# Perceived learning effectiveness of a course Facebook page: teacher-led versus student-led approach

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**Abstract**

This research aims to compare the perceived effectiveness of teacher -led and student-led content management approaches embraced in a course Facebook page designed to enhance traditional classroom learning. Eighty-five undergraduate marketing course students voluntarily completed a questionnaire composed of two parts; a depiction of a course Facebook page where both teacher and students can share instructional contents, and questions about perceived learning effectiveness. The findings indicate that students have more favorable evaluations of a student-led approach in sharing instructional contents on a course Facebook Page than a teacher-led approach.  Additionally, it is shown that instructional contents posted by both teacher and students enhance the overall learning effectiveness of a course Facebook page incorporated into a traditional classroom teaching.

Keywords: Social Media, Facebook, learning effectiveness, content management

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## 1. Introduction

Today, 90% of young adults (ages 18 to 29) use social media (Perrin, 2015). Notably, Facebook continues to be the most popular social media site among young adults (Duggan et al., 2014). 87% of young adults currently use the service, compared with 84% who did so in 2013. Instagram, Twitter and Pinterest are the other popular social media sites among young adults with the usage rates of 53%, 37% and 34%, respectively.  With the quick and widespread adoption of social media, colleges and universities across the globe have started to consider these social network sites as a tool for teaching and learning within and beyond the classroom.  Specially, Facebook is already being widely used to improve learning outcomes for young learners (Fordham & Goddard, 2013). Previous studies shows that Facebook is a valuable educational tool that promotes academic communication, discussion and course engagement, facilitates access to course materials, and allows publication of announcements and notifications of course related information (Buzzetto-More, 2012; Irwin et al., 2012; McCarthy, 2012; Suat et al., 2015). However, the scarcity of research on how to integrate Facebook into the traditional learning environment to achieve the best possible student learning experiences calls for studies that consider the managerial aspects of such an online learning activity. The purpose of this study is to compare the perceived effectiveness of teacher -led and student-led content management approaches embraced in a course Facebook page designed to enhance traditional classroom learning.

## 2. Literature Review

According to the constructivism, "knowledge is created, or constructed, by each learner", and thus, desires learner-centered instructions (Lin & Hsieh, 2001). In the current higher education landscape, "a paradigm shift has occurred in education from "teaching as instruction" to "student-centered learning" (Duff & Ney, 2015). The growing popularity of Web 2.0 technologies are seen to offer an important informal learning environment that place students at the center of learning activities (Selwyn, 2007). Examples of educational use of digital applications include Twitter, Facebook, blogs, wikis, and Second Life (Dabbagh & Kitsantas, 2012). Several studies highlight the educational benefits of social networking services in terms of enabling learning to be student-directed, active, authentic, media rich, and available on demand (Buzzetto-More, 2012).

Facebook offers great potentials for addressing the digital learning styles of the current generation of students (Fogg et al., 2011). It is also argued that students perceive traditional instructional technologies (eg., websites, e-mail) to be more effective than social and interactive digital tools (e.g., Facebook, Wikis, blogs, virtual worlds) (Buzzard et al., 2011). In addition, integrating Web 2.0 applications into traditional teaching formats needs course content to be explicitly redesign to support student engagement (Cole, 2009).  One of the challenges of the current digital landscape of higher education is choosing and identifying the best use of Web 2.0 technologies while meeting changes in industry requirements and student expectations (Duff & Ney, 2015). Therefore, more research needs to be conducted to explore the use and efficacy of social networking technologies appealing to digital natives to supplement traditional classroom learning (Buzzetto-More, 2012; Selwyn, 2007).

Digital-age students demand greater autonomy, connectivity and opportunities for socio-experiential learning experiences (McLoughlin & Lee, 2008). The demand-pull learning approach of the 21st century requires recognition that students are active participants and co-producers, even the masters, of learning content (Brown & Adler, 2008). Therefore, in the Web 2.0 era, a pedagogical change that promotes the production, sharing and use of student-generated content is needed (McLoughlin & Lee, 2010). The underlying benefit of student-centric Web 2.0 pedagogy is that learning occurs when students construct and build their own content and knowledge in an interactive context (Boettcher, 2006). Facebook can be considered as an ideal venue to provide such a learner-directed teaching environment (Kent, 2014).

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Although specific Facebook uses designed and driven by educators are now embedded in many courses to support student learning (Kent & Leaver, 2014), successful integration of Facebook into learning environment depends on how this pedagogical tool is used (McLoughlin & Lee, 2014). In other words, additional research is needed to understand the perspectives of students regarding why and how they want to use Facebook as a learning tool (Buzzetto-More, 2012; Irwin et al., 2012; McLoughlin & Lee, 2014).

According to the Facebook Guide for Educators, web-based learning communities on Facebook can meet the needs of the current generation of students and their digital learning styles by "shifting the learning responsibility to the student, requiring students to take a more active role in their own learning process and emphasizes teachers as providers of help as needed to overcome difficulties" (Fogg et al., 2011).

