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Using Social Media to Enhance Learning through Collaboration in Higher Education: A Case Study

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Using Social Media to Enhance Learning through Collaboration in Higher Education: A Case Study

Background

Bradley and McDonald in a Harvard Business Review Blog discuss the difference between knowledge management and social media. They indicate that knowledge management is when company management tells employees what they need to know. In higher education faculty practice knowledge management by telling the students what they need to know. Social media is a method peers use to show connections the content they think is important. Bradley and McDonald believe that organizations can gain value from social media through mass collaboration. Mass collaboration occurs with “social media technology, a compelling purpose, and a focus on forming communities” (Bradley and McDonald, 2011). Can social media be used in higher education to enhance learning through student and faculty collaboration?

Pearson Learning conducted a survey in 2011 among 1,920 professors of higher education. The research showed that almost two-thirds of faculty are using some form of social media for the courses that they teach. Almost a third have posted content for class and a fifth have required students to comment on content. The most often used form of social media in class was viewing of on-line videos followed by reading or viewing content. The leading concerns for faculty about the use of social media were: integrity of online submissions, privacy, takes too much faculty time, faculty not confident with media, lack of integration with school’s LMS, and lack of institution support. When evaluating specific social websites, 53% of faculty indicated that Facebook has a negative value in the classroom, while 46% indicated Twitter has a negative value. However, Pearson does hypothesize that the benefit of using social media is the potential to “transform from pushing content outward to a way of inviting conversation, of exchanging information...” (Moran et. al., 2011).

A blog by Prof KRG discussed an ethics assignment that asked students whether teachers/professors should interact with their students on social media. Most of the small sample of students supported the use of social media in general, but did not support the use of Facebook for class interactions. The positives mentioned for social media are adapting to alternative learning styles and it allows for an extension of classroom discussions (Prof KRG, 2012).

Lau, Higgins, and Mullins examined the effectiveness of using Farm Town, a game that is integrated into Facebook, in teaching introductory economics at Texas A & M University and Sam Houston State University (Lau et. al., 2011). The research was conducted to examine student perceptions of introductory economics knowledge and how using Farm Town impacted that knowledge. In addition, they tested the effectiveness of a free social media simulation as a teaching tool. They found that: students were indifferent to computer use for course assignments, Farm Town helped them understand economic concepts and it was an effective tool. However, students didn’t like the assignment. Further, students that were non-majors preferred the assignment to majors. Overall, Lau et. al. did not recommend using Farm Town on Facebook for an economic simulation assignment.

There have been mixed reviews of the effectiveness of using social media to enhance learning. The purpose of this research is to examine how students perceive the benefits of using a new social media technology that delivers one-click access to industry news and enables discussions about the news concerning course material in their classes. It examines if students perceived that their experience with a new social media platform enhanced their learning. Knowledge management and social media are used together to enhance learning. Learning enhancement is expected to occur as the professor identifies the knowledge students need and students converse and collaborate about the information using social media.

Methodology

This research is a social media attitudes and usage study. It uses students' evaluations of participation in an alpha test of a new social news platform, ValuePulse, at California Polytechnic State University and National University of Ireland Galway. An alpha test is a test of a new platform by users before it is in its final form. The evaluations are used to examine the impact of using social media to deliver industry news to students on their learning about course material. ValuePulse is a social learning platform where students and professors in higher education can easily engage in real-time discussions about coursework and industry news. It provides one-click access to a virtual library of news feeds and class discussions. The library of news feeds eliminates clicking in-and-out of multiple news sources to find relevant and up to date course information. The clutter of discussions in messy email chains is also eliminated. Discussions are fully developed with no character limit. ValuePulse provides a rating function to identify valuable information and discussions. Figure 1 shows the landing page for ValuePulse.

Figure 1: ValuePulse Landing Page

VP | VALUEPULSE

ColinKeane [password] Sign In
Forget Password?

ValuePulse is a social learning platform where students and professors can easily engage in real-time discussions about coursework and industry news.

