Reflection fosters deep learning: The 'reflection page & relevant to you' intervention

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ABSTRACT

Cognitive science indicates that the millennial generation's behavior of instant messaging and multitasking may provide inadequate cognitive capabilities for thoughtful processing of experiences that lead to deep learning. This study describes a teaching innovation that explicitly stimulates reflection and critical self-assessment, along with guidelines for deployment in order to address the 'thinking' aspect of experiential learning. Two years of data provided a sample size of 214 traditional undergraduates that assessed the reflection intervention. Path Analysis examined the theoretical relationships between reflection within Kolb's (1984) Experiential Learning Theory and Marton & Saljo's (1976) Student Approaches to Learning Theory. The empirical evidence supports these theories indicating that this reflection intervention fostered deep learning motivation and strategy usage leading to greater perceived learning. A significant relationship between the reflection intervention and exam performance was also produced. This reflection intervention provides an additional tool for educators to help ensure deep meaningful learning. In addition, this study adds empirical support for the learning theories on which most experiential-based pedagogies are based.

Keywords: Reflection, Experiential Learning, Student Approaches to Learning

"We do not learn from experience... we learn from reflecting on experience."
— John Dewey

Millennial students' high exposure to digital technology is reshaping their brain's neurocircuitry resulting in enhanced visual aptitudes, multitasking capabilities and divided attention skills; however, at a cost of reduced mindful knowledge acquisition, critical thinking and reflection (Greenfield, 2009). Recent research also suggests that our students' dependence on smartphone technology impedes attention and other vital mental skills related to learning (Carr, 2017). Engaging students in the classroom and increasing their educational responsibility is advocated by accreditation bodies (AACSB standards) and seems to be the objective of many experiential-based learning pedagogies. While hands-on experiential learning activities are congruent with today's students' mental aptitudes and skills, converting these experiences into deep learning through deliberate reflection and abstract conceptualization is not.

Successful completion of problem-solving tasks in the sciences was not a valid indicator of students' conceptual understanding of the underlying concepts (McDermott and Schaffer, 1992). In marketing, project related learning was not found to be related to learning retention (Bacon and Stewart, 2006), and service learning devoid of reflection may not foster academic learning (Sheckley, Allen and Keeton, 1993). Glen and Nelson (1988) conclude that if students do not think seriously about their experiences, their experiences may reinforce stereotypes and incorrect suppositions. Compared to traditional learning, experiential learning may be a very risky proposition because it can be either accurate and efficient or prone to error and bias (Eisenstein and Hutchinson, 2006). Kolb's Experiential Learning Theory (1984) incorporates four stages of the learning process, whereby knowledge is created through the transformation of experience. The results from neuroscience suggests millennials may naturally perform well on the 'doing stages' of active experimentation and concrete experience, but need explicit guidance and required attention to the 'thinking stages' of reflective observation and abstract conceptualization. The purpose of this paper is to present a teaching innovation (Reflection Page & Relevant to You) that explicitly stimulates reflection and critical self-assessment in an experientially-based classroom environment.

Conceptual Frameworks for Deep Learning Through Experiential Learning

Kolb's Experiential Learning Theory (1984) provides a conceptual model and practical framework for designing, implementing and evaluating educational pedagogies. Learning is thought to occur through a sequence of four stages depicted as a learning cycle. While learning can start at any of the four stages (concrete experience, abstract conceptualization, active experimentation and reflective observation), learning is most effective when all four of the stages are completed (Kolb, 1981). The combination of the stages allows the learner to acquire knowledge and transform experiences into new knowledge.

Typically, experiential learning pedagogies are represented by the 'doing' stages, utilizing learning activities such as: cases, demonstrations, videos, (concrete experiences) or field work, projects, consulting, or simulations (active experimentation). The education literature provides numerous examples of activities designed for students to participate in experiences; for example, students as consultants (Kumcu and Kumcu, 1998), e-ventures (Dilts, Hauser, Lewison and LeHere, 2007), living cases (LeCair and Stottinger, 1999), integrating

practitioners into the course (Linrud and Hall, 1999), interactive web-based cases (Owen, 1999), and service learning (Schwartz and Fontenot, 2007).

