THE ROLE OF LEARNING ORGANIZATION IN ENHANCING THE IMPLEMENTATION OF NATIONAL DUAL TRAINING SYSTEM (NDTS) IN MALAYSIA

GHALIP BIN SPAHAT

This thesis is submitted in fulfilment of the award requirements for the Degree of Doctor of Philosophy in Technical Education

Faculty of Technical and Vocational Education
Universiti Tun Hussein Onn Malaysia

in collaboration with
Institut Technik Und Bildung (ITB)
University of Bremen, Germany

SEPTEMBER 2011
The establishment of Learning Organisation (LO) practices in the Department of Skills Development (DSD) is significant in term of providing the necessary impetus for the implementation of National Dual Training System (NDTS). Within DSD the initiative will greatly foster its Enculturation of learning, procedure of learning, strengthen leadership capabilities for learning, enforce good policy for learning, establish the learning processes and ICT utilization for learning. Thus the purpose of this study is to investigate the significant variables that contribute to the level of LO practice (organizational performance in NDTS), to measure the relationships between the variables, to identify the level of LO practice in DSD and to propose improved method for the enhancement of NDTS implementation. This research design is categorised under the descriptive quantitative research, using survey, interview and structured questionnaires. Questionnaire forms were distributed to 111 out of the total of 250 DSD officers and 3 subject matter experts were interviewed. Frequency test, mean test, ANOVA test, Spearman’s rho test, Multiple Linear Regression, G-Power test and factor analysis test were used to measure the inter-relationships between the variables and the level of LO practice in DSD. This research found that only 52.3% of the respondents perceived that LO practices level that enhance NDTS practice, is fairly satisfactory. This implies that the practice of LO in DSD needs to be further intensified. The research also confirmed that the level of LO practices are related with Enculturation of learning, Procedure of learning, Leadership capabilities development, Policy enforcement, Work processes, and ICT utilization. Apart from that, Enculturation of learning and, Procedure of learning and knowledge management are found to the two (2) significant predictors of the LO practices (organizational performance in NDTS). Consequently the level of LO practice in DSD could potentially enhance its functions through its active role in the enculturation and, procedure of learning and knowledge management. The value of Adjusted R Square of 0.427 indicates that Enculturation and procedure of learning and knowledge management contribute 42.7% variance in the level of LO practices that enhance NDTS. Finally the Model of the Roadmap for the Development of LO in DSD
is developed to enhance NDTS implementation so that DSD can transform itself into an agile Learning Organization to meet the demands of the twenty-first century.
# TABLE OF CONTENTS

ACKNOWLEDGEMENTS .............................................................................................. IV

ABSTRACT ..................................................................................................................... VIII

TABLE OF CONTENTS .................................................................................................. X

LIST OF TABLE ........................................................................................................... XVIII

LIST OF FIGURE ......................................................................................................... XXII

LIST OF EQUATION .................................................................................................... XXIV

LIST OF ACRONYMS ................................................................................................... XXV

CHAPTER I .................................................................................................................. 1

1.1 Stakeholders’ Expectation Of NDTS Implementation 1

1.2 Establishment of DSD As LO: Toward A Sustainable Organization 4

1.3 Current Situation Surrounding NDTS 5

1.4 Problem Statement 7

1.5 Research Questions 8

1.5.1 What Are The Significant Variables That Contributes To The Level of Practice of LO in DSD Which Will Enhance NDTS Implementation? 8

1.5.2 To What Extent are the LO Practices Prevailed in DSD? 9

1.5.3 What Are The Relationships Between The Identified Significant Variables And LO Practices In DSD? 10

1.5.4 How Would The Model of The New Road Map of LO Be, In The Process of Enhancing The NDTS Implementation? 10

1.6 The Significance Of The Study 12

1.7 The Development of Vocational Training 13
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7.1 National Industrial Training and Trade Certificate Board</td>
<td>13</td>
</tr>
<tr>
<td>(NITTCB)</td>
<td></td>
</tr>
<tr>
<td>1.7.2 National Vocational Training Council (NVTC)</td>
<td>15</td>
</tr>
<tr>
<td>1.7.3 Department of Skill Development (DSD)</td>
<td>16</td>
</tr>
<tr>
<td>1.8 Learning Organisation (LO) At DSD</td>
<td>17</td>
</tr>
<tr>
<td>1.9 Why Learning Organization for DSD?</td>
<td>19</td>
</tr>
<tr>
<td>1.10 LO Model In Bundesinstitut Fur Berufsbildung (BIBB) Of Germany</td>
<td>19</td>
</tr>
<tr>
<td>1.11 Summary</td>
<td>20</td>
</tr>
<tr>
<td><strong>CHAPTER II</strong></td>
<td>22</td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>22</td>
</tr>
<tr>
<td>2.2 What Is Learning Organization (LO)</td>
<td>23</td>
</tr>
<tr>
<td>2.2.1 Definitions of Learning Organization (LO)</td>
<td>23</td>
</tr>
<tr>
<td>2.2.2 Challenges in Implementing LO Practices in DSD</td>
<td>28</td>
</tr>
<tr>
<td>2.2.3 Workplace Learning Opportunities</td>
<td>30</td>
</tr>
<tr>
<td>2.2.4 Significance of Learning Organization to Curriculum Development</td>
<td>32</td>
</tr>
<tr>
<td>2.3 Underlying Theories</td>
<td>35</td>
</tr>
<tr>
<td>2.3.1 Motivation Theory for Learning</td>
<td>35</td>
</tr>
<tr>
<td>2.3.2 Situated Learning to Develop Learning Culture</td>
<td>38</td>
</tr>
<tr>
<td>2.3.3 Learning Theories</td>
<td>40</td>
</tr>
<tr>
<td>2.3.4 Theories Related to Learning Organization</td>
<td>43</td>
</tr>
<tr>
<td>2.3.4.1 Five Disciplines by Peter Senge</td>
<td>43</td>
</tr>
<tr>
<td>2.3.4.2 Dimensions of LO</td>
<td>46</td>
</tr>
<tr>
<td>2.3.4.3 Job Characteristic Model (JCM)</td>
<td>50</td>
</tr>
<tr>
<td>2.3.4.4 LO Best Practices</td>
<td>52</td>
</tr>
<tr>
<td>2.3.4.5 Front Line Management Competencies (FMI) Concept</td>
<td>53</td>
</tr>
<tr>
<td>2.4 The Six Independent Variables In The Scope Of Study</td>
<td>55</td>
</tr>
<tr>
<td>2.4.1 Policy: Enforcing Good Policy for LO Development</td>
<td>55</td>
</tr>
<tr>
<td>2.4.2 Process: Establishing Work Process to Impact Learning</td>
<td>56</td>
</tr>
</tbody>
</table>
### Chapter II