[Learn More...](#)

Facilitate discussion by quickly sharing, commenting and rating user content

One-click access to up-to-date information from a virtual library of leading industry news sources

Effortlessly communicate course material with pre-loaded, class organized content

ValuePulse allows students to:

- ✓ Avoid outdated material and messy email chains
- ✓ Apply course material to real-life situations
- ✓ Showcase industry knowledge to recruiters

What students and professors are saying...

Sign-up is easy. **JOIN NOW!**

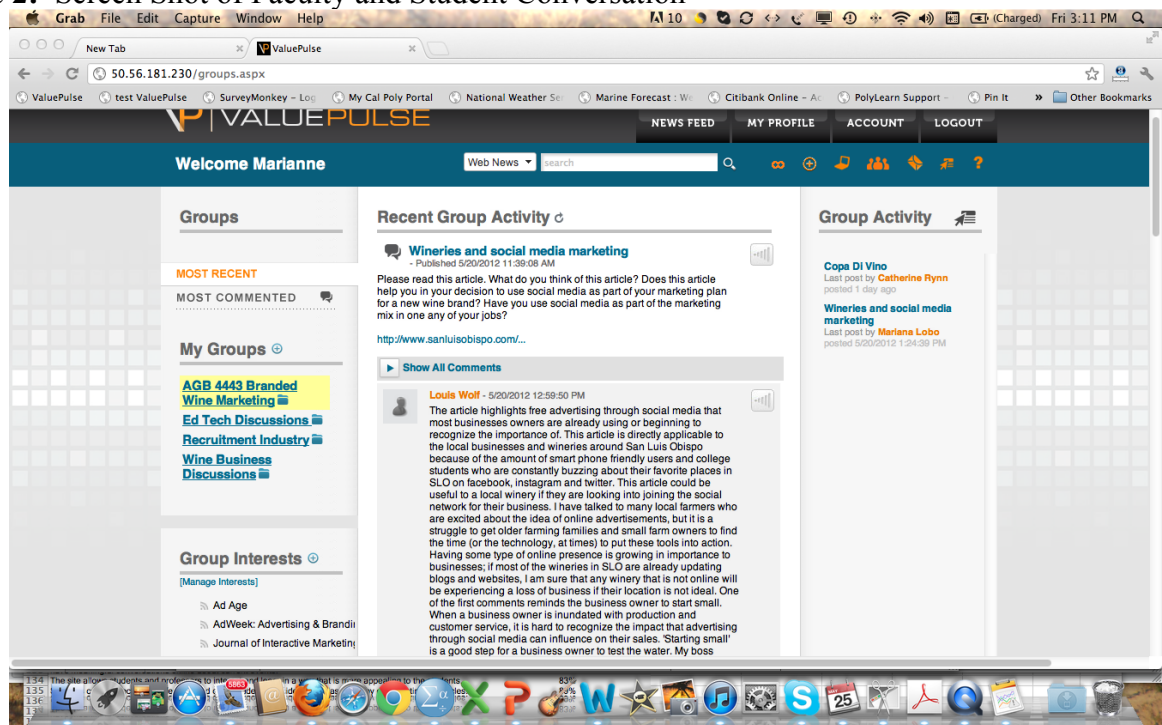
First Name*
Last Name*
Username*
Password*
Confirm Password*
Email* required

SIGN UP NOW

Privacy Policy | Terms of Service | Contact Us

This research examines whether students perceived their written communication skills, critical thinking skills, knowledge of coursework and field of study improved using ValuePulse. The alpha test was conducted among approximately 355 business students, agribusiness students, and engineers. Faculty used ValuePulse to send chosen articles about industry news to their students for discussion. Students also sent articles to each other and faculty to discuss their research topics for projects. Further, students uploaded assignment files and their classmates evaluated them. Students and faculty also used a rating tool on the platform to rate the usefulness of articles and discussions. Figure 2 displays a screen shot of a discussion between students and faculty in a branded wine marketing class on ValuePulse.

Figure 2: Screen Shot of Faculty and Student Conversation



Survey research was used to interview the students participating in the alpha test to understand if using ValuePulse enhanced their learning. The email survey was conducted when the courses were approximately 80% completed in November of 2011 for participants in the Fall Quarter and February of March of 2012 for participants in the winter quarter. After initial analysis of the fall Quarter results, questions were added to the Winter Quarter survey. The response rate for the survey was 77% with 275 students participating in the survey. The respondents were business students, 41%; agribusiness students, 44%; and engineers, 16%. All of the engineers were graduate students and 10% of the business students were graduate students. Graduate students were 20% of the survey sample. The proportion of male to female respondents was 55% to 45%.