Knowledge acquisition represents the abstract conceptualization stage of the learning cycle and is often seen as a prerequisite to the experience stages. Textbook readings, articles, and lectures are often used to provide relevant concepts, theories, and background before engaging in the hands-on learning activities. Readiness assurance testing (Michaelsen, 1994), Voeks Method (Hansen, 2003), SQ3R (Artis, 2008), concept mapping (Novak and Gowin, 1984) and Connected Notes (Young, 2016) are examples of techniques to facilitate abstract conceptualization in the learning cycle.

The focus of this learning intervention is on reflection or the 'thinking' stage of Kolb's framework. Reflective observation creates meaning from the above experiences and helps the learner to relate the concepts to other forms of knowledge and experience in the learner's personal knowledge structure (Leung and Kember, 2003). Sluijsmans, Dochy, and Moerkerke (1998) suggest that one of the roles of professional education is to develop 'reflective practitioners'. They conclude that reflection in the form of self-assessment can be learned and recommend that reflection be built into the curriculum in order to develop lifelong learners. Di Stefano, Gino, Paisano and Staats (2017) provide results that suggest enhanced self-efficacy (emotional or affective component) and task understanding (cognitive component) mediate how reflection impacts performance. However, they conclude that it was the improved understanding of the task that actually increased performance. Reflection can be defined as the intentional consideration of an experience in light of particular learning objectives (Hatcher and Bringle, 2000). Hatcher and Bringle (2000) provide five guidelines for designing effective reflection activities.

1) Link experience to learning objectives. Commonly used personal journals must be more than a mere log of activities. They can be enhanced by requiring a list of terms to be included within the journal, by asking the students to reread their journals and highlight the comments that directly relate to the course content, or by using a double-entry format, where half the page deals with the experience and the other half the course content. Directed writings or structured class discussion can lead students to analyze and integrate their experience in light of a specific section, chapter, concept, or theory of the text.

2) Give guidance for the activities. Provide clear expectations by describing the tasks to be completed and the criteria for evaluation. Three-part journals, which includes a) description of the activities, b) analysis of how the activity relates to course material, and c) application to their personal or professional life can be collected early in the activity to provide feedback and clarify expectations for later drafts.

3) Schedule activities regularly. Regularly engaging students in reflective activities allows them the opportunity to move through the various stages of reflective thought and enriches their learning experience. Regular activities might include directed readings or e-mail discussion groups.

4) Allow feedback and assessment. Assessment is of particular importance to experiential learning so the connection between the experience and the course content is monitored, and opportunity for correction is allowed prior to the end of the activity. Classroom

assessment techniques (minute papers, ethical dilemmas, muddiest points, etc.) and self-assessment (personal evaluation grids, personal narratives, writing impact statements) can be used to allow students to reflect on their experience and provide the teacher feedback on the students' understanding of course material.

5) Include clarification of values. In some experiential learning (e.g., service learning), students are exposed to situations that challenge and contradict their perspectives. Ethical case studies provide opportunity for reflection, practice in ethical decision-making and clarification of values in decision-making.

A review of the range of reflective tools designed for manager learning is provided by Gray (2007), including descriptions, critique and examples of storytelling, metaphors, critical incident analysis, concept mapping, and repertory grids. He concludes that managers do not automatically engage in reflection and may require specific and active interventions to encourage reflectivity. More recent classroom techniques to encourage reflection incorporate digital technology in the form of e-portfolios (Mummalaneni, 2014), blogging (Muncy, 2014), and online journals and digital stories (Larkin and Beatson, 2014). Results from these techniques indicate the efficacy of incorporating explicit interventions to stimulate reflection in order to foster deep learning.