#### 2.4.3 Procedure: Procedure of Learning and Knowledge Management 57

#### 2.4.4 ICT: Utilization of ICT 58

#### 2.4.5 Leadership: Leadership Capabilities Development 59

#### 2.4.6 Culture: Enculturation of Learning 60

#### 2.5 The Level Of LO Practices That Enhance NDTS Implementation 61

#### 2.6 Learning Culture In Malaysia And Germany 63

##### 2.6.1 The Malaysian Qualification Framework (MQF) 63

##### 2.6.2 The National Skills Development Act (NASDA) of Malaysia 64

##### 2.6.3 The Experience of German Dual System 65

#### 2.7 Past Research Related To Learning Organization and Training System 67

#### 2.8 Summary 69

### Chapter III

#### 3.1 Introduction 70

#### 3.2 Research Design 70

#### 3.3 Theoretical Framework 71

#### 3.4 Scope / Limitation Of Study And Research Population 73

#### 3.5 Sampling of The Respondents 74

#### 3.6 Research Instrument 74

##### 3.6.1 The Reliability of Pre-Test Survey Questionnaire 75

##### 3.6.2 Item Development 77

##### 3.6.3 Expert Involvement 77

##### 3.6.4 The Matrix of Questionnaire 80

##### 3.6.5 Developing The Questionnaires 96

#### 3.7 Data Collection 96

#### 3.8 Test Used For Data Analysis 97

##### 3.8.1 Analysis Of Mean And Standard Deviation On Factors And Independents Variables 97
3.8.2  Reliability Of The Pre-Test Data Variable 98
3.8.3  Type Of Test Compare To Type Of Data Collected 98
3.8.4  Relationship Between LO and Independent Variables 99
3.8.5  Type of Analysis to Answer The Question 100
3.8.6  Level Of Practice Of LO That Enhance NDTS Organizational Performance In NDTS) 100
3.8.7  Relationship Between The Level Of LO and Independent Variables 101
3.8.8  Significant Predictors Variable of the Level of Practice of LO In DSD 102
3.8.9  G-Power Test 103
3.8.10 Factor Analysis 104
3.9  General Observation – Local Scenario On LO Practices 104
3.10  Insider Information And Working Knowledge 105
3.11  Finding The Benchmark For DSD In BIBB 106
3.12  Summary 107

CHAPTER IV .................................................................................................................. 108

4.1  Introduction 108
4.2  Identification of Variables and Items Development 109
4.3  Conducting the Interview 110
4.4  Conducting The Survey 111
4.4.1  Respondents for the Survey 112
4.4.2  The Respondents’ Demographic Profile 112
4.4.3  The Respondents’ Invitation 113
4.4.4  The Respondents’ Response 114
4.4.5  Getting 20 Respondents to Pre-Test the Questionnaires 114
4.4.6  The Administration of the Survey Sessions 115
4.5  Malaysian LO Practitioners 116
4.6  Conducting and Writing the Research 117
4.7  Summary 117
# CHAPTER V

5.1 Introduction 118
5.2 Demographic Profile Of Respondents’ 120
5.3 Reliability Of The Pre-Test Data 122
5.4 The Significance of The Variables 123

5.4.1 Analysis of Mean And Standard Deviation On Factors And Independent Variables 124

5.4.1.1 Mean and Standard Deviation between Age and Independent Variables 124
5.4.1.2 Mean and Standard Deviation between Gender and Independent Variables 125
5.4.1.3 Mean and Standard Deviation between Educational Background and Independent Variables 126
5.4.1.4 Mean and Standard Deviation between Work Experience and Independent Variables 127
5.4.1.5 Mean and Standard Deviation between Role, Grade and Independent Variables 128
5.4.1.6 Mean and Standard Deviation between Learning Time and Independent Variables 129

5.5 Association between Demographic Data with Independent Variables 129

5.5.1 Education Background 130
5.5.2 Work Experience 132
5.5.3 Role/Grade 133
5.5.4 Time Spent For Learning 135
5.5.5 Unit/Division 139

5.6 The Level Of LO Practices (Organizational Performance) That Enhance NDTS Implementation 140
5.7 Relationships between Independent Variables and Dependent Variables

5.7.1 Relationships between the Six Variables and LO Practice (Organizational Performance in NDTS) 143

5.7.2 Spearman’s Rho Test and G-Power Test 146

5.7.3 Relationships Among Independent Variables Using Spearman’s Rho Test 157

5.8 Multi Linear Regression between Dependent Variables and Independent Variables 158

5.9 Factor Analysis 166

5.9.1 Different Model with Various Variables 166

5.9.2 Factor Analysis for Enculturation of Learning 168

5.9.2.1 Rotated Component Matrix (Culture) 168

5.9.2.2 Mapping New Theme For Enculturation Of Learning And The Related Model 170

5.9.3 Factor Analysis for Procedure (Procedure) 173

5.9.3.1 Rotated Component Matrix (Procedure) 173

5.9.3.2 Mapping New Theme for Procedure of Learning and Knowledge Management and Related Model 174

5.10 Summary 177

CHAPTER VI ................................................................. 178

6.1 Introduction 178

6.2 The Demographic Profile 178

6.3 Research Finding and Reflecting On the Research Questions 181

6.3.1 What Was The Significant Variable That Contributes to The Level of Practice of LO in DSD Which is Related to NDTS Implementation? 181

6.3.2 To What Extent Were The LO Practices That Enhance NDTS Prevailed in DSD? 185
6.3.3 What Were The Relationships Between The Identified Significant Variables and LO Practices In DSD That Enhance NDTS? 187

6.3.4 How Would The Model of The New Road Map of LO Be That Could Enhance The NDTS Implementation? 190
6.3.4.1 Enculturation of Learning 191
6.3.4.2 Establishing Procedure of Learning 193

6.4 The Desired Outcome Of LO Transformation In DSD 194
6.4.1 The Mindset, Leadership and Capabilities of DSD Officers 195
6.4.2 The Enabling System, Process and Technology 196

6.5 SUMMARY 196

CHAPTER VII ........................................................................................................................................... 199

7.1 Introduction 199
7.2. Research Implication 199
7.3 Research Recommendation 201
7.3.1 LO Transformation Intervention for Successful NDTS Implementation 201
7.3.2 Implementation Planning For Stage I 202
7.3.3 Implementation Planning For Stage II 203
7.3.4 Model of Roadmap For The Development of LO That Could Enhance The NDTS Implementation in DSD 205
7.3.4.1 Model of Roadmap for DSD Capabilities 207
7.3.4.2 Roadmap for Enculturation of Learning 209
7.3.4.3 Roadmap for Leadership Capabilities Development 211
7.3.4.4 Roadmap for Enabling System, Process and Technology (Utilization of ICT) 212

