declared the establishment of the ASEAN Community including the ASEAN Economic Community (AEC). The AEC will come into full operation by 2015 and, this will bring about many challenges and opportunities for firms across the region (Rynhart and Chang, 2014). The AEC aims at a free flow of goods, services, investment, capital, and skilled labour across regional integration so that it is expected to have effects on workforces, firm operations and their competitiveness. On one hand, firms can expand their markets, which provide them opportunity to reach new customers. On the other hand, they have to compete with more competitors. They can no longer rely on existing competitive advantages. To deal with the pressure of new competition and win new customers, innovation is seen as a critical factor that will determine whether an organization can handle new challenges. Moreover, companies normally introduce more innovative services in order to be more competitive and to attain the competitive advantage (Noorani, 2014). Therefore, this research aims to explore the impacts of the Emerging ASEAN Economic Community on service innovation. Specifically, it endeavors to investigate the readiness for AEC, and the associations between the readiness and service innovation. In Thailand, service sector accounts for half of the national income, and almost 50% of GDP mostly derives from private sector services (Koonnathamdee, 2013). Additionally, tourism is a primary source of its national income (Wonglorsaichon and Wiriyakitjar, 2013). According to the dynamic nature of the hotel industry, the hotel business is chosen for this research because competitiveness in tourism depends on innovation, which should lead to lower costs and higher quality services (Ottenbacher, 2005). The purpose of this research is to investigate the readiness for the emerging of the AEC upon service innovation. To achieve this research objective, the following research questions are posed.

1. What are the effects of the readiness for the economic integration (AEC) on service innovation?
2. Do the readiness for the emerging of AEC relate to the service innovation? In what way?
LITERATURE AND THEORY

As the implementation of the ASEAN Economy Community (AEC) is approaching, entrepreneurial firms should brace themselves for the potential changes. It is vital for the organizations to establish readiness for change. Weiner (2009) suggests that the term ‘readiness’ indicates a state of being both psychologically (willingness) and behaviorally prepared to take action (ability). In addition, readiness requires organizational members’ change commitment and change efficacy to implement organizational change (Weiner et al., 2008; Weiner et al., 2009). It should be noted that organizational members’ readiness is critical to successful change management or implementation. This is supported by Pettigrew (1990 cited in Weeks et al., 2004) who asserts that alteration of people’s actions, reactions, and interactions is essential to move the organization’s existing state to some future desired state. Thus, this study focuses on the organizational members’ readiness for the AEC implementation.

In light of environmental changes, organizations look for different ways to conduct businesses. To achieve competitive advantage, emphasis has been placed on the need for managers in a continuous flow of innovations. Services have dominated the world’s economies so that companies across different industries have shifted from product-centric to service-centric to survive and grow in the future (Yen et al., 2012). Nevertheless, efforts by companies to implement innovations are likely to be ineffective because almost 50 percent of new service failed (Cooper and Edgett, 1996). Service innovation is a very complex and risky activity so that there is a need for more theory on this account. According to the AEC, the economic integration is likely to bring about an integrated total consumer base of over 600 million potential customers. To be competitive under the AEC, firms need to improve or develop new services to serve new consumers. Understanding the organizational members’ readiness for the upcoming AEC can be useful for offering successfully new services offering to the customers. Therefore, the author argues that individual readiness with regard to the AEC should bring about better service innovation performance.

This section introduces an overview of the concept of readiness for change, provides definitions, and explores the main dimensions of this construct. Next, the section moves on to provide the existing literature relating to the service innovation areas and performance measurement. Finally, a conceptual framework for this study has been developed. It presents the association between readiness for change and service innovation performance.

1. Readiness for change

Readiness for change is a multi-level construct, which can be presented at the individual or organizational level. Readiness can be defined as “the state of being fully prepared for something” and “willingness to do something” (Oxford University Press, 2015). It implies preparation mentally and physically for an experience or action (Merriam-Webster, 2005 cited in Walinga, 2008). When there are changes in the environment, people working in the organizations should get ready for the changes. Indeed, organization’s members are at the heart of the creation of the readiness for change (Armenakis et al., 1993). Human requirement
is significant for implications of innovation (Miles, 2008) as people or employees making an innovation strategy work (McKnight and Hawkrigg, 2005). Employee participation is critical to successful innovation implementation so that this current research intends to examine the employees’ readiness for change.

Some researchers (e.g. Prochaska and Velicer, 1997; Lewin, 1945) assert that people may resist when they are not ready for change. In order to attain individual’s acceptance of the new ways for accomplishing the tasks, the firms implementing the change must address the three important issues: employees’ recognition of the need for change (Tichy and Devanna, 1986), employees’ needs for the prospective change (Holt et al., 2007), and employees’ response to changes (Daft and Weick, 1984; Milliken et al.,1992). During the recognition phase, people should realize that there is a gap between the existing reality in the organization and the situation required by changes in the environment (Alas, 2007). In order to attain individual’s willingness to accept this gap, the employees should be confident on their knowledge and skills required to implement the new interventions (Mansen, 2008).

ASEAN integration has some impacts on member countries’ economies through foreign direct investment, international trade or eliminating barriers to trade in this sector. Tariffs, non-tariff barriers and trade barriers will be reduced or eliminated, which will bring about new opportunities for growth and prosperity especially in hotel business. For instance, this will lead to the increasing number of potential/new customer from member countries. However, it can be considered as the challenge for the entrepreneur on how to adjust their services to serve new group of customers. The success of adapting to the emerging of the AEC will depend on the firms’ readiness to improve their services for satisfying new customer. Given that changes caused by the upcoming AEC, organization’s employees need to reduce or unfreeze the forces that are attempting to continue the status quo, and change the current mind set (Lewin, 1989). To unfreeze individuals, people need to recognize the need for change, and they need to understand why changes in services and service improvements are required. Thus, this research proposes that organization’s employees require the recognition of the need for change (Tichy and Devanna, 1986).

Employees should not only recognize the need for change, but also accept those changes or new ways for implementing their job. In other words, organizations need to attain individual’s willingness to accept the changes caused by the forthcoming AEC. Adapted from Holt et al. (2007), employees’ willingness on changes composes of the discrepancy or legitimate reasons including the needs for the prospective change.

Finally, this research aims to examine employees’ response to changes or action taken (Daft and Weick, 1984; Milliken et al.,1992). Adapted from Daft and Weick model (1984) and Griffin’s et al. (2007) work, the final stage called taking actions involving the decision on an appropriate response to the given situation, or adaptive behaviour. Organizational change is typically activated by a relevant environmental shift (Jimmieson et al., 2004), which is the change resulted from the approaching economic integration or the AEC. Once the change
regarding the AEC recognized by the organization, the members of the organization generate an intentionally response. In other words, they should be able to handle change, or adapt to changes. Additionally, uncertainty influenced by the AEC determines whether employees can be effective by adapting to change. Hence, responding to changes refers to ability to cope with changes and new skills required for adapting to changes (Griffin et al., 2007).

2. Service innovation

Spohrer (2007, cited in Jana, 2007, p.1) noted that "…people have a good idea of what technological innovation is, but service innovation is more hidden". Despite the crucial importance of service innovation, many service firms still struggle with their innovative efforts (Oduori, 2010). This is unsurprising, since extant studies (e.g., Radas and Bozic, 2012; Alam, 2006) acknowledge that service innovation is a very complex and risky activity. Furthermore, the fact is that many attempts to develop new services are found to be unsuccessful (e.g. Smith et al. 2007 cited in Janssen et al., 2012). This is in agreement with Cooper and Edgett (1996) who demonstrated that almost 50 percent of service innovations failed, clearly expressing a need for more theory on this account.

Firms are inclined to adopt service innovation if they are required and capable to execute the changes (Yen et al., 2012). The creation of the AEC in 2015 presents more opportunity to drive growth, and makes substantial contributions to hotel business. Intra- and extra- ASEAN tourist arrivals in ASEAN countries have been rising since 2008. Nonetheless, service providers are in the face of new and flourishing competitors. Service innovation is becoming even more essential so as to cope with this challenge. Rick (2013) asserts that change readiness creates advantage, minimize risk, and sustain performance. Indeed, previous research has found positive association between readiness for change and individual performance (e.g. Weeks et al, 2004; Kwahk and Lee, 2008). Accordingly, this research proposes that readiness for change positively correlates to service innovation performance.

Service innovation performance is composed of two dimensions, effectiveness and efficiency, that have been well established in the literature. Specifically, service innovation performance scales are adapted from Voss (1992 cited in Johne and Storey, 1998), Melton and Hartline (2010), and Menor and Roth (2007) to provide a seven-item measure of service innovation performance. The items assess the extent to which a firm produces a desired service innovation results, and the extent to which time, effort, or cost is well-used for the intended service innovation purposes.

3. Conceptual framework

Drawing from the literature review, the concepts of the readiness for change and service innovation are formally defined. Two concepts are central to this research, employees’ readiness for change and service innovation. This study proposes that service innovation performance can be improved depending on the readiness for change of employees in the organization as shown below.
This study plans to conduct a survey of the hotel business sector in Thailand. Tourism has been one of the major sectors to contribute to economic prosperity in Thailand over the decades (Narangajavana and Hu, 2008). In 2011, the Ministry of Tourism and Sports reported that Thailand generated $15,524.34 million (776,217.20 Thai Baht) from the tourism industry, and there were 19,230,470 tourist arrivals in Thailand, representing an increase of 20.67 percent from 2010 (Ngamsangchaikit, 2012). In addition, Thailand had the third largest accommodation capacity in Asia with a total of 321,000 guestrooms in hotels and similar establishments (World Tourism Organization, 2003). Besides, much research of service innovation has concentrated on the financial services (Johne and Storey, 1998), and mainly back-of-house operations, which are different to hotels that are high contact services. Focusing on hotel services, this research aims to provide an insight into high contact based service innovation. To collect data for the survey, a mail questionnaire will be used, due to its effectiveness and efficiency. Moreover, hypotheses will be tested by Structural Equation Modeling (SEM) technique using Amos 21. Maximum likelihood (ML) procedure (Byrne, 2010) was used to estimate the structural coefficients.

According to the Thai Hotel Association (THA), there are 201 hotels granted Accommodation Standard for Tourism (Hotel) from Hotel Standard Foundation, Thailand. The survey will be conducted in the hotel sector in Bangkok, Thailand. Bangkok, the capital city of Thailand, is selected since there are more hotels in Bangkok than in other cities. Furthermore, Bangkok has drawn many tourists because of their attractions such as temples and festivals (van Breugel, 2013). Therefore, Bangkok with 10,209,900 visitors (Euromonitor International, 2010) is selected for conducting the survey. The first author visited the selected hotels personally and oversaw the dissemination and collection of questionnaires culminating in 13 hotels agreeing to participate in the study. This returned a total of 169 employee questionnaires to the researcher, which is a satisfactory data set. Of these, fifteen were incomplete. A total of 154 questionnaires comprised the final analysis.
Table 1
Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>Employees’ recognition of the need for change has positive impact on effectiveness</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>Employees’ needs for the prospective change have positive impact on effectiveness</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>Employees’ ability to cope with changes have positive impact on effectiveness</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>Employees’ new skills required for adapting to changes have positive impact on effectiveness</td>
</tr>
<tr>
<td>Hypothesis 5</td>
<td>Employees’ recognition of the need for change has positive impact on efficiency</td>
</tr>
<tr>
<td>Hypothesis 6</td>
<td>Employee’s needs for the prospective change have positive impact on efficiency</td>
</tr>
<tr>
<td>Hypothesis 7</td>
<td>Employees’ ability to cope with changes have positive impact on efficiency</td>
</tr>
<tr>
<td>Hypothesis 8</td>
<td>Employees’ new skills required for adapting to changes have positive impact on efficiency</td>
</tr>
</tbody>
</table>

RESULTS

Hypotheses are tested by Structural Equation Modeling (SEM) technique using Amos 21. Maximum likelihood (ML) procedure (Byrne, 2010) is used to estimate the structural coefficients. The research applies. In terms of hypothesis tests, the value of 0.05 is referred to as the significance level of the test (Howell, 2010) If probability level is .05 or less, the departure of the data from the model is significant at the 0.05 level (Bollen and Long, 1993). Results of SEM testing indicate that the measurement model had an adequate fit: Chi-square = 12.905 at Probability level = 0.000, Comparative fit index (CFI) = .943, Goodness-of-fit index (GFI) = .974, Normed Fit index (NFI) = 0.942, The Root Mean Square Error of Approximation (RMSEA) = .038. Samples of data confirmed that the hypothesized model is fit and validity for its further use.