Deep learning is contrasted with surface learning, which incorporates rote memorization and short-term learning strategies primarily for extrinsically motivated behavior such as grades or approval. Surface learners tend to read only what is required and rely on the lecturer for information for the purpose of exam performance and assignment completion. Atherton (2005) suggests surface learning is more likely when real-world or personally relevant topics are lacking in the learning materials. Whereas, deep learning is characterized as more intrinsically motivated learning and utilizes learning strategies that facilitate understanding and mastery of the material. Deep learners go beyond the syllabus and focus on understanding the material because of interest and desire to master the knowledge and skills. Marton and Saljo (1976) identified these two discrete approaches to learning and emphasized the effect that the learning environment has on facilitating each approach in their Student Approaches to Learning Theory. Biggs (1987) and Kember and Leung (1998) provide a complete discussion of the underlying theory of Student Approaches to Learning.

Integrating the two learning theories leads to hypothesized relationships among reflection, students' motivation and strategies, and learning outcomes. Specifically, we hypothesize:

H1: Deep (Surface) Learning will be positively (negatively) correlated with Perceived Learning.

H2: Reflection will be positively (negatively) correlated with Deep (Surface) Learning.

The Reflection Page & Relevant to You Intervention

Holistically, this intervention was designed to stimulate reflection on the concepts and skills the students experienced through in-class learning activities, and to foster deep learning motivations and strategies leading to increased learning by completing the experiential learning cycle. Specifically, this course's objectives for the Reflection Page & Relevant to You

instructional intervention were to a) prepare students for the in-class unit exams by requiring a written reflection on the unit's content and skills, b) conduct a self-assessment of their knowledge and skills developed in the unit, c) explicitly contemplate about how the unit's material relates to other classes and their personal and professional life, and d) elaborate on the unit's materials by creating a personally relevant example illustrating the unit's concepts.

The Reflection Page & Relevant to You intervention strategically addresses and integrates Hatcher and Bringle's (2000) guidelines for designing effective reflection activities previously presented. As the name suggests, this intervention consists of a one page (single spaced, 11 font, ½ inch margins) Reflection Page and a Relevant to You paper, approximately 2-3 pages. The assignment was presented as one assignment with two parts rather than two separate papers. It was assigned at the beginning of each of three learning units and was due at the end of the unit, just prior to the unit's in-class exam. The Reflection intervention presented in appendix 1 is explained utilizing the Hatcher and Bringle's (2000) five guidelines for designing effective reflection activities.

1) Link experiences to learning objectives. Unit learning objectives (see appendix 2 for an example) and the reflection assignment were distributed on the front and back of a single handout at the start of each unit. The reflection assignment was considered as the take-home portion of the unit's exam. Discussion of the unit learning objectives was directly linked to the unit readings, assignments and expectations for the unit's exam (take-home exam Reflection Intervention 40% and in-class exam 60%). In addition, the Reflection Page Unit Overview required students to explicitly link the unit activities to the learning objectives in their reflection.
2) Give guidance for activities. The reflection assignment instructions follow the concepts and skills taught in this specific course. The first unit in the course introduced the situation analysis, SWOT table, strategic implications and provided four team assignments which provided examples of the format and expectations for the different sections of the reflection assignment. Students were encouraged as they progressed on the team assignments to start working on their own individual reflection assignment. In addition, a grading rubric (appendix 3) was posted in the learning management system that was used to evaluate the reflection assignment. Students were encouraged to self-score their reflection assignment using the rubric before they submitted it for grading.
3) Schedule activities regularly. The reflection assignment was completed at the end of each of the three learning units during the course rather than once at the end of the entire course. Repeating the reflection process three times allowed students time to develop some proficiencies with the learning materials and also to recognize areas in which they needed to improve. Discussion of each week's team assignment, in the context of how they could develop their own Relevant to YOU examples, consistently reminded them to think about the materials in a personal context.
4) Allow feedback and assessment. Students were provided a grading rubric for the reflection assignment at the beginning of the unit, which allowed them to understand the expectations and perform self-assessments on their reflection assignment. Each week students completed and presented a team assignment in which they were provided in-class feedback as well as graded feedback using a rubric for the assignment. The team assignment feedback was directly relevant to the expectations for completing the reflection assignment.

5) Include clarification of values. The team assignments consisted of conducting different types of analyses leading to recommending and making marketing decisions. Explicit consideration of multiple stakeholder perspectives was required in presenting their recommendation. This process of incorporating multiple stakeholder perspectives in decision making was expected to be incorporated into the responses in the Reflection Assignment's Strategic Implications section and in the Personal Experience examples.