7.4 Suggestions for Further Study 213
7.5 Flow of thought in research 215
7.6 Conclusion

REFERENCES ................................................................. 221

ANNEX 1 ........................................................................... 235

ANNEX 2 ........................................................................... 238

ANNEX 3 ........................................................................... 239

ANNEX 4 ........................................................................... 251

ANNEX 5 ........................................................................... 262

ANNEX 6 ........................................................................... 271

ANNEX 7 ........................................................................... 273

ANNEX 8 ........................................................................... 275

ANNEX 9 ........................................................................... 322

ANNEX 10 ......................................................................... 337

ANNEX 11 ......................................................................... 341

ANNEX 12 ......................................................................... 346
LIST OF TABLE

Table 1: Differences and common themes among the definitions of LO ....................27
Table 2: Arguments for and against learning at the workplace .................................31
Table 3: Network of Dimensions of LO and Performance Outcomes (Reference: Benson
and Hagtvet, 1996) ........................................................................................................48
Table 4: Frontline Management Competencies .........................................................54
Table 5: Respondents’ Attendance for the Survey Sessions .....................................73
Table 6: Items Distribution ..........................................................................................76
Table 7: Validity and Reliability ................................................................................78
Table 8: The Activities Timetable for the Item Development .................................78
Table 9: Five (5) Renowned Models Integrated in the Development of the Instrument 79
Table 10: Item for Policy enforcement, Work process establishment to impact learning,
Procedure of learning, Utilization of ICT, Leadership capabilities
development and Enculturation of learning .........................................................80
Table 11: Type of Test Compare to Type of Data Collected .....................................98
Table 12: Type of Association Test Compare to Dependent and Independent Data ......99
Table 13: Type of Analysis Compare to Part of Questionnaire .................................100
Table 14: Calculation of Score Composite ...............................................................101
Table 15: Guilford Guide: Correlation Magnitude ....................................................102
Table 16: Respondents’ Demographic Profile .........................................................112
Table 17: Data Collection Schedule .........................................................................114
Table 18: Respondents’ Demographic Profile .........................................................120
Table 19: Alfa (α) coefficient analysis for pre-test data (20 respondents) ...............122
Table 20: Alpha coefficient analysis for reliability of data (111 respondents) ............123
Table 21: Mean and Standard Deviation between Age and Independent Variable ......124
Table 22: Mean and Standard Deviation between Gender and Independent Variables.125
Table 23: Mean and Standard Deviation between Educational Background & Int
Variable ....................................................................................................................126
Table 24: Mean and Standard Deviation between Work Experience and Independent Variable ......................................................... 127
Table 25: Mean and Standard Deviation between role, grade and independent variables............................................................................. 128
Table 26: Mean and Standard Deviation between Learning Time and Independent Variables ........................................................................ 129
Table 27: Educational Background vs Independent Variables ......................................................... 130
Table 28: Work Experience Vs Independent Variables ......................................................... 132
Table 29: Role Vs Independent Variables; Equal Variance Assumed was Scheffe ........................................................................ 133
Table 30: Learning Time Vs Independent variable; Equal Variance Assumed was Scheffe ........................................................................ 135
Table 31: Unit/Division Vs Independent Variables ........................................................................ 139
Table 32: The level of LO practices based on Category and Score Composite......................... 140
Table 33: The level of LO practice frequency ........................................................................ 140
Table 34: The level of practice of Learning Organization in DSD ......................................................... 141
Table 35: The level of LO practices related to NDTS implementation ......................................................... 142
Table 36: The level of LO practices related to NDTS implementation ......................................................... 142
Table 37: Relationship between the level of LO practice (organizational performance) and independent variables ........................................................................ 145
Table 38: Relationships between Independent Variables ........................................................................ 146
Table 39: Spearman’s rho test between Enculturation of learning and the level of LO practices (organizational performance) ........................................................................ 147
Table 40: G Power test between enculturation of learning and the level of LO practices (organizational performance) ........................................................................ 148
Table 41: Spearman’s rho test between leadership capabilities development and the level of LO practices (organizational performance) ........................................................................ 149
Table 42: G Power test between leadership capabilities development and the level of LO practices (organizational performance) ........................................................................ 149
Table 43: Spearman’s rho test between procedure for learning and knowledge management and the level of LO practices ........................................................................ 150
Table 44: G Power test between procedure for learning and knowledge management and the level of LO practices (organizational performance) ........................................ 151
Table 45: Spearman’s rho test between policy enforcement for LO development and the level of LO practices (organizational performance) ...................................... 152
Table 46: G Power test between policy enforcement for LO development and the level of LO practices (organizational performance) ........................................... 153
Table 47: Spearman’s rho test between work process establishment to impact learning and the level of LO practices (organizational performance) ......................... 154
Table 48: G Power test between work process establishment to impact learning and the level of LO practices (organizational performance) ............................... 155
Table 49: Spearman’s rho Test between utilization of ICT and the level of LO practices (organizational performance) ................................................................. 156
Table 50: G Power test between utilization of ICT and the level of LO practices (organizational performance) ................................................................. 157
Table 51: Relationships among Independent Variables ................................................................................................................................. 158
Table 52: Linear Regression Tests for the level of LO practices (organizational performance) – Model Summary ................................................................. 159
Table 53: Linear Regression Tests for the level of LO practices (organizational performance) – ANOVA ............................................................................................. 159
Table 54: Linear Regression Tests for the level of LO practices (organizational performance) – Coefficient ..................................................................................... 160
Table 55: Collinearity for Final Model ........................................................................................................................................................................... 165
Table 56: The Various Variables Related to LO Practice Based on Different Model .......................... 167
Table 57: Rotated Component Matrix for Enculturation of learning ............................................................................................................................... 169
Table 58: New Theme Based on Rotated Component Matrix for Enculturation of learning ................................................................. 170
Table 59: Rotated Component Matrix for Procedure ................................................................................................................................. 174
Table 60: New Theme Based on Rotated Component Matrix for Procedure ................................. 175
Table 61: Model of Roadmap for DSD Capabilities – “NDTS Technical Know How” .......................... 207
Table 62: Model of Roadmap for Enculturation of Learning – “LO Variable Related NDTS Enhancement” ........................................................................................................ 209
Table 63: Model of Roadmap for Leadership Capabilities Development—“LO Variable Related NDTS Enhancement” ........................................................................................................ 211
Table 64: Model of Roadmap for Enabling System, Process and Technology (Utilization of ICT) —“LO Variable Related NDTS Enhancement” .......................................................... 212
Table 65: The explanation of thought flow .................................................................................. 217
Table 66: Age Frequency ............................................................................................................. 262
Table 67: Gender Frequency ....................................................................................................... 263
Table 68: Education Background Frequency .............................................................................. 263
Table 69: Work Experience Frequency ....................................................................................... 264
Table 70: Primary Responsibility Frequency ............................................................................. 265
Table 71: Role/Grade Frequency ................................................................................................. 266
Table 72: Spent Time for Learning Frequency ........................................................................... 267
Table 73: Employees Numbers Frequency .................................................................................. 268
Table 74: Procedure of Learning and Knowledge management: Mean Value ..................... 269
Table 75: Enculturation of Learning: Mean Value ..................................................................... 269
LIST OF FIGURE

Figure 1: The level of skilled workforce in Malaysia ................................................. 2
Figure 2: The skill levels across industry sectors .................................................... 3
Figure 3: Learning Organization by Peter Senge ....................................................... 45
Figure 4: The Learning Organization Framework ..................................................... 46
Figure 5: Structural Model Coefficients for a Nomological Network Between
Dimensions of Learning Organisation and Performance Outcomes (Reference:
Benson and Hagtvet, 1996) .................................................................................. 49
Figure 6: Job Diagnostic Model based on Job Characteristic Model by (Monika Kil et.
Figure 7: Four Quadrant Process of Learning ......................................................... 56
Figure 8: Theoretical Framework .......................................................................... 72
Figure 9: Bar Chat for the level of practice of Learning Organization .................. 141
Figure 10: G Power test between Enculturation of learning and the level of LO practices (organizational performance). ......................................................... 147
Figure 11: G Power test between leadership capabilities and the level of LO practices (organizational performance) ................................................................. 149
Figure 12: G Power test between procedure for learning and knowledge management and the level of LO practices ................................................................. 151
Figure 13: G Power test between policy enforcement for LO development and the level of LO practices (organizational performance) ...................................... 153
Figure 14: G Power test between work process establishment to impact learning and the level of LO practices (organizational performance) ......................... 154
Figure 15: G Power test between utilization of ICT and the level of LO practices (organizational performance) ........................................................................... 156
Figure 16: Normal P – P Plot .................................................................................. 163
Figure 17: Scatterplot of Studentized Deleted Residuals Vs Standardized Predicted Values .............................................................................................................. 164
Figure 18: Normal P – P Plot .......................................................................................... 164
Figure 19: Structural Model Coefficients for LO in DSD ............................................. 184
Figure 20: Framework for Transforming Profiles of DSD Officer ............................ 198
Figure 21: Model of the Roadmap for the Development of LO Toward Sustainable DSD ................................................................................................................. 206
Figure 22 Flow of thought in research ...................................................................... 216
Figure 23 Bar Chart for Age Frequency ..................................................................... 262
Figure 24: Bar Chart for Gender Frequency ............................................................... 263
Figure 25: Bar Chart for Education Background Frequency .................................... 264
Figure 26: Bar Chart for Work Experience Frequency .............................................. 265
Figure 27: Bar Chart for Primary Responsibility Frequency ..................................... 266
Figure 28: Bar Chart for Role/ Grade Frequency ...................................................... 266
Figure 29: Bar Chart for Spent Time for Learning Frequency ................................. 267
Figure 30: Bar Chart for Employees Numbers Frequency ........................................ 268
LIST OF EQUATION

