

# Social Media and High Academic Achievers' Learning Experiences

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**Purpose:** The study aims to explore the experience of using social media in the learning process of high academic achievers. **Methodology:** A qualitative approach was employed by interviewing 10 final year high academic achievers from pure science and social science programs in a Malaysia public university. Data was analysed by using a thematic analysis. **Main Findings:** The findings revealed that social media was mainly used as supporting sources to increase students' understanding of a lesson. However, most of the participants agreed that social media contents, particularly peers' academic achievements and motivational quotes, increased their motivation to study and obtain high academic achievement. Applications: The universities could optimize their social media platform by highlighting individual students' achievement through good narration and photos that could develop intrinsic motivation to learn among students. Novelty/Originality: This study extends the current literature about social media and learning experience among students by focusing on high academic achievers perspectives. .

**Key words:** Social Media, High Academic Achiever, Learning Experience, Social Media Effectiveness, Social Media Content.

#### Introduction

Social media has become a flexible platform for learning communities which allows students to revisit previous learning (Baird & Fisher, 2005). Facebook, for example, expanded a Facebook group app which allows students to engage one another during the teaching process without interrupting lectures and getting support from classmates in collaborative learning (Stirling, 2014). With unlimited access to educational resources, students can also learn based on their preferences instead of being forced to study within a stipulated time as in a



conventional class. This new development aligns with the growing interest of present students towards social media. In 2013, 54 percent of students in Malaysia logged into Facebook between 2 to 5 times a day and spent over 60 minutes online daily (V. Balakrishnan & Shamim, 2013). Meanwhile, 15.7 percent of Malaysian students use social media for 1 hour or less, 28.9 percent of students use for 3 to 4 hours, 41.5 percent use for 4 to 5 hours and 13.9 percent use social media more than 5 hours a day (Ali, Raja, Nuri, & Iftikhar, 2017).

Due to the rapid development of technology in the field of global education and the high technological proficiency of Generation Z, the Malaysia Ministry of Education took the initiative to draw up a strategic plan to increase the use of information and communication technology (ICT) in education. This initiative focuses particularly on increasing internet access, providing technological infrastructure and equipment at all higher education institutions (HEIs), and encouraging educators to apply ICT in the teaching and learning process (Azizan, 2010) which among others are the use of social media in learning.

However, several earlier researchers had contrasting opinions that these initiatives caused students to spend more time on computers for recreational and other purposes rather than using them for academic purpose (Siddiquah & Salim, 2017). In addition, the most tangible practices where social media was used applied to surface-level guidance and social support (Moekotte, Brand-Gruwel, & Ritzen, 2017). Moreover, since social media now can be accessed through mobile phones, students can access their social media even during the class session without being caught (Al-Menayes, 2014). This kind of behavior is disturbing and could interfere the students' focus on learning (Wammes et al., 2019) and can lead to poor academic performance because of the excessive usage of social media (Kirschner & Karpinski, 2010; Al-Menayes, 2014; Lau, 2017; Giunchiglia et al., 2018). Students do not only decrease their grades, but also their health due to the lack of time management while using social media (Mensah & Nizam, 2016). The negative effect of social media on students' academic performance is also agreed by other scholars including Flanigan & Babchuk (2015) and Lepp et al., (2015). This research stated that students became lazy and inactive when using social media as the time they should use for learning is also used to socialize through Facebook, Instagram, and Twitter (Giunchiglia et al., 2018).

This study employs a qualitative approach to gain an in-depth understanding about students' experiences of social media and learning. This research aims to go beyond the education delivery scope, specifically among high academic achievers at HEIs, because it is undeniable that students with excellent academic achievement also use social media in the context of learning and social activity. Recently, social media had been used by students to document their roles and commitments to learning rather than to show off their academic achievements (Michikyan, Subrahmanyam, & Dennis, 2015). Social media is also used by students to gain



emotional support when faced with a life-long challenge (Valkenburg & Peter, 2011). The next section will discuss further prior studies related to different roles of social media in an academic context.