In addition to the above guidelines, the Strength, Weakness, Opportunity and Threat (SWOT) assessment was incorporated in order to have the students conduct a self-assessment of their capabilities in regard to the unit's materials. The rationale for the self-assessment was based on Sluijsmans, et al. (1998) recommendation to encourage 'reflective practitioners' and Keith's (1996) conclusion that for experiential learning to be effective students must devote significant energy into self-assessment. Requiring students to think about the future 'opportunities and threats', based on their capabilities, should also enhance the perceived instrumentality of the material in attaining future goals. The SWOT format is commonly taught across business disciplines and specifically taught in this marketing course. The Reflection Page was used in the exact same format across all three learning units, which facilitates understanding of the expectations as students received detailed feedback after each unit.

The Relevant to YOU paper was tailored to each unit's different objectives, content and assignments. It was designed to make the material personally relevant and to cognitively link the concepts to existing memories for each individual student. In addition to providing a personally relevant illustration of the assignments, the paper also assisted in developing a better understanding of the materials by having the students produce an additional worked example utilizing the unit's concepts and analysis techniques. This was intended to both enhance student self-efficacy in performing the skills and also in developing a better understanding of the tasks. Both of these intentions were identified as critical mediators of reflection on performance by Di Stefano, et al. (2017).

Classroom Implementation

The Reflection Page & Relevant to YOU Intervention has been implemented in a required 300-level undergraduate marketing course, Market Analysis, for the past two years. The course was offered each semester with two sections taught by the same instructor (author). The fifteen-week course was divided into three equal five-week units. Each unit consisted of four team assignments due, and presented each week, leading to the end-of-unit in-class exam and the Reflection Page & Relevant to YOU take-home portion of the exam. Positioning the Reflection Page assignment as part of the exam and weighting it 40% clearly signaled to the students the significance and expectations of thinking and reflecting in the learning process. The intervention/take-home exams were submitted digitally and assessed with plagiarism software (Turnitin Similarity) to ensure reflections were their own individual thoughts.

The course pedagogy followed the flipped classroom concept, in that students were expected to complete assigned readings and self-check quizzes prior to class. Class time was used to work on team assignments that required extensive online secondary data searching and a variety of different types of analyses leading to marketing decision recommendations. The physical classroom was designed with round tables to facilitate teams of 4-5 students. All students had equal technology for assignment completion in that they all participate in the

University's laptop program. Team assignments revolved around real companies and class time was truly a hands-on learning experience.

Intervention Assessment Results

The data used to assess the relationship between this reflection intervention and students' self-report of deep learning was collected at the end of each semester with an online survey. Over the past two years, 214 undergraduates: 60 percent male, 58 percent marketing majors, 30 percent Business Administration majors, and the rest representing a variety of other majors, all of junior or senior standing.

Measures

Students responded to a three section, on-line self-report questionnaire with scales for each of the major variables grouped together with individual items randomly ordered within the scale. For consistency, scales were modified so they were presented in the first person and referenced the specific Reflection Page & Relevant to YOU take-home exam.

Reflection. Kolb's experiential learning theory was the foundation used to design this course's pedagogy and, therefore, was central in selecting measures of reflection. Young, Caudill and Murphy (2008) developed scales to assess the degree to which learning activities addressed each of the four stages of the experiential learning cycle. This study adapted the reflection scale to this intervention, e.g. "The 'Reflection Page & Relevant to YOU' take-home exam assisted me in thinking about what the course material really means to me." The six-item scale provided a coefficient alpha of .91, indicating very good internal consistency.

Deep Learning. Biggs, Kember, and Leung's (2001) revised two-factor Study Process Questionnaire was used to measure deep learning, as discussed in the Student Approaches to Learning Theory. An example of the scale for Deep Motivations and Strategies and Surface Motivations and Strategies is: "The 'Reflection Page & Relevant to YOU' take-home exam made me work hard because I found the material interesting." Each of the four subscales incorporated 5-items and provided Cronbach alphas ranging from .74 to .88, which are consistent with other published studies suggesting the scales are reliable.

