Appendix A: Experimental Materials for Experiment I

Enclosed in Appendix A is the case material used for Experiment I.

- Appendix A presents sample of case material for the *no-involvement* and the *involvement* conditions.
- The case material for the involvement condition is the exact same case as was used by Lipe and Salterio (2000).

Case Material for Experiment I: No-involvement condition

PERFORMANCE EVALUATION RESEARCH

This research comprises 2 parts. Please start doing the research from Part 1 follows by Part 2.

Part 1: General Questions

Part 1: General Questions

For each question, circle one answer that you think is most correct.

- 1. Which statement is the correct statement of the balanced scorecard concept.
 - a. The financial section contains lagging indicators of the organization's past performance, whereas the other three sections provide leading indicators about likely future performance.
 - b. The financial and customer sections contain lagging indicators of the organization's past performance, whereas the other two sections provide leading indicators about likely future performance.
 - c. The financial, customer, and internal operations sections contain lagging indicators of the organization's past performance, whereas learning and growth section provides leading indicators about likely future performance.
 - d. The four balanced scorecard sections do not contain lagging indicators of the organization's past performance.
- 2. Which of the following shows the implied linkages among the portions of the balanced scorecard?
 - a. Financial \rightarrow Internal \rightarrow Learning and growth \rightarrow Customer
 - b. Learning and growth \rightarrow Internal \rightarrow Customer \rightarrow Financial
 - c. Customer \rightarrow Financial \rightarrow Internal \rightarrow Learning and growth
 - d. Internal \rightarrow Customer \rightarrow Learning and growth \rightarrow Financial
- 3. Measures of cycle time would most likely appear in which part of the balanced scorecard?
 - a. Innovation and growth
 - b. Customer
 - c. Internal operations
 - d. Financial
- 4. Strategic execution of balanced scorecard must include all of the followings *except*...
 - a. Strategies must begin with management.
 - b. Strategies must be translated and communicated throughout the organization.
 - c. Accountability of strategic performance must be enforced for all levels in the organization.
 - d. Accountability of strategic performance must be enforced only at the top and middle management levels.

- 5. The measures used in the balanced scorecard must comprise the following characteristics *except*...
 - a. Each perspective should include both financial and nonfinancial measures.
 - b. Measures should relate to strategies and vision of the company.
 - c. Measures should not include financial measures, since they are lagging measures.
 - d. Measures under each perspective should target both short-term and long-term goals of the business unit.
- 6. What are the steps in implementing the balanced scorecard?
 - a. (1) clarifying and translating vision and strategy, (2) communicating and linking, (3) planning and target setting, and (4) strategic feedback and learning.
 - b. (1) setting long-term goals, (2) setting targets for the organization, (3) setting targets for each business unit, and (4) implement the balanced scorecard
 - c. (1) creating the balanced scorecard and (2) implementing the balanced scorecard.
 - d. (1) clarifying and translating vision and strategy, (2) planning and target setting, and (3) strategic feedback and learning.
- 7. Measures of increased market share most likely appear in which part of the balanced scorecard?
 - a. Innovation and growth
 - b. Customer
 - c. Internal operations
 - d. Financial
- 8. Which statement is true for performance evaluation?
 - a. Management should not concentrate their performance evaluation on financial measures, but should instead focus on operational measures.
 - b. Management usually relies on one set of measures to the exclusion of other sets of measures in their performance evaluation.
 - c. Management wants a balanced presentation of both financial and operational measures in evaluating performance of a business unit.
 - d. Financial measures are the best tools in evaluating performance of a business unit.

This is the end of Part 1. Please proceed to Part 2 of this research.

Part 2:

Performance Evaluation Research

Part 2 – Performance Evaluation Research

Directions

- 1. Remember this activity is voluntary you can leave at any time and choose not to answer any question.
- 2. Go through the materials in the order presented: PLEASE:
- DO NOT READ AHEAD
- REFERRING BACK TO PREVIOUS MATERIAL IS ALLOWED
- 3. Do not discuss this material with any other student while completing the questionnaire.
- 4. You may be contacted by the author about your response given in this study.
- 5. Please start now.

WCS Inc. Case

Background

Women's Clothing Store, Inc. is a firm specializing in the retailing of women's apparel. WCS has five subsidiaries, each providing clothing directed at particular niches within the women's apparel market. WCS operates throughout North America and is currently considering a foray into the European markets.

WCS's two largest subsidiaries are RadWear and WorkWear. RadWear operates retail outlets specializing in apparel for the urban teenage girl. WorkWear specializes in uniforms for women - particularly hospital workers, cleaning staffs, and restaurant waitresses. WCS operates its subsidiaries in a fairly decentralized manner. Each has a divisional manager who is responsible for the division's performance and for providing communication between WCS's central administration and his/her division.

Pat Jenks is the chief financial officer (CFO) of WCS Inc. In 2007, Pat attended a symposium at the Harvard Business School. Harvard's Professor Robert Kaplan introduced the symposium participants to a management tool called the Balanced Scorecard. The Balanced Scorecard, according to Kaplan, contains a set of performance measures carefully chosen to represent important aspects of a business unit in the four areas of financial performance, customer relations, internal business processes, and learning and growth. These measures should be drivers of the unit's success and linked to its strategy and mission. A brief description of each type of measure is below:

Financial measures indicate how well a business unit is doing in meeting profitability and other economic targets.

Customer-related measures indicate a business unit's success in obtaining, and retaining the targeted customers.

Internal business process measures indicate a business unit's performance on activities critical to meeting the customer and financial targets.

Learning and growth measures indicate a business unit's success in developing the personnel and systems necessary for growth and improvement in the long run.

2007 was a rather lackluster year for WCS and Pat decided in early 2008 to try out the balanced scorecard concept. Several steps were involved in doing this. First, Pat met with WCS's top management team to explicate the firm's overall mission. This team determined that the following mission statement was appropriately inspirational and captured the company's goal:

We will be an outstanding apparel supplier in each of the specialty niches served by WCS. The top management team then met with each divisional manager to communicate this firm-wide mission and to discuss the division manager's role in developing a Balanced Scorecard for his or her division. After the divisional scorecards were developed, each divisional manager met again with top management to explain his or her division's scorecard, to answer questions, and to make necessary adjustments as requested by top management. The scorecards were developed in time for experimental use in the last quarter of 2007. Based on WCS's experience in that quarter, the scorecards were adjusted for use in 2008. Below is a description of each division's experience in developing and using the Balanced Scorecard.

