Incorporating Shared Tutorial Videos in Learning Photo-Editing Skills among Language Students

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ABSTRACT

In the midst of face-to-face class lessons in which plethora of knowledge could be exchanged and shared, some students may not be able to understand the content instantaneously as their classmates may do as there is 'too much information' that needs to be comprehended especially in learning hands-on skills like photo-editing programme. According to Sweller (1999), learning activity as such is considered as high-element interactivity, in which its material is difficult to understand. For this study, students were expected to grasp the skills of photo editing in Adobe Photoshop programme. This study intended to investigate the learning experiences of 23 students of Diploma in English for Professional Communication in acquiring photo-editing skills through the sharing of tutorial videos as an additional source of learning to reinforce their understanding. For this study, the tutorial videos provided steps on how to use a specific tool in Adobe Photoshop prepared by each student that was later shared on Google Classroom. A set of questionnaires was used to get the information on their perceptions' of using tutorial videos to enhance their understanding. This study would contribute to the teacher's understanding on how the usage of shared tutorial videos could minimise the effect of cognitive overload towards students' learning and how it facilitates their understanding towards their lessons.

Keywords: shared videos, tutorial videos, video-based learning, collaborative learning, cognitive overload

1.0 INTRODUCTION

Technology has affected our way of living in many ways including education. Education has acknowledged the important use of technology in delivering lessons in classes all over the world and we have been introduced to the term 'e-learning'. E-learning, which involves incorporating the use of technology like electronic devices or materials has changed the dynamic of learning in unimaginable ways. The emergence of digital technologies has allowed teachers to facilitate learning that takes place at students' own time and pace with the use of multimedia learning and teaching tools (Bergman & Sams, 2014). Technology has helped to solve many problems faced during class lessons.

One of the common problems that need to be addressed is cognitive overload. Students are exposed to new knowledge in classes everyday through lectures; some lectures are probably overloaded with plethora of knowledge and information. Information overload happened when humans are having too much information and certain extent of ability to process it (Benselin & Ragsdell, 2015). Some students may be overwhelmed by the information and may have difficulties in comprehending the information instantaneously. In regard to this, students may need other reinforcements such as journals and articles, educational web pages (Mohd Yusof & Ismail, 2014) and videos (Yousef, Chatti & Shcroeder, 2014) to improve their understanding.

To date, various research have evolved around the use of videos as a medium in learning and teaching Hadijah, 2016). In fact, videos have been proven to be one of the effective tools in delivering learning materials as they allow visual learners to maximise their learning capabilities during learning. With the easy access of Internet, many students prefer to find available resources of videos from the Internet such as YouTube and other Massive Open Online Learning Courses (MOOCs) (Seher & Selcan, 2017; Brame, 2015). Videos are one of the powerful resources available for students in current time, hence students tend to search for tutorial videos to get information as the visual learning method of video not only provides a vehicle for increasing access to practical demonstrations but also encourages cognitive learning and retaining knowledge (Charmichael, Reid & Karpicke, 2018). Afolabi (2016) stated that the effects of video clips can increase student engagement and activity, increase efficiency of the teaching process and students' attention towards the topic of the lesson. Besides that, tutorial videos not only provide theoretical information but also hands-on illustrations which encourages better engagement of the students in learning (Taylor & Parsons, 2011). Additionally, these illustrations show real-life practice and emphasise information that is almost impossible to demonstrate through written texts (Schneps, Griswold, Finkelstein, McLeod & Schrag, 2010).

With the use of tutorial videos, students are able to retrieve information that they may have missed during the class. In fact, the 24 hours availability of the videos online allows students to study in their own pace and have freedom to repeat the videos as many times as they want. This

gives them flexibility and comfort to study in their own pace. Besides that, the comment sections in the sharing platform let them post any inquiries if they have any doubts regarding the content. Students can respond by giving feedback to their classmates' questions and share possible solutions to their problems. Opinions and ideas can be exchanged to build more positive learning environment. This does not only provide the students with better understanding towards the content but they are also able to learn new things through this collaboration. Guided participation during the collaboration provides students with opportunities to support and learn from one another which may benefit them tremendously.