In this regard, the effectiveness of a course Facebook page for university student learning may highly depend on the teaching format; teacher versus student centered educational method. A teacher-led approach requires instructors to share educational images, videos, news and other resources, and students can be considered as passive consumers of educational content. On the other hand, students are responsible for educational content management as active learners where instructors serve as a "guide on the side" in a student-led approach.

Previous research states that student- and teacher- centered teaching methods are both valuable and effective learning formats (Adler et al., 2004; Andrews, 1981; De Volder et al., 1985). It is also noted that relative effectiveness of methods varies depending on many factors, and thus, calls for empirical examination of their effects in designing the educational setting.

## 3. Methodology

85 undergraduate students who enrolled in an elective marketing course offered at Izmir University of Economics voluntarily participated in the study in the fall semester of 2015. The sample consisted of 51% females and 49% males. The mean age was 22.32 years (SD = 1.54).

In the first part of the questionnaire, a depiction of a course Facebook page where both teacher and students can post instructional contents was provided in the first part. In the second part, participants were asked to answer the questions about perceived learning effectiveness. Perceived effectiveness of teacher –led and student-led approaches were both measured by a single item: "On a course Facebook page, instructional contents posted by the instructor will help me learn" and "On a course Facebook page, instructional content posted by students will help me learn", respectively. Overall learning effectiveness was measured with one item adopted from Halic and her colleagues (2010): "I believe that incorporating a Course Facebook Page with a traditional classroom teaching can enhance my learning experience in general". Students responded to all items on five-point Likert scales with 1 indicating ''strongly disagree'' and 7 ''strongly agree''.

## 4. Results

Mean ratings indicate that students had favorable evaluations for the learning effectiveness of student-led approach (SL) ($M_{SL}$ = 6.08, $SD_{SL}$ = 1.08) and teacher-led approach (TL) ($M_{TL}$ = 5.47, $SD_{TL}$ = 1.26) in sharing instructional contents on a course Facebook Page. Similarly, the mean score of the effectiveness of a course Facebook page (CFP) designed to supplement traditional classroom teaching demonstrated favorable students evaluations ($M_{CFP}$ = 6.27, $SD_{CFP}$ = .95). Table 1 presents the results of student evaluations of learning effectiveness of teacher- and student-led approaches, and course Facebook page.

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Table 1. Student evaluations of learning effectiveness of teacher- and student-led approaches, and course Facebook page

|  | Mean | Standard Deviation |
|---|---|---|
| Student-led approach | 6.08 | 1.08 |
| Teacher-led approach | 5.47 | 1.26 |
| Course Facebook page | 6.27 | .95 |

To compare the perceived effectiveness of teacher- and student-led approaches paired sample t-test was conducted. As shown in Figure1, a significant different was found between the ratings of the perceived effectiveness of teacher-led versus student-led approaches. Results reveal that students were inclined to evaluate the learning effectiveness of student-led approach more favorably ($M_{SL}$ = 6.08, $SD_{SL}$ = 1.08) than teacher-led approach ($M_{TL}$ = 5.47, $SD_{TL}$ = 1.26) [$t$ (84) = 5.271, $p$ < 0.05].

To examine the influence of perceived learning effectiveness of instructional contents posted by both teacher and students on overall learning effectiveness of a course Facebook page incorporated into the traditional classroom teaching, a multiple regression analysis was conducted. As shown in Table 2, results reveal that students who perceived high levels of learning effectiveness of instructional content sharing (ICS) reported higher levels of overall learning effectiveness of a course Facebook page [$F$ (2, 82) = 17.811, $p$ < .005, $R^2$ = .30]. In addition, perceived learning effectiveness of student-centered instructional contents sharing appeared to be a stronger predictor for overall learning effectiveness of a course Facebook page measure than teacher-centered instructional contents sharing ($\beta_{SL}$ = 0.4 versus $\beta_{TL}$ = 0.2).

Table 2. Multiple regression analysis results

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|
|  | B | SE | Beta |  |  |
| Constant | 1,981 | ,627 |  | 3,159 | ,002 |
| ICS by Teacher | ,220 | ,106 | ,238 | 2,083 | ,040 |
| ICS by Students | ,403 | ,123 | ,375 | 3,278 | ,002 |

## 5. Conclusion

This study explores how best to use Facebook as an instructional tool; whether the instructional content sharing on a course Facebook page should be student- or teacher-led? Findings indicated students perceive the course Facebook page integrated into traditional classroom teaching to be an effective learning tool. Results also revealed that students evaluate the learning effectiveness of student-led approach more favorably than teacher-led approach in sharing instructional contents on a course Facebook Page. In addition, findings implied that perceived effectiveness of student-led content management played a more significant role in the perception of course Facebook page promoting overall learning. In conclusion, the findings of this study support a student-centered learning approach in the context of educative uses of Facebook.

The most significant limitation of this study is that the data was collected from a small sample of young learners. Although Facebook seems to be more appropriate for young learners (Wang et al., 2012), there is need for research characterized by large-scale data sets (Selwyn, 2007). Another limitation is that all the scales used in this study were single-item measures. Future studies should

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examine students' perceptions of the pedagogical effectiveness of Facebook considering the formal and informal dimensions of learning.

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