RadWear

When the concept of the Balanced Scorecard was explained to Chris Peters, manager of the RadWear division, Chris was excited by the chance to specify the drivers of performance in the division. RadWear is a relative newcomer to the WCS family of niche divisions, having been developed in 2003. Chris believes that the Balanced Scorecard idea has the potential to propel WCS and RadWear to vastly improved performance.

In order to develop a balanced scorecard for RadWear, Chris first met with the divisional management staff. This staff includes a divisional controller, marketing manager, head buyer, personnel manager, and manager of store operations. This management team first described the target customer for RadWear and then determined the factors causing this customer to shop at RadWear, to return to RadWear, and to increase the percentage of her clothing purchased at RadWear.

RadWear's management determined that its growth must take place through an aggressive strategy of opening new stores. RadWear also determined that it must increase the number of brands offered to keep the attention and capture the clothing dollars of its teenage customers. RadWear concluded that its competition radius is fairly small due to the low mobility of young teens. These strategies and customer attributes were used to develop the measures and targets for RadWear's scorecard. Although WCS top management requested some adjustments to the unique measures of the BSC, the staff was eager to use this new management tool in 2008. RadWear's targeted scorecard is presented in Exhibit 1.

WorkWear

Taylor Graham became the manager of the WorkWear division in 2002. WorkWear is one of the older WCS divisions, having begun operations in 1997. Taylor was interested in Pat Jenks' idea of the Balanced Scorecard, particularly as WorkWear was considering some new business strategies.

WorkWear's management staff met to discuss its targeted customers and to determine the factors which would improve sales to these customers. WorkWear sells its product through direct sales contact with business clients. Thus, WorkWear's customers are the business managers (often personnel managers) who decide on their firm's uniform supplier. These managers are busy professionals with many responsibilities. They generally want to spend little time on the choice and purchase of uniforms but have high standards for durability and cleaning-ability. When these managers have changes in their work force they often need new uniforms in a short

time frame. WorkWear management considered these customer attributes in developing strategies for their business.

Although WCS has historically focused on women's clothing, WorkWear's management decided to grow its sales by including a few basic uniforms for men. It is expected that this will make WorkWear a more attractive supplier for businesses who want to purchase uniforms from a single supplier. WorkWear also decided to print a catalog and have an official website so that clients could place some orders without a direct sales visit, particularly for repeat or replacement orders; this should help to retain some sales which might otherwise be lost due to time considerations. These strategies and customer attributes were used to develop the measures and targets in WorkWear's scorecard which was then subject to some slight adjustment by WCS top management. The resulting scorecard is shown in Exhibit 2. WorkWear personnel were pleased with this new tool.

Many of the WorkWear measures are quite similar to those used by RadWear. Of course, the target customers for WorkWear and RadWear are quite different and the sales methods are also different. Thus, although there are many similarities in the measures chosen, they are not exactly the same, nor are the targets the same. This is appropriate and is approved by WCS top management.

Exhibit 1 RadWear Balanced Scorecard Measures and Targets for 2008

Measure	Target for 2008
Financial:	101 2000
Return on sales (divisional NI/divisional sales)	24%
2. New store sales (% sales from stores opened in 2008)	
3. Sales growth ([2008 sales - 2007 sales]/2007 sales)	
4. Market share relative to retail space (sales/total teen-	
wear retail square footage in 5 mile radius of stores)	\$80
Customer-Related:	
1. Mystery shopper program rating (Note 1 below)	85
2. Repeat sales (% sales from repeat customers)	
3. Returns by customers as % of sales	
4. Customer satisfaction rating (from a customer survey)	92%
Internal Business Processes:	
1. % Returns to suppliers due to quality problems	6%
2. Average # major brand names/store	32
3. Average markdowns (discounts) required to sell stocked	
merchandise	16%
4. % Sales from new items designated by head buyer as market	
leaders	25%
Learning and Growth:	
1. Average tenure of sales personnel (in years)	
2. # Hours of employee training/employee	15
3. % Stores computerizing key functions identified by top	
management	
4. # Employee suggestions/employee	3.3

Note 1: the Mystery Buyer program sends unidentified inspectors into stores. The inspectors are disguised as buyers and provide several 'tests' of the store and its personnel. The inspectors rate the stores on ten dimensions; perfect scores in all categories would lead to a score of 100 points. The dimensions include the store and personnel's appearance, the demeanor of the personnel, the efficiency and effectiveness of the check-out system, among other things.

Note 2: NI means net income; # means number of; % means percentage.

Exhibit 2 WorkWear Balanced Scorecard Measures and Targets for 2008

Measure	Target for 2008
Financial:	101 2000
Return on sales (divisional NI/divisional sales)	24%
2. Revenues/sales visit	
3. Sales growth ([2008 sales -2007 sales]/2007 sales)	30%
4. Catalog Profits (% NI from catalog orders)	
Customer-Related:	
1. "Captured Customers" (% of customers for whom we are the	
only supplier)	20%
2. Repeat sales (% sales from repeat customers)	25%
3. Referrals (% of new customers for whom we were recom-	
mended by a business associate)	
4. Customer satisfaction rating (from a customer survey)	84%
Internal Business Processes:	
1. % Returns to suppliers due to quality problems	8%
2. % of orders filled within one week	85%
3. Average markdowns (discounts) required to sell stocked	
merchandise	20%
4. Catalog orders with errors (% of catalog orders	
which were filled incorrectly)	5%
Learning and Growth:	
1. MBAs (% of district sales managers with MBA degrees)	12%
2. # Hours of employee training/employee	
3. Certification (% of Order Clerks who have received	
certification in data base management tools)	20%
4. # Employee suggestions/employee	

Note 1: NI means net income; # means number of; % means percentage.