Collaborative learning is also encouraged when they exchange information with others in the comment sections. Any constructive feedback could boost their confidence in the respective subjects. This shows that learning from alternative sources could maximise one's potential in learning new things. Collaborative learning can be interpreted as active exchange of ideas within a small group which results to the increase of interests among the participants but also to enhance critical thinking and promotes deep learning among them (Scager, Boonstra, Peeters, Vulperhorst & Wiegant (2016). Thus, this study intended to investigate students' learning experiences using tutorial videos prepared by the students themselves in their process of learning photo editing skills.

1.1 Research Objectives

The objectives of the study are:

1. To identify if there is any significant difference in students' understanding in learning Adobe Photoshop skills after they are exposed to shared video tutorials
2. To investigate the students' perceptions on the benefits of learning through shared video tutorials

1.2 Research Questions

This study addressed these two research questions which are:

1. Is there any difference in students' understanding towards their Adobe Photoshop lessons after they are exposed to the shared video tutorials?
2. What are the students' perceptions on the benefits of learning through shared video tutorials?

1.3 Research Hypotheses

The hypotheses of the study is H1: There is a significant difference between using shared video tutorials in learning Adobe Photoshop skills and not using them

2.0   LITERATURE REVIEW

2.1   Cognitive Overload

Cognitive Load Theory was introduced by John Sweller where he emphasised on the reasons why people have more difficulty in comprehending complex content. This theory later played an important role in explaining how instructional designers should divide the teaching content into manageable sections to ensure the ability of the brain to convert short-term memory into long-term memory and application (Meacham, 2017). This study suggested that learning happens under best condition that fits the architecture of human cognitive. In order for learning materials to be effective, the cognitive load of learners must be kept at a minimum during the learning process (Bing & Huy, 2017). Jong (2010) illustrated that presented teaching materials should be kept simpler like using diagrams and illustrations to reduce cognitive load. Thus, this theory highlights the importance of having effective load of lessons to ensure the efficacy of learning.

Cognitive overload theory stems out from cognitive load theory. Cognitive overload happens when there is too much information that needs to be processed simultaneously at one time and it failed to be captured in the long-term memories (Pappas, 2016), hence causing the lessons to be ineffective. In congruent with Sweller's suggestions of mitigating the cognitive overload by chunking information into simpler categories, Pappas (2016) suggested using audios and videos for better comprehension for learners. This is because visuals in videos allow learners make it easy for learners to process unfamiliar information at one time. Furthermore, video editing enables information to be presented in diagrams, flowcharts and etc. In addressing this issue, each of the students in this study was asked to choose one tool on Adobe Photoshop and develop a video on how to use the tool; the video involved them giving instruction and show how to use the tool in screen capture mode using Camtasia application.

2.2   Videos in Teaching and Learning

The use of video materials is not limited to entertainment; in fact they are also used in education as a facilitator of learning. The video content made available by the Internet could be one source of valuable information which increases the effectiveness of teaching and learning (Wiechetek, 2018). The demonstration or application of theories learnt from the books made clearer especially on the information that would be impossible to adequately describe verbally or through written text (Rasi and Poikela, 2016, Schneps et al., 2010).

Videos also made it possible for 'ubiquitous learning' – the opportunity of learning anywhere at any time, to take place as video learning offers a cost-effective, location free method of flexible

study, that is available at all hours, allowing students to learn at their own pace (Carmichael, Reid & Karpicke, 2018). In term of students' language, video material provides a varied source of interaction, dialogue, monologue (different genres of talk). This provides a rich source of spoken grammar, phrases, chunks of language, pronunciation, intonation and features of natural talk (Keddie, 2014). During this time of rapid technological development, it is necessary for learners to improve the capacity of their knowledge and this should not only be limited to getting the knowledge from their respective teachers or lecturers. One of the ways for students to 'broaden their horizon' is by learning through collaborative learning.