#### Literature Review

#### Social Media

Social media provides an online space to enable communication among people including students (V. Balakrishnan, Teoh, Pourshafie, & Liew, 2017). Social media is divided into several categories namely generic social network sites, professional and academic social networking sites, tools to write and comment, and tools to archive and retrieve content material (Manca & Ranieri, 2016). Among YouTube users in Malaysia, 91 percent used it for entertainment compared to only 55 percent for academic learning (Moghavvemi, Sulaiman, Jaafar, & Kasem, 2017). Facebook has been the most popular social media sites for students aged between 18 to 30 years old (Omar, Hassan, Sallehuddin, & Abdullah, 2016). As well as enabling users to interact with each other, Facebook provides users with virtual space to create user profiles, comment, and express thoughts about others' social media contents (Raja Nazim & Azman, 2019). Similarly, Instagram was created in 2010 to help users update their information through photos. On the other hands, YouTube focuses mainly on sharing videos to its users. As a result, social media expands its original purpose which is to connect people around the world to more variety usage such as learning and disseminating academic information.

#### The Effectiveness of Social Media for Students' Learning

In a study of 119 medical students, all of the students accessed Facebook pages to help their learning and acknowledged that social media improved confidence and reduced concerns over the assessment (Pickering & Bickerdike, 2017). Social media had also increased collaboration among students pursuing doctoral programs (Wandera, James-Waldon, Bromley, & Henry, 2016). It also can be a platform for students and teachers to discuss and share the course-related ideas (Bedir, 2016), and stimulate the students to have critical thinking skills and knowledge construction in the learning process (Boateng & Amankwaa, 2016). Moreover, there was a positive relationship between the use of social media and academic achievements in a study conducted on 761 undergraduate female students in Saudi Arabia (Rashid & Ashgar, 2016). Tezer et al. (2017) further concurred that the use of social media gave a positive effect on the students' achievement. It was also found that students with a higher attitude towards social media have higher academic achievement compared to the student who has a lower attitude towards social media (Tezer, Taṣpolat, Kaya, & Sapanca, 2017). In addition, a study of 1,774 university students in the United States showed that the



duration of Facebook usage can predict academic achievement for new students (Junco, 2015). Students in higher education level in China also claimed that social media usage had a positive contribution to their academic lives, and helped them enhanced their academic performance, as well as allowed them to share the class schedule, having a discussion and assignments, received and send information regarding their studies, built connection, and explored the study further (Boateng & Amankwaa, 2016).

On the other end of the spectrum, a research study conducted in Saudi Arabia found that there was no linear relationship between the use of social media with students' cumulative grade point average (CGPA) (Alwagait, Shahzad, & Alim, 2015). In Egypt, a study on students aged 12-19 also found that there was no correlation between social media and students' academic performance (El-Badawy & Hashem, 2015). These findings were further supported by Michikyan et al. (2015) who found that academic achievement of students in California had no significant relationship with the duration of Facebook usage. Moreover, social media had a positive relationship with student engagement but also negative relationships with student achievement (Haylett, 2016). Social media only increased collaboration but did not influence students' academic achievement (Wandera, et al., 2016). In support, using social media for the academic purpose did not predict students CGPA significantly (Lau, 2017). A negative relationship was also found between social media usage and academic performance (Othman, Apandi, & Ngah, 2017).

Based on the findings of previous researches, it is clear that there is mixed evidence regarding the effectiveness of social media on students' academic achievement across researches in multiple settings. With shared characteristics of students towards technology, this study argues that past researches were mostly conducted by using quantitative approach (Pickering & Bickerdike, 2017; Lau, 2017; Rashid & Ashgar, 2016; Tezer et al., 2017; Junco, 2015; Alwagait et al., 2015; Othman, Apandi & Ngah, 2017). Therefore, the dynamism and complexity of students' experiences with social media and learning were made into a parsimonious and simplified model. Furthermore, how social media develops students' motivation, and increases students' self-determination and efficacy are not thoroughly explored. Instead, previous research focused on testing the direct relationship between social media usage and students' academic performance. The majority of past researchers also did not pay specific focus on high academic achievers, although it is hard to refute the idea that almost all Generation Z students are highly engaged to social media. For that reason, this research is conducted to explore high academic achievers' experiences of social media and learning. Students from pure science and social science program were interviewed to achieve this objective.