Performance in 2008

The overall performance of WCS in 2008 was good. Performance across divisions, however, was somewhat uneven. The scorecards for RadWear and WorkWear, including targets and actuals for 2008, are provided in exhibits 3 and 4, respectively.

Pat Jenks now has the difficult task of evaluating the performance of the divisional managers for 2008. As managers of the two largest divisions, Chris Peters and Taylor Graham will receive the most attention. The results of year end reviews are used by WCS in several ways. They are used in determining merit raises and year-end bonuses. They are also used in decisions regarding promotion or movement within or out of the firm. Additionally, the performance reviews are used as a method for providing feedback and guidance to the divisional managers regarding their performance and future actions.

Although you will do an initial evaluation, the final written review will take into account the discussion you will have with the individual divisional managers. Thus, the initial evaluation may be subsequently adjusted due to additional information provided by the evaluatees. You, however, believe it is important to do an initial evaluation before meeting with the managers in order to maintain objectivity and high standards. Later adjustments provide for equity based on the specifics of the divisions' situations.

Your task

Please take the place of top management of WCS in evaluating the performance of Chris Peters and Taylor Graham, managers of RadWear and WorkWear, respectively. The evaluation form used by WCS is attached. Remember that this is an initial evaluation which will be adjusted after further information is available. For each of the managers you should indicate an overall performance evaluation.

Exhibit 3
RadWear Balanced Scorecard
Targets and Actuals for 2008

			% better
			(less)
Measure	Target	Actual	than target
Financial:			
1. Return on sales	24%	26%	8.33%
2. New store sales	30%	31%	4.00%
3. Sales growth	35%	38%	8.57%
4. Market share relative to retail space	\$80	\$84.70	5.88%
Customer-Related:			
1. Mystery shopper program rating	85	91.8	9.00%
2. Repeat sales	30%	34%	13.33%
3. Returns by customers as % of sales	12%	12.3%	2.50%
4. Customer satisfaction rating	92%	95%	3.26%
Internal Business Processes:			
1. Returns to suppliers	6%	5%	16.67%
2. Average major brand names/store	32	36	12.50%
3. Average markdowns	16%	18.5%	15.63%
4. Sales from new market leaders	25%	27%	8.00%
Learning and Growth:			
1. Average tenure of sales personnel	1.4	1.5	7.14%
2. Hours of employee training/employee	15	17	13.33%
3. Stores computerizing	85%	87.7%	3.18%
4. Employee suggestions/employee	3.3	3.5	6.06%

Exhibit 4
WorkWear Balanced Scorecard
Targets and Actuals for 2008

			% better (less)
Measure	Target	Actual	than target
Financial:	141501	1101441	than target
Return on sales	24%	25%	4.17%
2. Revenues per sales visit	\$400	\$433	8.25%
3. Sales growth	34%	36%	5.88%
4. Catalog profits	6%	6.5%	8.33%
Customer-Related:			
1. Captured Customers	20%	22.7%	13.50%
2. Repeat sales	25%	27%	8.00%
3. Referrals	50%	51.6%	3.20%
4. Customer satisfaction rating	84%	86%	2.38%
Internal Business Processes:			
1. Returns to suppliers	8%	7%	12.50%
2. Orders filled within one week	85%	99%	16.47%
3. Average markdowns	20%	21.5%	7.50%
4. Catalog orders filled with errors	5%	5.8%	16.00%
Learning and Growth:			
1. MBA degrees	12%	13.6%	13.33%
2. Hours of employee training/employee	12	13	8.33%
3. Certification	20%	21.2%	6.00%
4. Employee suggestions/employee	3.1	3.2	3.23%

WCS Inc. Initial Evaluation Form

Year: <u>2008</u>

Manager: <u>Chris Peters</u>

Division: RadWear

Evaluator:

1. Indicate your initial performance evaluation for this manager by placing an 'X' somewhere on the scale below. Note that some label interpretations are provided below.

Excellent: far beyond expectations, manager excels

Very good: considerably above expectations

Good: somewhat above expectations

Average: meets expectations

Poor: somewhat below expectations, needs some improvement Very Poor: considerably below expectations, needs considerable

improvement

Reassign: sufficient improvement unlikely

2. Indicate your strength of conviction regarding this evaluation (how strongly you hold the opinion indicated above) by placing an 'X' somewhere on the scale below:

WCS Inc. Initial Evaluation Form

Year:	2008	

1. Indicate your initial performance evaluation for this manager by placing an 'X' somewhere on the scale below. Note that some label interpretations are provided below.

Excellent: far beyond expectations, manager excels

Very good: considerably above expectations

Good: somewhat above expectations

Average: meets expectations

Poor: somewhat below expectations, needs some improvement Very Poor: considerably below expectations, needs considerable

improvement

Reassign: sufficient improvement unlikely

2. Indicate your strength of conviction regarding this evaluation (how strongly you hold the opinion indicated above) by placing an 'X' somewhere on the scale below:

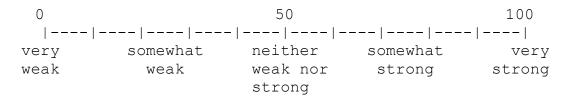
Follow-Up Questions for the WCS Inc. Case

Now assume that WCS has decided to change its organizational structure. Instead of five decentralized subsidiaries, WCS is going to centralize all of its sales operations under one Manager of Sales Operations. Chris Peters and Taylor Graham are prime candidates for this position since they have been managing the largest divisions in WCS.

Based on the information you have, which of the two would you recommend for this promotion? Certainly both managers will likely be offered management positions at WCS but the Manager of Sales Operations will be the most attractive, highest-level position available to them. Indicate your choice, your confidence in your choice, and your rationale below. You may refer back to case materials if you would find that helpful.