The highest proportion of students participating in the alpha test, 60%, were in upper division classes, 300 to 400 level. Twenty-two percent were students in lower division courses, 200 level. Further, 18% of the students were in masters 500 level

courses. Most of the Masters level students, 78%, were in an entrepreneurship for engineers class. The remaining masters level students were in a marketing class. The survey data was analyzed using frequencies to evaluate total sample data. Chi-square tests were used to examine differences between students by course level.

Results

Social Media Platforms Used for Course Communications

Students were asked how they currently communicate with their professors and/or classmates. Most students used the LMS available at their university, Blackboard or Moodle/Poly Learn. Email was used by 96% of the students. Facebook was the top used tool for the lower and upper level course students. However, google docs was used most by the masters level students. The students in the lower level courses were less likely to have used wikis, Twitter, Facebook pages, emails of articles, links of emails to articles, and goggle docs (Table 1). This is likely because they have had less experience in coursework and have taken a smaller number of courses and smaller variety of faculty that use different tools. However, the students in lower level courses were more likely to indicate that they used “other social media tools.”

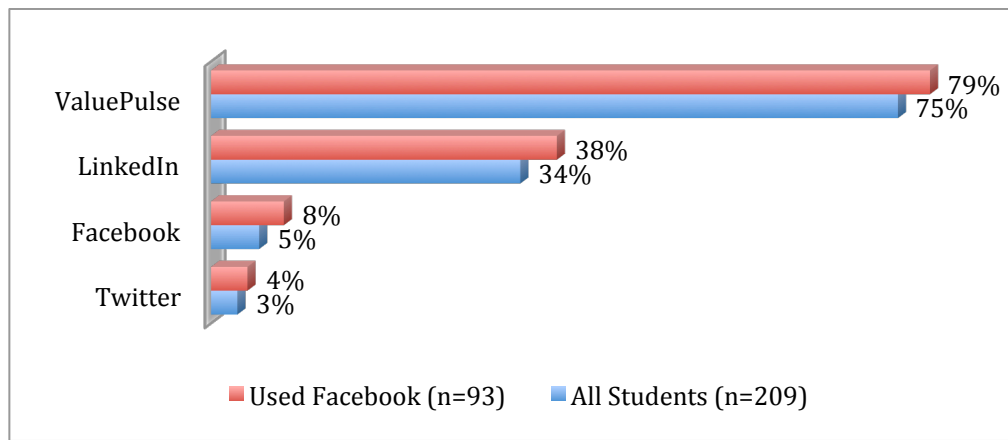
Table 1: Percentage Use to Communicate with Professors and/or Classmates by Course Level

| | <u>Lower</u> (n=60) | <u>Upper</u> (n=164) | <u>Masters</u> (n=51) | <u>P Value</u> |
|-----------------------------|------------------------|-------------------------|--------------------------|----------------|
| google reader | | 3.0% | | 0.18 |
| other social media tools | 6.7% | 1.8% | | .056* |
| google+ | | 4.3% | 2.0% | 0.22 |
| wikis | 1.7% | 3.0% | 13.7% | .003** |
| Twitter | 1.7% | 4.9% | 17.6% | .001** |
| blogs | 5.0% | 7.9% | 9.8% | 0.62 |
| Facebook like pages | | 17.1% | 21.6% | .001** |
| YouTube | 3.3% | 10.4% | 5.9% | 0.19 |
| emails of articles | 15.0% | 36.0% | 41.2% | .004** |
| Facebook groups | 15.0% | 37.8% | 37.3% | .004** |
| emails of links to articles | 18.3% | 36.6% | 45.1% | .007** |
| google docs | 8.3% | 40.2% | 49.0% | .000** |
| Facebook | 43.3% | 48.2% | 45.1% | 0.79 |