Equation 1: The equation for linear line for multiple regression models ..................103
Equation 2: The relationships for double linear regression model ..........................162
Equation 3: The double linear regression model .......................................................162
Equation 4: Linear regression model between level of LO practices and Enculturation of
            learning, and Procedure of learning and knowledge management ..............177
Equation 5: Linear regression model between level of LO practices and Enculturation of
            learning also procedure of learning ..........................................................187
## LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>Boston Consulting Group</td>
</tr>
<tr>
<td>BiBB</td>
<td>Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung)</td>
</tr>
<tr>
<td>CIAST</td>
<td>Centre for Instructor and Advance Skills Training</td>
</tr>
<tr>
<td>DACUM</td>
<td>Development A Curriculum</td>
</tr>
<tr>
<td>DG</td>
<td>Director General</td>
</tr>
<tr>
<td>DSD</td>
<td>Department of Skills Development</td>
</tr>
<tr>
<td>EPU</td>
<td>Economic Planning Unit, Prime Minister’s Department</td>
</tr>
<tr>
<td>GTZ</td>
<td><em>Deutsche Gesellschaft fur Technische Zusammenarbeit</em> (German Agency for Technical Cooperation)</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
</tr>
<tr>
<td>JPK</td>
<td><em>Jabatan Pembangunan Kemahiran</em> (DSD in Malay language)</td>
</tr>
<tr>
<td>LWA</td>
<td>Learn and Work Assignments</td>
</tr>
<tr>
<td>MAMPU</td>
<td>Malaysia Administrative Modernization And Management Planning Unit</td>
</tr>
<tr>
<td>MDB</td>
<td>Manpower Development Board</td>
</tr>
<tr>
<td>MLVK</td>
<td><em>Majlis Latihan Vokasional Kebangsaan</em> (NVTC in Malay language)</td>
</tr>
<tr>
<td>MoHR</td>
<td>Ministry of Human Resources</td>
</tr>
<tr>
<td>MSC</td>
<td>Malaysia Skills Certificate</td>
</tr>
<tr>
<td>NDTS</td>
<td>National Dual Training System</td>
</tr>
<tr>
<td>NITTCB</td>
<td>National Industrial Training and Trade Certification Board</td>
</tr>
<tr>
<td>NOCC</td>
<td>National Occupational Core Curriculum</td>
</tr>
<tr>
<td>NOSS</td>
<td>National Occupational Skills Standard</td>
</tr>
<tr>
<td>NQF</td>
<td>National Qualification Framework</td>
</tr>
<tr>
<td>NVQ</td>
<td>National Vocational Qualification</td>
</tr>
<tr>
<td>NVTC</td>
<td>National Vocational Training Council</td>
</tr>
<tr>
<td>PSD</td>
<td>Public Service Development</td>
</tr>
<tr>
<td>SPM</td>
<td>Sijil Pelajaran Malaysia</td>
</tr>
<tr>
<td>TO</td>
<td>Training Occupation</td>
</tr>
<tr>
<td>VET</td>
<td>Vocational Education and Training</td>
</tr>
</tbody>
</table>
CHAPTER I

TRANSFORMING DSD INTO LEARNING ORGANIZATION
TO ENHANCE NDTS IMPLEMENTATION

1.1 Stakeholders’ Expectation of NDTS Implementation

Dynamic globalisation and rapid changes in information and communication technology had drastically changed the global economic scenario. Responding to the global challenge, the quality of Malaysia’s human capital had increasingly factored in as the most critical element contributing to the achievement of the National Mission. The nation human capital development became the key thrust in the Ninth Malaysian Plan (EPU 2006a). Malaysia could only develop and progresses with high skilled and knowledgeable workforce. Given Malaysia’s plan for rapid growth, the country needed knowledge workers (K-workers) in order to develop a knowledge-based economy (K-economy) (Onn 2005). Only then could the government’s economic goals be realized.

Report from Boston Consulting Group (BCG 2009) revealed that “Malaysia’s workforce is still relatively low skilled”. Figure 1 shows that in 2007, 80% of the workforce was only educated up to the Sijil Pelajaran Malaysia (SPM) level or equivalent. Only 25% of Malaysian jobs were in the higher skill brackets. Even though this was a substantial improvement over the 1990 figure (16%), the current level is still much below that of regional peers, such as Singapore (49%), Taiwan (33%) and South Korea (36%).

Malaysia must change its economic industry structure and improve its labor productivity levels for the nation to move to a high income economy. The country’s main focus need to be on up-grading the skill level of the majority semi-skilled workforce, and improvement of the educational level of up and coming workers.
Malaysia must ensure a strong supply of adequately skilled workers into the labor market in order to improve its workforce quality. Simultaneously, it must also upgrade the skills of its existing workforce.

Figure 2 shows that low skilled workers were dominant across almost all industry sectors, with the exception of the government, finance & insurance and mining sectors, which together account for only 15% of the total workforce.

![Diagram showing workforce education levels and skilled job distribution.]

**Figure 1:** The level of skilled workforce in Malaysia

Note: Low Sec (School) = PMR, Up Sec (School) = SPM, Post Sec (School) = STPM, Tertiary = Diploma, degree
Source: Department of Statistics, Korea International Labor Organization, Taiwan Department of Statistics.
Figure 2: The skill levels across industry sectors

The information reflected on types of occupation rather than education level to provide the basis of comparison with other countries. 
Source: Singapore Department of Statistics 2007

Realizing that training for K-workers must utilize workplace as the prime learning environment, the government decided on 19 May 2004 to adopt and implement National Dual Training System (NDTS), and starting year 2005 targeted to produce 31,500 skilled workers by 2010 (MLVK, 2005).

The program planned to produce more K-workers through training schemes that would satisfy industry requirements and the overall demand for skilled manpower. Individual apprentices benefited significantly due to the experience of relevant industrial exposure they attained prior to employment (MLVK, 2005). This dual approach system involving workplace experience and institutional training was a definite advantage to the contribution of progress and development of the country (Onn, 2005). The concept of work process knowledge was used for the implementation activities (EPU, 2004). The approach required commitment from all parties especially the industrial sector to ensure success of the program (Umasuthan Kaloo et. al, 2003). The government had appointed
Department of Skill Development (DSD), an agency in Ministry of Human Resources, to be responsible for the introduction and implementation of the system (EPU, 2004).

1.2 Establishment of DSD As LO: Toward A Sustainable Organization

Since DSD had been entrusted as the coordinating agency to implement NDTS, it must now strategically profile itself as an organization that could be able to continuously enhance its capacity to learn, adapt and change its culture and procedure that harness the talent of the some reasons to benefit the stakeholders, so that its could project itself as one of the successful organization in 21st century. It is therefore extremely significant that DSD embarks on LO concept and approach in implementing development programs as well as monitoring and evaluating its effectiveness. DSD also need to work on enhancing the public delivery systems and mechanisms to create total satisfaction among its customers and stakeholders. It is therefore necessary for all parties, lead by DSD as a coordinating agency, to have full understanding of the term LO that relates to training based on Anglo Saxon system (NOSS based training) and the NDTS (work process knowledge). In this respect, the focus of this research was to identify and investigate the variables that contribute to LO practices (organizational performance) that facilitate the success of NDTS implementation.