Table 2 presents the Standardized Regression Weight, T-ratio (C.R) and their significant level. A result of regression analysis indicates relationship between predicting variables and criterion variables. The results reveal that four variables were significantly influencing service innovation performance, which are effectiveness and efficiency at 0.05 significant level.

Table 2
Regression Weights

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
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</thead>
<tbody>
<tr>
<td>Effective</td>
<td>.215</td>
<td>.058</td>
<td>3.707</td>
<td>***</td>
<td>Rec</td>
</tr>
<tr>
<td>Effective</td>
<td>.288</td>
<td>.091</td>
<td>3.163</td>
<td>.002</td>
<td>Needs</td>
</tr>
<tr>
<td>Effective</td>
<td>.279</td>
<td>.061</td>
<td>4.589</td>
<td>***</td>
<td>Ability</td>
</tr>
<tr>
<td>Efficiency</td>
<td>.242</td>
<td>.054</td>
<td>4.492</td>
<td>***</td>
<td>Needs</td>
</tr>
<tr>
<td>Efficiency</td>
<td>.279</td>
<td>.061</td>
<td>4.589</td>
<td>***</td>
<td>Ability</td>
</tr>
<tr>
<td>Efficiency</td>
<td>.425</td>
<td>.102</td>
<td>4.165</td>
<td>***</td>
<td>Skills</td>
</tr>
</tbody>
</table>
Hypotheses 1, 2, 3 and 4 are supported at 0.05 significant level. This means that the greater the employee’s recognition of the need for change, the higher the service innovation effectiveness. It is also found that the higher employees’ needs for the prospective change can lead to the better service innovation effectiveness. Moreover, superior employees’ ability to cope with changes can bring about better service innovation effectiveness. In addition, better employees’ new skills required for adapting to changes can generate higher service innovation effectiveness. Furthermore, the findings demonstrate positive relationships between the employee’s recognition of the need for change, employees’ needs for the prospective change, employees’ ability to cope with changes and employees’ new skills required for adapting to changes and service innovation efficiency. Hence, hypotheses 5, 6, 7 and 8 are supported at 0.05 significant level.

CONCLUSION AND FUTURE WORK

A major contribution of this study is that it attempts to develop and investigate employees’ readiness for the changes caused by the upcoming AEC in 2015. The extant research has introduced a new validated scale for evaluating employees’ readiness for the changes. Furthermore, the research provides evidence of the effects of employees’ readiness for the changes on service innovation in practice. The results show that the employee’s recognition of the need for change, employees’ needs for the prospective change, employees’ ability to cope with changes and employees’ new skills required for adapting to changes have critical impacts on service innovation performance. This would enhance our knowledge of readiness for changes and service innovation theories. The results have practical implications for managerial practice. The research findings provide several guidelines for managers, particularly in the hotel industry, for the effective planning and execution of their employees. The present study’s limitations include the fact that it was conducted in a single service industry (the hotel industry) and in a national context (Thailand). The generalisability of these study results, therefore, is limited by industry and country. The findings may have different results when applied to other industry and country contexts, so that further research is suggested.

Acknowledgements
I wish to express a very special thank you with my deepest appreciation to my sponsor, Silpakorn University International College (SUIC), Silpakorn University, Thailand for the Grant in support of this research project.

REFERENCE


ENTREPRENEURS’ CULTURE, NETWORKING, GENDER AND EDUCATION AFFECT THEIR EXPORTING: A CROSS NATIONAL COMPARISON

Mahdokht Sedaghat and Peter Waring Lei

Mahdokht Sedaghat, International Business Academy, Kolding, Denmark
E-Mail: mase@iba.dk

Peter Waring Lei, Doctorate Candidate, DBA., LL.M./ MBA Executive, International Business Academy, Kolding, Denmark
E-Mail: pwl@iba.dk

ABSTRACT

Entrepreneurs’ exporting is embedded in their advisory networks, culture, gender and education. The main hypotheses are that networking, gender, education and culture affect exporting in the way that networking affects exporting positively; gender affects exporting, in the way that male have more exporting than female; education affects exporting in the way that educated entrepreneurs have more exporting than less educated entrepreneurs; and culture affects exporting in the way that secular-rational culture benefits exporting more than traditional culture. These hypotheses are tested with a representative sample of 23,508 entrepreneurs in 53 countries surveyed in Global Entrepreneurship Monitor and national level data on culture from the World Values Survey. Hierarchical linear mixed modeling shows that networking, secular-rational culture and education affect exporting positively while gender has no effect on exporting. Education, secular-rational culture and gender (male) reinforce the effect of networking on exporting.

Keywords: Entrepreneurship, Global Entrepreneurship Monitor, World Values Survey.

Acknowledgements:

The Global Entrepreneurship Monitor provided the data. Responsibility for analysis and interpretation rests with the author.

INTRODUCTION

With global attention to entrepreneurship, study of entrepreneurs’ activities such as their networking and their performance is important. On the other hand, entrepreneurs’ characteristics like their background and also their culture matter for their international activities like their exporting.

Scholars consider that entrepreneurs are not acting alone but together with others and their activities are within their networks. Through these networks, entrepreneurs share information, know-how, creative ideas, access to finance, access to skills, emotional support and social legitimacy which bring them opportunities for their business (Acs and Audretsch, 2000; Klyver, 2011). These opportunities which are embedded in their active networks affect their firm performance e.g. exporting (Terjesen and Hessels, 2009).
In order to be able to export, entrepreneurs need some kind of competitive advantage such as unique resources or innovative abilities, because they have to adapt their products or services to foreign markets (Hessels and Stel, 2011). Exports result in growth of firms and their home countries’ economies by improving a nation’s foreign exchange reserves, developing national industry and creating jobs (Lu and Beamish, 2001; Terjesen and Hessels, 2009). Exports aid to create value, and access new knowledge and technologies abroad (Yeoh, 2004) and expand into new, foreign markets (Lumpkin and Dess, 1996; Zahra et al., 1999). Governments support cross-border entrepreneurship and in particular exports to increase national wealth and to improve international competitiveness of the national economy (OECD, 1997).

Entrepreneurs’ background like their higher levels of education is reflected in greater quantities of knowledge capital and is likely to be positively related to the attitude to create products and services which can be exported. At the individual level, education is a key aspect of an entrepreneur’s human capital and entrepreneurs who have higher levels of education are more likely to identify opportunities (Davidsson & Honig, 2003) and have ambitions to grow their firms (Autio, 2007; Terjesen and Hessels, 2009).

Other scholars also believe that individual-specific factors mainly relate to characteristics of the entrepreneur. Examples of factors that have been found to positively affect internationalization are demographic factors, such as age (Westhead, 1995) which may be considered as a proxy for accumulated experience (Basile, et al., 2003; Hessels and Parker, 2013) the level of education (Simpson and Kujawa, 1974), and factors relating to individual’s knowledge and experience such as the entrepreneurs’ international business experience and knowledge of foreign institutions, such as knowledge of foreign laws, norms, standards and languages (Bloodgood, et al., 1996; Eriksson, et al., 1997; Oviatt and McDougall, 1995; Reuber and Fischer, 1997).

Many studies show that the level of male entrepreneurial activity is still higher compared to that of women. Cross-national empirical studies report significant differences in female and male entrepreneurial activity, with various factors affecting business performance across countries (Tsyganova and Shirokova, 2010).

There is a widespread belief that cultural differences can be a powerful determinant of variation in entrepreneurial behaviour across countries (see Hayton et al., 2002 for a review of studies on culture and entrepreneurship). (Klyver and Grant, 2010). National culture consists of the underlying value systems that are specific to a group or society and motivate individuals to behave in certain ways (Hofstede, 1998). In recent years, studies show that mere attention to the dimensions of national culture (e.g. power distance, uncertainty avoidance, masculinity-femininity and individualism-collectivism) is not a comprehensive approach to study the role of culture on entrepreneurial behaviour. Beside theses dimensions of national culture, secular-rational vs. traditional, have become important to scholars as well (Aramand, 2013). According to World Values Survey, secular-rational values reflect the differences in religions in different societies. Societies near the traditional spectrum emphasize the importance of family relations and traditional family values, and reject divorce, abortion, euthanasia, and suicide. These societies have high levels of national pride, and a
nationalistic outlook. Societies with secular-rational values are opposite (2013). Countries with traditional culture include African countries, Latin American countries and some parts of Asia, while secular rational culture includes European countries and North America.

This study examines exporting as shaped by both micro-level and macro-level conditions. At the microlevel, the focus is on networking, gender, education as they impact exporting. At the macro-level, the focus is on culture as it impacts exporting.

So in next section, prior research on networking, exporting and culture will be reviewed. Then hypotheses about effects of networking, gender, education and culture on exporting, and effects of networking together with gender, education and culture on exporting, will be described. After introducing design, data and variables, hypotheses will be tested and results will be discussed.

The value of this proposed research is that the focus is on entrepreneurs in 53 countries which is a huge sample of entrepreneurs comparing to earlier studies, so the results can be generalized to the world.

Prior research

As pinpointed in the introduction, entrepreneurs’ background like their gender, education and their culture might affect their networking and also their performance. So many researchers studied the effect of entrepreneurial networks and their background on their firm performance especially on their exporting. For example author A studied the effect of innovativeness and networking on exporting and also how networking enhances the impact of innovativeness on exporting based on Global Entrepreneurship Monitor data on firms in operating phases in 67 countries. They measured firms networking in seven kinds of collaboration: collaboration on production, supply, marketing, new customers, new products, new products for new customers and effectiveness. They also measured exporting based on percentage of customers that normally live outside the country. They found that firm’s innovativeness has a positive effect on exporting. Networking affect exporting positively; and networking moderates the effect of innovation on exporting. So firm’s innovation get a boost on exporting through networking (Author A).

Author B surveyed a similar research with a sample of entrepreneurs including owner-managers and starters in 14 countries using Global Entrepreneurship Monitor data. They studied the effect of total networking and also five different kinds of networking on exporting. They measured networking in five different spheres: networking for advice in the private sphere, with spouse, parents, other family members and also friends, work-place sphere with work-colleagues, boss, starter and business-mentor, the professional sphere with lawyer, accountant, bank, investor, researcher and counselor, the market sphere with collaborators, competitors, suppliers and customers and internationally with someone in another country and someone from abroad. Total networking is the sum of five specific networks. Exporting also measured based on percentage of customers that live outside the country. Results show that total networking, international networking, professional networking, have a significant and
positive effect on exporting. There was no effect of private networking and work place networking on exporting (Author B).

Author C in 2012 used a sample of 471 firms in Denmark whose owner-managers were surveyed in the Global Entrepreneurship Monitor and a survey with the same questions that were conducted specifically for focusing on firms in industry in Denmark. The survey asked for each firm’s collaborative relations, innovation, export and current size and expected future size. They found that firms benefit from their networking. Their collaborative relationships with others in their operations improve their performance in terms of innovation, exporting and expectation for growth. Moreover, these dimensions of performance tend to reinforce one another in the way that innovation promotes export and growth-expectation. (Author C).

Author D studied 20857 nascent and established entrepreneurs in 42 countries sampled in Global Entrepreneurship Monitor, 2009-2011. They found that entrepreneurs’ networks, especially their professional networks, enhances their innovation, exporting and expectations for growth, both directly and in combination with national characteristics, e.g. culture (Author D).