The appropriateness of different social platforms for communication about coursework with faculty was also examined. ValuePulse was preferred to existing networks by three-fourths of the students. Although almost half of the students have used Facebook to communicate with other students and/or faculty, only 5% of students believe it is extremely or very appropriate for discussions between students and faculty about important information concerning coursework (Figure 3). Further, only 8% of the

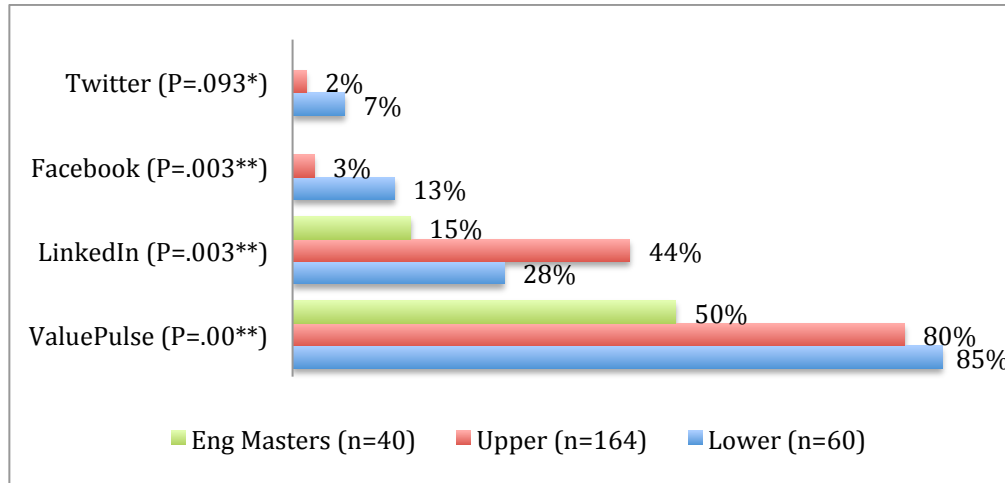
students that used Facebook for communications with classmates and/or faculty believed it is extremely or very appropriate. Perhaps the high proportion of Facebook use was between students. The low appropriateness rating for Facebook is similar to the findings of the Prof KRG blog. It appears to also agree with the Lau et. al. research that found students did not like the economic simulation assignment using Farm Town on Facebook. Facebook is appropriate for social interactions, but students do not find it appealing for their interactions with professors about important information for coursework.

Figure 3: Extremely or Very Appropriate for Discussions Between Students and Faculty About Important Information Concerning Coursework Among All Student Users and Those that Have Used Facebook for Communications



Students in all course levels preferred ValuePulse over LinkedIn, Facebook, and Twitter (Figure 4). The marketing graduate students did not answer these appropriateness questions since they were added during the winter alpha test. Overall, the engineering graduate students do not believe the existing social media platforms were extremely or very appropriate for discussions between students and faculty about important information for coursework. None of the engineering graduate students rated Twitter or Facebook as extremely or very appropriate for discussions between students and faculty about important information concerning coursework. Only 15% of the engineering graduate students indicated LinkedIn was extremely or very appropriate for discussions about important information for coursework. However, half of them perceived ValuePulse to be extremely or very appropriate. Over 80% of the undergraduates that used ValuePulse thought it was extremely or very appropriate for discussions between students and faculty about important information concerning coursework.

Figure 4: Extremely or Very Appropriate for Discussions Between Students and Faculty About Important Information Concerning Coursework by Course Level



