

# DESIGN AND FACILITATION OF ONLINE DISCUSSION TO ENHANCE LEARNING OUTCOMES

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## Abstract

Interest in social media and its use in marketing education continues to burgeon (Rinaldo, Tapp, & Laverie, 2011). Among the many social media tools available, one of the most often used is asynchronous online discussion (AOD) whereby discussion participants' written messages are linked together over time (Chan, Hew, & Cheung, 2009). AODs are used by marketing educators to facilitate dialogue among students and have been lauded as a means for increasing student involvement (Rinaldo et al., 2011) and participation among students who do not have an intrinsic interest in the course topic (Krentler & Willis-Flurry, 2005) or may otherwise be reluctant to raise their hand in class (Kupetz, 2010). There is also evidence suggesting that AODs enhance student learning (Clarke, Flaherty, & Mottner, 2001; Kay, 2006; Krentler & Willis-Flurry, 2005).

Critical gaps in the literature are addressed in the present study by examining AOD structure in terms of both design and facilitation, allowing for investigation of interactions. We consider design issues related to composition of the opening discussion question and facilitation issues related to reply structure imposed on participants. These elements are evaluated along several outcome variables allowing examination of the potential for certain design/facilitation combinations to perform better than others within various outcome categories.

## Literature Review

### The Opening Discussion Question

AODs used in higher education typically take the form of structured communication, whereby the instructor posts questions and students respond. Imposing structure, through the initial posting of a question, has been shown to improve productivity, efficiency, and quality of learning (Yang, Newby, & Bill, 2008). Initial discussion forum questions, or discussion thread openers, have been investigated in a variety of ways. Research suggests that the best questions are clear and closely related to course objectives (Ferdig & Roehler, 2003) and of interest to

students (Hewitt, 2005). In addition, discussion thread openers should provide clear opportunity for everyone to have a unique response (Dennen, 2005). Research also indicates that including outside materials, (Himmelboim, Gleave, & Smith, 2009) or what might be termed anchoring artifacts (Dennen & Wieland, 2007), improves AODs.

There remains, however, some controversy surrounding how to best structure opening discussion questions. Bradley, Thom, Hayes, and Hay (2008) found that the influence of the discussion opener depended on how success was to be judged. If the goal was to generate a large volume of responses, presenting issues with two to four alternatives and asking students to justify a position was best. However, if the goal was to facilitate higher order thinking, then asking students to integrate information from the course with outside topics was a better opening strategy (Bradley et al., 2008). Educators are likely to have multiple objectives for AODs (Dennen, 2008) and therefore should carefully consider how to structure the opening question. In this study we consider whether providing outside materials (or anchoring artifacts) improves AOD outcomes. Classes in a question only condition participated in an AOD where the discussion opener contained only a question; in a question and content condition the same question was given with a link to an outside source for additional information.

### **Rules for Response**

A second area of consideration is whether to impose structure on how students respond. One option is to make no restrictions on how students respond. However, without turn-taking mechanisms, AODs often fail to accomplish stated learning objectives (Ravenscroft, 2011) and instead become a collection of individual messages written over time with no actual dialogue having taken place (Dennen & Wieland, 2007). A second option is to restrict the ways in which students can participate in the AOD. Ravenscroft (2007, p. 462) suggests that a highly structured system leads to “high quality and engaging critical dialogue” that would be unlikely to develop in less structured arenas. However, highly structured dialogues as described Ravenscroft (2011) are not readily supported by the types of course management systems (e.g., Blackboard, WebCT) likely to be available to most higher education instructors. Therefore, a more moderate level of control may be called for. Baker and Lund (1997) describe this middle ground as “flexible structuring” and suggest that such efforts can encourage students to utilize specific types of communication (e.g., question assumptions), lighten student typing load, allow for more time to be spent on productive dialogue, and avoid potential misunderstandings. In this study we compare open response (whereby students are given the freedom to respond in

whatever manner they choose) to guided response (whereby students were asked post their answer and respond to others' posts in one of three ways based on a system suggested in Brooks & Jeong (2006).

### **Evaluation of Asynchronous Online Discussion**

AOD is now a common fixture in higher education; however, there is little consensus regarding how to best evaluate student contributions (Bradley, et al., 2008) or impact on learning (Dennen, 2008). AODs can be examined from either a product-oriented or a process-oriented perspective. From a product-oriented perspective, AODs are considered successful when learners demonstrate knowledge regarding the discussion topic (Dennen, 2008). To judge AODs from a product-orientation perspective, researchers may choose from a pool of applicable assessments. One relatively easy option is word count (Bradley et al., 2008); however, more qualitative assessments related to message quality or demonstration of higher-order thinking are also possible (Bradley et al., 2008; Kay, 2006). In this study we consider four product-oriented outcomes: reading ease, grade level, quality of posts, and clarity of headers. From a process-oriented perspective, shared negotiation of meaning and sequenced idea exchange are critical elements of a successful AOD (Brooks & Jeong, 2006).

Process-orientation requires different assessment techniques because deeper learning through collaboration is the desired outcome (Brooks & Jeong, 2006). Dennen (2008) suggests that collaborative learning requires invisible acts of reflection (such as reading and contemplation); therefore, few clearly documented indicators are available. Some researchers, however, suggest that collaborative learning can be assessed by using depth of thread as an indicator that collaborative dialogue has occurred (Hew and Cheung, 2008). Thread depth is measured by the number of levels of message postings or by the number of individual postings that refer to a previous unique posting. Kay (2006) suggests that collaborative learning can be measured by examining the extent to which external resources are used. In this study we consider two process-oriented outcomes: use of outside resources and references to others' posts.

### **The Study**

During two consecutive semesters, 323 undergraduate marketing students from six sections of three different courses (Principles of Marketing, Marketing Management, and International Marketing) in two different public universities in the United States (one in the East, one in the Midwest) participated in AODs. Although classes met face to face, as part of the course

requirements students were required to participate in two separate AODs via Blackboard. Discussion boards were open for one week and all students were required to post at least twice. To determine the most effective way to structure an AOD a 2 (Opener: question only, question and content) x 2 (Response: open response, guided response) full factorial design was implemented. Two independent coders working separately read the students' posts and recorded scores for variables related to product-orientation (reading ease, grade level, quality of posts, and clarity of headers) and process-orientation (use of outside resources and reference to another post) outcomes.

## **Results**

Interestingly, when analyzed separately, the format of the opening discussion question and the response structure impact different dependent variables. Our results suggest that the format of the opening question can impact whether students reference other posts (a process-oriented outcome), as well as the reading ease and grade level of the students' posts (product-oriented outcomes). When considering the influence of the response structure, a different pattern of results emerges. Again both process-oriented outcomes and product-oriented outcomes are impacted with response structure shown to influence the inclusion of outside resources (a process-oriented outcome), the quality of the posts (a product-oriented outcome), and the clarity of the header (a product-oriented outcome). When considered jointly, the format of the opening question and the response structure imposed on students impacts whether students reference one another's posts and the reading ease and grade level of their responses.

Our observations suggest that both the opener and response structures are effective in impacting process-oriented and product-oriented goals for an AOD. Once instructors have identified goals that they hope to achieve and identified the assessment tools they will use to judge the success of the AOD, they should then select either the opener or response structure that provides the students with the best opportunity to exhibit the desired outcome. Furthermore, interaction effects suggest that when used in combination these designs can also be effective at enhancing specific AOD outcomes.

References Available upon Request