#### Self-Determination Theory

Self-determination theory (SDT) explains human develop and intrinsic motivation when competence, autonomy, and relatedness are fulfilled (Ryan & Deci, 2000). The need for competence refers to the need to experience the feeling of being effective. Therefore, the need for autonomy can be explained by the freedom of thought and behaviour where an individual determines their action. The need for relatedness is fulfilled when one perceives that they are connected to others around him and that they belong to a particular social group that they favour (Hui & Wei, 2013). In this research, knowing how well others are doing through information shared on social media provides some form of self-evaluation on whether an individual belongs to the group they thinks they should belong to. If his peers social media contents exhibit more significant academic achievement than they have, the need for competence may increase, thus develop intrinsic motivation that drives to stronger effort to achieve higher competency in academics. However, autonomy is a prerequisite to this situation, where he is not pushed or urged by any external forces, for example, the parents, or teachers to sustain the internal motivation stronger and longer.

#### Methodology/Materials

This study employs a qualitative methodology by using a semi-structured interview method to collect the data. Based on purposive sampling method, 10 final year students of Universiti Pendidikan Sultan Idris, Malaysia who showed high academic achievement in social sciences and pure science programs were selected as the sample for this study. This university was selected because it was one of the few universities in Malaysia which offered a two-year diploma program in pure and social science. Most other universities offered three-years diploma programs. The researchers selected participants from a two-years diploma program because they believed that younger adults in their final year of the academic program (around 19 years old) had different characteristics towards social media compared to their older counterparts. The number of samples were determined by the saturation of the data where no further information was received through the interviews (Ness, 2015). The interview protocol was verified by two experts in the field of education. The interview recordings were transcribed in verbatim before it was analysed by using thematic analysis (LeCompte, 2000). To support the information presented through the interviews, observations were conducted on the social media contents of the participants. Participants' academic achievements were also verified through relevant documents such as test scores and examination results. Through the thematic analysis, responses were coded and incorporated into the theme.



#### **Findings and Discussion**

10 high academic achievers from the science and social sciences background were interviewed in this research. Most of these participants previously studied in national school and their mothers were mostly housewives. During the time when the interviews were conducted, they were all in their final year of diploma programs and obtained at least 3.7 in their CGPA. The data analysis revealed two themes as the following.

#### Effectiveness of Social Media in Learning

Based on the interviews, all participants agreed that social media alone did not directly improve learning and it was better separated from learning. This evidence is parallel with Moorthy et al. (2019) who found that students do not perceive Facebook as a useful media for learning because the students believed that Facebook should mainly be used for communication and maintaining relationship only. Some millennial students also remain cautious about using social media for academic purposes although they are usually regarded as digital natives (Neier & Zayer, 2015). A participant from science background stated that:

"As for education, it (social media) just don't fit in. For me, education is a different thing." (Rita, Pure Science Participant)

One possible reason why the participants split the use of social media and learning is that the consistent habit of using social media, such as Facebook, distracts the students from engaging in school-related activities or projects (Datu, Yang, Valdez, & Chu, 2018). As a result, the overuse of social media could lower their academic achievements. Therefore, the participants explained that the co-use of social media and conventional learning was a more ideal alternative to help students in achieving higher academic performance. This happened because, according to the students, social media had complementarily assisted them during self-learning to fully understand the lectures delivered in traditional classes. For instance, Maya said:

"Social media is like a back-up to help me. What really helps me to understand is the learning material given by the lecturers. The social media is just an additional source to get me understand a topic". (Maya, Pure Science Participant)

However, the social science participants further explicated that they mostly benefited from social media due to high accessibility and availability of online educational contents. Liana, a shy and quiet girl, said that social media allowed her to look for additional information without having to attend a face-to-face meeting with her lecturer. Students are no longer limited to retrieve information from their lecturers, but they can exchange educational



information through social media with others too (Al-Rahmi, Alias, Othman, Marin, & Tur, 2018).

"I think it should be a balance between depending on a lecturer and doing your own search for more information in social media to help ourselves study. It's because I am an introvert person and I don't really feel like asking my lecturer all the time. It's kind of embarrassing for me". (Liana, Social Science Participant)

Meanwhile, Mila further supported Liana's claim when she said:

"We now have teachers in online platform. So, in terms of education there are always teachers who are ready 24 hours to help us in case we have anything to ask".

#### Social Media Contents

The social media content which influenced the learning of both pure science and social science participants was peers' achievement. Observing others' achievements shared on social media motivate the participants to work harder to get the higher academic achievement. For example:

"In my friend's post, she shared her achievement like getting up on a stage (to receive an award) or something. I think that helped to motivate me to compete with my own best friend. Because I don't want a gap between us. We should be successful together". (Mila, Social Science Participant)

"I felt jealous. But at the same time, I think if she can do it (successful in academics) why can't I?" (Sara, Pure Science Participant)

The male participants also described similar experience when he claimed that:

"I feel like competing with him (a friend). I can't let him have it all!". (Adli, Pure Science Participant)

The responses from participants were also proven that observing the academic achievement of others through social media gradually influence and create motivation for the participants. The following excerpt illustrates this situation.