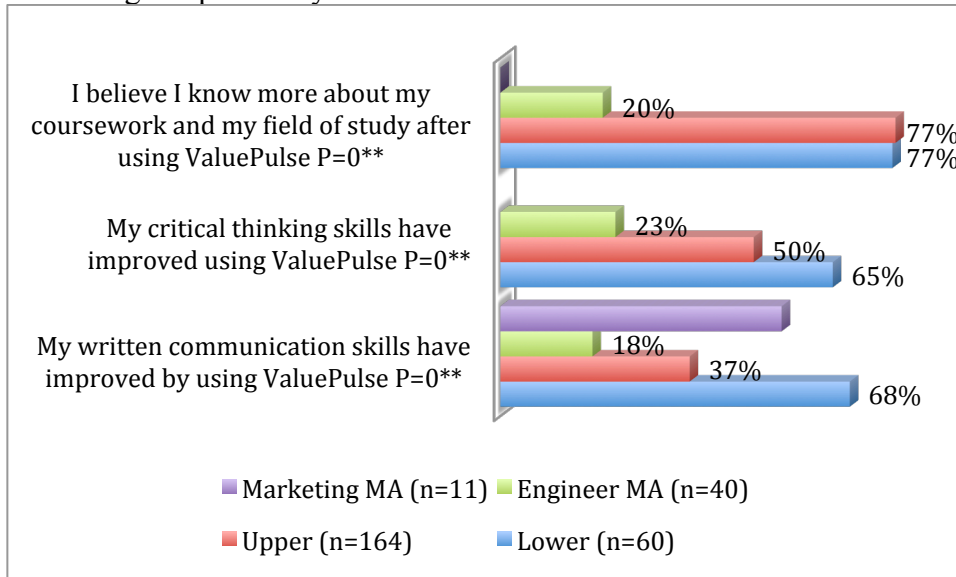
Learning Enhancements from Using ValuePulse

Students using ValuePulse to discuss industry news report positive learning enhancements. Almost half of the students using ValuePulse agree that their critical thinking skills improved using ValuePulse. In addition, 42% agree that their written communication skills improved using ValuePulse. Further, two-thirds of students believe that they know more about their coursework and field of study using ValuePulse.

Undergraduates were significantly more likely to perceive positive learning outcomes from using ValuePulse in their classes (Figure 5). Over three-fourths believed that they knew more about their field of study. Over two-thirds of the students in the lower level courses indicated that their written and critical thinking skills improved using ValuePulse. Half of the students in upper division classes perceived their critical thinking skills improved. Over a third of the students in the upper division classes perceived their critical thinking skills to improve. Similar to the business and agribusiness undergraduate students, over half of the marketing graduate students perceived enhanced written communication skills.

Only 18% to a quarter of the masters level engineering students agreed that their knowledge of their field of study, writing communication skills, and critical thinking skills improved using ValuePulse. The topics of discussion for the engineering graduate students were entrepreneurship, not engineering. They likely did not consider the information discussed on ValuePulse to be their field of study. Thus, they did not perceive improved knowledge of their field of study. These findings are similar to those in a social media attitude and usage study conducted by Wolf et. al. at Cal Poly among 602 students. Engineering students were the least concerned about staying up to date about current events in their industry and about writing about them (Wolf, 2012). Further, in the Wolf et. al. study, the engineering students were less interested in using social media for their coursework than students from other majors.

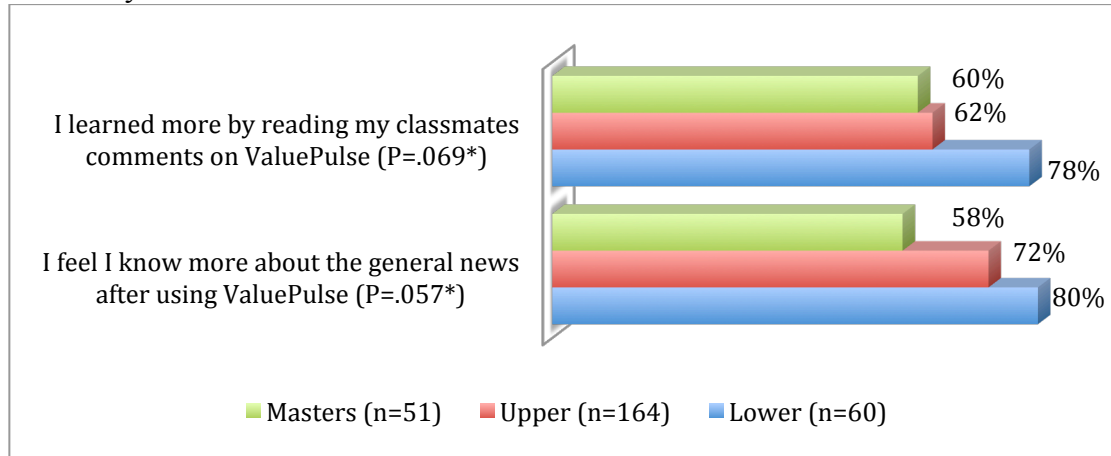
Figure 5: Percentage Agree Written Communication, Critical Thinking, and Coursework Knowledge Improved by Course Level



Two-thirds of the students believed they learned more by reading the comments of their classmates and almost three-fourths know more about the general news. Therefore, it appears that reading and discussing industry news using the ValuePulse social media platform enhances collaboration and learning. These results appear to support Bradley and McDonald’s hypothesis that organizations can gain value from social media through mass collaboration.