1. My choice for Manager of Sales Opera	ions is:
Chris Peters (RadWear manager) manager)	Taylor Graham (WorkWear

2. Indicate your strength of conviction in this recommendation (how strongly you hold the opinion indicated above) by placing an 'X' on the scale below:



• For this section: DO NOT CHANGE YOUR ANSWERS TO PREVIOUS QUESTIONS IF YOU REFER BACK TO PREVIOUS MATERIAL

Demographic information and general concluding questions

Gender: Male Female
Age: years
Number of years of full time work experience:
Your full-time work experience was most closely related to which of the following areas (check all that apply): Accounting, auditing or taxation Finance, banking or investing Marketing or sales General management or personnel Engineering Medical Other, please specify:
Number of subordinates that are under your supervision:
Have you ever used BSC to evaluate your subordinates? Yes No
Have you ever been evaluated by the BSC? Yes No
You are currently studying in what program? MBA BBA
MBA status: Full time Part-time
Most likely area of emphasis in your program is (check one): Accounting, auditing or taxation Finance, banking or investing Marketing or sales General management or personnel Other, please specify:

Please indicate the extent of your agreement with each of the following questions by putting an X on the scale below the question.

The performance measures were **usefully categorized** in this case.

Financial performance measures were emphasized in this case.

The two divisions, RadWear and WorkWear, were targeting the **same** markets.

The two divisions, RadWear and WorkWear, used **some different** performance measures.

It was **appropriate** for the two divisions, RadWear and WorkWear, to employ **some different** performance measures.

The case was easy to understand.

The case was very difficult to do.

The case was very realistic.

It was **very difficult** to rank the common measures

It was **very difficult** to rank the unique measures

The measures provided are **realistic**

Unique measures provided for ranking are **different** between the two divisions

The End. Thank you very much for completing this research.

Case Material for Experiment I: Involvement Condition

PERFORMANCE EVALUATION RESEARCH

This research comprises 3 parts. Please start doing the research from Part 1, Part 2, and Part 3, respectively.

Part 1: General Questions

Part 1: General Questions

For each question, circle one answer that you think is most correct.

- 1. Which statement is the correct statement of the balanced scorecard concept.
 - a. The financial section contains lagging indicators of the organization's past performance, whereas the other three sections provide leading indicators about likely future performance.
 - b. The financial and customer sections contain lagging indicators of the organization's past performance, whereas the other two sections provide leading indicators about likely future performance.
 - c. The financial, customer, and internal operations sections contain lagging indicators of the organization's past performance, whereas learning and growth section provides leading indicators about likely future performance.
 - d. The four balanced scorecard sections do not contain lagging indicators of the organization's past performance.
- 2. Which of the following shows the implied linkages among the portions of the balanced scorecard?
 - a. Financial \rightarrow Internal \rightarrow Learning and growth \rightarrow Customer
 - b. Learning and growth \rightarrow Internal \rightarrow Customer \rightarrow Financial
 - c. Customer \rightarrow Financial \rightarrow Internal \rightarrow Learning and growth
 - d. Internal \rightarrow Customer \rightarrow Learning and growth \rightarrow Financial
- 3. Measures of cycle time would most likely appear in which part of the balanced scorecard?
 - a. Innovation and growth
 - b. Customer
 - c. Internal operations
 - d. Financial
- 4. Strategic execution of balanced scorecard must include all of the followings *except*...
 - a. Strategies must begin with management.
 - b. Strategies must be translated and communicated throughout the organization.
 - c. Accountability of strategic performance must be enforced for all levels in the organization.
 - d. Accountability of strategic performance must be enforced only at the top and middle management levels.

- 5. The measures used in the balanced scorecard must comprise the following characteristics *except*...
 - a. Each perspective should include both financial and nonfinancial measures.
 - b. Measures should relate to strategies and vision of the company.
 - c. Measures should not include financial measures, since they are lagging measures.
 - d. Measures under each perspective should target both short-term and long-term goals of the business unit.
- 6. What are the steps in implementing the balanced scorecard?
 - a. (1) clarifying and translating vision and strategy, (2) communicating and linking, (3) planning and target setting, and (4) strategic feedback and learning.
 - b. (1) setting long-term goals, (2) setting targets for the organization, (3) setting targets for each business unit, and (4) implement the balanced scorecard.
 - c. (1) creating the balanced scorecard and (2) implementing the balanced scorecard.
 - d. (1) clarifying and translating vision and strategy, (2) planning and target setting, and (3) strategic feedback and learning.
- 7. Measures of increased market share most likely appear in which part of the balanced scorecard?
 - a. Innovation and growth
 - b. Customer
 - c. Internal operations
 - d. Financial
- 8. Which statement is true for performance evaluation?
 - a. Management should not concentrate their performance evaluation on financial measures, but should instead focus on operational measures.
 - b. Management usually relies on one set of measures to the exclusion of other sets of measures in their performance evaluation.
 - c. Management wants a balanced presentation of both financial and operational measures in evaluating performance of a business unit.
 - d. Financial measures are the best tools in evaluating performance of a business unit.

This is the end of Part 1. Please proceed to Part 2 of this research.

Part 2:

Performance Evaluation Research

Part 2 - Performance Evaluation Research

Directions

- 1. Remember this activity is voluntary you can leave at any time and choose not to answer any question.
- 2. Go through the materials in the order presented: PLEASE:
- DO NOT READ AHEAD
- REFERRING BACK TO PREVIOUS MATERIAL IS ALLOWED
- 3. Do not discuss this material with any other student while completing the questionnaire.
- 4. You may be contacted by the author about your response given in this study.
- 5. Please start now.

WCS Inc. Case

Background

Women's Clothing Store, Inc. is a firm specializing in the retailing of women's apparel. WCS has five subsidiaries, each providing clothing directed at particular niches within the women's apparel market. WCS operates throughout North America and is currently considering a foray into the European markets.

WCS's two largest subsidiaries are RadWear and WorkWear. RadWear operates retail outlets specializing in apparel for the urban teenage girl. WorkWear specializes in uniforms for women - particularly hospital workers, cleaning staffs, and restaurant waitresses. WCS operates its subsidiaries in a fairly decentralized manner. Each has a divisional manager who is responsible for the division's performance and for providing communication between WCS's central administration and his/her division.

Pat Jenks is the chief financial officer (CFO) of WCS Inc. In 2007, Pat attended a symposium at the Harvard Business School. Harvard's Professor Robert Kaplan introduced the symposium participants to a management tool called the Balanced Scorecard. The Balanced Scorecard, according to Kaplan, contains a set of performance measures carefully chosen to represent important aspects of a business unit in the four areas of financial performance, customer relations, internal business processes, and learning and growth. These measures should be drivers of the unit's success and linked to its strategy and mission. A brief description of each type of measure is below:

Financial measures indicate how well a business unit is doing in meeting profitability and other economic targets.