"Before this, I studied in another college but I dropped out for a certain reason. At that time, I just signed up to Instagram. I followed my friends who continued their studies. Then, I browsed through Instagram posts as usual but when I saw my friend posted what she was doing in class, I watched her story, I felt like I wanted the same thing for myself. That was



when I determined to further my study again and I told my parent about it. I don't want to make any more mistake. Thank god, from semester 1 until now I did well". (Afiqah, Social Science Participant)

The envious feeling towards peers described by the participants in the excerpts connoted that social media contents triggered deep emotion which later translated into positive behaviour towards learning. As explained in the SDT, when they observed the higher achievement of others, they felt incompetent and ineffective in their roles as students. Rather than feeling negative, they challenged themselves by autonomously choose their definition of success which in this case through high academic achievement and strive towards it. Yang and Chang (2012) further supported this finding as they found that students showed positive motivation to learn from peer work when using social media. By achieving similar academic success as their peers, the participants could fulfil the need for competence and relatedness through social media.

Another social media content which was preferred by the participants was motivational quotes and videos. For these high academic achievers, positive online content is equally important to prepare themselves for quality learning. According to the pure science participants,

"Make sure to look for positive posts only. The negative one, though there's a lot of such posts on Instagram, we better avoid them. Just follow the positive one. Because they'll affect our mindsets". (Maya, Pure Science Participant)

"For me, I read quotes (motivational) everyday so I can be a better person day by day".(Akbar, Pure Science Participant)

"When I'm down, I like to watch Prof. Muhaya (a prominent motivational speaker). She instils positive emotion in me. Those things can give me a boost when I'm down". (Rita, Pure Science Participant)

"I like quotes (motivational). I read the quotes and if possible, I will repost it. When I'm posting a picture, I won't write silly or childish caption but I will take a nice quote as my caption. It can motivate me and at the same time I can learn something new". (Afiqah, Social Science Participant)

Siti Syamimi and Zuraidah Zainol (2017) highlighted that positive learning climate which can be linked to the positive feeling produced by reading motivational quotes on social media could influence students' academic performance. These findings are further bolstered by Fatiha, Slima, Mustapha and Yahia (2014) who explained that reading motivational quotes



about life can inspire students to face challenges. In other universities, motivational quotes were purposely added into students' complex assignment worksheet to cultivate positive association with the lecture (Smith, 2007).

#### **Conclusion**

The study aims to explore the experience of using social media in the learning process of high academic achievers. Based on the interviews, high academic achievers indicated that social media did not directly increase their academic performance. However, social media contents, particularly peers' achievement shared on social media and motivational quotes developed their motivation to learn and obtain high academic achievement. This finding is strongly supported by earlier researchers and SDT which explains that human need to be competent, autonomous and related to others. This study implies that students should be exposed more to motivational social media contents such as peers' academic achievement and motivational quotes to build students' inspiration. Moreover, universities could optimize their social media platform to increase students' learning. Rather than using this platform only for building brand image, they can highlight individual students' achievement by using good narration and photos that could develop intrinsic motivation to learn among students. Sharing a success story about a person close to them who came from a similar background would make them realize the possibility of gaining the same success.

#### **Limitation and Study Forward**

Despite the contribution of this study towards education discipline, the findings are yet to be generalized due to the qualitative methodology employed. However, high academic achievers from pure and social science programs were selected to ensure that the heterogeneity of responses was captured in this study. Moreover, this study also excludes younger participants (<18 years old) from schools who would probably have a different learning culture and restriction to use social media. This study suggests future researchers utilize quantitative research methodology, increase the number of samples and consider high school students because they will be the next generation filling the higher education system soon.