The positive impacts of mass collaboration using ValuePulse on the undergraduates in lower division courses is higher than for the upper division students with over three-fourths indicating they know more about the general news and they have learned through reading the comments of their classmates (Figure 6). Most students in the upper division classes indicated that they know more about the general news and they have learned through reading the comments of their classmates. Over half of the graduate students agree they know more about the general news and they have learned through reading the comments of their classmates.

Figure 6: Percentage Agree Know More Reading Classmates' Comments and About the General News By Course Level



Most students agreed that their overall learning was enhanced using ValuePulse. The undergraduates overwhelmingly agreed that: using ValuePulse makes me feel more connected to my professor and classmates than using traditional communication methods for my classes; ValuePulse opens the door to meaningful discussions and education online in a new and exciting way; the ability to comment on articles and share one’s opinion makes news more personal, as it allows students to have meaningful conversations online about current events; and the site allows students and professors to interact and learn in a way that is more appealing to the students (Table 2). All of the students agreed that students can connect with professors and other students outside of the classroom by commenting on articles.

Table 2: Percentage Agree Concerning Using ValuePulse by Course Level (n=265)

| | <u>Lower</u> (n=60) | <u>Upper</u> (n=164) | <u>Masters</u> (n=51) | <u>P- Value</u> |
|--|------------------------|-------------------------|--------------------------|-----------------|
| Students can connect with professors and other students outside of the classroom by commenting on articles. | 90% | 92% | 82% | 0.172 |
| The site allows students and professors to interact and learn in a way that is more appealing to the students. | 93% | 86% | 61% | .00** |
| The ability to comment on articles and share one’s opinion makes news more personal, as it allows students to have meaningful conversations online about current events. | 90% | 85% | 65% | .002** |
| ValuePulse opens the door to meaningful discussions and education online in a new and exciting way. | 88% | 80% | 52% | .00** |
| Using ValuePulse makes me feel more connected to my professor and classmates than using traditional communication methods for my classes. | 80% | 63% | 49% | .003** |

Overall Evaluation of Using ValuePulse Social Media Tool for Course Material

Almost half of the students thought it is an excellent or very good idea for professors to use ValuePulse to communicate about coursework with students. While 83% thought it was at least a somewhat good idea.

The undergraduate students were more likely to indicate using it was a good idea for Professors to use ValuePulse to discuss important information (Figure 7). However, an examination of the small sample of marketing graduate students shows that 100% indicated it is an excellent or very good idea for professors to use ValuePulse to discuss important course information with students (Figure8).

Figure 7: How Good of an Idea It Is for Professors to Use ValuePulse to Communicate About Important Information Concerning Coursework to Students By Course Level (n=273)

