CRITICAL ANALYSIS OF BEHAVIOURAL TRAINING METHOD FOR SUPPLY CHAIN OPERATION REFERENCE (SCOR) MODEL COMPLIANT SUPPLY-CHAIN-MANAGEMENT (SCM)

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ABSTRACT

Supply-Chain-Management (SCM) is a discipline introduced in order to shift from rule based procurement systems to an integrated SCM system. Managing Supply-Chain (SC) operations is thus critical to any company’s ability to compete effectively. Virtually all modern organizations accept that a well-trained SCM team is a critical success factor. Formal training of SC professionals represents substantial investment for organisations. Cognitive training methods offer controlled, secure, and risk free environments of instruction. In contrast, behavioural training methods offer more practical instruction and application opportunities to the trainees and thus have “hands-on” advantage over cognitive SCM training. The various methods under behavioural approach allow trainees to “behave” under a set of realistic circumstances to facilitate effective skills development. Globalization and technological advancements have led organizations to shift toward computer based simulations, using interactive multimedia and virtual reality, as a SCM training tool. This paper presents findings of a literature study and a simulation training evaluation for a business game (*The Fresh Connection©*) played as part of a university course. Cross functional decision making, as prescribed by the Supply Chain Operation Reference (SCOR) model, is emphasised. Results of this study have impact of highlighting benefits of computers in simulation training of today’s SC professional.

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1 INTRODUCTION

There is mounting evidence supporting the benefit of Supply-Chain (SC) skills practice in a simulated environment as highlighted by Sparling [1]. With the Supply-Chain Management (SCM) discipline flourishing, the need for effective tools for its training grows in stride.

Terzi and Cavalieri [2] indicate that SCM training has traditionally been limited to cognitive methods of instruction. However globalization and technological advancements have led to a shift towards computer based simulations, using interactive multimedia and virtual reality, as a more effective SCM training strategy.

It has proven relatively easy to simulate technological and economic processes, but it is much more difficult to model human behaviour. Kleijnen [3] suggests that a solution is to let learners themselves operate within the simulated ‘world’, which may consist of a SC and its environment. Such an interactive simulation is called a business or management game.

The apparent advantages of “real life” experience offered by simulation training over a wide cross section of disciplines therefore presents a need to investigate the advantages offered by simulation training as a tool for deployment in training. Development of an optimised strategy mix for this field of industrial engineering education will ensure that training institutions turn out professionals that are well versed with the necessary knowledge, skills and pseudo-experience needed to effectively and efficiently integrate into the SCM field.

Through a simulation game called “The Fresh Connection©”, students in the study focus group experienced firsthand the challenges and frustrations associated with managing an efficient SC. A training evaluation was conducted to find out if indeed this training method offers the skills and knowledge transfer advantages that it promises in theory.

2 OBJECTIVES

The purpose of this work was to carry out a critical analysis of existing research in order to compare this with the results of a training evaluation done on a simulation SCM training trial conducted at the University of Stellenbosch. A descriptive statistical analysis is carried out on the results of a survey conducted amongst training participants. This analysis is to test if indeed the simulation behavioural training method deployed offers advantages over cognitive methods of instruction for SCOR compliant SCM training. The study highlights the application of computers as a tool in the education of SC trainees and professionals.

3 METHODOLOGY

This study was done through an experimental analysis as a spinoff objective to a university course running on the subject of SCM. The exercise was carried out with the assumption that all participants were familiar with the basic concepts of SCM. It was also made clear that the aim of the game was to test/improve their technical understanding and skills within the SCM discipline.

Participants were randomly assigned to each of the four roles within their groups (purchasing, SCM, operations, sales as per simulation setup). All groups received instructions on the operation of the simulation interface, their decision variables and the performance measures to be used for individual and group performance.

A survey was taken at the end of the simulation game so as to evaluate the training performance and results. The questionnaire used for this survey was designed based on the paper questionnaire given to the students immediately at the end of the course by the principal instructor. The questionnaire also included questions adapted from over a cross-section of training evaluation forms available in literature.