The expectations of the stakeholders are high and the results just could not keep up with the pace. The change in the socio-economic demand scenario and global challenges requires LO practices in DSD to be enhanced. This was in line with the directive and foresight of Public Service Development (PSD) since 2004. Transforming DSD into a full fledge LO practitioner will enable it address the main issues relating to the effective implementation of NDTS. DSD need to proactively meet the current and future demand from corporate clients that simply must sharpen their competitiveness through highest possible skilled human capital if Malaysia were to be reckoned with at international market. DSD needs to be innovative and proactive in the collaboration with its partners both in the corporate community and vocational training institutions to speed up the long standing agenda of high skilled and k-workers. This research is about
investigating the enabling activities inherent in LO practices to transform DSD’s innovativeness and proactive ability to successfully carry out its role and meet stakeholders’ expectations through the implementation of NDTS.

Since the government launch NDTS in 2005, DSD faced various implementation issues. Most of the issues were tied to minimal effort in planting and embracing the enculturation of learning, enforcing good policy for LO development, leadership capabilities development, procedure of learning and knowledge management, establishing work process to impact learning and utilization of ICT that were the core focus of this research study. Those activities that must be supported and participated by all officers in DSD form part of this research finding. It is a change that is critical for DSD to reinvent itself to satisfy the mounting expectations. A detailed list of expectations from Tenth Malaysia Plan (10MP) can be referred at Annex 11.

1.3 Current Situation Surrounding NDTS

The current situation based on observation surrounding NDTS and their implementation that based on four (4) NDTS main features are promotion skills, curriculum development, train of trainers and certification status as follow:

i. NDTS started in 2005 with a budget of RM10 million to finance its promotion within Malaysian companies, curriculum development, training of the trainers, and soft skills program for the apprentices. The results were far from expectation. Participations by industry members were poor both in quality and quantity. In 2005 invitation to 1200 companies only managed to garner 159 willing participants. The National Occupation Core Curriculum (NOCC) had a poor start. There were simply not enough system and content experts to face the mountainous task of curriculum development. On the contrary, those that were developed were not fully utilized.

ii. There was not enough leadership strength to gather consensus and support even from the government front. The result showed lacking in urgency and
understanding about NDTS among the top management in the public skill training agencies.

iii. Since its inception in 2005 the number of apprentices seemed to grow every year, but when the government decided to stop subsidizing training allowances in mid 2009, the numbers declined drastically. Cash monthly allowances were given to apprentices and the participating companies. There were even cases of abuse by some companies where dummy apprenticeships were created in order to qualify for the allowance.

iv. In-house trainers and coaches played a crucial part in any successful apprenticeship program. Number of trainers and coaches vary depended on number of participating companies. Experienced and exemplary employees from respective companies were appointed for the role, but they normally shun the responsibility since trainers and coaches ended up doing extra job without being compensated for it.

v. The appointment of Dual System Expert (DSEs) and the role they played to assist companies in the implementation of NDTS were not up to the mark.

vi. Skilled workers in companies were generally not motivated due to poor compensation they received.

vii. There were operational grey areas in DSD that hampered the working efficiency and effectiveness of its officers. There were six divisions within DSD representing NOSS Division (curriculum development), Malaysia Occupational Skills Qualification / Certification (MOSQ) Division, Expert Development Division, NDTS Division, Planning, Research & Development Division, and Human Resource Management Service Division. There are six (6) regional offices namely South, East, North, Middle, Sabah and Sarawak. Inter division friction and misunderstanding need to be resolved constructively. Coaching and mentoring would certainly help when officers experienced implementation issues and difficulties. Being the lead agency, DSD needs to project itself as united and dominant authority in the process of NDTS implementation.
viii. There were needs to look into the appraisal and assessment system to reward performance and productivity. Job satisfaction and motivation go a long way in favour of a more successful NDTS implementation.

1.4 Problem Statement

Since 1971, demand and expectation from the public regarding skill training, accreditation of centre and certification had been overwhelming and continued to grow with renewed challenges. DSD’s customers had grown more sophisticated. Compelled to meet those demands, DSD is meeting the challenges as the coordinating agency for the implementation of National Dual Training System (NDTS). This phenomenon, however, was not surprising since the requirement of human capital development continued to increase and became the main focus of the Ninth Malaysia Plan, EPU (2006b).

DSD had over the years made tremendous changes either in its approach or system application to maintain its position as the main agency to coordinate and formulate skills training activities in Malaysia. However considering DSD’s manpower strength, the changes initiated by the Economic Planning Unit (EPU), Ministry or Departmental level, is not well internalized, understood and shared by many. There are such flaw must be address include lack of promotion strategies, curriculum development issues, lack of trainers competency, and certificate recognition and accreditation issues. It has to be said that such ‘flaw’ must be addressed to give way to close comradeship cemented by common vision relating to the very existence of DSD which should amount to the effective implementation of NDTS.

DSD has to review, reassess and reinvent its approach so as to diffuse dogmatic perceptions among its own citizenry, and avoid possible opposition against any of the change initiatives due to disparity in embracing the shared vision. However, contrary to this notion, how could this issue be resolved? How could every individual in the organization understand and equally share the vision? This study had attempted to look at how to reform in order to make DSD more competitive. It investigated the enabling
activities critical to transform DSD into a learning organization that could enhance the NDTS implementation.

It is critical that the task of envisioning DSD purpose of existence be flexible in nature; and this could possibly be developed through the establishment of a LO. Thus, the purpose of this study was mainly geared to investigate the significant LO variables that will significantly influence the level of LO practices (organizational performance) in DSD and to propose a Model of Roadmap that will enhance its effectiveness of LO in DSD to carry out the NDTS’ implementation.

1.5 Research Questions

In addressing the research problem, four pertinent research questions that were used in this study are:

1.5.1 What Are The Significant Variables That Contributes To The Level of Practice of LO in DSD Which Will Enhance NDTS Implementation?

The question attempted to identify the significant variables that could significantly contribute to the level of LO practices that enhance NDTS implementation (organizational performance) in DSD being a coordinating agency whose mission is to ensure the implementation of NDTS. Since LO is very much associated to nature of activities that DSD involved, it is essential to focus on the most important variables in order to create awareness within DSD the issues confronting NDTS implementation. Similar awareness need also be promoted in the private sector to create positive collaboration and operational dynamic with the government training institutions. The study will benefit DSD by way of identifying the significant LO variables vis-a-vis intervention for it to be effective in coordinating and implementing the dual system training. The study analysed the most significant variables for the effectiveness of the
learning organisation in DSD and prioritised them within the context of NDTS implementation by using Spearman’s rho test and support by G-Power test.

1.5.2 To What Extent are the LO Practices Prevailed in DSD?

To employ critical reflective activities, DSD will need more than LO practice. It will need to engage in strategies that will transform it into development organization as the final step of organizational evolution. The transformation requires it to alter its priorities, assumption and orientation while instituting new leadership style, policy for learning, procedure of learning, and the use of ICT. DSD must also reconfigure and redesign its learning culture, process and structure of learning, managerial practice, and work climate. Finally, DSD must embrace change and continuous growth to bring about new meaning and encourage individual renewal and performance capability.

When a developmental organization follows these stages, it enhances learning, which in turn increases comprehension, application and practice. The results will be new individual mastery with enhanced self-awareness which lead to continuous growth, and ultimately, improved renewal and performance capacity, and thus completing the cycle of personnel renewal. Adoption of the development approach allows organization to redefine, reconstruct and reinvent itself continually. By so doing allows businesses to evolve from learning to development organization.

By measuring the level of LO practice in DSD researcher will know exactly what is the gap exists in the LO system and identify what should be filling up because there must be a room for improvement to make DSD better organization. By doing so, DSD could be strategically plan and act how to be more effective and efficient in implementing NDTS in Malaysia.