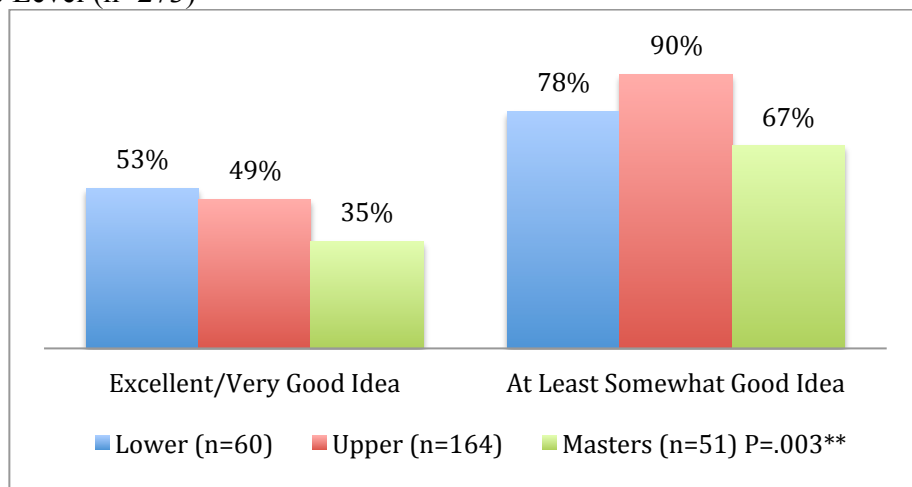
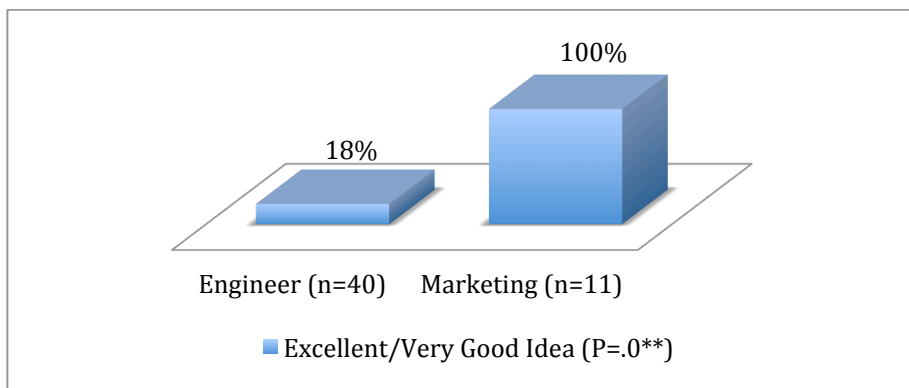


Figure 8: How Good of an Idea It Is for Professors to Use ValuePulse to Communicate About Important Information Concerning Coursework to Students By Masters Level By Subject (n=51)



Further, 77% of the students were at least somewhat likely to recommend the use of ValuePulse to their professors. The undergraduates were more likely to be extremely or very likely to recommend the use of ValuePulse to their professors (Figure 9). An examination of the small sample of graduate students shows that only 15% of the

engineering students would recommend the use of ValuePulse to their professors. However, 82% of the marketing masters students were extremely or very likely to recommend ValuePulse to their professors (Figure 10).

Figure 9: Extremely/Very Likely Would Recommend ValuePulse to Professors By Course Level