The survey was conducted on the University of Stellenbosch online survey platform; SURveys (https://surveys.sun.ac.za/).
3.1 The Fresh Connection® Business Game

Forty first and second year Masters and Postgraduate Diploma in Engineering (PDE) students participated in a trial run of a business game as part of their training in SCM. The game was a simulation based SCM training approach using The Fresh Connection® Business Game (http://www.thefreshconnection.eu). The students were assigned to ten groups of four individuals each. Over a period of five days; all groups received progressively engaging training on SCOR compliant SCM practices. On each consecutive day the participants were tasked with making decisions on the web based business game aimed primarily at maximizing Return on Investment (ROI) for the simulated corporation. Individual and group scores were calculated at the end of the SC simulation run the following day. Specific measures were used as the basis of assessing technical skills to come up with the rankings. At the end of the course participants were given questionnaires aimed at assessing the effectiveness of the training method. A second focused survey was conducted to evaluate the impact of the training in comparison to other cognitive methods. This work became the basis of this paper. The questionnaire administered requested for informed consent from the participants in this study.

3.2 Outcome Measures

Within the context of the simulation game, the primary outcome measure for each group was the ROI achieved at the end of each round. Individual performance was measured on the performance of certain variables per role, basically a consequence of the strategic and technical skill that the participant has mastered.

For the purposes of the survey analysis, the outcome measures are the individual assessment of learning outcomes. Transfer of technical skills through the use of this simulation training is of interest relative to other methods. The ranking of the two alternate training methods is subjectively dependent on the skill and experience of each participant in relation to broad cognitive instruction given prior to the game. Comparison of this simulation exercise is done retrospectively against general cognitive training already received by students.

4 LITERATURE REVIEW

SCM training literature has been scanned to ascertain the academic consensus on simulation training for the purpose of comparing and contrasting with the findings of this case study.

4.1 Supply Chain Management

Researchers argue that SCM is no longer a new term in business circles. Yet, it is understandable if training professionals are puzzled as to what specifically constitutes SCM, and to the practical implications of this philosophy for their work (Tracey and Smith-Doerflein [4]). The concept of SCM can be traced back to just before the 1960s (Huan et al [5]). Shepherd and Günter [6] have found that the relatively recent increase in the interest in SCM has been stimulated by globalization of markets, intensified competition and a highlight of emphasis on customer orientation. Against this backdrop, effective SCM is treated as key to building a sustainable competitive edge through improved company internal and external relationships.

Supply chains comprise all activities associated with the flow and transformation of goods from the raw material procurement right through to the end user [7]. Ferguson [8] affirms that a range of benefits has been attributed to SCM, including reduced costs, increased market share and sales, and solid customer satisfaction. The Association for Operations Management (APICS), founded as “American Production and Inventory Control Society”, defines SCM as the “design, planning, execution, control, and monitoring of SC activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally.” [9].
4.2 Supply Chain Operations Reference (SCOR)

The Supply Chain Operations Reference (SCOR) Model was developed by the Supply Chain Council. SCOR is a reference model used as a tool to map, benchmark, and develop the operations of supply chains [10]. SCOR provides companies with a basic process modelling tool, an extensive benchmark database, and guidelines on how to measure the SC operations. Huan et al. [5] indicate that the SCOR model is a strategic planning tool that allows senior managers to simplify the complexity of SCM. In a study conducted by Schultz [11], it is also shown that to Information Technology (IT) and Operations Executives the term “SCOR Model” roughly means a tool to assess performance within their own company and with supplier and customer partners throughout the whole business of making and selling products or services.

The SCOR model has been shown to provide a common SC framework, standard nomenclature, common metrics with associated benchmarks and best practices. Research shows it can be used as a common model for evaluating, positioning and implementing SC application software [5].

The objective of the SCOR model is to develop a standard SC process reference model enabling effective communication among the SC partners, by

- Deploying standard terminology to better communicate and learn the SC issues
- Using standard metrics to compare and measure their performances

The SCOR Models flow and interrelations in the business are shown in Figure 1 below.