Perceived Learning. Student's perception of the intervention's effect on their learning is captured by two scales also presented in the Young, et al. (2008) study. The 5-item Perceived Learning scale taps into student's cognitive evaluation of the activity, while the 4-item Attitude scale measures students' affective evaluation of the intervention. Coefficient alphas of .89 and .98 respectively suggest very good reliability for both scales.

Assessment Results

Descriptive statistics for each scale and the correlations among the scales are presented in table 1. The results suggest the scales all exhibit reasonable reliabilities and that the correlations among the subscales provide face validity to expected relationships. The hypothesized impact of the reflection intervention and relationships between the two learning frameworks was examined with path analysis. Path analysis is a method that allows the study of both direct and indirect effects of independent variables on dependent variables (Dillion and Goldstein, 1984). Direct

effects are estimated with standardized regression coefficients, and indirect effects are the product of the respective direct path coefficients.

Multivariate multiple regression analysis was performed given the significant correlations among the dependent variables as seen in table 1. Tests for departure from normality, equality of covariances, and linearity all suggest reasonable conditions for this method of analysis.

The path model used to examine the relationships among the variables based on the underlying learning theories is displayed in figure 1. Table 2 presents the total effects among the variables, while the path diagram in figure 1 displays only the significant coefficients for clarity. First, it should be noted that percentage of variance explained, or adjusted R^2, ranges from .49 to .65. The variance explained in these regression is relatively large compared to similar studies, e.g. Ntoumanis (2001), $R^2 = .16$.

Next, we observe the path coefficients between Deep Motivations (ß = .46) and Surface Motivations(ß = .70) and their corresponding Learning Strategies are positive and significant, which is consistent with Students Approaches to Learning Theory. Perceived Learning and Attitudes are positively related to Deep Motivations and Strategies and negatively related to Surface Motivation. The standardized coefficient (ß = .35) between Deep Strategies and Perceived Learning is substantially larger than other coefficients (ß = .19, -.18, -.19) leading to Perceived Learning, suggesting students form their opinion on the degree to which they learn primarily based on the strategies they utilize in the learning process. The results from this data are consistent with theory and other published empirical results, thus lending support for Hypothesis 1. Essentially, deep learning motivations lead to the use of deep learning strategies, which produce higher perceptions of learning and favorable attitudes while surface motivations and strategies generate lower levels of perceived learning.

In order to assess this reflection intervention, we examine the direct and indirect effects of reflection in the overall model. The resultant path coefficients suggest a significant relationship between this Reflection Intervention and students' motivation type. A strong positive relationship between Reflection and Deep Learning Motivation (ß = .73), in addition to the weak negative relationship (ß = -.14) with Surface Motivation, suggests the powerful influence that reflection has in the learning cycle and its impact on students' motivation to learn based on intrinsic purposes. Next, we observe a significant direct effect of reflection on the use of deep learning strategies (ß = .38) and no direct effect on the use of surface learning strategies. In addition, the reflection intervention produced an indirect effect on deep strategies through deep motivations of .34. Thus, the data supports hypothesis 2 that reflection fosters deep learning while discouraging surface learning.

Finally, the effects the reflection intervention had on students' Perceived Learning (cognitive) and Attitude (affective) are assessed. Direct effects of reflection on both Perceived Learning (ß = .26) and Attitudes (ß = .34) indicate that the reflection intervention had a relatively strong effect on learning outcomes with a slightly greater influence on attitudes. Indirect effects for Reflection on Perceived Learning are .39 and indirect effects for Attitude are .37, adding to the overall effect that the reflection intervention had on student outcomes. The data supports the positive influence that reflection can have on students' perceptions of the overall value of the learning experience.

Objectives for the Intervention.

All students were required to complete the reflection assignment after each unit, thereby accomplishing three of the four specified objectives for this reflection intervention: conducting a self-assessment, relating the material to their lives, and creating a personally relevant example of the unit's concepts. The fourth objective was to prepare students for the in-class exam. This objective was assessed by regressing the scores from the Reflection intervention on the in-class exam scores. A significant $R^2 = .19$ was obtained, indicating a positive relationship between doing well on the reflection take-home exam and the in-class exam.