Customer-related measures indicate a business unit's success in obtaining, and retaining the targeted customers.

Internal business process measures indicate a business unit's performance on activities critical to meeting the customer and financial targets.

Learning and growth measures indicate a business unit's success in developing the personnel and systems necessary for growth and improvement in the long run.

2007 was a rather lackluster year for WCS and Pat decided in early 2008 to try out the balanced scorecard concept. Several steps were involved in doing this. First, Pat met with WCS's top management team to explicate the firm's overall mission. This team determined that the following mission statement was appropriately inspirational and captured the company's goal:

We will be an outstanding apparel supplier in each of the specialty niches served by WCS.

The top management team then met with each divisional manager to communicate this firm-wide mission and to discuss the division manager's role in developing a Balanced Scorecard for his or her division. After the divisional

scorecards were developed, each divisional manager met again with top management to explain his or her division's scorecard, to answer questions, and to make necessary adjustments as requested by top management. The scorecards were developed in time for experimental use in the last quarter of 2007. Based on WCS's experience in that quarter, the scorecards were adjusted for use in 2008. Below is a description of each division's experience in developing and using the Balanced Scorecard.

RadWear

When the concept of the Balanced Scorecard was explained to Chris Peters, manager of the RadWear division, Chris was excited by the chance to specify the drivers of performance in the division. RadWear is a relative newcomer to the WCS family of niche divisions, having been developed in 2003. Chris believes that the Balanced Scorecard idea has the potential to propel WCS and RadWear to vastly improved performance.

In order to develop a balanced scorecard for RadWear, Chris first met with the divisional management staff. This staff includes a divisional controller, marketing manager, head buyer, personnel manager, and manager of store operations. This management team first described the target customer for RadWear and then determined the factors causing this customer to shop at RadWear, to return to RadWear, and to increase the percentage of her clothing purchased at RadWear.

RadWear's management determined that its growth must take place through an aggressive strategy of opening new stores. RadWear also determined that it must increase the number of brands offered to keep the attention and capture the clothing dollars of its teenage customers. RadWear concluded that its competition radius is fairly small due to the low mobility of young teens. These strategies and customer attributes were used to develop the measures and targets for RadWear's scorecard. Although WCS top management requested some adjustments to the unique measures of the BSC, the staff was eager to use this new management tool in 2008.

WorkWear

Taylor Graham became the manager of the WorkWear division in 2002. WorkWear is one of the older WCS divisions, having begun operations in 1997. Taylor was interested in Pat Jenks' idea of the Balanced Scorecard, particularly as WorkWear was considering some new business strategies.

WorkWear's management staff met to discuss its targeted customers and to determine the factors which would improve sales to these customers. WorkWear sells its product through direct sales contact with business clients. Thus, WorkWear's customers are the business managers (often personnel managers) who decide on their firm's uniform supplier. These managers are busy professionals with many responsibilities. They generally want to spend little time on the choice and purchase of uniforms but have high standards for durability and cleaning-ability. When these managers have changes in their work force they often need new uniforms in a short time frame. WorkWear management considered these customer attributes in developing strategies for their business.

Although WCS has historically focused on women's clothing, WorkWear's management decided to grow its sales by including a few basic uniforms for men. It is expected that this will make WorkWear a more attractive supplier for businesses who want to purchase uniforms from a single supplier. WorkWear also decided to print a catalog and have an official website so that clients could place some orders

without a direct sales visit, particularly for repeat or replacement orders; this should help to retain some sales which might otherwise be lost due to time considerations.

Many of the WorkWear measures are quite similar to those used by RadWear. Of course, the target customers for WorkWear and RadWear are quite different and the sales methods are also different. Thus, although there are many similarities in the measures chosen, they are not exactly the same, nor are the targets the same. This is appropriate and is approved by WCS top management. Pat Jenks and the top management team of WCS have agreed on using some of the measures that are similar across the two divisions. These measures are presented below:

Measures that are similar for RadWear and WorkWear

Financial perspective:

- Return on sales (divisional NI / divisional sales)
- Sales growth ([2008 sales 2007 sales] / 2008 sales)

Customer-related perspective:

- Repeat sales (% sales from repeat customers)
- Customer satisfaction rating (from a customer survey)

Internal business processes perspective:

- % returns to suppliers due to quality problems
- Average markdowns (discounts) required to sell stocked merchandise

Learning and growth perspective:

- Number of hours of employee training per employee
- # employee suggestions / employee

Note 1: # represents number of; % represents percentage of

Chris Peters and Taylor Graham have come up with some of the measures that would be appropriate only to their divisions (RadWear and WorkWear). Pat Jenks needs you to help him choose the most appropriate measures that are used specifically for each of the two divisions.

Your task

Please take place of WCS's top management and help Pat Jenks decide on the most appropriate measures to be used specifically for RadWear and WorkWear by assigning appropriate score to each measure. Score ranges from 1 to 5, with interpretations below:

<u>Score</u>	<u>Interpretations</u>
5	The measure is the most appropriate measure for the division
4	The measure is the second most appropriate measure for the division
3	The measure is moderately appropriate for the division
4	The measure is not so appropriate for the division
1	The measure is not appropriate for the division

The measures that are developed by Chris Peters and Taylor Graham can be found on the next page.

Measures to be used only for RadWear

Chris Peters, manager of RadWear division, has come up with the measures to be used specifically for his division. He proposed the measures to Pat Jenks, but Pat could not make up his mind as to what measures would be the most appropriate measures for RadWear. He turned to his top management team to help him on this matter. Please help Pat Jenks decide on the appropriate measures by assigning appropriate score ranging from 1-5 to each measure, with 5 being the most appropriate measure.