![Figure 1: SCOR Model Basic Management Processes [10].](image)

4.3 Simulation in SCM Training and Education

There are various methods of SCM training, which can be divided in to cognitive and behavioral methods. Trainers need to understand the pros and cons of each method and the associated impact on trainees while keeping their skills and knowledge background in mind before administration.

Cognitive methods are focused on providing theoretical knowledge to the trainee. The various methods under the cognitive training approach furnish the learner with the rules for SCM. Written and verbal information delivery with the cognitive strategy mainly demonstrates relationships among concepts. Cognitive methods are associated with changes in knowledge and attitude by stimulating behavior necessary for learning skills and knowledge aspects of the field of training, as described by Danziger and Dunkle [12].

Behavioral methods are more focused on imparting practical training to the subject. This type of training allows the trainee to behave in a “real fashion”. These methods are best used for skill development, such as SCM. Methods that come under behavioral approach
include: games and simulations, behavior modeling, business games, case studies, equipment simulators and role playing.

Both behavioral and cognitive training for SCM can be used effectively to impart knowledge and skills and also change attitudes via different media.

Work conducted by Danziger and Dunkle [12] shows that virtually all modern organizations accept that a well-trained workforce is a critical success factor. Their research has shown that American organizations spend more than $62 billion per year on formal training of their employees. It is impossible to estimate the full costs of the additional informal training that occurs.

Tracey and Smith-Doerflein [4] comment that the SCM way of thinking has an important human dimension due to its emphasis on communication and cooperation across all parties comprising the chain. Their examination of the basics of SCM in parallel with some major trends occurring throughout the training discipline indicates that trainers have the means to assist in the development of individuals capable of functioning well in this environment.

Handfield [13] points out that simulation has been used for many years to train aviation and military personnel for work in hazardous environments. As a prerequisite, effective and safe performance in these settings requires both highly skilled individuals and a high degree of team coordination. Industrial engineering is one of the earliest fields to utilize computers in research, education, and practice. The focus has largely been on the acquisition and assessment of individual technical skills, but now the role of simulation in training SCM teams to work with a greater degree of coordination is being acknowledged.

The growing use of Information and Communications Technology (ICT) systems to collect data throughout the SC has been shown to create numerous opportunities for research and training that employs secondary data [14]. In the same vein, ICT is proving to be invaluable in the field of SCM training. Effective application of information technology to the integration of SC activities has the effect of reducing levels of overall complexity [15]. Simulation and computer aided training are particularly useful when the classroom environment cannot provide the proper conditions for an effective training exercise.

The central doctrine of SCM is that each component of a supply chain must perform effectively, both individually and as a system, for it to be successful. Managing linkages through the intelligent use of information technology (IT) has been considered an important aspect of SCM from its beginning. IT creates opportunities for employees to use this technology and the abundance of information it makes available to build competitive advantage by making their supply chains more efficient. Advancement in technology has not only changed the workplace, but also made more options available to trainers.

5 **THE FRESH CONNECTION© SCM TRAINING CASE STUDY**

*The Fresh Connection©* is a simulation game for professionals in the field of SCM and develops skills to manage the contemporary SC, in a unique learning setting. *The Fresh Connection©* is an enriching educational experience that takes place in a realistic and competitive ‘game’ environment, allowing participants to test their strategic vision and see the effect on SC performance [16].

*The Fresh Connection©* provides a tool, within a fun environment, that:

- Increases strategic SC knowledge
- Builds on an accepted global standard i.e. SCOR
- Creates a common language where all continents are represented

The SCOR Model, as deployed in *The Fresh Connection©* game, provides a robust and dynamic framework for ensuring alignment of processes, functions and operations to the organisations’ strategic goals. Since the process-mapping facilities in the SCOR framework are much like the process modelling done in simulation, the reference model is close at hand.
to merge the two disciplines [17]. The Fresh Connection© operates in a make-to-stock environment. The game was primarily designed to train teams in making strategic and tactical decisions. The simulation model deployed behind the high level user interface combines aspects of continuous and discrete event simulation to evaluate the performance of the user.