2.3 Collaborative Learning

Collaborative learning is a process of building knowledge together which may involve providing expertise and receiving help among each other (Scager, Boonstra, Peeters, Vulperhorst & Wiegant (2016). Ofloherty and Phillips (2015) emphasised that students are encouraged to discuss problem-solving activities with each other, sharing knowledge and even teaching peers. Learners will not depend entirely on the teachers or lecturers for information when they are involved in collaborative learning. As stated by Noor Aileen et al (2015), when the students are working in groups, they will belong in a community that will lend their hands towards each other and they felt that they had academic and social support. Haber (2020) stated that most students are lack of skills to solve complex learning problems on their own. Aileen et al (2015) stated that this means that they will face difficulties in adapting to academic environment on their own. Thus, through collaborative learning, students are able to learn in a more dynamic environment which will benefit them tremendously as they have others to rely on (Noor Aileen et al., 2015). Not only that, they also may be getting extra or updated information from their friends which only makes the learning sessions become more interesting and productive. Learners are expected to be ready to complete the tasks and work together within their groups and they comprehend the topic in order to contribute to their group (Laal & Mohamed Ghodsi, 2011) For this study, collaborative learning was incorporated through shared tutorial videos on using certain tools in Adobe Photoshop; students were also allowed to shared their feedback in the comment sections.

3.0 METHODOLOGY

3.1 Research Design

This study made use of quantitative design approach. Descriptive statistics was used to analyse the data. For RQ1, paired-sample t-test test was conducted while for RQ2, frequency test was conducted. The paired sample t-test, sometimes called the dependent sample t-test, is a statistical procedure used to determine whether the mean difference between two sets of observations is zero. In a paired sample t-test, each subject or entity is measured twice.

3.2 Research Sample

For this study, 23 students of Diploma in English for Professional Communication from UiTM Cawangan Johor were selected based on purposive sampling method. Purposive sampling method is also known as judgment sampling involves choosing the sample of the study due to the qualities that they possess or having the knowledge about the area of interest (Cresswell & Plano Clark, 2011). Thus, these students were purposely selected since they were undergoing Desktop Publishing course in their second semester, which conveniently fulfilled the study's requirement. Besides that, these students had already been involved in some e-learning activities from other courses, hence the technology application in classrooms was not something unfamiliar to them.

3.3 Data Collection Procedure

The first step in collecting data was asking the students to take the first survey of students' schemata on using Adobe Photoshop application during the first class of Adobe Photoshop lesson (pre data). The survey involves a set of questionnaires in Likert scale form that was distributed to all 23 students through Google Form. After two weeks of formal face-to-face lessons, students were assigned to prepare a tutorial video of one of the skills (how to use a tool) learnt during Adobe Photoshop lessons. Then, students were required to share their tutorial videos on a designated Google Classroom. They were also encouraged to provide comments on their peers' tutorial videos and to refer to the videos in completing Adobe Photoshop class assignment. After two weeks, students were asked to complete and submit the survey on Adobe Photoshop skills (post data) and their perceptions on learning through shared video tutorials. Data were collected and analysed.

3.4 Data Analysis

The pre and post data collected was analysed statistically through the use of SPSS. A paired sample t-test was conducted to analyse the data for RQ1 to compare the students' understanding between using shared video tutorials in learning Adobe Photoshop skills and not using them. Meanwhile, the data for RQ2 was analysed using descriptive statistics (frequencies).

4.0 RESULTS AND DISCUSSIONS

4.1 RQ1: Is there any difference in students' understanding towards Adobe Photoshop lessons after they are exposed to shared video tutorials?

H1: There is a significant difference between using shared video tutorials in learning Adobe Photoshop skills and not using them

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre_1	1.6522	23	.83168	.17342
	Post_1	4.1304	23	.34435	.07180
Pair 2	Pre_2	2.3043	23	1.01957	.21260
	Post_2	4.4348	23	.50687	.10569
Pair 3	Pre_3	2.3478	23	1.11227	.23193
	Post_3	4.0870	23	.28810	.06007
Pair 4	Pre_4	1.8696	23	.86887	.18117
	Post_4	4.2174	23	.42174	.08794
Pair 5	Pre_5	1.4783	23	.59311	.12367
	Post_5	4.0435	23	.20851	.04348