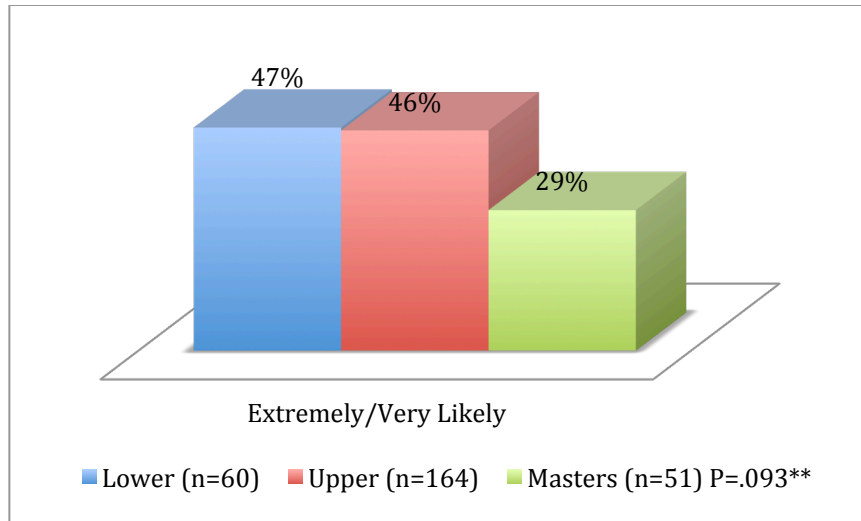
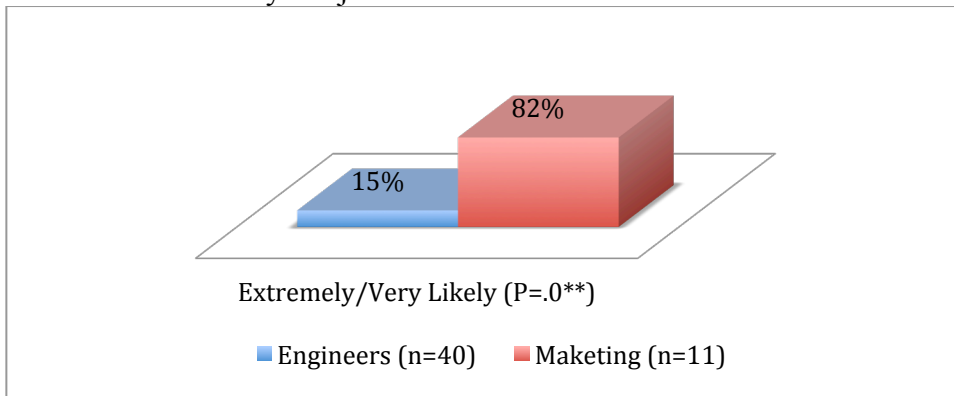
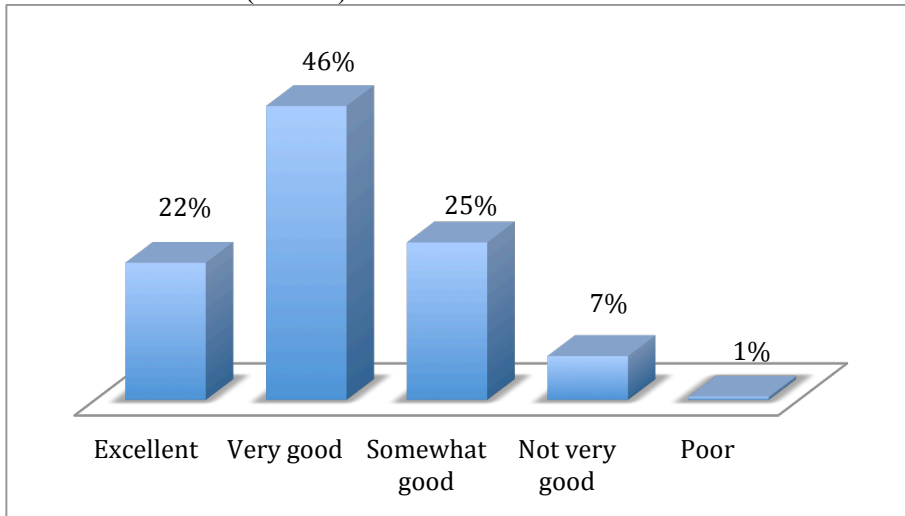


Figure 10: Extremely/Very Likely Would Recommend ValuePulse to Professors Among Graduate Students by Subject



Two-thirds of the students also thought it was an excellent or very good idea for industry professionals to be included in class discussions on ValuePulse (Figure 11). Although the engineering masters level students were not as equally as likely to indicate that conversations about industry news with students and professors was a good idea, they were interested on discussing industry news with industry professionals on ValuePulse.

Figure 11. How Good of an Idea It Is to Include Industry Professionals in ValuePulse Class Discussions (n=207)



Conclusions and Recommendations

The business and agribusiness students participating in the alpha test of the new social news platform, ValuePulse, experienced learning enhancement by collaborating with classmates and discussing industry news. The students in the lower division courses perceived more benefits than the students in the upper division classes. The students perceived that they had improved critical thinking skills, written communication skills, and know more about their field of study. They indicated that reading their classmates' comments helped them learn more. Further, they know more about the general news. The engineering students did not experience as significant a positive impact on learning. However, they did have positive outcomes. It appears that knowledge management combined with social media can enhance learning in higher education.

Most of the students indicated that it is a good idea for professors to use ValuePulse to communicate about important information with their students and they would recommend it to their other professors. Further, ValuePulse was strongly preferred for communications about course information with professors over the existing platforms, LinkedIn, Twitter, and Facebook. It is recommended that faculty in higher education engage their students by using a social media platform that is specially designed for higher education to bring their courses up to date with current information and combine knowledge management with social media to enhance the learning of their students.

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