The frequency analysis was used to measure the percentage of LO practice (organizational performance). The level of LO practice could be measured by analyzing data collected via respondent survey. The questions covered all aspect relevant to LO practices in DSD and its capacity to implement NDTS.
1.5.3 What Are The Relationships Between The Identified Significant Variables And LO Practices In DSD?

The findings hope to reveal the relationship between identified significant variables and significant predictors LO practices in DSD and its significant predictors to enhance the implementation of National Dual Training System (NDTS) in Malaysia.

The process of LO practice in DSD requires new rules, boundaries and behaviours. The study also looked at internal competencies and resources that will facilitate superior achievement, and organizational capabilities and routines that have evolved uniquely in DSD. The practice of LO is a new experience for Malaysia. The direction given by Public Service Department (PSD) that all government agencies implement the practices had made LO more popular. The relationship between the practice of learning organization (organizational performance) and identified variables and also its significant predictors could be explained using Multiple Linear Regression; and

1.5.4 How Would The Model of The New Road Map of LO Be, In The Process of Enhancing The NDTS Implementation?

The proposed LO practice was based on the resulting analysis and finding of this study. The proposed practice model was developed based on combination of the study outcome and personal experience. The study had analysed how LO practices in DSD in relations to the identified variables be improved.

The study focus was to improve LO practices in DSD making it more effective to proactively deal all its challenges as a lead agency to implement NDTS with business sector and training institutions in the country. Once all the relevant variables were identified and prioritised, the level of LO practices could be negotiated. Next was a question on the proposed model of the new road map for the LO implementation. Consequently the research needed to look at the historical background and current
development to reveal the real purpose, structure and concerns on major issues, and eventually arrived at the proposed framework.

Taking into account individual attitudes and skills resulted into a new way in which work need to be organised. Individualities were preserved due to formal job titles arranged in strict hierarchies. The disadvantages of sharply differentiating job territories threatened to outweigh the advantages. Responsibilities became fragmented, communication barriers grew and the bureaucracy that resulted made it difficult to tackle large issues in a holistic manner. As these faults became increasingly apparent, a new form of awareness about LO set in. It was gradually recognised that the vitality of groups depends on interdependence and cooperation between members. Team identity grew in response to this demand and its nature, mechanism and implications were explained. Team identity had a special part to play in self-management, in management of orders and in resolution of conflict. There were beneficial ideas and techniques that could be learned. Political aspects of team identity management need to move from solo leadership to team leadership. Problem of succession in management and future shape of the organisation must be examined in the light of newly acquired understanding and experience.

The overall purpose was to lay an exposition of how faulty organisational design had led to recurring problems and to indicate both the reasons why these designs were likely to be superseded and the form they will take. Forces of evolution will play a great part in the process, as they had in the past.

Factor analysis served as a tool for observing variability that underpins the research questions. Factor analysis test for the variables will narrow down to look at the sub-variable variability. Factor analysis is a statistical method used to explain variability among observed variables in terms of fewer unobserved variables called factors. Variability refers to how "spread out" a group of scores is.
1.6 The Significance Of The Study

Dual training systems existed in many institutions in several countries such as Germany, Switzerland, Austria, and Denmark. Many institutions also functioned as coordinating agency for vocational training such as Federal Institute For Vocational Training (Bundesinstitut für Berufsbildung) or BiBB in Germany. Likewise in Malaysia DSD is a coordinating agency for implementing NDTS. Assumption can be made if there were significant relationships between DSD, Dual System implementation and practice of learning organisation. The underlying reasons why DSD must be known as Learning Organisation or Organisation Learning need to be emphasized.

DSD expects to receive feedbacks and enquires from various parties pertaining to the implementation of NDTS at workplace. In Malaysia, the majority of the medium and small scale industries were not concerned with running their own job skills apprenticeship program. They would expect the supply of skilled or semi-skilled workers coming from government or private training institutions.

The implementation of NDTS is based on work process approach. It was a relatively new approach in Malaysia with not many practitioners. Martin Fischer (2002) mentioned the acquisition of work processes knowledge requires the learner to have already acquired an occupational self-concept and motivation, and this is a broader task which must be addressed within much more general education. Work process knowledge therefore must be studied and understood properly in order to enhance the implementation of NDTS.

In addition, the process of enhancing knowledge for personnel in DSD who are directly or indirectly involved in implementation of NDTS is extremely important. Appropriate policy for learning, procedure, culture of learning and the use of ICT in DSD is of critical importance to maintain effectiveness. Work process knowledge and situational learning need to be understood at every level which includes curriculum development, teacher and coach training, and promotion activities that will foster participation of relevant parties from both public and private sectors.

Of equal importance is the leadership factor. It is about leadership readiness to develop and promote learning organisation practice in DSD. Identifying new Training
Occupation (TO) for future training must be given strong emphasis. Tax payers’ contribution for curriculum development was substantial and thus understandably critical to errors. DSD need to have a clear picture as to which Training Occupations and curriculum deserve top development priority. DSD must continually identify and update the sectors needing more k-workers to positively create the scenario that the implementation of NDTS will always jive with the economic growth and trend in the country.

This study attempted to develop the critical knowledge that will foster better understanding regarding the impact of LO practice in DSD, which will be instrumental to its success as a coordinating agency towards ensuring the implementation of NDTS. It is imperative that DSD assumes and maintains such a profile for it to be successful in cultivating the awareness among its customers and stakeholders, not only relating to the importance and benefits of NDTS approach, but also the rapport needed to making it operationally viable.

Thus this study had investigated the significant indicators of LO (organizational performance) that will enhance the implementation of NDTS, and to propose the modus operandi in order to improve LO practices at DSD. Such initiative will enable DSD to move forward not only as an efficient coordinating agency, but also as an effective body that could implement and manage NDTS sucessfully.

### 1.7 The Development of Vocational Training

The development of vocational training in Malaysia can be described as follow:

#### 1.7.1 National Industrial Training and Trade Certificate Board (NITTCB)

Historically, the planning and management of vocational training in Malaysia were not complicated because the demand for skilled manpower during the earlier period was
insignificant to warrant investment in the foundation of technical institutions (Wong and Gwee, 1980:73). Skilled workers were merely required by organisations such as Federated Malay States (F.M.S) Railways, the Public Work Department and the Survey Department and these organisations made their own provision for workers’ training. Thus, in 1918 the Public Work Department opened their own training school to cater for their own manpower needs. Prior to that in 1900, Government of Selangor engaged several local craftsmen such as wood-carver to teach student on the outskirts of Kuala Lumpur (Loh, 1975). In 1902 the British colonial appointed a Commission to look into vocational education (Othman, 2003). In 1906, Teacher Technical School was established by Public Work Department to train technical assistants for the Railways and Public Work Department (Maznah, 2001). Lee, 1997. MOE,2007

In 1960, Rahman Talib Report was published, recommending more changes to the technical and vocational school system (Lee, 1972). This report was significant to the country’s VET system because it brought about the segregation of the formal secondary school system into academic and vocational streams (MOE,2007). After 1971 the planning and management of vocational training become more complex, and the government established the National Industrial Training and Trade Certificate Board (NITTCB) to act as an agency for coordinating matters concerning the development of skilled manpower. The Board Committee of the NITTCB comprised of representatives from government agencies, private sector organisations and the trade unions.

In 1979, the government established the Manpower Development Board (MDB), a body that specifically dealt with coordinating issues at the planning level and retained NITTCB to deal with operational matters.