Other scholars studied the entrepreneurs’ networking for advice in private and public spheres, as influenced by gender, age and education in the context of culture using Global Entrepreneurship Monitor data in Denmark and 14 countries representative of the Middle East and North Africa. They found that entrepreneurs are networking in the private sphere with family and friends, especially in traditional culture in Middle East and North Africa, and are networking in public spheres, especially in the secular-rational culture in Denmark. Male entrepreneurs network broader than female entrepreneurs, especially in the public sphere, whereas women network more intensely in the private sphere. Age influences networking in the way that networking in the private sphere is more extensive among young than among older entrepreneurs. Education influences networking in the way that networking in the public sphere is especially extensive among educated entrepreneurs (Ashourizadeh and Schøtt, 2013).

Schott and his colleague studied a sample of 35,430 entrepreneurs in 42 countries using Global Entrepreneurship Monitor data. They hypothesized effects of culture, (rationality and trust) upon the properties of the networks namely size, diversity, private network, market network, work-place network, professional network and international network. Cultural effects on networking were tested as macro-to micro effects in two level mixed linear models with fixed effects of national levels of rationality and trust and individual-level variables as controls and random effects of country, where the dependent variables are the properties of the networks. They found that rationality promotes diversity of networks and prominence of work-place network, professional network, market network and also international network, but reduces prominence of the private network. Trust increases size of the networks, diversity of networks, prominence of market network and also work-place and professional network, but reduces prominence of the private network. They also found that the gender difference is wider in traditional culture than in secular-rational culture (Schøtt and Cheraghi, 2012).

Klyver and Christensen studied a representative sample of entrepreneurs operating at three succeeding phases of the entrepreneurial process using Global Entrepreneurship Monitor (GEM) data and a follow-up survey in 2003. They investigated if differences in social
network structures can be found between export-oriented and domestic-oriented entrepreneurs. Results indicated that export-oriented entrepreneurs activate larger personal networks with a higher proportion of business relations compared to domestic-oriented entrepreneurs. In their survey export was measured based on whether or not an entrepreneur expects to export or is exporting, depending on whether the entrepreneur operates in the firm emergence phase, the young business phase or the established business phase. Because entrepreneurs in the emergence phase still have not started a business, they have intention to export, whereas in the later phases where the business has been started, they are real export. If entrepreneurs were not export-oriented, they were coded ‘0’; if they were export-oriented, they were coded ‘1’. For measuring social networks, they employed the name generator approach to ascertain the composition of entrepreneurs’ activated social networks. They asked entrepreneurs, “Identify up to five persons with whom you have discussed your (opportunity; business), and if you have discussed your (opportunity; business) with more than five persons, then the five persons who have influenced you the most.” This resulted in a size measure from one to five (2007). So entrepreneurs’ performance especially their exporting activities benefit from their involving in large networks and it also depends on entrepreneurs’ background.

Hypotheses

Based on the tradition of research on networks and exporting, we shall here use the conceptual model in Figure 1.

![Conceptual Model](image)

According to this conceptual model, networking, gender, education and culture have a distinct effect on exporting. The model controls for characteristics of entrepreneurs, and also for country.

The above review leads us to specify hypotheses about exporting as follows:

H1: Networking affects exporting positively.

H2: Exporting is affected by entrepreneurs’ gender, in the way that male have more exporting than female.
H3: Exporting is affected by entrepreneurs’ education; in the way that more educated entrepreneurs have more exporting than less educated entrepreneurs.

H4: Exporting is affected by entrepreneurs’ culture, in the way that secular-rational culture benefits exporting more than traditional culture.

H5: Entrepreneurs’ gender moderates the effect of networking on exporting, in the way that male entrepreneurs’ networking benefit exporting more than female entrepreneurs.

H6: Entrepreneurs’ education moderates the effect of networking on exporting, in the way that educated entrepreneurs’ networking benefit exporting more than less educated entrepreneurs.

H7: The effect of entrepreneurs’ networking on exporting is different in secular-rational culture versus traditional culture; in the way that entrepreneurs’ networking in secular-rational culture benefits exporting more than in traditional culture.

**Design and data: Global Entrepreneurship Monitor**

Sample is 23,508 entrepreneurs (owner-managers of established firms) in 53 countries who have participated in GEM survey in 2009-2011. These countries are Algeria, Angola, Argentina, Australia, Barbados, Bangladesh, Bolivia, Bosnia and Herzegovina, Brazil, China, Colombia, Croatia, Czech Republic, Denmark, Ecuador, Egypt, Greece, Guatemala, Hungary, Iran, Ireland, Israel, Jamaica, Jordan, Latvia, Lebanon, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Palestine, Peru, Poland, Portugal, Romania, Saudi Arabia, South Africa, South Korea, Sweden, Singapore, Syria, Taiwan, Tonga, Thailand, Trinidad and Tobago, Tunisia, Turkey, United Arab Emirates, United States, Uruguay, Venezuela and Yemen.

The GEM survey of individuals can be considered a two-stage sample of the adults in the world. In the first stage countries have been sampled by self-selection; when researchers within some countries formed national teams that joined the GEM consortium. In each such participating country, the second stage was to draw an approximate national probability sample of adults and in interviews identify entrepreneurs.

GEM fairly randomly sampled adults in the population and identified owner-managers who reported on their firms. Thus the sample is fairly representative of firms in these countries. The representativeness enables generalization of the findings to the population of firms in these countries.

National-level measures of culture are available from the World Values Survey (2013). Each surveyed country is scored on the dimension or continuum from extremely secular-rational culture to extremely traditional culture (for some countries the score was missing, so a score was estimated according to neighboring countries).
The unit of analysis is an entrepreneur. The method for analyzing the data is quantitative. For testing hypotheses, I use hierarchical mixed linear modeling in SPSS.

Variables:

In the model there are three types of variables: independent, dependent and control variables. The independent variables are networking, culture and gender and education. Networking around the entrepreneur is measured by asking whether or not advice was received from each of twenty possible advisors. Networking is the sum of five specific networks namely private network, market network, workplace network, professional network and international network.

Culture is measured as secular-rational versus traditional culture in World Values Survey.

Education is measured as years of schooling.

The dependent variable is exporting. Exporting is measured on proportion of customers that live abroad.

Control variables are characteristics of the entrepreneur like motivation, self-efficacy, opportunity perception, risk-willingness, sole proprietor, age, and country.

Control variables are the following:
Gender dichotomy coded 1 for male and 0 for female.
Age of entrepreneur logarithm of number of years of age.
Education level of education, standardized in each national sample.
Self-efficacy dichotomy coded 1 for self-efficacious and 0 for not.
Opportunity perception dichotomy coded 1 if recognizing opportunity and 0 if not.
Risk-willingness dichotomy coded 1 if not fearing failure and 0 if fearing failure.
Motivation dichotomy coded 1 if motivated by opportunity, and 0 if motivated by necessity.
Sole proprietor dichotomy coded 0 if joint ownership and 1 if sole ownership.

Entrepreneurs’ networking with advisors

In the survey, an entrepreneur’s network was measured by asking whether or not advice was received from each of twenty possible advisors. The questions for measuring a network were designed so as to be applicable to entrepreneurs in all phases of venture creation, with concern for the interviewing-time involved and simple enough for respondents unfamiliar with surveys. A list of potential advisors derived from the literature and from previously undertaken surveys were selected, and pretested in five countries in 2008. The pretest helped to finalize the list of 20 possible advisors for the surveys used here (Author B; Author D).

Each entrepreneur was asked,

Networking is the sum of five specific networks namely private network, market network, work-place network, professional network and international network.

Exporting

The question about exporting in the questionnaire is: What proportion of your customers will normally live outside the country? Exporting is thus measured by a percentage. For analysis we measure export on a logarithmic scale, as the logarithm of the percentage (adding 1 before taking the log). So the frequency of this variable is shown in Table 1.

<table>
<thead>
<tr>
<th>Entrepreneurs’ exporting</th>
<th>Percent of entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 % of customers are abroad</td>
<td>69 %</td>
</tr>
<tr>
<td>1% to10% of customers are abroad</td>
<td>19 %</td>
</tr>
<tr>
<td>10% to 25% of customers are abroad</td>
<td>4 %</td>
</tr>
<tr>
<td>25% to50% of customers are abroad</td>
<td>3 %</td>
</tr>
<tr>
<td>50% to75% of customers are abroad</td>
<td>2 %</td>
</tr>
<tr>
<td>75% to 95% of customers are abroad</td>
<td>1 %</td>
</tr>
<tr>
<td>95% to100% of customers are abroad</td>
<td>2 %</td>
</tr>
<tr>
<td>Total</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Entrepreneurs differ in their exporting. Table 1 show that only 31 percent of entrepreneurs have exporting.

Entrepreneurs’ culture

Entrepreneurs are different in their culture. Some are secular-rational and some are traditional. Secular rational culture mostly includes Europe and USA while traditional culture includes Africa, Latin America and some parts of Asia.

<table>
<thead>
<tr>
<th>Country</th>
<th>Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>1.48</td>
</tr>
</tbody>
</table>
As seen in Table 2, Sweden, Denmark, Czech Republic, China, Latvia and Korea are highest in secular-rational culture among 53 countries, respectively. Trinidad and Tobago, Colombia, Venezuela, Angola, Egypt, Jamaica etc. are stronger in traditional culture among 53 countries, respectively.

**Exporting differs by networking, gender, education and culture**

Exporting differs by networking. Table 3 shows that the entrepreneurs in large networks have more exporting.

<table>
<thead>
<tr>
<th>Exporing</th>
<th>Small network</th>
<th>Large network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low exporting</td>
<td>74%</td>
<td>62%</td>
</tr>
<tr>
<td>High exporting</td>
<td>26%</td>
<td>38%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Exporting differs by gender, as well. Table 4 shows that male entrepreneurs have more exporting than female entrepreneurs.

<table>
<thead>
<tr>
<th>Exporing</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low exporting</td>
<td>67%</td>
<td>71%</td>
</tr>
<tr>
<td>High exporting</td>
<td>32%</td>
<td>29%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Exporting differs by education. Table 5 shows that entrepreneurs with high level of education have more exporting than entrepreneurs with low level of education.
Exporting appears to differ a little by culture. Entrepreneurs in secular-rational culture have slightly more exporting than entrepreneurs in traditional culture.

Table 5
Entrepreneurs, according to exporting and education (N=21,958 entrepreneurs)

<table>
<thead>
<tr>
<th></th>
<th>Low education</th>
<th>Middle level education</th>
<th>High level education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low exporting</td>
<td>78%</td>
<td>70%</td>
<td>57%</td>
</tr>
<tr>
<td>High exporting</td>
<td>21%</td>
<td>30%</td>
<td>43%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Testing hypotheses:

Exporting affected by networking, gender, education, culture and characteristics of entrepreneur, and by country:
We had hypothesized that exporting is affected by networking, culture, gender and education. A hierarchical linear mixed model, which is similar to, but better than linear regression, makes it possible to ascertain the effect on innovation from each condition, while holding other conditions constant (Raudenbush and Bryk, 2002). The data on entrepreneurs nested within countries are in this sense hierarchical. The effect of a numerical independent variable upon the dependent numerical variable is modeled as linear. Effects of the conditions of interest (networks) and also of control variables (for attributes of entrepreneurs) are expressed as coefficients that are fixed by reality, and therefore called fixed effect coefficients. Coefficients for country effects are not fixed in same sense, but they depend on the more or less random sample of countries and are therefore called random effect coefficients. So the model has a mix of fixed and random effects, and is therefore called a mixed model. This model also takes into account that behaviour within each country is somewhat similar, an autocorrelation that is controlled for in the hierarchical linear mixed model. The effects upon exporting are estimated in Table 7 (based on the 53 countries with 23,508 entrepreneurs). Each variable is standardized, so the fixed effects are indicated by standardized coefficients, which enables comparisons among the effects.