<u>Measures</u>	Score
Financial perspective:	
 New store sales (% sales from stores opened in 2007) Market share relative to retail space (sales / total teenwear retail square footage in 5 mile radius of stores) Profit margin per store (NI for a particular store / total sales for a particular store) % stores meeting sales target Return on investment / store 	
Please provide reasons for the rankings of the unique measures under fina perspective for RadWear:	ncial
Measures Customer-related perspective:	<u>Score</u>
 Mystery shopper program rating (Note 1 below) Returns by customers as % of sales % customers who feel the price is right (through survey) % customers who likes the style of clothing offered by the store Dollars of goods left over for each store after final sale at the end of each season 	

Note 1: the Mystery Buyer program sends unidentified inspectors into stores. The inspectors are disguised as buyers and provide several 'tests' of the store and its personnel. The inspectors rate the stores on ten dimensions; perfect scores in all categories would lead to a score of 100 points. The dimensions include the store and

personnel's appearance, the demeanor of the personnel, the efficiency a effectiveness of the check-out system, among other things.	und
Please provide reasons for the rankings of the unique measures under crelated perspective for RadWear:	ustomer-
<u>Measures</u>	Score
Internal business processes perspective:	
 Average number of major brand names / store % sales from new items designated by head buyer as market leaders 	
 Number of days taken to display new collections for each store 	
 Sales dollar / sales personnel / week 	
 % sales from clearance items 	
Please provide reasons for the rankings of the unique measures under in business processes perspective for RadWear:	nternal
Measures	<u>Score</u>
Learning and growth perspective:	
Average tenure of sales personnel (in years) Of stores computerizing leavifunctions identified by ten	
 % stores computerizing key functions identified by top management 	
 % sales personnel with bachelor's degree 	
 % sales personnel who feel they can progress beyond being 	
sales personnel	
 % sales personnel who can operate computer program installed in the store 	

Please provide reasons for the rankings of the unique measures under learning and growth perspective for RadWear:	
Measures to be used only for WorkWear	
Taylor Graham, manager of WorkWear division, has come up with measures to be used specifically for his division. He proposed the measures Jenks, but Pat could not make up his mind as to what measures would be appropriate measures for WorkWear. He turned to his top management him on this matter. Please help Pat Jenks decide on the appropriate measures assigning appropriate score ranging from 1-5 to each measure, with 5 be appropriate measure.	e the most team to help sures by
<u>Measures</u>	Score
Financial perspective:	
Revenues / sales visit	
 Catalog profits (% NI from catalog orders) 	
 Website profits (% NI from website orders) 	
% NI from providing uniforms to the hospital sector	
% NI from providing uniforms to restaurant sector	
-	
Please provide reasons for the rankings of the unique measures under fin perspective for WorkWear:	ancial
Measures	<u>Score</u>
Customer-related perspective:	
• "Captured customers" (% of customers for whom we are the	
only supplier)	
• Referrals (% of new customers for whom we were	
recommended by a business associate)	
• % of customers who claimed that they are more satisfied with	
WorkWear than with WorkWear's competitors	
Number of new customer contacts / quarterNumber of customers / sales person	
- mannot of castonicis / saics person	

Please provide reasons for the rankings of the unique measures under customer- related perspective for WorkWear:		
<u>Measures</u>	Score	
Internal business processes perspective:		
 % of orders filled within one week 		
 Catalog orders with errors (% of catalog orders which were filled incorrectly) 		
 % of on-time delivery % of website orders that cannot be fulfilled within 1 month 		
(Note 2)Number of times that website failed / week		
Note 2: Since customers who order through website do not have person with the sales person, customers may order goods which are difficult to or are out or raw materials. So, orders cannot be fulfilled in less than may lead to customer's dissatisfaction.	o manufacture	
Please provide reasons for the rankings of the unique measures under it business processes perspective for WorkWear:	nternal	
<u>Measures</u>	Score	
Learning and growth perspective:		
 MBAs (% of district sales managers with MBA degrees) Certification (% of order clerks who have received 		
certification in data base management tools)		
% of clerks who are able to update the website		
 Number of times that corporate customers' database is updated / year 		
• % of sales obtained through website		

ide the reason pective for W	gs of the uniqu	ie measures unde	er learning and

Note 3: NI means net income; # means number of; % means percentage.

This is the end of Part 2. Please proceed to Part 3 of this research.

Part 3: Performance Evaluations Research

Part 3 - Performance Evaluation Research

Directions

- 1. Remember this activity is voluntary you can leave at any time and choose not to answer any question.
- 2. Go through the materials in the order presented: PLEASE:
- DO NOT READ AHEAD
- REFERRING BACK TO PREVIOUS MATERIAL IS ALLOWED
- 3. Do not discuss this material with any other student while completing the questionnaire.
- 4. You may be contacted by the author about your response given in this study.
- 5. Please start now.

Performance Evaluation Using the Balanced Scorecard

After involving you and the other top management in the development process of the BSC measures for RadWear and WorkWear, Pat Jenks has come up with the final version of the BSC for both divisions. The BSC is the result of your involvement and the other top management's involvement in rating the preferred BSC measures. The resulting BSC measures for each division are the consensus of top management's preferences. More specifically, they are the aggregation of the two highest rated measures for each perspective.

Exhibit 1 and Exhibit 2 present the resulting scorecards and performance target for 2008 for RadWear and WorkWear.

Exhibit 1 RadWear Balanced Scorecard Measures and Targets for 2008

Measure	Target for 2008
Financial:	101 2000
Return on sales (divisional NI/divisional sales)	24%
2. New store sales (% sales from stores opened in 2008)	
3. Sales growth ([2008 sales -2007 sales]/2007 sales)	
4. Market share relative to retail space (sales/total teen-	
wear retail square footage in 5 mile radius of stores)	\$80
Customer-Related:	
1. Mystery shopper program rating (Note 1 below)	85
2. Repeat sales (% sales from repeat customers)	
3. Returns by customers as % of sales	
4. Customer satisfaction rating (from a customer survey)	92%
Internal Business Processes:	
1. % Returns to suppliers due to quality problems	6%
2. Average # major brand names/store	32
3. Average markdowns (discounts) required to sell stocked	
merchandise	16%
4. % Sales from new items designated by head buyer as market	
leaders	25%
Learning and Growth:	
1. Average tenure of sales personnel (in years)	
2. # Hours of employee training/employee	15
3. % Stores computerizing key functions identified by top	
management	
4. # Employee suggestions/employee	3.3

Note 1: the Mystery Buyer program sends unidentified inspectors into stores. The inspectors are disguised as buyers and provide several 'tests' of the store and its personnel. The inspectors rate the stores on ten dimensions; perfect scores in all categories would lead to a score of 100 points. The dimensions include the store and personnel's appearance, the demeanor of the personnel, the efficiency and effectiveness of the check-out system, among other things.