Conclusions, Challenges and Future Directions

Concurring with Dewey's quote that "we learn from reflecting on experience", this study provides empirical support for the crucial role that reflection can play in fostering deep learning. Reflection is a critical component in the experiential learning process and it should be explicitly incorporated into 'hands-on' classroom pedagogies. Cognitive science suggests that today's students seem to be adept at doing activities, but lack the inclination or capabilities to explicitly think about the meaning of the activities necessary for transforming the experiences into deep learning. The Reflection Page & Relevant to YOU intervention described and assessed in this article adds to the methods available to educators to foster reflection. Distributing the Reflection Page in the beginning of each learning module on the back of the learning objectives, positioning the reflection activity as a take-home exam, and requiring it after each learning module helped reinforce the importance and value of reflection. This article contributes to our understanding of how to design effective interventions and of the importance that reflection has in students' approaches to learning and in their evaluation of that learning. The empirical results from this study support the learning theories and provides compelling evidence for incorporating reflection activities into experiential learning pedagogies in order to foster deep learning.

However, given the homogeneous student characteristics from a single university, interpretation of the results should be done with caution. Replication in other settings and further validation of the measurement scales would assist in generalizing about the efficacy of this Reflection Intervention. In addition, further testing of the intervention's effect on direct measures of learning would offer greater support for its effectiveness.

Implications for educators, based on this study, suggest that learning activities should be carefully considered in light of the underlying learning theories the activities are predicated on. In this case, the class pedagogy incorporated a flipped classroom setting with in-class 'hands-on' activities which needed to be supplemented with explicit reflection in order to complete the experiential learning cycle and foster deep learning. Designing the reflection intervention was based on recommendations from the literature that have been reviewed and scrutinized. The Reflection Page & Relevant to YOU intervention should be widely adaptable to other classes, regardless of overall pedagogy as long as it is aligned with that particular course's learning objectives. The greater the alignment among learning objectives, learning activities and assessment, the more likely students will embrace the complete learning process leading to more meaningful deep learning.

TABLE 1: Correlations and Descriptive Statistics

	R	DM	DS	SM	SS	PL	AT
Reflection							
Deep Motivation	.73*						
Deep Strategy	.71*	.73*					
Surface Motivation	-.14*	-.09	-.09				
Surface Strategy	-.06	-.01	-.04	.70*			
Perceived Learning	.66*	.64*	.69*	-.20*	-.03		
Attitude	.73*	.72*	.69*	-.23*	-.07	.77*	
M	21.7	16.3	16.7	11.9	13.2	16.6	13.3
SD	4.7	4.1	3.3	3.8	3.2	3.9	6.5
# items	6	5	5	5	5	5	4
α	.91	.88	.78	.86	.74	.89	.98