The Fresh Connection© game aims to illustrate the importance of aligning cross functional tasks in SCM in order to better achieve desired Key Performance Indicators (KPI). There are four roles featured in the context of The Fresh Connection©, namely Purchasing, Operations, Sales and SC [18]. Each of these roles deals with various themes within the companies’ SC in order to translate the team’s vision and strategy into SC performance results. Performance measurement for the SCM is primarily based on ROI as affected by various KPIs within the business operations.

The focus group for this case study was a class of 40 postgraduate students who participated in The Fresh Connection© game as part of a Strategic Operations Management course in the department of Industrial Engineering at the University of Stellenbosch (March, 2012). The specifics of how the game was conducted are outside the scope of this study and as such the authors shall only focus on the training evaluation done at the end of the session.

5.1 Evaluation of training

After the training instruction, the participants completed a summative evaluation survey designed to gauge their attitude toward the training and their perception of its effectiveness and efficiency.

As a training analogue, simulation based training has been evaluated in aviation using questionnaire surveys and observations of cockpit crew, which show an improvement in performance after training in crisis resource management [19]. Simulation based training is considered to be a crucial factor in the high degree of safety achieved in commercial aviation.

Training evaluation is broadly needed to better highlight evidence of the efficacy and cost effectiveness of simulation if it is to advance beyond its current niche to occupy a central place in SCM training. The scope of this study was however limited to the skills/knowledge transfer and as such did not delve into the economics of conducting SCM training.

In the longer term, a training program should be evaluated via a combination of different tiered structures identified by the Kirkpatrick model of training evaluation [20].

5.2 Survey Results and Descriptive Statistical analysis

5.2.1 Response

Of the 40 participants in the simulation class, 31 responded to the secondary survey invitation with one response being incomplete. This represents a 77.5% response rate to the research survey.

A total of 24 of the respondents completed the questionnaire within the first five days of the survey being active with the remaining trickling in slowly thereafter for the remaining 13 days of the window period.

5.2.2 Demographics of Respondents

The average age of respondents was 25 years with the majority being in the 22-26 range. The focus group was predominantly male with only 10% of the respondents being female. 84% of respondents have a background in engineering, 23% being specific to the Industrial engineering discipline.
Professional background is of interest as it determines just how much knowledge, skills and experience the participants had prior to the simulation game. Only 32% of respondents had industrial experience longer than one year. Of the group with experience only 19% of them had industrial exposure to the SCM discipline. This therefore means the majority of respondents were new to practical application of SCM principles.

On a scale of 1 to 5, the average rating for computer skills proficiency for the respondents was 4.23. The distribution illustrated in Table 1 shows that all students were comfortable enough with their computer skills for this not to be a factor for performance in the simulation game.

<table>
<thead>
<tr>
<th>Table 1: Computer Skills Proficiency Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
</tr>
<tr>
<td>Rating</td>
</tr>
<tr>
<td>Number of Students</td>
</tr>
</tbody>
</table>

5.2.3 Previous Knowledge of SCM and SCOR Model

While 55% of respondents were familiar with SCM as a specific engineering discipline, only 16% had prior familiarity with the concept of the SCOR reference model.

Of the respondents clearly familiar with the concepts of SCM, the majority (84%) had never had exposure the concept of the SCOR model. Of the 3 respondents (10% of total) who had prior SCM instruction only one had that training on a simulation basis.

5.2.4 Assessment of the Game

The majority of respondents felt that the objectives of the game were clear, with an average rating of 4.23 as shown in Table 2.

<table>
<thead>
<tr>
<th>Table 2: Clarity of Game Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unclear</td>
</tr>
<tr>
<td>Rating</td>
</tr>
<tr>
<td>Number of Students</td>
</tr>
</tbody>
</table>

5.2.5 Assessment of Instructors

While respondents were unanimous in that the instructors where knowledgeable on SCM, 23% were of the opinion that the instructor did not effectively convey the concept of SCOR. Results for assessment opinions for the instructor are shown in Table 3.
Table 3: Assessment Opinions of Instructor

<table>
<thead>
<tr>
<th>Organization of Presentations</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor Made Course Interesting</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Met course Objectives on SCM</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Met Course Objectives on SCOR</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

5.2.6 Acquisition of Skills/ Contents

Crucial measures for the simulation training exercise are shown in Figure 3. The results show a general satisfaction of expectations, skills transfer and material depth.