Table 6
Entrepreneurs, according to culture and exporting (N=22,306 entrepreneurs)

<table>
<thead>
<tr>
<th>Culture</th>
<th>Secular-rational</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low exporting</td>
<td>68%</td>
<td>70%</td>
</tr>
<tr>
<td>High exporting</td>
<td>32%</td>
<td>30%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 7
Exporting affected by networking, gender, education, culture and characteristics of entrepreneur, and by country (N = 23,508 entrepreneurs)

<table>
<thead>
<tr>
<th>Standardized coefficient</th>
<th>Probability-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network size</td>
<td>0.105</td>
</tr>
<tr>
<td>Gender male</td>
<td>-0.0035</td>
</tr>
<tr>
<td>Education</td>
<td>0.073</td>
</tr>
<tr>
<td>Culture secular rational vs. traditional</td>
<td>0.099</td>
</tr>
<tr>
<td>Age of entrepreneur</td>
<td>0.0002</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>0.019</td>
</tr>
<tr>
<td>Opportunity perception</td>
<td>0.016</td>
</tr>
<tr>
<td>Risk-willingness</td>
<td>-0.009</td>
</tr>
<tr>
<td>Motivation: opportunity vs. necessity</td>
<td>0.037</td>
</tr>
<tr>
<td>Sole proprietor</td>
<td>0.039</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.137</td>
</tr>
<tr>
<td>Countries, a coefficient of each country</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Table 7 shows that networking affects exporting positively, standardized coefficient is positive and fairly big and probability value is significant, supports Hypothesis 1.

Gender has no effect on exporting, standardized coefficient is negative and probability value is insignificant, does not supports Hypothesis 2.

Education affects exporting positively, standardized coefficient is positive and probability value is significant, supports Hypothesis 3.

Culture affects exporting positively, standardized coefficient is positive (fairly big) and probability value is significant, supports Hypothesis 4.

Exporting affected by networking, gender, education, culture and characteristics of entrepreneur, and by country (with interaction effects of networks with culture, gender and education):

We had hypothesized that networking together with gender, in combination, adds benefit to exporting, Hypothesis 5. We had also hypothesized that, likewise, networking together with education, in combination, adds benefit to exporting, Hypothesis 6. And finally we had hypothesized that, networking together with culture, in combination, adds benefit to
exporting, Hypothesis 7. These three hypotheses are tested by including interaction terms, the product of the gender, education and culture with networking.

Table 8

| Effects on exporting from networking, gender, education, culture and other characteristics of entrepreneurs and by country (N=23,508 entrepreneurs) |
|--------------------------------------------------|-------------------------|-----------------|
| | Standardized coefficient | Probability-value |
| Network size | 0.106 | 0.000 |
| Gender male | -0.003 | 0.34 |
| Education | 0.074 | 0.000 |
| Culture secular rational vs. traditional | 0.098 | 0.049 |
| Network *gender | 0.015 | 0.035 |
| Network *education | 0.039 | 0.000 |
| Network *culture | -0.017 | 0.052 |
| Age of entrepreneur | -0.0004 | 0.96 |
| Self-efficacy | 0.019 | 0.0075 |
| Opportunity perception | 0.017 | 0.015 |
| Risk-willingness | -0.008 | 0.256 |
| Motivation: opportunity vs. necessity | 0.037 | 0.000 |
| Proprietorship | 0.038 | 0.000 |
| Intercept | 0.135 | 0.007 |
| Countries, a coefficient of each country | Not listed | |

According to table 8, interaction effect of network and gender is significant and positive, supports Hypothesis 5.

Interaction effect of network and education is significant and positive, supports Hypothesis 6.

Interaction effect of network and culture is significant but negative.

Estimated effects are shown in figure 2.
CONCLUSION

By using data collected from 23,508 entrepreneurs in 53 countries from the Global Entrepreneurship Monitor and World Values Survey in 2009-2011, seven hypotheses were investigated. This study tested hypotheses about the effect of entrepreneurs’ networking, gender, education and culture on exporting, and also the moderating effects of gender, education and culture on the effect of networking on exporting.

Hierarchical mixed linear modeling shows that networking affects exporting positively, supports the first Hypothesis; this means that entrepreneurs with extended networks, export more.

Gender has no effect on exporting so does not support Hypothesis 2. This means that there is no gender difference on exporting.

Education affects exporting positively, supports Hypothesis 3; meaning that more educated entrepreneurs have more exporting than less educated entrepreneurs.

Culture affects exporting positively, supports fourth Hypothesis; so secular-rational culture benefits exporting more than traditional culture.

Interaction effect of network and gender is significant and positive; meaning that entrepreneurs’ gender moderates the effect of networking on exporting, in the way that male entrepreneurs’ networking benefit exporting more than female entrepreneurs; supports Hypothesis 5.
Interaction effect of network and education is significant and positive, meaning that entrepreneurs’ education moderates the effect of networking on exporting, in the way that educated entrepreneurs’ networking benefit exporting more than less educated entrepreneurs, supports Hypothesis 6.

Interaction effect of network and culture is significant but negative; it means that the effect of entrepreneurs’ networking on exporting is different in the way that the effect of entrepreneurs’ networking on exporting in traditional culture is more than secular-rational culture.

Other characteristics of entrepreneurs like their self-efficacy, opportunity perception, motivation and proprietorship effect exporting positively.

**Directions for future research**

With regards to other cultural dimensions further than traditional vs. secular-rational culture, it would be interesting to examine other dimensions of culture like Hofstede five dimensions, Schwartz ten dimensions, etc. Future studies might also consider other environmental national variables like trust.

**REFERENCES**


EXAMINING PROFESSIONAL ATTITUDE AND OPINIONS OF THE FIRST AND FOURTH GRADERS ENROLLED IN THE DIVISION OF EDUCATION OF THE MENTALLY HANDICAPPED IN THE UNIVERSITIES

Prof. Dr. Hakan SARI 1, Dr. Senay ILIK 1

Necmettin Erbakan University, Ahmet Kelesoglu Faculty of Education
Konya, Turkey

ABSTRACT

Attitudes which are one of the personal traits of teachers is meaningfully connected to the teacher-student relationship in classroom atmosphere and development of students is extensively affected by these attitudes. Changes in special education teacher candidates’ attitudes towards their profession in accordance with the education they receive form the problem status of this research. This research aims to examine the change of attitude and opinions of 1st and 4th graders, who study the department of mentally handicapped teaching at the special education department, towards the teaching profession in accordance with the education they receive. In this research combined method which includes both qualitative and quantitative dimensions was used as data collection technique. Attitude scale and interview form for teaching profession were used in the research. At the end of the research it was found that university education positively affected the attitudes and opinions of university students towards teaching profession.

INTRODUCTION

In order to advance and to reach the prosperity level of developed countries as a community a good quality of education must be given at schools. However giving a good quality of education, namely making the students successful depends on well-trained teachers. In other words, to have good students we need well-trained teachers (Ayarç, 2007). When considered that the teachers are trained at teacher training institutions, these institutions bear a great deal of responsibility (Okçabol, 2000 Aysu, 2007). However, to have teachers who bear required qualities depends on establishing a set of standards. One of the methods which provides this standard is to have a good attitude towards teaching profession.

In general terms, Education is the process of changing or developing attitudes in the desired direction. One of the indispensable elements of education is the concept of teacher. Teacher is not only the person who is responsible for teaching academic knowledge to the students in a class, but also the person who should encourage these individual’s enthusiasm towards learning, who should be able to help them gain habits of sharing, cooperation, problem solving and collective working in the society. Besides that, a set of roles such as being a leader, a guide, a planner, a troubleshooter and a connector in the society were given to the teacher (Ertuğrul,2000). When it comes to training teachers the biggest responsibility falls to universities. Higher education institutions also provides a social change by affecting students as individuals in the process of education (Bowen, 1980; Gedikoğlu, 2005). While it is a
desired situation to improve teachers’ qualities on these expected changes, the most important factor on competence is teachers’ having a positive attitude towards their profession.

Despite the slight difference in the literature, attitude, though cannot be observed directly, seen as a structure which precedes the behavior and guides our actions (Arkonac, 2001). Attitudes have common aspects. First common aspect is that individuals primarily have social attitudes. Second common aspect is that attitudes consist of mental and emotional elements. Third common aspect is systematical and continuous organization of knowledge, beliefs, and emotions in the development of attitudes. This situation shows the existence of learning process in forming attitudes. Process of learning gives variability to attitudes. Because of this attitudes are not stable. The fourth common aspect is that attitudes are unobservable and hidden variables and can be inferred from behaviors (İnceoğlu, 2000).

Attitudes which are one of the personality trait of teachers is meaningfully connected to the teacher-student relationship in class atmosphere and development of students is widely affected by these attitudes (Küçükahmet, 1976). The child who spend most of the day with the teacher follows the teacher’s attitudes and behaviors and imitates him, and embrace his personality. In this case, personal traits of teacher and his attitudes towards his profession become important (Argun ve İkiz, 2003). Because teachers’ attitudes towards their profession play a great role in successful performance of their profession. (Erdem, Gezer ve Çokadar, 2005). Klausmeir and Goodwin state that the following must be done to facilitate learning of attitudes: role models must be presented, nice and emotional experiences about subject of the attitude must be prepared, informative experiences must be increased, group activities which increases commitment must be performed and focus should be on practicing. (Demir, 2004; Çeliköz ve Çetin, 2004). Aydın states that teacher candidates’ developing positive and high level teaching attitude is connected to several variables such as curriculum, professional expectations, personal traits, system of values, and personal needs (Akt. Şenel Demir, Sertelin, Kılıçaslan ve Köksal, 2004). From this point of view, in training qualified teacher candidates; desire to be a teacher, attitudes towards teaching, environment and social values must be taken into account (Oral, 2004).

Training special education teachers is a new term in our country. It is not among the subjects to research. In the light of factors which affect training, it is required to train special education teachers and find solutions by understanding their problems. Special education teachers must always find solutions to the problems and prepare specific plans for the student and his family. Besides these, they are to play role in several different fields [Individualized Education Program (IEP), evaluation, behavioral problems etc.] at the same time and expected to be competent in these fields. Their professional responsibilities also increases accordingly (Başaran, 2001; Billingsley, 2004; Ergenekon, 2005; Major, 2012; Mehrenberg, 2013; Özyürek, 2008; Zarafshan, Ahmadi and Arsalani, 2013). Teachers who work in the special education field have to wait for a long time see the result of the education they give and learn to proceed in small steps. This situation requires the teachers to be patient, self-sacrificing and calm (Başaran, 2001; Girgin ve Baysal, 2005; Major, 2012; Şahin and Şahin,
Thus teaching as a special education teacher can be more difficult and tiring process than other branches of teaching (Billingsley, 2004, Girgin ve Baysal, 2005).

Their status of organization, which consists of the applied education programs, the system of the higher education institution, the competence of the teacher at school, the quality of the applications, and the services whose results are presented, will form the basis of attitudes of teacher candidates towards the teaching profession in the structuring process of the teaching profession, which is created by practising and consolidating favorable qualities of a teacher, appropriate knowledge and information.

Teacher training curriculum consists of combination of theoretical subjects which give typical attitudes, knowledge and skill; and performing what they learn at the theoretical lessons in classroom environment (Gleason and Hall, 1991; Özyürek, 2008). In the theoretical lessons about teaching skills, teacher candidates learn knowledge-based effective teaching processes (method, material development and teaching processes) in order to teach mentally handicapped students concepts and skills (Scheeler, Ruhl, and Mcafee, 2004). Due attention should be paid to ensure that the information pertaining to these classes should be constituted by information that will serve to enable teacher candidates to fulfill what is expected from them during teaching performance. During the four years of training process of teachers being well-trained in both the theoretical lessons and performance oriented lessons later positively affects their success in teaching profession. The researches emphasizes that teachers’ attitudes and behaviors have significant effect on students (Çapa and Çil, 2000).