The failure of NITTCB and MDB to make a significant impact on the planning and management processes of training providers was realised by the government (EPU, 1987:4).
1.7.2 National Vocational Training Council (NVTC)

As the result mentioned above, in 1989, the government decided to dissolve NITTC and MDB and replaced them with National Vocational Training Council (NVTC). The NVTC was charged with the responsibility of “formulating, promoting, and coordinating vocational and industrial training strategy and program in line with Malaysia’s technological and economy development need” (NVTC, 1989). The Council Committee was the highest authority whose role was to endorse any new initiative to be implemented. The Council Committee comprised of representatives from private sectors and companies, Chamber of Trade and Industry, Malaysian Employee Federation (MEF), representatives of government central agencies and ministries which have training institutes. The Council Committee was chaired by the Secretary General, Ministry of Human Resource.

In December 1992, NVTC introduced a national skill training and certification system, namely a National Occupational Skill Standards (NOSS) (MLVK, 1994). The implementation of this system (known as ‘NOSS-based training system’) was based on institutional training.

Rapid changes in technology and increasing complexity of work processes in Malaysian industries had created new demand. The focus was on ‘knowledge-workers’ or ‘k-workers’ who possess the technical competence and the ability to acquire and apply knowledge, as well as the capacity to learn continuously. Realising that the training for k-workers must utilize workplace as the prime learning environment, Malaysian government decided on 19 May 2004 to implement the National Dual Training System (NDTS), and 2005 was earmarked as the commencement year to produce skilled workers that would fulfil the changing requirements of the industrial sector. NDTS is a combination of on-the-job training and classroom instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. NDTS programs are sponsored by jointly by employer and labour groups, individual employers, and/or employer associations.
1.7.3 Department of Skill Development (DSD)

The main legislation regulating the education system in Malaysia are:

i. Education Act 1996 (Act 550); (Malaysia, 1996a) - takes very broad view of education including training, skills, specialised, job-based and continuing training;

ii. Private Higher Institution Act (Act 555); (Malaysia, 1996b) – adopts the same broad view of education;

iii. Skills Development Fund Act 2004 (Act 640); (Malaysia, 2004) – to establish a special fund to be managed by the Skills Development Fund Cooperation to grant loan to student of approved skills training programmes; and


On 11th May 2006 Lower House, Parliament endorsed the National Skill Development Act (NASDA), followed by Upper House, Senate on 1st June 2006. By 29th June 2006 NASDA was approved and enforcement began by 1st September 2006. An Act was passed to promote, through skills training, and the development of workers’ abilities needed for vocation; NASDA (2006). NVTC was changed to Department of Skills Department (DSD). Enforcement became an important activity in this act.

After detailed discussion about vocational training in Malaysia, beginning with the establishment of Federated Malay States (F.M.S) Railways, the Public Work Department and the Survey Department, it was followed by the establishment of National Industrial Training and Trade Certificate Board (NITTCB) and later by the establishment of Manpower Development Board (MDB), the National Vocational Training Council (NVTC) and finally the formation of Department of Skill Development (DSD) in charge with two systems, namely NOSS-based training system and National Dual Training System (NDTS). To be efficient and effective, DSD need to profile itself as a Learning Organisation with the two different systems to be nurtured concurrently. DSD must be able to carry out its responsibilities as a coordinating agency for vocational training system and continually secure private sector participation in the National Dual Training System (NDTS). It will need to concurrently carry out its
existing tasks of coordinating the implementation of National Occupational Skill Standards (NOSS) based system. Information about the difference between NOSS based system and NOCC (Work process based system) can be referred to Annex 2.

The most significant variables for the Learning Organisation practice in DSD need to be identified. Quotes by EPU (2006b) in the Ninth Malaysian Plan regarding vocational training, and various measures to improve the shortage as well as the quality of instructors will be given priority during the period, EPU (2006b).

DSD had drifted into a culture that fragmented DSD’s vision, which detached the world from the organization and the organization from the community. DSD have gained control of the environment but have lost the artistic edge. DSD are so focus on the security that DSD do not realise the price to pay: living in bureaucratic organizations where the wonder and joy of learning have no place. Thus DSD are losing the space to learn with the ever-changing patterns of life. Culture of learning can’t be developed over night or in short period of time. It required to be practised every day and become part of our life. Motivation, description and the virtue of learning culture must be explained rapidly to the community of DSD.

Against such constraints, this study explored, identified and investigated the LO practices in DSD with the view to enhance the implementation of NDTS. The study aimed to highlight critical issues and offer suggestions by the end of it.

1.8 Learning Organisation (LO) At DSD

LO practices in public sector are a continuous and life long journey. This was not entirely new and had been observed in many early writings on organizational development and change. It is an initiative by Malaysian government through Public Service Department (PSD) to encourage LO practices was implemented in every agency. An officer in DSD is a Vocational Training Officer (VTO) at various levels and overseen by the Director General of Public Service Department, the central agency responsible for human resources management for the public services. Even though DSD
has its own Director General (DG), but management of officers’ promotion, transfer and training are the charges of DG of PSD.

On 1st November 2002 PSD introduced and implemented a system call Competency Level Assessment (CLA) and implemented in 2003. One of the CLA’s objectives was to establish LO in public sectors to conform and to focus on producing knowledge workers. Such move had proven the facts that there was an initiative in PSD to promote and establish LO practices at all government agencies. Considering the importance of LO practices in every organisations, PSD had manifested the clear intention to move in the right direction in order to become more efficient, and to develop productive public service officers. Any agencies applying CLA are in essence applying LO because the ultimate objective of CLA was to implement LO practices. Awareness among public agencies regarding LO was most crucial because most agencies were not aware about its concept and practices. CLA appeared with little elaboration when it was published at PSD web page, and only for very short period. Lack of knowledge about LO among officers in PSD was another issue which must also be resolved.

VTO is a shared service employment, where every officer is liable for transfer to several departments and ministries such as DSD, Manpower Department, Ministry of Youth and Sport and Home Affair Ministry. The task of introducing LO practices in various departments and ministries is a huge challenge since the respective DGs and Ministers exercise power and autonomy outside the control of PSD. The mechanism adopted by PSD in the implementation of CLA is using training and examination. The situation may pose problems in the implementation exercise of installing LO practices in the public agencies.

CLA was still at the infancy stage. There were rooms for improvement, and this study attempted to provide constructive solutions. It investigated relevant variables that will serve as enablers toward the implementation of LO in DSD and other agencies.
1.9 Why Learning Organization for DSD?

The idea of advocating a new road map that could provide DSD with a route towards a more successful implementation of NDTS, is a clear admission that its current set up and arsenal do not have sufficient power to live up to the task its facing. In other words, DSD needs overhauling, it must change and DSD needs to reinvent itself by embracing new ways of doing things. This study advocates LO as the tool to bring that change. The followings are some of the reasons why LO is the chosen intervention for DSD:

  i. LO is a most viable change alternative for DSD because it is most conducive to implement and easiest to follow;
  ii. It focuses on the officers and bring the best out of them;
  iii. LO brings change in a wonderful way as it embraces the officers, not threatening them. Change becomes easier once fear is taken out of the equation;
  iv. It improves the officers by promoting learning and sharing. They feel empowered by greater knowledge and sense of understanding about their work environment;
  v. It does not compete with other tools but incorporate them;
  vi. LO promotes quality and innovativeness so that it can improve curriculum development;
  vii. It energizes the officers and brings commitment out of them to make industries and training institutions get involved in NDTS;
  viii. LO creates sustainable change because it transform the culture and procedure;
  ix. It is most likely to get popular support because it promotes new type of leadership, policy, and process to working and learning.

1.10 LO Model In Bundesinstitut Fur Berufsbildung (BIBB) Of Germany

This study looked at BIBB as a reference due to the similarity of functions. It was founded in 1970 by the Vocational Training Act (Berufsbildungsgesetz, BBiG) to function as Germany’s federal government institution for policy, research and practice in
the field of vocational education and training. This function is similarly shouldered by DSD.