![Figure 3: Opinions on Acquisition of Skills](image)

5.3 Overall Experience

When asked to give an overall rating for the business game experience the students produced a positive response distribution (shown in Table 4) with an average rating of 4.1.

Table 4: Overall Course Rating

<table>
<thead>
<tr>
<th>Rating</th>
<th>Low</th>
<th>Neutral</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Number of Students

| Number of Students | 0 | 18 | 5 | 8 |

Figure 4 illustrates the distribution of respondents’ opinions on general and SCM training preference based on their experience with The Fresh Connection© game.
Table 5 and Table 6 show the correlation and covariance between different factors in the simulation game respectively.

### Table 5: Correlation of Factors

<table>
<thead>
<tr>
<th></th>
<th>Team Ranking</th>
<th>Individual Ranking</th>
<th>Overall Game Rating</th>
<th>SCM Training</th>
<th>General Training</th>
<th>Recommend others</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Team Ranking</strong></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Individual Ranking</strong></td>
<td>0.132053085</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Overall Game Rating</strong></td>
<td>-0.1833836923</td>
<td>-0.234711494</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SCM Training</strong></td>
<td>-0.065140543</td>
<td>-0.279476152</td>
<td>-0.244759533</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Training</strong></td>
<td>-0.227015105</td>
<td>-0.40961596</td>
<td>-0.358733332</td>
<td>0.682288239</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Recommend others</strong></td>
<td>0.173097455</td>
<td>-0.127373074</td>
<td>-0.312730456</td>
<td>0.695221787</td>
<td>0.474341649</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 6: Covariance of Factors

<table>
<thead>
<tr>
<th></th>
<th>Team Ranking</th>
<th>Individual Ranking</th>
<th>Overall Game Rating</th>
<th>SCM Training</th>
<th>General Training</th>
<th>Recommend others</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Team Ranking</strong></td>
<td>8.561914672</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Individual Ranking</strong></td>
<td>1.054110302</td>
<td>7.442247659</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Overall Game Rating</strong></td>
<td>-0.3443432882</td>
<td>-0.40989594</td>
<td>0.40989594</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SCM Training</strong></td>
<td>-0.046826223</td>
<td>-0.187304891</td>
<td>-0.038501561</td>
<td>0.060353798</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Training</strong></td>
<td>-0.445369407</td>
<td>-0.749219563</td>
<td>-0.154006243</td>
<td>0.112382934</td>
<td>0.449531738</td>
<td></td>
</tr>
<tr>
<td><strong>Recommend others</strong></td>
<td>0.089490114</td>
<td>-0.061394381</td>
<td>-0.035379813</td>
<td>0.030176899</td>
<td>0.056191467</td>
<td>0.031217482</td>
</tr>
</tbody>
</table>

6 CONCLUSION

Based on the analysis of the survey results, simulation-based SCM training offers a distinct advantage over pure cognitive instruction. Satisfaction with this method of SCM training is further evidenced by the students’ willingness to recommend this method of instruction to others. While an obvious relationship between performance in the game and rating may be expected, the statistical analysis shows otherwise. Respondents made an objective assessment of the SCM training method irrespective of their individual or group ranking during the game. Besides the inferred suitability of simulation training to SCM instruction, this can also be attributed to the unconventional nature in which the course was administered. There was a satisfactory transfer of knowledge skills in a fun and engaging environment which was conducive for learning and objectivity. Simulation is an important tool for explaining how the SC's performance metrics react to environmental and
controllable factors. The type of simulation depends on the type of questions to be answered by the model [3]. The ‘game’ environment is dynamic and engaging, the competitive environment gives simulation training a ‘real-world’ feeling that is missing in traditional classroom based learning. Sparling [1] also notes that while students and managers may understand the benefits of SCM, it is often difficult for them to truly understand its challenges and find solutions. While previous knowledge of SCM and SCOR was a factor in respondent performance for the game, this did not seem to have a significant impact on the opinions of the training strategy; a positive correlation would be expected between performance and approval rating. The need for SC training will continue to grow, with an increasing focus on simulation-based learning. Industry experts on manufacturing technology have recognized the importance of simulation and visualization [21]. However, the need for cognitive based classes will remain high, particularly in order to develop key skills valued in SC professionals such as team-building, communication, strategic thinking, and relationship management.