Changes in attitudes of the special education teacher candidates towards their profession in accordance with the education they receive is the problem discussed by this research. This research aims to examine the change of attitude and views of 1st and 4th graders, who study the field of mentally handicapped teaching at the special education department, towards the teaching profession in accordance with the education they receive.

I.1. Aim

This research aims to examine the changes of attitude and views of 1st and 4th graders, who study in the division of education of the mentally handicapped in special education department, towards the teaching profession in accordance with the education they receive.

The questions which we seek answer in this research are:

1. Is there a difference in their attitudes towards their profession between the students who study at the first and fourth grade of department of mentally handicapped department?
2. Is there a difference in their opinions towards their profession between the students who studies at the first and fourth grade of department of mentally handicapped department?
I.2. Rationale

While teaching profession always requires a high performance in terms of its aims, this performance is higher in special education and the fruits of their studies cannot be get in a short time like other teaching branches. This situation bears importance in the sense that the attitudes and views of the first graders as beginners towards the profession can be compared to the attitudes and views of the fourth graders, who are influenced by education they receive at the fourth grade, towards the profession, and that necessary measures are taken and regulations are made accordingly, and that the teacher candidates are ready for the profession and they have the teaching proficiency with enhanced field knowledge.

METHODOLOGY

In this section, detailed information about the method, which is related to the research method, study group, data collection procedures and the data analysis, is presented.

II.1. Research Method

Greene, Krayder and Mayer (2005) defines the usage of two or more analyze and data collection methods in the same research in social sciences as combined method. As Verma and Mallick (2005) emphasize, the usage of both the quantitative and qualitative methods in the same research is very common. While the data which is collected through quantitative methods enable to reach more participant, the data which is collected through qualitative methods such as observation and interview etc. enable the research subject to be deeply analyzed (Greene et.al, 2005). According to Dey (1993) in order to deeply understand the meaning of data which is collected through quantitative methods, qualitative methods are used. In this research, the combined method which includes both quantitative and qualitative methods were used as data collection method. Study was supported with the qualitative data after the collection of quantitative data.

Quantitative Dimensions: In the quantitative dimension of the research the survey technique which is a commonly used technique in scanning model was used. Data collection tool was applied on the first and fourth grade students of Necmettin Erbakan University department of mentally handicapped teaching.

Qualitative dimension: In the qualitative dimension of the research semi-structured interview technique was used. Interview is the most frequently used technique in qualitative research (Woods, 1986). According to Guba and Lincoln (Akt. Ribbins, 2007) interview is probably the oldest data collection technique used by researchers. Interview, defined as “goal-oriented dialogue” by Dexter, is a mutual and interactive communication process which is based on asking and answering predetermined questions for a specific purpose.

II.2. Study Group

The first and fourth grade students attending department of mentally handicapped teaching forms the population of the research. 2014-2015 education year students of Necmettin Erbakan University attending department of mentally handicapped teaching forms
the sample of the research. Required permissions were obtained and surveys were given to the sample by the researcher.

II.3. Data Collection Tools

This study uses attitude scale for teaching profession and interview form for the teaching profession. Attitude Scale for the teaching profession: in order to determine teacher candidates’ attitudes towards teaching profession, Attitudes Scale for Teaching Profession (ASTP) which was developed by Çetin (2006) was used. Cronbach Alpha reliability coefficients were .95 for the total scale, .95 for love dimension, .81 for value dimension, .76 for harmony dimension. Validity of scale was tested with the scale which was developed by Aşkar and Erden (1968) and obtained correlation coefficients were found as $r=.85$ for the total, $r=.97$ for the love dimension, $r=.57$ for value dimension and $r=.74$ for harmony dimension. There are 35 items on the five point likert type scale, 15 of which are negative and 20 of which are positive. In the scale positive statements are graded as “5,4,3,2,1” from “strongly agree” to “never agree”, negative statements are graded vice versa. The lowest score obtained from the scale is 35 and the highest score is 175. The scores over 119 are evaluated as positive and the scores between 92 and 119 are evaluated as neutral attitudes.

Teacher Interview Form: In the study a two-item interview form was used to determine the opinions of the students. First of all semi-structured interview form supported with the researches done in the field and arranged as draft. Three specialists who were expert in qualitative researches analyzed the interview form. Item statements were re-arranged according to the feedbacks and opinions of the specialists. The forms which had arranged statements were resend to the specialists to be analyzed again. By making pilot study on three students with the interview questions, Semi-Structured Interview Forms were made ready to use in the research. Interviews were done by using a tape recorder. Interview records were transcribed immediately after the interview. The data collected from the interviews were explained via descriptive analysis method.

II.4. Data Analysis

The quantitative data collected from the research was analyzed and evaluated by using SPSS (version 18.0). The attitudes of first and fourth graders towards their profession were determined with independent sample t test. The qualitative data collected from the research was analyzed with the descriptive analysis method which is one of the qualitative research methods. After completing the interviews, the data was written to the interview forms by the researcher without changing the tape records. The interviews which were written for each of the participants who participated in the interviews were evaluated by examining one by one.

FINDINGS

The quantitative and qualitative findings collected from the research are presented below.

III.1. Quantitative Findings
Identity Information of Students: When the introductory information, pertaining to students in the scope of the research, in the Personal Information Forms were examined, it was determined that more than half of the students were female (58.7%), 53.2% of the students were fourth graders and 46.8% of the students were first graders.

Attitudes towards Teaching Profession: As presented in table 1 average score the students get is 131.1 and standard deviation is 10.87. According to Çetin (2006) the lowest score can be obtained from the scale is 35 and the highest score is 175. The scores over 119 are evaluated as positive and the scores between 92 and 119 are evaluated as neutral attitudes. These results show that the attitudes of teachers are positive.

Table 1: Findings of the students’ attitude scores towards the teaching profession

<table>
<thead>
<tr>
<th>N</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>109</td>
<td>131.1</td>
<td>10.87</td>
</tr>
</tbody>
</table>

Independent sample t test results which was applied in order to determine the difference between average of total attitude score of students and their class levels were presented in table 2.

Table 2: Independent Sample t Test Results

<table>
<thead>
<tr>
<th>Grup</th>
<th>N</th>
<th>X</th>
<th>SS</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st grade</td>
<td>51</td>
<td>121.73</td>
<td>16.86</td>
<td>3.15</td>
<td>0.002</td>
</tr>
<tr>
<td>4th grade</td>
<td>58</td>
<td>140.36</td>
<td>14.14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*There is a meaningful difference in p<0.05 level.

When the Independent Sample t Test Results in table 2 analyzed, arithmetic average of first graders was found as 121.73, standard deviation of them was found as 16.86 and arithmetic average of fourth graders was found as 140.36, standard deviation of them was found as 14.14. as it is seen in table 2, in the result of independent t test which was done for the first and fourth grade students a statistically meaningful difference was found between the groups in terms of attitudes towards teaching profession [t(108 )=.002, p<0.05]. It is observed with this finding that there is a meaningful difference in the attitudes of teacher candidates towards teaching profession as their class level and their competence consequently increase.

III.2. Qualitative Findings
First and fourth grade students’ opinions about teaching profession and the findings which were collected with semi-structured interview technique are examined separately. Interviews were done with 18 first graders and 17 fourth graders.

“what is your opinions about necessity of special education department?” 65% of the first graders who answer this question stated that this department was necessary and must be developed. Remained 35% stated that they had hesitations about the department’s necessity and had concerns about how to deal with the students.

“The main reason for me to come here is that my university entrance exam score was only sufficient for this department. But I think every individual should have education under the same conditions regardless of their situation. Qualified people must be trained. Sometimes I am worried about why I am in this department and how I will teach those students.”

Most of the answers (84%) of the fourth graders for this question is positive. Students participated in the interview stated that they didn’t have any hesitation about the necessity of the department and they would do everything to help the students.

“I think special education department is important for the future of the students who need special education. All the graduates of this department will be a hope for students who need special education.”

Do you feel that you belong to special education department? Why? 45% of first graders answer this question as “no”. They answer so because they come to the department without sufficient knowledge of it. Remaining students stated that they love the department and do whatever they can to be beneficial to the department.

“I don’t feel belong to here yet, we haven’t had any lessons. It is like fifth grade of high school. University is more comfortable in terms of freedom. I want to be a Turkish or literature teacher. Because poems and texts catch my attention more. In fact also history attracts me much. But I think I can turn my attention to other subjects for these students. We will see ☺”

Most of the fourth graders (88%) answer this question as” yes”. Remaining teacher candidates stated that they trained themselves in most points however their experiences in the practices disappointed them. These findings supports quantitative findings. It was determined that the increase in academic competence and in real-life practices of students affects their attitudes and opinions positively.

“If you had asked this question when I was at first grade, I would have given a different answer but now I regard myself as an special education teacher. The stages we pass through like apprenticeship etc. Stimulate this situation. I am sure getting familiar with the department and students make most of my friends think like me.”
“As it is understood from what I said I don’t feel that I belong this department. The behaviors of teachers and seeing students with extreme mental handicaps in my apprenticeship period influenced my opinions. I am not pessimistic but I don’t think I can fully give myself to my job. This bothers me much.”

DISCUSSION

Research findings show that department of mentally handicapped teaching senior students have positive attitudes towards teaching profession. According to results of our research scores of attitude scale for teaching profession of fourth graders are higher than first graders. This result corresponds to the results of the research done with the teachers and teacher candidates (Üstün, Erkan ve Akman, 2004; Kaya ve Büyükkasap, 2005; Bedel, 2008; Çeliköz ve Çetin, 2004). On the contrary to this study, in another study scores of attitude scale for teaching profession of first graders were higher than fourth graders (Güldek 2007). However there are studies which don’t differ in attitude scores in accordance with the class levels. It can be interpreted from these findings that the years that teacher candidates spend at university positively affect their attitudes towards teaching profession. This shows the necessity of focusing on practical lessons in order to develop a positive attitude towards teaching profession.

Another finding of the research is that fourth graders have more positive opinions about teaching profession than first graders. Our second finding also supports the first one and anxious and negative opinions of first graders resulted in positive opinions about teaching profession by having theoretical and practical lessons. This finding bear a resemblance to the findings of the research named “the opinions of teacher candidates about teaching profession” done by Gürbüztürk and Genç (2004).

V. CONCLUSION and SUGGESTIONS

One of the findings obtained from the research was that university education had positive effect on students’ attitudes towards teaching profession.

Another finding of the research was that university education supported students’ attitudes towards teaching profession and positively affects their opinions about teaching profession.

1. Research can be done again with larger groups
2. A longitudinal study can be done with the same experimental group.

REFERENCES


Level of Need for Cognition and Metacognitive Thinking

Among Undergraduate Kindergarten Female Students at King Sa'ud University in Sa'udi Arabia

Bulquees Ismail Abdul Majid Daghistani

Professor of Educational Policies and Kindergarten Education
College of Education
King Sa'ud University-Sa'udi Arabia

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ABSTRACT

This study aims at examining the level of need for cognition and metacognitive thinking among undergraduate kindergarten female students in Education Faculty at King Sa'ud University in Sa'udi Arabia from their own perceptions. Results showed that the need for the cognition level was moderate, but metacognitive thinking level was high. In addition, there were significant differences in the magnitude of the correlation between need for cognition and metacognitive thinking due to the academic level. It was recommended to employ challenging tasks in order to stimulate higher order thinking among the students.

Keywords: Need for Cognition, Metacognitive Thinking, Kindergarten, King Sa'ud University.

INTRODUCTION

The interest in cognitive processes has been one of the main concerns for scholars, psychologists and educators in the last few decades. The concept of (Metacognitive Thinking) has appeared at the beginning of the seventies of the last century to add a new dimension in the field of cognitive psychology. This science has evolved and increased in the 80s. This terminology is used in the educational literature to refer to the cognition about perception and organization and full awareness of the individual (Jerwan, 2007).