Note 2: NI means net income; # means number of; % means percentage.

Exhibit 2 WorkWear Balanced Scorecard Measures and Targets for 2008

	Target
Measure	for 2008
Financial:	
1. Return on sales (divisional NI/divisional sales)	
2. Revenues/sales visit	
3. Sales growth ([2008 sales -2007 sales]/2007 sales)	
4. Catalog Profits (% NI from catalog orders)	6%
Customer-Related:	
1. "Captured Customers" (% of customers for whom we are the	
only supplier)	20%
2. Repeat sales (% sales from repeat customers)	
3. Referrals (% of new customers for whom we were recom-	
mended by a business associate)	50%
4. Customer satisfaction rating (from a customer survey)	92%
Internal Business Processes:	
1. % Returns to suppliers due to quality problems	8%
2. % of orders filled within one week	
3. Average markdowns (discounts) required to sell stocked	
merchandise	20%
4. Catalog orders with errors (% of catalog orders	
which were filled incorrectly)	5%
Learning and Growth:	
1. MBAs (% of district sales managers with MBA degrees)	
2. # Hours of employee training/employee	15
3. Certification (% of Order Clerks who have received	
certification in data base management tools)	
4. # Employee suggestions/employee	3.1

Note 1: NI means net income; # means number of; % means percentage.

Performance in 2008

The overall performance of WCS in 2008 was good. Performance across divisions, however, was somewhat uneven. The scorecards for RadWear and WorkWear, including targets and actuals for 2008, are provided in exhibits 3 and 4, respectively.

Pat Jenks now has the difficult task of evaluating the performance of the divisional managers for 2008. As managers of the two largest divisions, Chris Peters and Taylor Graham will receive the most attention. The results of year end reviews are used by WCS in several ways. They are used in determining merit raises and year-end bonuses. They are also used in decisions regarding promotion or movement within or out of the firm. Additionally, the performance reviews are used as a method for providing feedback and guidance to the divisional managers regarding their performance and future actions.

Although you will do an initial evaluation, the final written review will take into account the discussion you will have with the individual divisional managers. Thus, the initial evaluation may be subsequently adjusted due to additional information provided by the evaluatees. You, however, believe it is important to do an initial evaluation before meeting with the managers in order to maintain objectivity and high standards. Later adjustments provide for equity based on the specifics of the divisions' situations.

Your task

Please take the place of top management of WCS in evaluating the performance of Chris Peters and Taylor Graham, managers of RadWear and WorkWear, respectively. The evaluation form used by WCS is attached. Remember that this is an initial evaluation which will be adjusted after further information is available. For each of the managers you should indicate an overall performance evaluation.

Exhibit 3
RadWear Balanced Scorecard
Targets and Actuals for 2008

Financial: 1. Return on sales 24% 26% 8.33% 2. New store sales 30% 31.2% 4.00% 3. Sales growth 35% 38% 8.57% 4. Market share relative to retail space \$80 \$84.70 5.88% Customer-Related: 1. Mystery shopper program rating 85 91.8 8.00% 2. Repeat sales 30% 34% 13.33% 3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%				% better (less)
1. Return on sales 24% 26% 8.33% 2. New store sales 30% 31.2% 4.00% 3. Sales growth 35% 38% 8.57% 4. Market share relative to retail space \$80 \$84.70 5.88% Customer-Related: 1. Mystery shopper program rating 85 91.8 8.00% 2. Repeat sales 30% 34% 13.33% 3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	Measure	Target	Actual	than target
2. New store sales 30% 31.2% 4.00% 3. Sales growth 35% 38% 8.57% 4. Market share relative to retail space \$80 \$84.70 5.88% Customer-Related: 1. Mystery shopper program rating 85 91.8 8.00% 2. Repeat sales 30% 34% 13.33% 3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	Financial:			
3. Sales growth 35% 38% 8.57% 4. Market share relative to retail space \$80 \$84.70 5.88% Customer-Related: 1. Mystery shopper program rating 85 91.8 8.00% 2. Repeat sales 30% 34% 13.33% 3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	1. Return on sales	24%	26%	8.33%
4. Market share relative to retail space \$80 \$84.70 5.88% Customer-Related: 1. Mystery shopper program rating 85 91.8 8.00% 2. Repeat sales 30% 34% 13.33% 3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	2. New store sales	30%	31.2%	4.00%
Customer-Related: 1. Mystery shopper program rating 85 91.8 8.00% 2. Repeat sales 30% 34% 13.33% 3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	3. Sales growth	35%	38%	8.57%
1. Mystery shopper program rating 85 91.8 8.00% 2. Repeat sales 30% 34% 13.33% 3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	4. Market share relative to retail space	\$80	\$84.70	5.88%
2. Repeat sales 30% 34% 13.33% 3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	Customer-Related:			
3. Returns by customers as % of sales 12% 12.3% 2.50% 4. Customer satisfaction rating 92% 95% 3.26% Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	1. Mystery shopper program rating	85	91.8	8.00%
4. Customer satisfaction rating92%95%3.26%Internal Business Processes:1. Returns to suppliers6%7%16.67%2. Average major brand names/store323612.50%3. Average markdowns16%18.5%15.63%	2. Repeat sales	30%	34%	13.33%
Internal Business Processes: 1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	3. Returns by customers as % of sales	12%	12.3%	2.50%
1. Returns to suppliers 6% 7% 16.67% 2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	4. Customer satisfaction rating	92%	95%	3.26%
2. Average major brand names/store 32 36 12.50% 3. Average markdowns 16% 18.5% 15.63%	Internal Business Processes:			
3. Average markdowns 16% 18.5% 15.63%	1. Returns to suppliers	6%	7%	16.67%
	2. Average major brand names/store	32	36	12.50%
4 Sales from new market leaders 25% 27% 8 00%	3. Average markdowns	16%	18.5%	15.63%
4. Sales from new market leaders 25/0 21/0 0.00/0	4. Sales from new market leaders	25%	27%	8.00%
Learning and Growth:	Learning and Growth:			
1. Average tenure of sales personnel 1.4 1.5 7.14%		1.4	1.5	7.14%
2. Hours of employee training/employee 15 17 13.33%		15	17	13.33%
3. Stores computerizing 85% 87.7% 3.18%	- · · · · · · · · · · · · · · · · · · ·	85%	87.7%	3.18%
4. Employee suggestions/employee 3.3 3.5 6.06%	1 0	3.3	3.5	6.06%