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#### **REFERENCES**

- Al-Menayes, Jamal J. (2014). The relationship between mobile social media use and academic performance in university students. *New Media and Mass Communication*, 25, 23 29.
- Al-Rahmi, Waleed Mugahed, Alias, Norma, Othman, Mohd Shahizan, Marin, Victoria I, & Tur, Gemma. (2018). A model of factors affecting learning performance through the use of social media in Malaysian higher education. *Computers & Education*, 121, 59-72.
- Ali, M., Raja, R. A. I. B., Nuri, Al Amin B. E., & Iftikhar, B. (2017). Determining the academic Use of Social Media with Technology Acceptance Models. *NFC IEFR Journal of Engineering and Scientific Research*, 5, 1 6.
- Alwagait, E., Shahzad, B., & Alim, S. (2015). Impact of social media usage on students' academic performance in Saudi Arabia. *Computers in Human Behavior*, 51, 1092 1097.
- Azizan, F. Z. (2010). Blended learning in higher education institution in Malaysia. Paper presented at the In Proceedings of Regional Conference on Knowledge Integration in ICT, Kedah.
- Baird, D. E., & Fisher, M. (2005). Neomillennial user experience design strategies: Utilizing social networking media to support "always on" learning styles. *Journal of Educational Technology System*, 34(1), 5 32.
- Balakrishnan, V., & Shamim, A. (2013). Malaysian Facebookers: Motives and addictive behaviours unravelled. *Computers in Human Behavior*, 29(4), 1342 1349.
- Balakrishnan, Vimala, Teoh, Kung Keat, Pourshafie, Tahereh, & Liew, Teik Kooi. (2017). Social media and their use in learning: A comparative analysis between Australia and Malaysia from the learners' perspectives. *Australasian Journal of Educational Technology*, 33(1).
- Bedir, Abdullah. (2016). The Impact of Social Media Usage on Academic Achievements and Attitudes of University Students. Ocak: Ataturk University, Institute of Educational Sciences.
- Boateng, Raymond Owusu, & Amankwaa, Afua. (2016). The Impact of Social Media on Student Academic Life in Higher Education. *Global Journal of HUMAN-SOCIAL SCIENCE: Linguistics & Education*, 16(4), 1 8.



- Datu, Jesus Alfonso D, Yang, Weipeng, Valdez, Jana Patricia M, & Chu, Samuel Kai Wah. (2018). Is facebook involvement associated with academic engagement among Filipino university students? A cross-sectional study. *Computers & Education*, 125, 246-253.
- El-Badawy, Tarek A., & Hashem, Yasmin. (2015). The Impact of Social Media on the Academic Development of School Students. *International Journal of Business Administration*, 6(1), 46 52.
- Fatiha, Mouili, Sliman, Bouhamidi, Mustapha, Bakader, & Yahia, Maameri. (2014). Attitudes and motivations in learning English as a foreign language. *International Journal of Arts & Sciences*, 7(3), 117-128.
- Haylett, Corie. (2016). Use of social media for teaching online courses and enhancing business communication skills at the university level: Can this really be done? *International Journal of Online Pedagogy and Course Design (IJOPCD)*, 6(4), 71-85.
- Hui, H., & Wei, W. (2013). A Study on Formative Assessment of EFL in the Multimedia-based Environment in China. Asian Journal of Assessment in Teaching and Learning, 3, 1-14.
- Junco, R. (2015). Student class standing, Facebook use, and academic performance. *Journal of Applied Developmental Psychology*, 36, 18 29.
- Lau, Wilfred WF. (2017). Effects of social media usage and social media multitasking on the academic performance of university students. *Computers in human behavior*, 68, 286-291.
- LeCompte, Margaret D. (2000). Analyzing qualitative data. *Theory into practice*, 39(3), 146-154.
- Manca, Stefania, & Ranieri, Maria. (2016). Facebook and the others. Potentials and obstacles of social media for teaching in higher education. *Computers & Education*, 95, 216-230.
- Mensah, Sandra Okyeadie, & Nizam, Ismail. (2016). THE IMPACT OF SOCIAL MEDIA ON STUDENTS' ACADEMIC PERFORMANCE- A CASE OF MALAYSIA TERTIARY INSTITUTION. *International Journal of Education, Learning and Training, 1*(1), 14 21.
- Michikyan, M., Subrahmanyam, K., & Dennis, J. (2015). Facebook use and academic performance among college students: A mixed-methods study with a multi-ethnic sample. *Computers in Human Behavior*, 45, 265 272.