Flavell & Wellman, 1977 are the pioneers of psychology who talked about the concept of (Meta-cognition) who indicate that this concept is based on the principle of individual self-thinking ideas. They divide metacognition into three variables; private individual factors (person), task (task), and strategy (Strategy).

Several variables related directly and indirectly to cognitive processes were examined and studied by authors; including thinking, cognitive learning, knowledge management and understanding. Various cognitive theories seek to identify the role of understanding and focus of cognitive strategies in general and capitalizing cognition in particular. These theories also sought to address the most significant factors contributing in the development of cognition by more focus on metacognitive processes while working on identifying the skills needed for metacognition processes. (Al Zayyat, 2004).
Cognition is one of the effective means for cognitive abilities' development. It contributes in the individual's acquisition of vital skills and abilities such as higher order thinking, understanding, observation, conscious, deduction, analysis, synthesis, relationships perception, explanation, monitoring, control and prediction. These and other skills enable individuals to explain the phenomenon found in the environment. This leads to more controllability of the surrounding environment (Al Daher, 2009).

Metacognitive thinking is one of the theories of cognitive task formations in the modern psychology. It is associated with theories of intelligence, learning, problem solving, and decision-making strategies. This concept refers to the high control operations aimed to planning, monitoring and evaluating performance of an individual to solve a problem. (Abdul Aziz 2007).

Flavell (1979) prior studies focused on improving the ability to remember. This kind of thinking was called beyond the memory at the beginning and then it was expanded to become Metacognitive thinking (Abu Gado and Nofal 2007). This concept received a significant interest on the (theoretical and practical) levels. Thus, an individual who has the highest awareness in previous operations has a greater ability to organize his thoughts and direct them to accomplish greater cognitive tasks.

Brown (1987) stated that cognitive activities are the same skills of metacognitive thinking. They are removable unique attributes and can be measured. When the individual works on solving a problem he/she does cognitive activities to address his/her cognitive regulations consistently and continuously.

Jacobs & Paris (1987) believe that metacognitive thinking has two main dimensions: the first is - self-evaluation of perception: This includes three forms: declarative cognition, procedural cognition and conditional cognition. These three dimensions are essential in this type of strategic thinking. The second is -self-management of metacognitive thinking which includes (assessment, planning, and organizing), which are the skills of metacognitive thinking (Obaid, 2004).

Manita (2008) believed that Metacognitive thinking should include three abilities: 1. The ability to link information and cognition with new information and cognition stored in long-term memory. 2. The ability to select appropriate strategies for insight learning. 3. The ability to plan and control, and evaluate the thinking process in real time (Watban, 2010).

Romainvill (1994) conducted an exploratory study on the awareness among cognitive strategies, and the relationship between metacognition and academic achievement in the University of Namur in Belgium. The results indicated the presence of statistically significant positive correlation between academic achievement and some properties of metacognition.

Abu Alia & Al-Wahr (2001) conducted a study aimed to identify the Hashemite University students' awareness of metacognitive skills and the relationship between variables of college and academic level, and grade average marks. The results indicated that college students have a moderate awareness of metacognitive skills.

Aljarah & Obidat (2011) conducted a study aimed to recognize the level of metacognitive thinking among Yarmouk University students in Jordan. Results showed that members of
the study get a high level of Metacognitive thinking on the scale as a whole to address all dimensions of cognition.

Khawaldah , Rababah & Al-Saleem (2012) implemented a study to identify the degree of Jordanian students’ acquisition of metacognitive thinking skills and its relationship to sex and academic specialization and achievement. Results indicated that high school students acquire metacognitive thinking skills moderately.

**Statement of the Problem:**

As a professor of Child Education at King Sa'ud University, and from her personal observation, the researcher noticed that there was a need to use individual strategies to help university students to organize their thinking process. This will direct students’ energies and efforts effectively to achieve the desired learning objectives. The current study is an attempt to detect the levels of cognition and the need to think in a metacognitive way, among the undergraduate kindergarten female students in the Faculty of Education at King Sa'ud University as a step toward improving the metacognitive thinking processes of them.

**Questions of the study:**

1. What is the level of need for cognition among undergraduate kindergarten female students in the Faculty of Education at King Sa'ud University, from their points of view?

2. What is the level of metacognitive thinking among undergraduate kindergarten female students in the Faculty of Education at King Sa'ud University, from their points of view?

3. Is there a statistical significant correlation at (α=0.05) between the need of cognition and metacognitive thinking among undergraduate kindergarten female students in the Faculty of Education at King Sa'ud University?

**Importance of the study:**

Female Students of King Sa'ud University use different kinds of cognition to achieve their academic goals. They rarely use metacognitive thinking in their attempt to achieve their goals (personal observation). They vary in their levels of motivation, and love of searching for knowledge. Many studies have shown the results of a clear correlation between academic achievement and metacognitive thinking on one hand and the need for cognition on the other hand (Coutinho, 2006). It is expected that students who have a high level of need for cognition developed deep and comprehensive strategies in the learning process which are reflected positively on their understanding of the information, and thus access to the best performance. In addition, when reviewing educational literature, the researcher noted that there were limited studies which tried to search the levels of need for cognition and metacognitive thinking, especially in the Arab World. As a result, the researcher tried to conduct this study to determine the level of need for cognition and metacognitive thinking among undergraduate kindergarten female students at King Sa'ud University.

**Terms of study:**
- Need: refers to the tendency to engage in cognitive activities and enjoy it through the performance of complex cognitive treatments using deep holistic learning strategies to reach the top of understanding and performance levels.

- Metacognitive Thinking skills: Referring to mental actions that an individual uses to organize, monitor, guide and control his thinking.

**Limitations of the study:**

- This study was limited to undergraduate kindergarten female students enrolled in the Bachelor degree of the first semester of the first academic year 2014/2015, Faculty of Education, King Sa'ud University.

- The results of this study are determined through tools used in this study.

**Method**

In this part of the study, the researcher presented a description of the sample, design of the study, organization of the study, instruments statistical analysis and data collection procedures.

**Study population**

The population of the study consisted of all undergraduate female kindergarten students in Education faculty at King Sa'ud University in the first semester of the academic year 2014/2015. Their number was (680) students.

**Study sample**

The sample of the study was (160) undergraduate kindergarten female students representing (24%) of the total population of the study. It was selected using the stratified random sampling. The sample was stratified according to the academic year of the students as shown in table (1):

<table>
<thead>
<tr>
<th>Table (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>Academic level</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**Instruments**

Two instruments were used to identify levels of need for cognition and metacognitive thinking among the sampled students.

**1-Need for Cognition Scale**
The researcher used the Need for Cognition Scale developed by Cacioppo, Petty & Kao (1984). The scale developers reported high levels of validity and reliability for the initial format of the scale.

2- Metacognitive Thinking Scale

In order to adapt the Metacognitive Thinking Scale which was developed by Schraw&Dennison (1994) into the Arab environment, the researcher translated it to Arabic. The Arabic version of the Metacognitive Thinking Scale was content validated by giving it to a group of specialists (10 judges) in educational psychology, measurement and evaluation at King Sa'ud University.

Results of the study

Results pertaining to the first question of the study

To identify the level of need for cognition among undergraduate female students from their perception, means were calculated. Table (2) shows results:

Table (2)

Means, Standard Deviations, Ranks and Items of Need for Cognition Scale in Ascending Order

<table>
<thead>
<tr>
<th>Rank</th>
<th>No.</th>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>Need for Cognition Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>I put all of my efforts in thinking</td>
<td>4.01</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>I enjoy working on tasks needing new solutions for the problems at hand</td>
<td>3.92</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>I feel satisfied when working on a challenging task needing long hours of work</td>
<td>3.86</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>Relying on my thinking skills in performing all my tasks is a good idea for me</td>
<td>3.85</td>
<td>1.19</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>I am not interested in learning new ways of thinking (^1)</td>
<td>3.65</td>
<td>1.23</td>
<td>Moderate</td>
</tr>
<tr>
<td>6</td>
<td>16</td>
<td>It is enough for me to know that a task has been completed, but I am not interested in how and why</td>
<td>3.49</td>
<td>1.20</td>
<td>Moderate</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>Thinking is not one of the interesting topics for me</td>
<td>3.39</td>
<td>1.25</td>
<td>Moderate</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>I prefer working on tasks needing low thinking levels compared to working on tasks challenging my thinking abilities</td>
<td>3.35</td>
<td>1.10</td>
<td>Moderate</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>I prefer taking responsibility in situations requiring high order thinking skills</td>
<td>3.22</td>
<td>1.19</td>
<td>Moderate</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>I try to predict and avoid situations requiring thinking about a certain</td>
<td>3.21</td>
<td>1.15</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
As seen in table (2), perceptions of the sampled students concerning their level of need for cognition ranged between (2.44–4.01). The total means scores for the responses on the whole need for cognition scale was (M=3.26), indicating moderate levels of need for cognition according to the scoring standard used in the current study. Four items had high estimation levels with respect to the need for cognition. However; (10) items had moderate perception levels with respect to levels of need for cognition. Furthermore, (2) items had low perception levels with respect to need for cognition level as item (1).

Results pertaining to the second question:

To answer the question, means were calculated. Table (3) shows the results related to this question:

<table>
<thead>
<tr>
<th>Rank</th>
<th>No.</th>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>Metacognitive Thinking Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>I repeatedly ask myself whether I was achieving my goals</td>
<td>4.32</td>
<td>0.91</td>
<td>High</td>
</tr>
<tr>
<td>2</td>
<td>45</td>
<td>I learn more when I am interested in the learning topic</td>
<td>4.20</td>
<td>1.03</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>I learn more when I have information about the topic I learn</td>
<td>4.17</td>
<td>1.00</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>I try to use the strategies that have worked for me in the past</td>
<td>4.06</td>
<td>0.97</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>I take all alternatives into consideration before working on a topic</td>
<td>4.04</td>
<td>0.95</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>41</td>
<td>I read the instructions well before performing a task</td>
<td>3.98</td>
<td>1.02</td>
<td>High</td>
</tr>
<tr>
<td>7</td>
<td>49</td>
<td>I pose and review new information when they are not clear enough</td>
<td>3.94</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>I think of what I have to learn before working on a task</td>
<td>3.92</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>9</td>
<td>13</td>
<td>I focus on the important information</td>
<td>3.91</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>I perform a periodical review while answering the questions of an examination to help me recognize the important relations</td>
<td>3.90</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>11</td>
<td>5</td>
<td>I understand my mental strengths and weaknesses</td>
<td>3.90</td>
<td>1.19</td>
<td>High</td>
</tr>
<tr>
<td>12</td>
<td>29</td>
<td>I focus on meaning and the importance of new information</td>
<td>3.88</td>
<td>1.23</td>
<td>High</td>
</tr>
<tr>
<td>13</td>
<td>42</td>
<td>I ask myself whether there was a relationship between the new information found in the text and my previous cognition</td>
<td>3.85</td>
<td>1.20</td>
<td>High</td>
</tr>
<tr>
<td>14</td>
<td>25</td>
<td>I can encourage myself to learn when needing this.</td>
<td>3.85</td>
<td>1.25</td>
<td>High</td>
</tr>
<tr>
<td>15</td>
<td>50</td>
<td>I pose and reread the text when I am lost.</td>
<td>3.84</td>
<td>1.10</td>
<td>High</td>
</tr>
<tr>
<td>16</td>
<td>38</td>
<td>I try to formulate the new information in my language</td>
<td>3.82</td>
<td>1.19</td>
<td>High</td>
</tr>
<tr>
<td>17</td>
<td>7</td>
<td>I know my performance when I finish the exam</td>
<td>3.82</td>
<td>1.01</td>
<td>High</td>
</tr>
<tr>
<td>18</td>
<td>10</td>
<td>I recognize the most important information to be transferred</td>
<td>3.80</td>
<td>1.05</td>
<td>High</td>
</tr>
<tr>
<td>19</td>
<td>30</td>
<td>I create my own examples to make the information more meaningful</td>
<td>3.79</td>
<td>1.25</td>
<td>High</td>
</tr>
<tr>
<td>20</td>
<td>31</td>
<td>I can judge my understanding well for something I learned</td>
<td>3.87</td>
<td>1.17</td>
<td>High</td>
</tr>
<tr>
<td>21</td>
<td>40</td>
<td>I use the structural organization for the text to help me understand</td>
<td>3.76</td>
<td>1.15</td>
<td>High</td>
</tr>
<tr>
<td>22</td>
<td>28</td>
<td>I use my mental strengths to compensate my weaknesses</td>
<td>3.74</td>
<td>1.06</td>
<td>High</td>
</tr>
<tr>
<td>23</td>
<td>43</td>
<td>I attempt to reassess my assumptions when I become clueless</td>
<td>3.72</td>
<td>1.29</td>
<td>High</td>
</tr>
<tr>
<td>24</td>
<td>14</td>
<td>I have a specific purpose for each strategy I use</td>
<td>3.72</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>25</td>
<td>4</td>
<td>I use the suitable steps to learn to benefit the most from the learning time available</td>
<td>3.72</td>
<td>1.10</td>
<td>High</td>
</tr>
<tr>
<td>26</td>
<td>8</td>
<td>I make specific purposes before working on learning tasks</td>
<td>3.72</td>
<td>1.04</td>
<td>High</td>
</tr>
<tr>
<td>27</td>
<td>9</td>
<td>I slow my learning pace when I encounter important information</td>
<td>3.71</td>
<td>1.19</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Score</td>
<td>Standard Deviation</td>
<td>Level</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>-----------------------------------------------------------------</td>
<td>-------</td>
<td>--------------------</td>
<td>-------</td>
</tr>
<tr>
<td>28</td>
<td>46</td>
<td>I try to divide the learning tasks to small manageable pieces</td>
<td>3.69</td>
<td>1.23</td>
<td>High</td>
</tr>
<tr>
<td>29</td>
<td>23</td>
<td>I think about various and different solution methods before deciding the best one</td>
<td>3.68</td>
<td>1.15</td>
<td>High</td>
</tr>
<tr>
<td>30</td>
<td>39</td>
<td>I change my strategies when failing to understand the task</td>
<td>3.67</td>
<td>1.03</td>
<td>High</td>
</tr>
<tr>
<td>31</td>
<td>26</td>
<td>I recognize the strategies to be used when studying</td>
<td>3.67</td>
<td>1.10</td>
<td>High</td>
</tr>
<tr>
<td>32</td>
<td>47</td>
<td>I ask myself many questions about what to do when learning new things</td>
<td>3.66</td>
<td>1.19</td>
<td>Moderate</td>
</tr>
<tr>
<td>33</td>
<td>11</td>
<td>I ask myself whether I have taken into consideration the available solutions when working on a problem</td>
<td>3.65</td>
<td>1.19</td>
<td>Moderate</td>
</tr>
<tr>
<td>34</td>
<td>20</td>
<td>I control my learning level</td>
<td>3.62</td>
<td>1.16</td>
<td>Moderate</td>
</tr>
<tr>
<td>35</td>
<td>16</td>
<td>I know what the school expect me to learn</td>
<td>3.62</td>
<td>1.14</td>
<td>Moderate</td>
</tr>
<tr>
<td>36</td>
<td>18</td>
<td>I learn various learning strategies based on the learning situation</td>
<td>3.61</td>
<td>1.17</td>
<td>Moderate</td>
</tr>
<tr>
<td>37</td>
<td>19</td>
<td>I ask myself whether there was an easier way for solving the problem after completing it</td>
<td>3.59</td>
<td>0.68</td>
<td>Moderate</td>
</tr>
<tr>
<td>38</td>
<td>44</td>
<td>I can manage my time well to achieve my goals</td>
<td>3.59</td>
<td>1.00</td>
<td>Moderate</td>
</tr>
<tr>
<td>39</td>
<td>48</td>
<td>I ask myself whether I have learned according to my potentials when competing the learning task</td>
<td>3.55</td>
<td>1.29</td>
<td>Moderate</td>
</tr>
<tr>
<td>40</td>
<td>12</td>
<td>I am good in information organization</td>
<td>3.54</td>
<td>1.00</td>
<td>Moderate</td>
</tr>
<tr>
<td>41</td>
<td>35</td>
<td>I resort to feedback when completing a task</td>
<td>3.52</td>
<td>0.61</td>
<td>Moderate</td>
</tr>
<tr>
<td>42</td>
<td>17</td>
<td>I do well in recalling information</td>
<td>3.50</td>
<td>0.69</td>
<td>Moderate</td>
</tr>
<tr>
<td>43</td>
<td>33</td>
<td>I always review my understanding level</td>
<td>3.50</td>
<td>1.01</td>
<td>Moderate</td>
</tr>
<tr>
<td>44</td>
<td>37</td>
<td>I ask myself whether I have taken all the possible solutions for a problem into consideration</td>
<td>3.74</td>
<td>1.10</td>
<td>Moderate</td>
</tr>
<tr>
<td>45</td>
<td>32</td>
<td>I automatically use the effective learning strategies</td>
<td>3.45</td>
<td>0.68</td>
<td>Moderate</td>
</tr>
<tr>
<td>46</td>
<td>22</td>
<td>I ask myself some questions before working on the learning task</td>
<td>3.44</td>
<td>0.67</td>
<td>Moderate</td>
</tr>
<tr>
<td>47</td>
<td>24</td>
<td>I summarize what I have learned after completing the learning task</td>
<td>3.44</td>
<td>1.00</td>
<td>Moderate</td>
</tr>
<tr>
<td>48</td>
<td>34</td>
<td>I know that ever strategy I use has a certain efficiency level</td>
<td>3.34</td>
<td>1.15</td>
<td>Moderate</td>
</tr>
<tr>
<td>49</td>
<td>27</td>
<td>I find myself analyzing the benefits of learning strategies while studying</td>
<td>3.41</td>
<td>1.15</td>
<td>Moderate</td>
</tr>
<tr>
<td>50</td>
<td>36</td>
<td>I draw illustrations and figures to help in understanding while learning</td>
<td>3.40</td>
<td>1.00</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total Score</strong></td>
<td>3.75</td>
<td>0.84</td>
<td>High</td>
</tr>
</tbody>
</table>
Table (3) shows that the sampled students' perceptions concerning their metacognitive thinking have ranged between (3.40 -4.0). The total score for the means scores in the whole metacognitive thinking was (M=3.75), with high levels of metacognitive thinking according to the scoring standard used in the current study. It is noticed from table (3) that (30) items had high estimation levels with respect to the metacognitive thinking. The item that stating "I repeatedly ask myself whether I was achieving my goals" ranked first (M=4.32). At the same time, (20) items had moderate levels of metacognitive thinking as the item which stating that "I draw illustrations and figures to help in understanding while learning" ranked last (M=3.40).

RESULTS

Results related to the third question of the study:

To answer this question, Pearson coefficients were calculated in order to identify the correlation between the need for cognition and metacognitive thinking among the sampled students. The correlation value between the two variables was (r=274) at the significance level (α=0.00).It indicated a positive statistically significant correlation between the need for cognition and metacognitive thinking among the sampled students. To identify differences in the magnitude of the correlation between need for cognition and metacognitive thinking among the sampled students (Z) values were computed as shown in table (4):

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Correlation Coffs.</th>
<th>Z value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic level</td>
<td>First year</td>
<td>0.287</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>Second year</td>
<td>0.191</td>
<td></td>
</tr>
<tr>
<td></td>
<td>First year</td>
<td>0.278</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>Third year</td>
<td>0.289</td>
<td></td>
</tr>
<tr>
<td></td>
<td>First year</td>
<td>0.278</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>Fourth year</td>
<td>0.280</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second year</td>
<td>0.191</td>
<td>-0.75</td>
</tr>
<tr>
<td></td>
<td>Third year</td>
<td>0.289</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second year</td>
<td>0.191</td>
<td>-0.74</td>
</tr>
<tr>
<td></td>
<td>Fourth year</td>
<td>0.280</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Third year</td>
<td>0.289</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Fourth year</td>
<td>0.280</td>
<td></td>
</tr>
</tbody>
</table>

Table (4) shows no statistically significant differences in the magnitude of the correlation between need for cognition and metacognitive thinking among the sampled students due to their academic level.

Discussion and Recommendations: Following is a discussion of the results reported pertaining to the questions of the study:
Discussion of results related to the first question of the study:

Results of the study showed that the level of need for cognition among undergraduate kindergarten female students was moderate. Item (7) stating "I put all of my efforts in thinking" ranked first while item (1) stating "I prefer complicated problems to easy ones" ranked last. This shows that need for cognition and the required level of this cognition is strongly related to the students' performance on various tasks like the difficulties and situations which require cognition and experience to enable students find the appropriate solutions for these difficulties and situations. Furthermore, it is logical to assume that there is a correlation between thinking and cognition level.

The need for cognition is related to the student's need to develop her personality and increase her mental, emotional and physical aspects. Cognition then, enables the student to think, to be more aware, understand, and recognize the relationships contributing in the cognition development.

In light of this result, this may be an indicator of the relationship between the need for cognition and student's motivation to thinking. This result is consistent with the result reported in Cacioppo & Petty (1982) study which reported that need for cognition is related to the individual's preferences and motivation towards being interested in performing complicated mental tasks and problems.

When reviewing item (7) which ranked the first on the need for cognition scale, it can be noticed that students employ effortful thinking strategies. When compared to item (1) that ranked last on the need for cognition scale, it is noticed that problems' level preferred by the students were the simple ones, but not the complicated problems. This indicated that students' need for cognition was at moderate level in light of the problems they preferred to work on.

Discussion of results related to the second question of the study:

Results of the study showed that metacognitive thinking level among undergraduate kindergarten female students in the Faculty of Education at King Saud University was high. Item (1) ranked first while item (36) ranked the last in metacognitive scale.

This result is explained by the fact that the sampled students acquired information which helped in developing their abilities and skills. Also, metacognitive thinking is a strong indicator of possessing abilities, skills that develop with age. Therefore, students' possession of higher levels of metacognitive thinking skills proved that they had these skills acquired by their exposure to different experiences, which in turn were reflected on their cognitive acquisition.

It is noticed that the metacognitive thinking scale used in this study and in many previous studies is a self-report scale. Thus, it does not reflect the true levels of metacognitive thinking skills among respondents. This may reflect the fact that the sampled students rated themselves in high levels of metacognitive thinking skills. However; they do not benefit from these skills and employ them in the learning process. Results of this study was consistent with the results reported in Al Jarrah and Obeidat (2011), which showed that metacognitive thinking skills among Yarmouk University students in Jordan were at high levels. By contrast, this result was inconsistent with the results reported by Criage & Yore (1996) showing that there was an apparent weakness in students' acquisition and awareness of the forms of metacognitive thinking skills.
Discussion of results related to the third question of the study

Results of the study indicated a statistically significant correlation between the need for cognition from one side and metacognitive thinking among the sampled students in the Faculty of Education at King Sa'ud University. This result can be explained by examining the nature of cognition, which is a part of the dynamic system of thinking and reality perception. The nature and type of cognition work on developing the individual's ability to perceive the reality more objectively by relating the previous cognition and information with what he\she encounters in life situations, which in turn require the use of such cognition and experiences. This is strongly related to innovation and discovery creation. This view is consistent with what Sternberg (cited in Al Otoum, 2010) indicated by relating the concept of metacognitive thinking and the creation of cognition control model to recognizing the strategies' performance with the individual's use of thinking processes. This is also consistent with Flavell (1979) view that metacognitive thinking is related to the individual's previous cognition, his\her current performance and the real cognitive state he\she is experiencing.