Figure 4.2.1 Paired Sample Statistics

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Pre_1 - Post_1	-2.47826	.66535	.13873	-2.76598	-2.19054	-17.863	22	.000
Pair 2	Pre_2 - Post_2	-2.00000	.60302	.12574	-2.26077	-1.73923	-15.906	22	.000
Pair 3	Pre_3 - Post_3	-1.39130	.65638	.13686	-1.67514	-1.10747	-10.166	22	.000
Pair 4	Pre_4 - Post_4	-2.08696	.51461	.10730	-2.30949	-1.86442	-19.449	22	.000
Pair 5	Pre_5 - Post_5	-1.82609	.38755	.08081	-1.99368	-1.65850	-22.597	22	.000
Pair 6	Pre_6 - Post_6	-1.91304	.28810	.06007	-2.03763	-1.78846	-31.845	22	.000
Pair 7	Pre_7 - Post_7	-1.91304	.41703	.08696	-2.09338	-1.73271	-22.000	22	.000
Pair 8	Pre_8 - Post_8	-2.00000	.30151	.06287	-2.13038	-1.86962	-31.812	22	.000
Pair 9	Pre_9 - Post_9	-2.30435	.47047	.09810	-2.50780	-2.10090	-23.490	22	.000
Pair 10	Pre_10 - Post_10	-2.04348	.47465	.09897	-2.24873	-1.83822	-20.647	22	.000
Pair 11	Pre_11 - Post_11	-2.26087	.44898	.09362	-2.45502	-2.06672	-24.150	22	.000
Pair 12	Pre_12 - Post_12	-2.47826	.51075	.10650	-2.69913	-2.25739	-23.270	22	.000
Pair 13	Pre_13 - Post_13	-2.60870	.49901	.10405	-2.82448	-2.39291	-25.071	22	.000
Pair 14	Pre_14 - Post_14	-2.08696	.59643	.12436	-2.34487	-1.82904	-16.781	22	.000
Pair 15	Pre_15 - Post_15	-2.34783	.71406	.14889	-2.65661	-2.03904	-15.769	22	.000
Pair 16	Pre_16 - Post_16	-2.26087	.75181	.15676	-2.58598	-1.93576	-14.422	22	.000
Pair 17	Pre_17 - Post_17	-1.82609	.57621	.12015	-2.07526	-1.57692	-15.199	22	.000
Pair 18	Pre_18 - Post_18	-1.60870	.58303	.12157	-1.86082	-1.35658	-13.233	22	.000
Pair 19	Pre_19 - Post_19	-2.26087	.75181	.15676	-2.58598	-1.93576	-14.422	22	.000
Pair 20	Pre_20 - Post_20	-1.60870	.49901	.10405	-1.82448	-1.39291	-15.461	22	.000
Pair 21	Pre_21 - Post_21	-2.13043	.62554	.13043	-2.40094	-1.85993	-16.333	22	.000
Pair 22	Pre_22 - Post_22	-1.82609	.49103	.10239	-2.03842	-1.61375	-17.835	22	.000
Pair 23	Pre_23 - Post_23	-1.95652	.63806	.13304	-2.23244	-1.68061	-14.706	22	.000

Figure 4.2.1 Result of Paired Sample T-Test

A paired t-test was run to compare the students' understanding between not using shared video tutorials in learning Adobe Photoshop skills and using them.

For Pair 1, there was a significant difference in the scores for not using video tutorials (M=1.65, SD=0.83) and using them (M=4.13, SD=0.34) conditions; t (22) =-17.863, p=0.00

For Pair 2, there was a significant difference in the scores for not using video tutorials (M=2.30, SD=1.01) and using them (M=4.43, SD=0.51) conditions; t (22) =-15.906, p=0.00

For Pair 3, there was a significant difference in the scores for not using video tutorials (M=2.35, SD=1.11) and using them (M=4.08, SD=0.29) conditions; t (22) =-10.166, p=0.00
These results suggest that using shared video tutorials in learning Adobe Photoshop has effects in students' understanding.