Exhibit 4
WorkWear Balanced Scorecard
Targets and Actuals for 2008

			% better (less)
Measure	Target	Actual	than target
Financial:	Turget	1101441	than target
Return on sales	24%	25%	4.17%
2. Revenues per sales visit	\$400	\$433	8.25%
3. Sales growth	34%	36%	5.88%
4. Catalog profits	6%	6.5%	8.33%
Customer-Related:			
Captured Customers	20%	22.7%	13.50%
2. Repeat sales	25%	27%	8.00%
3. Referrals	50%	51.6%	3.20%
4. Customer satisfaction rating	84%	86%	2.38%
Internal Business Processes:			
1. Returns to suppliers	8%	9%	12.50%
2. Orders filled within one week	85%	99%	16.47%
3. Average markdowns	20%	21.5%	7.50%
4. Catalog orders filled with errors	5%	5.8%	16.00%
Learning and Growth:			
1. MBA degrees	12%	13.6%	13.33%
2. Hours of employee training/employee	12	13	8.33%
3. Certification	20%	21.2%	6.00%
4. Employee suggestions/employee	3.1	3.2	3.23%

WCS Inc. Initial Evaluation Form

Year:	2008	
Manager:	Chris Peters	
Division:	<u>RadWear</u>	
Evaluator		

1. Indicate your initial performance evaluation for this manager by placing an 'X' somewhere on the scale below. Note that some label interpretations are provided below.

Excellent: far beyond expectations, manager excels

Very good: considerably above expectations

Good: somewhat above expectations

Average: meets expectations

Poor: somewhat below expectations, needs some improvement Very Poor: considerably below expectations, needs considerable

improvement

Reassign: sufficient improvement unlikely

2. Indicate your strength of conviction regarding this evaluation (how strongly you hold the opinion indicated above) by placing an 'X' somewhere on the scale below:

WCS Inc. Initial Evaluation Form

Year:	2008
Manager:	Taylor Graham
Division:	<u>WorkWear</u>

Evaluator: ____

1. Indicate your initial performance evaluation for this manager by placing an 'X' somewhere on the scale below. Note that some label interpretations are provided below.

Excellent: far beyond expectations, manager excels

Very good: considerably above expectations

Good: somewhat above expectations

Average: meets expectations

Poor: somewhat below expectations, needs some improvement Very Poor: considerably below expectations, needs considerable

improvement

Reassign: sufficient improvement unlikely

2. Indicate your strength of conviction regarding this evaluation (how strongly you hold the opinion indicated above) by placing an 'X' somewhere on the scale below:

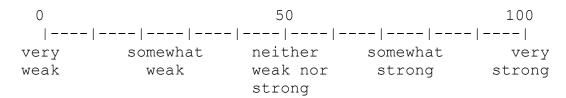
Follow-Up Questions for the WCS Inc. Case

Now assume that WCS has decided to change its organizational structure. Instead of five decentralized subsidiaries, WCS is going to centralize all of its sales operations under one Manager of Sales Operations. Chris Peters and Taylor Graham are prime candidates for this position since they have been managing the largest divisions in WCS.

Based on the information you have, which of the two would you recommend for this promotion? Certainly both managers will likely be offered management positions at WCS but the Manager of Sales Operations will be the most attractive, highest-level position available to them. Indicate your choice, your confidence in your choice, and your rationale below. You may refer back to case materials if you would find that helpful.

1. M	ly choice for Manager of Sales Operation	ons is:
mana	_ Chris Peters (RadWear manager) ager)	Taylor Graham (WorkWear

2. Indicate your strength of conviction in this recommendation (how strongly you hold the opinion indicated above) by placing an 'X' on the scale below:



• For this section: DO NOT CHANGE YOUR ANSWERS TO PREVIOUS QUESTIONS IF YOU REFER BACK TO PREVIOUS MATERIAL

Demographic information and general concluding questions

Gender: Male Female
Age: years
Number of years of full time work experience:
Your full-time work experience was most closely related to which of the following areas (check all that apply): Accounting, auditing or taxation Finance, banking or investing Marketing or sales General management or personnel Engineering Medical Other, please specify:
Number of subordinates that are under your supervision:
Have you ever used BSC to evaluate your subordinates? Yes No
Have you ever been evaluated by the BSC? Yes No
You are currently studying in what program? MBA BBA
MBA status: Full time Part-time
Most likely area of emphasis in your program is (check one): Accounting, auditing or taxation Finance, banking or investing Marketing or sales General management or personnel Other, please specify:

Please indicate the extent of your agreement with each of the following questions by putting an X on the scale below the question.

State your **level of satisfaction** with having **involvement** in the development process of the BSC for WCS Inc.

State the **level** of your **involvement** in developing the BSC for WCS Inc.

The performance measures were usefully categorized in this case.

Financial performance measures were emphasized in this case.

The two divisions, RadWear and WorkWear, were targeting the **same** markets.

The two divisions, RadWear and WorkWear, used **some different** performance measures.

It was **appropriate** for the two divisions, RadWear and WorkWear, to employ **some different** performance measures.

The case was easy to understand.

The case was very difficult to do.

The case was very realistic.

It was **very difficult** to rank the common measures

It was very difficult to rank the unique measures

The measures provided are **realistic**

Unique measures provided for ranking are **different** between the two divisions

The End. Thank you very much for completing this research.