7 FURTHER RESEARCH

Additional work needs to be conducted in order to bridge some of the gaps in the work carried out in this study. Of note is that analysis of the open ended questions raised concerns on the need to refine the way in which the training course itself is conducted. This will help reduce the influence of emotional attitudes on the survey, due to lack of satisfaction with the game, and allow the production of a more unbiased evaluation of the training method. Further work should also be invested in conducting randomized comparative assessment of the two training methods. Running the two types of training on the same group will give opportunity for more direct contrast and comparison at a quantitative level. While a larger sample size may benefit the quality of results it should be noted that strategies to increase the response rate be adopted so as to ensure that all factors are accounted for in the resultant data set. Alternately the factors behind the choice to abstain from a training evaluation survey can be investigated independently.

8 APPENDIX: TRAINING EVALUATION SURVEY QUESTIONNAIRE

This survey is aimed at assessing whether simulation training offers advantages over classroom instruction for Supply Chain Operations Reference (SCOR) compliant Supply Management (SCM) training.

This study is done for academic research purposes and participants are assured that the results from this assessment will not be used as part of their training evaluation.

General

1. Are you willing to take part in this survey? [Yes/No]
2. Age? [Number]
3. Gender? [M/F]
4. Academic background: First Degree? [BEng(Industrial), BEng(Other), Other Degree?]
5. Do you have at least one year professional engineering experience? [Yes/No]
6. Do you have any SCM experience? [Yes/No]
7. On a scale of 1 - 5, please rate your computer skills proficiency? [Low-1 2 3 4 5-High]

The Course

8. Did you have previous knowledge of SCM? [Yes/No]
9. Did you have previous knowledge of SCOR? [Yes/No]
10. Had you received any other simulation based training before? [Yes/No]
11. Had you ever taken any SCM training before? [Yes/No]
12. What SCM training did you receive before? [Yes/No]
13. Was the training simulation based? [Yes/No]

Assessment of the Game
14. On a scale of 1 - 5, rate the clarity of the game objectives? [Unclear-1 2 3 4 5-Clear]
15. Was the course given adequate time? [Yes/No]
16. Was the material helpful for SCM learning? [Yes/No]
17. Was the game adequate in illustrating the SCOR concept? [Yes/No]
18. What was your overall group position? [1 2 3 4 5 6 7 8 9 10]
19. What was your overall individual position? [1 2 3 4 5 6 7 8 9 10]
20. How the game can be improved? [Text]

Opinions on the Instructors
21. Was the instructor knowledgeable on the subject of SCM? [Yes/No]
22. Was the instructor knowledgeable on the SCOR model? [Yes/No]
23. Were the presentations were well organized? [Yes/No]
24. Did the instructor make the course interesting? [Yes/No]
25. Did the instructor meet the course objectives on SCM? [Yes/No]
26. Did the instructor meet the course’s objectives on SCOR? [Yes/No]
27. How can the instructor make the simulation game more engaging? [Text]

Acquisition of Skills/ Contents
28. Did the course meet your expectations? [Yes/No]
29. Are acquired skills relevant to SCM? [Yes/No]
30. Do you think the course depth was adequate for your level of experience? [Yes/No]
31. What was lacking? [Text]

Overall Experience
32. How do you rate the overall course experience for TFC Game? [Low-1 2 3 4 5-High]
33. Which training method is better for SCM? [Simulation Training, Classroom instruction]
34. Do you prefer simulation training over classroom based instruction? [Yes/No]
35. Would you recommend this type of training to others? [Yes/No]
36. What was good about the course? [Text]
37. What was bad about the course? [Text]

9 REFERENCES