4.2 RQ 2: What are the students' perceptions on the benefits of learning through shared video tutorials?

From the questionnaires, these questions were highlighted as they show interesting findings.

A majority of students agreed that preparing for the video tutorial had helped them to improve their skill in Photoshop. 70% of the students had thought that learning Photoshop skills from their friends' tutorials helped them to improve their own skills. Besides that, all of them agreed that tutorial videos helped them to refresh the skills they had learned in class. A majority of the students agreed that learning from the tutorial videos had boosted their understanding towards the usage of the tools in Photoshop. 60% of them agreed that they felt more confident to use Adobe Photoshop skills after preparing their own tutorial video. A majority of them also agreed that they enjoyed making tutorial video.

Question	SA	A	N	D	SD	Summary
Do you think preparing for the tutorial helped you to improve your skill in Photoshop?	60%	20%	20%	0%	0%	20% of students strongly agreed and 60% agreed that the tutorial had helped them to improve their skills in Photoshop.
Do you think learning Photoshop skills from your friends' tutorial videos has improved your own skills?	0%	70%	30%	0%	0%	70% of students agreed that learning Photoshop skills from their friends' tutorial videos had improved their own skills.
Do you agree that the tutorial videos can help you to refresh the skills that you have learned in class?	0%	100%	0%	0%	0%	100% of students agreed that the tutorial videos had helped them to refresh the skills they learned in class.
Do you agree that learning from the tutorial videos has boosted your understanding towards the usage of the tools in Photoshop?	10%	70%	20%	0%	0%	10 % of students strongly agreed and 70% agreed that learning from the tutorial videos had boosted their understanding towards the usage of the tools in Photoshop
Do you agree that you feel more confident in using Photoshop now (after preparing your own tutorial video)?	10%	50%	40%	0%	0%	10% of students strongly agreed while 50% agreed that they had felt more confident in using Photoshop now (after preparing their own tutorial video).
Do you enjoy making tutorial videos?	10%	50%	40%	0%	0%	10% of students strongly agreed and 50% agreed that they had enjoyed making tutorial videos.

Table 4.2.1 Findings of Students' Perceptions on the benefits of learning through shared video tutorial

5.0 DISCUSSIONS

Based on the analysis, the intervention of using shared video tutorials has shown positive results in enhancing students' understanding towards photo editing skills in Adobe Photoshop. This is probably because students were able to refer to the video tutorials whenever they faced problems in using the tools in the photo editing software. They were given freedom to repeat and rewatch the tutorial videos as many times as they wanted; they learned in their own pace. This is supported by Brame (2015) where they found that students who were able to control movement through video, select important sections to review and move toward the desired sections in a video have resulted to showing better achievement of lesson objectives and getting greater satisfaction in their learning.

Besides that, their resources were not limited only to the information given by the lecturer during the class tutorials; instead they had the tutorial videos and peers who could respond to their questions in Google Classroom. The comment sections provided a platform for collaborative learning among the students where the comments or suggestions given would help them to improve their skills in the future. This is supported by Laaal and Mohamed Ghodsi (2011)'s study where they highlighted that students working together represents most effective form of interaction. Zaka, Fox and Dacherty (2018) stated that students were able to discuss the problems encountered with their teacher and learn from one another with facilitation and direct engagement from the teacher. During this process, students interact with each other and exchange ideas and stimulate each other's thinking.

Since the students were assigned to prepare for the tutorial videos, some of the students agreed that they had improved their confidence in using the tools. This is probably because they needed to equip themselves with the assigned 'tool' before they shared the information with their fellow peers. This is congruent to Laal & Mohamed Ghodsi (2011)'s finding where students who teach each other need to first develop a clear idea of the concept or subject they are presenting and communicate orally to their peers. Most students also agreed that learning from their peers' videos enhances their own skills and understanding towards applying tools in Adobe Photoshop.

Being language students, most of them enjoyed preparing the videos as the preparing process of the videos creates opportunities for them to apply the communication strategies that they had learned in other language courses. This highlights that incorporating videos in their lessons does not only facilitate the process of mastering the skills of photo editing but also provide them with interesting and fun learning experiences.