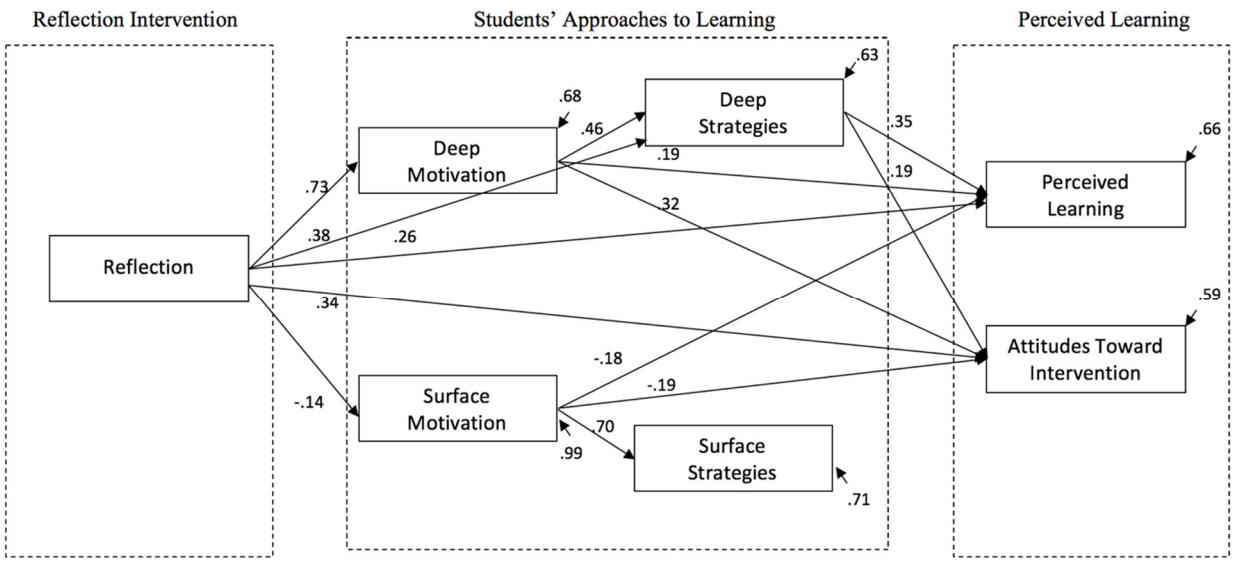
Note: N= 214; * significant at .05.

TABLE 2: Total Effects on Student's Approaches to Learning and Perceived Learning

	Dependent Variables					
Independent Variables	Perceived Learning	Attitudes	Deep Strategies	Surface Strategies	Deep Motivation	Surface Motivation
Deep Strategies	.35*	.19*				
Surface Strategies	.09	.08	.01			
Deep Motivation	.18*	.32*	.46*			
Surface Motivation	-.18*	-.19*		.70*		
Reflection	.26*	.34*	.38*		.73*	-.14*
R^2	.56	.65	.60	.49	.53	.02

NOTE: N = 214, * significant at .05.

FIGURE 1: Path Diagram of Reflection, Student's Approaches to Learning and Perceived Learning



NOTE: N = 214, all coefficients significant at the .05 level

APPENDIX 1: Reflection Page & Relevant to YOU Intervention

One Page Reflection Page

Format: Single-spaced, 11 font, ½ Inch margins, use tables, charts, etc.

1. **Unit Overview:** THINK about the readings, assignments and classroom experiences designed to accomplish this unit's learning objectives. Identify the main learning themes and skills from this unit's readings and assignments. Describe which particular readings or experiences affected your thinking and why (be specific). There should be evidence that you reflected extensively on this unit's content and specific skills, as well as the basic course skills (communications, teamwork, critical & creative thinking, and decision-making).
2. **SWOT Analysis:** Conduct a self-assessment (SWOT bullet point table) for this unit of what you have learned and done well on (strengths) (e.g. Before I read the articles, I had never considered that ⋯., The assignment developed new Excel skills by ⋯, My team evaluations helped me realize that⋯), 2) what you need improvement on (weakness), and 3) what you should do next to improve (opportunity) (e.g., I realize I must know more about⋯, I am going to consider using some of the skills in ⋯). 4) potential future impact of not understanding this material (threats). Include your attendance record and your team member CATME scores.
3. **Strategic Implications:** Based on this Unit's Overview and your personal SWOT table above, indicate how this unit relates to your previous experiences as a consumer, employee, and other classes with personal stories. Avoid broad, clichéd statements and provide concrete, personally insightful descriptions. Provide specific examples of how you may use your new knowledge and skills in the future (career, resume, interviews, classes, personal life, etc.).

Relevant to YOU

1. **Personal Experience**
   Using a real-world example from 1) your current or previous work experience, 2) your personal experience as a consumer or 3) researching a real company create a one-page mini-case (plus solutions) to illustrate the concepts from one or more of this unit's four assignments. Collect or obtain real data to illustrate the concepts from the readings and the analyses (e.g. spreadsheets, tables, graphs) completed in the team assignments and provide a discussion of how using your analysis could be used to facilitate marketing decision-making.