The results of the current study showed no statistical significant differences in the degree of the correlation between the need for cognition and metacognitive thinking among the sampled students. This result can be explained by the nature of the learning teaching process experienced. Therefore, it can be argued that they have similar attention by the faculty members in the university and are taught using the same educational system.

Recommendations

In light of the results reported in the current study, the following recommendations were provided:

- Working on stimulating thinking processes among students through exposing them to various learning tasks requiring higher order thinking skills. This will challenge their mental abilities in their quest to obtain cognition by providing effective learning teaching environment.

- To expose and encourage students to assume learning tasks, assignments and problems found in curricula encouraging them to search for knowledge using self-learning strategies which contribute in increasing their cognitive repertoire and developing their cognitive frameworks.

- To provide special programs aiming to train students in using effective strategies for obtaining cognition from the various sources and to use metacognitive thinking and self-learning.

- Future research addressing metacognitive skills is needed, particularly studies working on developing measures which are able to identify the accurate levels of metacognitive skills.

REFERENCES


administration and their relationship with academic achievement and GPA. *Derasat*, 28(1), 1-14.


CAN LOCAL PEOPLE HELP ENHANCE TOURISTS’ DESTINATION LOYALTY?

Yuan Lee, Minjung Nam, Insin Kim

Department of Tourism and Convention, Pusan National University, Busan, Korea
totitre@hanmail.net; yasminy78@hotmail.com
insinkim@pusan.ac.kr

ABSTRACT

This study identifies key attributes of local people in terms of the personal connection between tourists and local people and examines whether tourists’ personal connection to local people induces the destination’s distinctiveness. For the survey, a questionnaire was distributed to tourists to Japan from Busan, South Korea. To collect data, the questionnaire was distributed to tourists who visited Japan in the past three months. These tourists were located at Gimhae International Airport and Busan Port International Cruise Terminal, Busan, South Korea. A total of 350 individuals were given the questionnaire, and a total of 280 responses were used in the final analysis. To empirically verify the hypotheses, a structural equation modeling analysis was conducted. The results indicate that three attributes of local people such as physical attractiveness, displayed positive emotions, and helpfulness had positive effects on the personal connection between tourists and local people, the personal connection to local people had significant effects on destination distinctiveness.

Keywords: Attributes of local people, Destination distinctiveness, Personal connection,

INTRODUCION

To be a successful tourism destination, a large number of scholars have examined the destination image by focusing on destination attributes to develop the destination’s competitiveness (Hu & Ritchie, 1993). According to loyalty theory, however, one of the most effective ways to retain customer loyalty is to strengthen the customer-brand relationship (Fournier, 1998). In destination marketing, personal relationships between tourists and local people can be a key element in achieving a positive evaluation of a destination by forming tourists’ loyalty. From the perspective of tourists, interactions for a given destination can occur not only with service employees but also with local people, and the relationship created from all encounters can play a key role in developing the destination's image and consequently in strengthening tourist loyalty (Freire, 2009). From the perspective of tourists, this study investigates the role of personal connection to local people as a central variable influencing tourists’ destination evaluation. More specifically, this study 1) identifies the critical attributes of local people that influence the personal connection between tourists and local people and 2) examines whether tourists’ personal connection to local people induces the destination’s distinctiveness.

LITERATURE AND THEORY
2.1 Personal connection to local people

A personal connection is defined as the perception of a bond between two parties representing “a strong affiliation with the other person based on some tie,” such as mutual caring (Gremler & Gwinner, 2000, p. 91). A personal connection is grounded in rapport theory, which refers to “a customer’s perception of having an enjoyable interaction with a service employee, characterized by a personal connection between the two interactants” (Gremler & Gwinner, 2000, p. 92). That is, a personal connection can result from positive interactions and the core of building a relationship (Gremler & Gwinner, 2008).

In a service setting, personal connection is created through social interactions with service employees, and service providers (Marín & Ruiz de Maya, 2013). Such relationships from interactions between tourists and local people are important in tourism contexts. However, there is a gap in the literature on relationships between tourists and local people from the perspective of the former both quantitatively and qualitatively. In this regard, to investigate the relationship between tourists and local people, there is a need to examine the role of personal connection to local people and identify the antecedents and consequences of these connections in destination contexts.

2.2. Perceived attributes of local people

One key factor in determining the image of a destination is its “local people.” From the tourism perspective, local people refer to any local residents whom tourists may encounter at given destinations, such as service employees and passers-by. Freire (2009) suggested that tourists' perception formed through interactions with local people can play a critical role in the evaluation of the destination. It is necessary to understand tourists’ perception of local people because it can have considerable influence on their overall evaluation of the destination. According to the theory of other customer perceptions (OCP), the term “other customer perceptions” refers to a customer’s perception of other customers’ influence on the customer’s behavior directly by interpersonal communication or indirectly by some part of the environment (Hyun & Han, 2013). These perceptions play an essential role in business environments by influencing diverse customer behaviors such as loyalty (Moore, Moore & Capella, 2005). This study suggests three perceived attributes of local people: physical attractiveness, displayed positive emotions, and helpfulness.

2.2.1. Physical attractiveness

The physical appearance can be defined as “the physical characteristics and overall look of other customers in the service environment as perceived by individual customers” (Brocato, Voorhees & Baker, 2012, p. 3). Inference theory suggests that people make judgment about others based on information from cues that are available and that other customers in service environments provide important cues to customers (Brocato et al., 2012). This theoretical background highlights the effect of the physical appearance. A physical appearance attribute closely related to the service setting is the employee’s physical attractiveness. An employee’s physical attractiveness can be defined as “the extent to which the service personnel is
perceived by the customer as possessing an appealing and pleasing physical appearance” (Keh, Ren, Hill & Li, 2013). Relationship studies (Marks, 1994) have suggested physical attractiveness as a significant antecedent of a positive customer-employee relationship. Adapting this logic to the tourism setting provides the following hypothesis:

H1: The physical attractiveness of local people has a positive effect on the personal connection to those people.

2.2.2. Displayed positive emotions

It is well known that an employee’s smile can lead to a positive customer response. An employee’s displayed emotion is explicitly visible to customers and thus has a direct effect on employee-customer interactions (Keh et al.). According to primitive emotional contagion theory (Hatfield & Cacioppo 1994), emotions transfer from one to another as a result of the “receiver’s unconscious, emotive processes.” Displayed positive emotions such as smiling and showing friendliness can have positive effects on various consumer behaviors such as purchase intentions and referral intentions (Keh et al). In this regard, the following hypothesis is proposed:

H2: Displayed positive emotions of local people have a positive effect on the personal connection to those people.

2.2.3. Helpfulness

Employee helpfulness refers to “the extent to which the service employee either provides help to the customer or gives the impression of interest in the customer and shows a willingness to serve” and is one of the most important determinants of interaction quality during service contact (Keh et al., 2013). Freire (2009) suggested the helpfulness of local people as a core feature fostering a positive destination image. Helpful behaviors of local people may generate a certain bond between tourists and local people. In this regard, the following hypothesis is proposed:

H3: The helpfulness of local people has a positive effect on the personal connection to those people.

2.3. Destination distinctiveness

Destination branding can be defined as “a way to communicate a destination’s unique identity by differentiating a destination from its competitors” (Qu, Kim & Im, 2011). Destination distinctiveness is supported by the theory of optimal uniqueness, which posits that people want to distinguish themselves from others in social settings. The need for uniqueness can be defined as “an individual's pursuit of differentness relative to others that is achieved through the acquisition of consumer goods for the purpose of developing one's personal and social identity” (Tian, Bearden & Hunter, 2001). Biedenbach, Bengtsson and Wincent (2011) revealed that the customer-employee rapport has a positive effect on the brand association, which refers to the image that is unique to a product or brand. Adapting this argument to a tourism setting provides the following hypothesis:
H4: The personal connection to local people has a positive effect on destination distinctiveness.

![Diagram of the proposed conceptual model]

**Fig.1. The proposed conceptual model**

### METHODOLOGY

#### 2.4. Measurement

To measure each construct in the proposed model, valid and reliable scales were derived from the literature. Local people’s attributes included three subdimensions: 1) physical attractiveness, 2) displayed positive emotions, and 3) helpfulness. These subdimensions were measured using 11 items adapted from Keh et al. (2013) and Yi et al. (2013). Personal connection was measured using 3 items derived from Marín and Ruiz de Maya (2013). Destination distinctness was measured using 3 items adapted from Wong and Merrilees (2005). Reliability was estimated by computing Cronbach’s alpha, and all scales exceeded the .70 threshold (Hair, Black, Babin & Anderson, 2010), indicating sufficient reliability. All measures for the questionnaire were assessed using a five-point Likert-type scale (1 = strongly disagree; 5 = strongly agree).

#### 2.4. Data collection

To collect data, the questionnaire was distributed to tourists who visited Japan in the past three months. These tourists were located at Gimhae International Airport and Busan Port International Cruise Terminal, Busan, South Korea. A total of 350 individuals were given the questionnaire, and a total of 280 responses were used in the final analysis.
4.1 Characteristics of respondents

Among the 280 respondents, 56.8% were female. In terms of age, 52.2% were in the 20-29 age group, followed by those in the 30-39 age group (26.4%). In addition, 45.7% reported a monthly income less than $2,000. For the education level, a majority had a bachelor’s degree (49.3%) or a graduate degree (13.2%), thus indicating that respondents were highly educated. The respondents had various occupations.

4.2. Assessment of validity and reliability

The measurement model provided acceptable fit indices: $\chi^2 = 289.307, \chi^2/df = 2.112, df = 137$, IFI=.926, CFI=.925, TLI=.907, RMSEA=.063. Factor loadings ranged from .528 to .869, indicating that all items loaded highly on respective constructs. Average variance extracted (AVE) values exceeded .50 for all factors, indicating sufficient convergent validity (Hair et al., 2010). All composite reliability (CR) values exceeded the .70 threshold (Bagozzi & Yi, 1988), indicating sufficient reliability. The AVE value of each construct exceeded the squared correlation coefficient between two factors, verifying sufficient discriminant validity.

4.3. Test of hypotheses

To empirically verify the hypotheses, a structural equation modeling analysis was conducted. The model provided an adequate overall statistical fit: $\chi^2 = 320.875, \chi^2/df = 2.244, df = 143$, IFI=.914, CFI=.913, RMSEA=.067. Three subdimensions of perceived attributes of local people, namely physical attractiveness, displayed positive emotions, and helpfulness, were expected to be positively related to personal connection (H1, H2, and H3). The results provide support for all these hypotheses (H1: $\beta = .469, t = 6.450, p < 0.05$; H2: $\beta = .207, t = 2.529, p < 0.05$; H3: $\beta = .427, t = 4.623, p < 0.05$). Personal connection was hypothesized to be positively related to the distinctiveness of the destination (H4). Personal connection had positive effects on destination distinctiveness (H4: $\beta = .553, t = 6.028, p < 0.05$).

V. Conclusions and Future Work

This study investigates the effects of perceived characteristics of local people on tourists’ personal connection to local people and examines how personal connection to local people induce destination distinctiveness. The results reveal that all three attributes had significant effects on personal connection to local people and that physical attractiveness and helpfulness had much greater effects than displayed positive emotions.

First, physical attractiveness had a significant positive effect on personal connection to local people ($\beta = .469, p< .01$). This suggests that the more physically attractive the tourist perceives a local person through interactions at a destination, the more likely the tourist is to perceive a personal bond to local people. Second, displayed positive emotions had a significant effect on personal connection ($\beta = .207, p< .05$). This indicates that the more the local people show positive emotions such as smiling, the more likely the tourist is to perceive a personal bond to local people. Third, another key factor influencing personal connection to
local people was helpfulness. The results show that the helpfulness of local people had a significant effect on the formation of personal connection (.427, p < .05). One key purpose of this study is to examine the effects of personal connection to local people, and the results reveal that personal connection had a significant positive effect on destination distinctiveness (.553, p < .05). The analysis considered three perceived attributes of local people, but future research should employ other attributes such as personal distance.

REFERENCES