- Moekotte, P. B. F., Brand-Gruwel, S., & Ritzen, H. T. M. (2017). Teachers' beliefs about using technology to enhance the learning process of at-risk-students. *International Journal of Social Media and Interactive Learning Environments*, 5(2), 108–136.
- Moghavvemi, Sedigheh, Sulaiman, Ainin Binti, Jaafar, Noor Ismawati Binti, & Kasem, Nafisa. (2017). *Facebook and YouTube addiction: The usage pattern of Malaysian students*. Paper presented at the 2017 international conference on research and innovation in information systems (ICRIIS).
- Moorthy, Krishna, T'ing, Loh Chun, Wei, Khor Mei, Mei, Pauline Tan Zi, Yee, Chai Yan, Wern, Kevin Lim Jia, & Xin, Yue Mei. (2019). Is facebook useful for learning? A study in private universities in Malaysia. *Computers & Education*, 130, 94-104.
- Neier, Stacy, & Zayer, Linda Tuncay. (2015). Students' perceptions and experiences of social media in higher education. *Journal of Marketing Education*, 37(3), 133-143.
- Ness, Lawrence R. (2015). Are we there yet? Data saturation in qualitative research.
- Omar, Faradillah Iqmar, Hassan, Nor Azlili, Sallehuddin, Iza Sharina, & Abdullah, Nor Hafizah. (2016). Gen Y: A study on social media use and outcomes. *Journal of Management & Muamalah*, 6(1), 53-64.
- Othman, Wan Roslina Wan, Apandi, ZM, & Ngah, Nurul Haslinda. (2017). Impact of social media usage on students academic performance in Terengganu, Malaysia. *Journal of Applied Environmental and Biological Sciences*, 7(5), 140-144.
- Pickering, J. D., & Bickerdike, S. R. (2017). Medical student use of Facebook to support preparation for anatomy assessments. *Anatomical Sciences Education*, 10(3), 205 214.
- Raja Nazim, A., & Azman, M.N.A. (2019). Viral in Social Media: the Viralor and the Viralee. International Journal of Psychosocial Rehabilitation, 23(4), 1068-1076.
- Rashid, T., & Ashgar, H. M. (2016). Technology use, self-directed learning, student engagement and academic performance: Examining the interrelations. *Computers in Human Behavior*, 63, 604 612.
- Ryan, Richard M, & Deci, Edward L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
- Siddiquah, Aishah, & Salim, Zeema. (2017). The ICT facilities, skills, usage, and the problems faced by the students of higher education. *EURASIA Journal of Mathematics*, *Science and Technology Education*, 13(8), 4987-4994.



- Siti Syamimi Ismail, & Zuraidah Zainol. (2017). The efffect of authoritative school climate on students' academic achievement. *International Business Education Journal*, 10(1), 8-16.
- Smith, Felicia A. (2007). The pirate-teacher. *The journal of academic librarianship, 33*(2), 276-288.
- Stirling, E. (2014). We use facebook chat in lectures of course!" Exploring the use of a facebook group by first-year undergraduate students for social and academic supports *In An Education in Facebook: Higher Education and The World's Largest Social Network* (pp. 9). New York: Taylor & Francis.
- Tezer, Murat, Taşpolat, Ata, Kaya, Ömer Sami, & Sapanca, Hamza Fatih. (2017). THE IMPACT OF USING SOCIAL MEDIA ON ACADEMIC ACHIEVEMENT AND ATTITUDES OF PROSPECTIVE TEACHERS. *International Journal of Cognitive Research in Science, Engineering and Education*, 5(2), 75 81.
- Valkenburg, P. M., & Peter, J. (2011). Online communication among adolescents: An integrated model of its attraction, opportunities, and risks. *Journal of Adolescent Health*, 48, 121 127.
- Wammes, Jeffrey D, Ralph, Brandon CW, Mills, Caitlin, Bosch, Nigel, Duncan, Tracy L, & Smilek, Daniel. (2019). Disengagement during lectures: Media multitasking and mind wandering in university classrooms. *Computers & Education*, 132, 76-89.
- Wandera, Silas, James-Waldon, Natasha, Bromley, Debbi, & Henry, Zandra. (2016). The influence of social media on collaborative learning in a cohort environment. *Interdisciplinary Journal of e-Skills and Lifelong Learning, 12*, 123-143.
- Yang, C, & Chang, Y-S. (2012). Assessing the effects of interactive blogging on student attitudes towards peer interaction, learning motivation, and academic achievements. *Journal of Computer Assisted Learning*, 28(2), 126-135.