BIBB is also recognized as a centre of excellence for vocational research and for the progressive development of vocational education and training (VET) in Germany. BIBB works to identify future challenges in VET, stimulates innovation in national and international vocational systems, and develops new, practical oriented solutions for initial and continuous vocational education and training.

Technological, economic and social changes present industries with the constant challenge of maintaining a highly qualified skilled workforce. In Germany, the structural foundation for these qualifications is the dual system of initial vocational training and company-based continuous vocational training. At the same time, their dual system training program for initial vocational training serve as the foundation for lifelong learning. They treat both initial and continuous vocational education and training as investments of the future.

For over 35 years now, BIBB has continued to fulfill this role. Its legal grounding is the Vocational Training Act of March 23, 2005 which spells out the Institute's tasks. Its research, development work and advisory activities help provide individuals with qualifications of lasting value for their economic security and employability, and serve to ensure the international competitiveness of German business and industry.

BIBB is directly accountable to the Federal Government, and is funded directly from the federal government budget. It is subjected to the legal supervision of the Federal Ministry of Education and Research (BMBF). Since 1999, its headquarters have been in Bonn.

1.11 Summary

The points presented in this introduction can be summarized as follows:

i. Malaysia’s urgent and growing need for higher skilled and k-workers makes LO pertinent for DSD transformation;
ii. The need to groom DSD as the leading agency to efficiently lead as LO and carry out its role in the NDTS’ implementation;

iii. The need to develop a new road map for DSD to carry out the above role. One of the critical routes recommended was by way of LO practices and the other using BIBB as a benchmark.

Those points served as critical and genuine justifications to warrant the effort and the resources that were invested to do this study. The following chapters will demonstrate the rigor and intensity of this research that set the milestone for DSD’s journey.
CHAPTER II

DEVELOPMENT OF LEARNING ORGANIZATION IN DSD: THE CONCEPTUAL FRAMEWORK

2.1 Introduction

In trying to explain the conceptual framework of the study, this chapter will review several relevant and interrelated LO concepts, models and theories. LO is defined and expressed in general terms, since the understanding about its concept was still vague and illusive. Most importantly, this chapter will also look at the LO implementation perspective to organizational performance.

Therefore, the review of this chapter was divided into seven (7) sections with several sub-sections. All sections and sub-sections were organized according to a logical flow of themes listed below:

i. What is Learning Organization (LO):
   a. Definitions of LO;
   b. Challenges in implementing LO practices in DSD;
   c. Workplace learning opportunities.
   d. Significance of curriculum development to LO;

ii. Underlying Theories
   a. Motivation Theory for Learning;
   b. Situated Learning To Develop Learning Culture;
   c. Learning Theories;
   d. Theories Related to LO;
      • Five Disciplines by Peter Senge;
• Dimensions of LO
• Job Characteristic Model (JCM);
• LO Best Practices; and
• Front Line Management (FMS); Concepts
iii. The Six Variables in the Scope of Study;
  a. Policy Enforcement for LO development;
  b. Establishing work process establishment to impact learning;
  c. Procedure of learning and knowledge management;
  d. Utilization of ICT;
  e. Leadership capabilities development;
  f. Enculturation of learning;
iv. The level of LO practices in DSD.
v. Learning Culture in Malaysia and Germany;
  a. The Malaysian Qualification Framework (MQF);
  b. The National Skills Development Act of Malaysia (NASDA);
  c. The Experience of German Dual System.
vi. Past Research Related to Learning Organization and Training System;
    and
vii. Summary.

2.2 What Is Learning Organization (LO)

The theories explained below were used to underpin all the research questions;

2.2.1 Definitions of Learning Organization (LO)

Learning in organization was practice long time ago (Bennet & O’Brien, 1994), and has different terminology such as organizational learning (Cangelosi Dill 1965), after that
Learning Organization exist (Senge, 1990), follow by Learning companies (Pedler Burgoyne & Boydell, 1991), followed by knowledge creating company (Nonaka, 1991), and knowledge factory (Roth, Muruchek, Kemp & Trimble, 1994)

The explanation between Organisation of Learning (OL) and Learning Organisation (LO), the OL concentrates on the development of normative models and methodologies for creating change in the direction of improved learning processes, the LO concentrates on understanding the nature and processes of learning and unlearning within an organization. OL is represented by consulting or academics in their roles as consultants, while the LO is represented by academic researcher.

Many writings had attempted to define and describe LO and its learning process, both for individuals and organizations (Lank 1994). There are various definitions of LO (Garvin, 1993; Daniels, 1994 and Calvert, Mobley, and Marshall (1994) are based on several theories (Levit and March, 1988). This study provided some of the most popular definitions of LO since the 60s until the year 2010. Each of them is chronologically presented below.

Cangelosi and Drill (1965) defined organizational learning “as a series of interactions between adaptation at individual sub-group level and adaptation at the organizational level”. Simon (1969) explained organizational learning “as the growing insights and successful restructuring of organizational problems by individuals reflected in the structural elements and outcomes of the organization itself”. Argyris and Schon (1978) concluded that “organizational learning as a process of detecting and correcting errors”. Fiot and Lyles (1985) defined organizational learning “as the process of improving actions through better knowledge and understanding”. Marsick (1987), described organizational learning “as the ability to create, diffuse, and use knowledge in response to new, uncertain, and non-routine events”. Levit and March (1988) stressed that “organizational learning is seen as learning by encoding inferences from history into routines that guide behaviour”. Stata (1989) believed that “organizational learning occurs through shared insights, knowledge, and mental models, and builds on past knowledge and experience”. Senge (1990) described LOs as “places where people continually expand their capacity to create the results they truly desire; where new and expressive patterns of thinking are nurtured; where collective aspirations are set free;


EPU (2006a), Ninth Malaysian Plan, Economic Planning Unit, Prime Minister Department of Malaysia; Chapter 11, Enhancing Human Capital, p 1. Malaysia, Kuala Lumpur.


EPU (2010), Government document; 10th Malaysia Plan, Putrajaya Malaysia.


Fong Chan Onn, (2005), New Straits Times: National Dual Training System (NDTS), MLVK. Malaysia, Kuala Lumpur


Guilford, J.P. (1956), *Fundamental Statistics in Psychology and Education.* (p. 145)


Herzberg, (1959; 1966) *The Motivation to Work* (1959), and *Work and the Nature of Man* (1966). Case Western Reserve University, Cleveland


Malaysia Qualification Framework (MQF); *The Malaysian Qualifications Act 2007*. The Commissioner of Law Revision, Malaysia.


Monika Kil et al. (2000), *Zum Einsatz einer revidierten und erweiterten Fassung des Job Diagnostic Survey im Dienstleistungs- und Verwaltungssektor*. (In German language, translate by Prof. Dr. Gessler), Bremen.


NVTC (1989), *The Role of National Vocational Training Council (NVTC) in Formulating Training in Malaysia*. NVTC, Malaysia.


Senge, P.M. (1990), “*The leader’s new work: building learning organisations*”, Sloan Management Review, Fall, pp. 7-23.


Smith and McKeen (2003), H. A. And McKeen J.D. (2003), Knowledge Transfer: Can KM make it happen?. Journal of Information Systems and Technology.


Szilagyi and Wallace (1980), Readings in Organizational Behaviour and Performance, Publisher: Goodyear Publishing Co , U.S.

Taylor, M. C. (2000), Transfer of learning in workplace literacy programs. Adult Basic Education. 10(1), pp 1-17, Ethical Behaviour in the Knowledge Economy.