2. **Relevant to YOU**
   Apply the unit's concepts and analyses to you personally, e.g. career, consumer behavior, major, etc. Create a One Minute Personal Value Proposition/Positioning Statement.

APPENDIX 2: Unit Learning Objectives

Unit Learning Outcomes

The goal of this unit is to understand the market (buyers) in order to create targeted and profitable value propositions. Value propositions are the foundation for marketing mix decisions.

Communication Skills

1. Create professionally formatted memos with integrate tables and graphs.
2. Deliver effective oral presentations that clearly explain and demonstrate the unit's analytical tools and marketing implications.

Collaborative Problem-Solving Skills

3. Demonstrate collaborative team membership by fulfilling your individual assignment responsibilities and contribute to the overall team assignment.
4. Assist team members in learning content and skills in your designated area of expertise.

Critical Thinking Skills

5. Search, retrieve and assess consumer profile data - (demographics, geographics & psychographics) for segmentation decisions.
6. Create indices, sort the results and utilize column graphs to profile market segments and use a bubble graph for displaying product positioning.
7. Create spreadsheets for calculating customer value analysis, customer profitability, customer lifetime value and market segments.

Creative Thinking Skills

8. Develop marketing strategies (target market, positioning, marketing mix) for products based on the analysis of the product and customer value.

Responsible Decision-Making Skills

9. Given consumer information, be able to analyze value assessments, consumer profitability and lifetime value in order to segment the market and provide well justified recommendations for selecting a target market and creating an appropriate value proposition.
10. Apply and explain the following core marketing concepts:
    a. Value
        i. Value Analysis
        ii. Value Propositions
    b. Satisfaction & Loyalty
    c. Customer Profitability
    d. Customer Lifetime Value
    e. Customer Relationship Management
    f. Equity
        i. Customer Equity
        ii. Brand Equity
        iii. Relationship Equity
    g. Market Segmentation
        i. 20/80/30 rule
        ii. Target market

Appendix 3: Reflection Page & Relevant to YOU Grading Rubric

Criteria	Above Expectations	Meets Expectations	Below Expectations
Reflection Page 25%	**UNIT OVERVIEW**: Identifies the main learning themes and skills based on the unit's learning objectives. Demonstrates understanding and relevance of key aspects of readings, assignments and class experiences.	Correct information and explanation, but needs more in-depth details and/or insights.	Missing or incorrect information lacks clear understanding of learning outcomes.
	SWOT ANALYSIS: 2-3 bullet points in each category of SWOT Table. Incorporates this unit's content and core skills. Shows insight and critical thought of what you have learned and provides areas that you recognize you need to improve.	General discussion of relevance of the content. Identifies learning and need for additional learning and skill development. Opportunity for more in-depth thought and insightful analysis of learning needs to be provided.	Lacks insights and evidence of critical thinking about course. Little recognition of learning and need for future development.
	STRATEGIC IMPLICATIONS: Relates main learning outcomes to your previous and current experiences (personally, academically and career). Thoughtfully connects content and experiences to future practice. Supports connections with examples and personal stories.	Connections of content and class experiences provided with examples and illustrations. More in-depth thought and discussion of the relevance of these connections.	Lacks connections and examples to experiences and personal stories.
Personal Experience 50%	Example is from a real experience you have encountered and is based on real data. Mini-case follows format from unit's assignments and demonstrates understanding of the analyses and resulting marketing implications from this unit.	Mini-case is based on hypothetical data or lacks details of real scenario. Incomplete analysis or marketing implications.	General information from internet or connection to personal experience lacking. Fails to demonstrate understanding of the analyses and/or marketing

			implications from this unit.
Relevant to YOU 25%	Unit's concepts and analyses are applied to you personally for understanding your career opportunities and/or your consumer behavior. E.g. resume, personal value proposition, CLV, or concepts applied in your discipline.	Unit's concepts applied in general manner without clear personal connections. General demonstration of concepts but lacks insight of how they apply in your situation.	General information from internet or connection to personal experience lacking. Fails to demonstrate understanding of the analyses and/or marketing implications from this unit.
Overall Score	**A (100% - 90)**	**B or C (89% - 70)**	**D (<70%)**

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