6.0 CONCLUSION AND RECOMMENDATION

In conclusion, the intervention of shared tutorial videos among students during the lessons had a positive impact in helping them to succeed in the process of understanding the photo-editing skills. Using tutorial videos is not limited only to deliver the content as the sharing platform

allows for collaborative learning to take place. Collaborative learning should always be encouraged as it enhances problem solving and critical thinking skills among the students. Besides that, it also provides academic and social support to the students hence boosting their confidence in demonstrating the skills in a particular area. This study highlights that there is a significant impact of incorporating videos in students' lessons. Thus, more studies could be conducted relating to the use of videos in other areas of learning to ensure more students could benefit from it. Teachers or lecturers also could use this study to better understand students' different abilities in dealing with cognitive overload hence guiding them to produce more effective lessons.

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REFERENCES

Afolabi, A., Ojelabi, R. , Lekan, L.,Patience, T.O, Ignatius,O. & Ijeoma, E. (2016). The Impact Of Embedded Multimedia Video Learning Of Building Construction Practice On Construction Students. Proceedings of INTED2016 Conference 7th-9th March 2016, Valencia, Spain. ISBN: 978-84-608-5617-7

An, H., Kim, S., & Kim, B. (2008). Teacher perspectives on online collaborative learning: Factors perceived as facilitating and impeding successful online group work. *Contemporary Issues in Technology and Teacher Education*, 8(1). Retrieved from https://citejournal.org/volume-8/issue-1-08/general/teacher-perspectives-on-online-collaborative-learning-factors-perceived-as-facilitating-and-impeding-successful-online-group-work

Balbay, S. & Kilis, S.(2017). Students' Perceptions of the Use of a YouTube Channel Specifically Designed for an Academic Presentations Skills Course. *Eurasian Journal of Applied Linguistics*. Vol 3: 235-251.

Bing H. Ngu and Huy P. Phan (December 20th 2017). *Achievement Bests Framework, Cognitive Load Theory, and Equation Solving, New Pedagogical Challenges in the 21st Century - Contributions of Research in Education, Olga Bernad Cavero and Núria Llevot-Calvet, IntechOpen,* DOI: 10.5772/intechopen.70568. Available from: https://www.intechopen.com/books/new-pedagogical-challenges-in-the-21st-century-contributions-of-research-in-education/achievement-bests-framework-cognitive-load-theory-and-equation-solving

Benselin, J.C. & Ragsdell, G. (2015). Information Overload: The differences that ages make. *Journal of Librarianship and Information Science*, 1-14.

Bergman, J., & Sams, A. (2014). Flipped learning: Gateway to student engagement. Washington, DC: International Society for Technology in Education.

Brame, C.J. (2015). Effective educational videos. Retrieved [todaysdate] from http://cft.vanderbilt.edu/guides-sub-pages/effective-educational-videos/

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher,* 18(1), 32-42.

Carmichael, M., Reid, A.-K., & Karpicke, J. D. (2018). *Assessing the Impact of Educational Video on Student Engagement, Critical Thinking and Learning: The Current State of Play* (White Paper). Thousand Oaks, CA: SAGE Publishing, Inc.

Cresswell JW, Plano Clark VL. Designing and conducting mixed method research. 2nd Sage; Thousand Oaks, CA: 2011.

Doolittle, P.E. (2001). The need to leverage theory in the development of guidelines for using technology in social studies teacher preparation: A reply to Crocco and Mason et al. Contemporary Issues in Technology and Teacher Education, 1(4). Retrieved from http://www.citejournal.org/vol1/iss4/currentissues/socialstudies/article2.htm

Dolores M. & Tongco, C. (2007). Purposive Sampling as a Tool for Informant Selection. *Ethnobotany Research & Application* Vol 5:147-158

Haber, J. (2020) *It's Time to Get Serious About Teaching Critical Thinking.* Retrieved from https://www.insidehighered.com/views/2020/03/02/teaching-students-think-critically-opinion

Hadijah, Sitti & Pd, M. (2016). *Teaching by Using Video: Ways to Make It More Meaningful in Efl Classrooms.*

Ibrahim, NoorAileen ., Ya Shak, Muhammad Syafik., Mohd, Thuraiya., Ismail, Nur Ain., P. Dhayapari a/p Perumal, Zaidi, Azurawati., Ali Yasin, Siti Maryam. (2015) The importance of implementing collaborative learning in the English as a Second Language (ESL) Classroom in Malaysia. *Procedia Economics and Finance*. 31:346 – 353.

Jong, Ton. (2010). Cognitive load theory, educational research, and instructional design: Some food for thought. *Instructional Science.* 38. 105-134. 10.1007/s11251-009-9110-0.

Kessler, R.C., McCleod, J.D. (1985). Social support and mental health in community samples (pp.219-240), In Cohen, S. & Syme, S.L. (Eds.), *Social Support and Health*. San Fransisco, California; USA. Academic Publishing.

Laaal, Marjan & Mohammad Ghodsi, Seyed. (2011) Benefits of collaborative learning. *Procedia - Social and Behavioral Sciences* 31 (2012) 486 – 490.

Meacham, M. (2017). TMI!Cognitive Overload and Learning.https://www.td.org/insights/tmi-cognitive-overload-and-learning

Mohd Yusof, Fairuz Husna & Ismail, Othman. (2016). Writing Reflections Using Intranet WordPress Blog:. 10.1007/978-981-10-1458-1_85.

Neer, M. R. (1987). The development of an instrument to measure classroom apprehension. Journal of Communication Education, 36 (2), pp. 154-166.

O'Flaherty, J., & Phillips, C. (2015). The use of flipped classrooms in higher education: A scoping review. *The Internet and Higher Education*, *25*, 85–95.

Pappas, C. (2016). 7 Tips To Reduce Cognitive Overload In eLearning. Retrieved from https://elearningindustry.com/7-tips-reduce-cognitive-overload-elearning

Paavola, S., Lipponen, L., & Hakkarainen, K. (2004). Models of innovative knowledge communities and the three metaphors of learning. *Review of Educational Research*, 74, 557-577.

Panitz, T.(1999). Benefits of Cooperative Learning in Relation to Student Motivation", in Theall, M. (Ed.) *Motivation from within: Approaches for encouraging faculty and students to*

excel, New directions for teaching and learning. San Francisco, CA; USA. Josey-Bass publishing.

Rasi, P. and Poikela, S. (2016), 'A review of video triggers and video production in higher education and continuing education pbl settings', Interdisciplinary Journal of Problem-Based Learning 10(1).

Taylor, L. & Parsons, J. (2011). Improving Student Engagement. *Current Issues in Education*, 14(1).

Scager, K., Boonstra, J., Peeters, T., Vulperhorst, J., & Wiegant, F. (2016). Collaborative Learning in Higher Education: Evoking Positive Interdependence. *CBE life sciences education*, *15*(4), ar69. https://doi.org/10.1187/cbe.16-07-0219

Stahl, D. (2018). When There's Too Much to Learn: Supporting Your Child with Information Overload. Retrieved from https://www.pittsburghparent.com/when-theres-too-much-to-learn-supporting-your-child-with-information-overload/\

Schneps, M. H., Griswold, A., Finkelstein, N., McLeod, M. and Schrag, D. P. (2010), 'Using video to build learning contexts online', Science 328(5982), 1119–1120.

Yousef, Ahmed Mohamed Fahmy & Chatti, Mohamed & Schroeder, U. (2014). The State of Video-Based Learning: A Review and Future Perspectives. *International Journal on Advances in Life Sciences*. 6. 122-135.

Zaka, P. A., Fox-Turnbull, W. H., & Docherty, P. D. (2018). Student perspectives of independent and collaborative learning in a flipped foundational engineering course. Australasian Journal of Educational Technology. https://doi.org/10.14742/ajet.3804

Zhang, D., Zhou, L., Briggs R.O., & Nunamaker J.F. Jr. (2006). Instructional video in e-learning: Assessing the impact of interactive video on learning effectiveness. *Information & Management* 43, 15-27.

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