

# Cyber Slacking among University Students: The Role of Internet Habit Strength, Media Multitasking Efficacy and Self Regulated Learning

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**Abstract:** University provides Internet in the campus to enhance students' learning during lectures. However, students use the Internet in the classrooms not only for academic tasks but also for non-academic purposes. The use of the Internet for non-academic purposes during class is defined as cyber slacking. The term cyber slacking was firstly used in the working environment and it is considered as counterproductive behaviour in organizations. Referring to an educational setting, cyber slacking will make students unproductive in learning. This current study aims to explore cyber slacking behaviour among university students in academic settings. There were 385 university students who participated in this survey. Results show that cyber slacking behaviour correlates with Internet habit strength and media multitasking efficacy. The more habitual students are to the Internet the more likely they are to engage in cyber slacking activities during lectures. Students who are confident in media multitasking also tend to cyber slack in the classrooms. The findings also describe that self-regulated learning does not correlate with cyber slacking. Further research on cyber slacking behaviour in university settings should be conducted to identify potential factors that prevent cyber slacking behaviour in the university classrooms.

## 1 INTRODUCTION

The recent teaching and learning process frequently uses the Internet to improve the quality of students' learning results (Weaver and Nilson, 2005; Lee and Tsai, 2011; Moskal, Dziuban and Hartman, 2013; Karaoglan Yilmaz et al., 2015). This is in line with the characteristic of adult learning, which encourages students to learn independently outside classroom sessions. This policy implies that the Internet is one of the supporting learning tools in academic work, such as finding relevant academic references for learning task completion (Gaudreau, Miranda and Gareau, 2014). The high frequency of Internet use on campus is also related to the availability of free Wi-Fi (wireless technology) access provided by the university or students' personal access on their smartphones. This is in line with the survey results of Ofcom (2017) which found that the development of smartphone technology has made the Internet part of daily lifestyle among university students. A survey

conducted by the Indonesian Ministry of Communication and Information showed that university students were the most active users of Internet connection, compared to students from other institutions and professional workers (Kominfo, 2016). Such a wide use of the Internet among university students may influence their behaviors in learning (Kolikant, 2010; Barry, Murphy and Drew, 2015).

Researches on students' learning behavior in lectures show that the availability of Internet access tends to lead students to indulge in non-academic activities such as accessing social media, opening irrelevant sites and playing online games (Junco and Cotten, 2012; Wood et al., 2012; Wentworth and Middleton, 2014; Taneja, Fiore and Fischer, 2015; Gupta and Irwin, 2016; Akbulut et al., 2016b; Varol and Yildirim, 2018). Students' tendency to partake in non-academic activities during lectures falls into the category of cyber slacking (Gerow, Galluch and Thatcher, 2010; Yasar and Yurdugul, 2013; Rana et al., 2016; Taneja, Fiore and Fischer, 2015). Often, students who bring laptops to the classes are cyber

slacking by using the them to access sites irrelevant to the topics being discussed in the lectures (Fried, 2008; Ragan et al., 2014). Thus, cyber slacking is a challenge for both students and lecturers during classes where Internet access is available.

Research on cyber slacking in educational settings uses the approaches in the theory of planned behavior (TPB) to explain cyber slacking to students (Askew et al., 2014; Taneja, Fiore and Fischer, 2015). This theory highlights intention as the important factor in determining the cyber slacking behavior. Intention is formed by attitude, subjective norms, descriptive norms and perceived behavioral control (Taneja, Fiore and Fischer, 2015). A student with a positive attitude towards cyber slacking tends to do it during lectures, though considerations are still required on the subjective norm, descriptive norm and perceived behavioral control. If that particular student feels that it is difficult to cyber slack, then they will lose the intention to do it (Taneja, Fiore and Fischer, 2015). Furthermore, Askew *et al.* (2014) adds two more factors: web self-efficacy and ability to hide. Thus, if a student can access the Internet easily and is capable of hiding his cyber slacking behavior, then he will tend to do it.

Other researches also mention the effect of self-regulation on cyber slacking (Gokcearslan et al., 2016). Discussion on self-regulation in educational settings uses the concept of self-regulated learning (SRL) by Zimmerman and Schunk (2011). SRL is one of the influential factors in students' learning achievements. A student with good SRL tends to be able to achieve the pre-determined learning targets (Pintrich, 2004; Kitsantas, Winsler and Huie, 2008; Nandagopal and Ericsson, 2012; Zhu, Au and Yates, 2016). Related to cyber slacking, a student with good SRL will tend to focus on things related to academic topics during lectures; he will tend to minimize access to non-academic topics.

Internet habit strength is related on how strong someone's habit is to access the Internet (LaRose and Eastin, 2004; Ang, 2017). Someone with stronger Internet habit will be more likely to access the Internet. Teenagers usually have a strong Internet habit (Wohn, 2012; Ang, 2017). Teenagers and the current university student generation are often perceived as "Digital Natives", which refers to people who have technology exposure and technology experience (Akçayir, Dundar and Akçayir, 2016). These students seem to have habitual access to the Internet during their early childhood, resulting in them being referred to as Digital Natives. Related to cyber slacking, it is

assumed that students with a strong Internet habit would tend to continuously access the Internet. Rosen *et al.*, (2013) found that for most students, it would be difficult to learn without technology and to stop checking their gadgets such as laptops, computer tablets or smartphones for more than 10 minutes. This phenomenon is related to the classroom situation in which students meet difficulties in understanding the lectures and thus tend to access the Internet (Calderwood et al., 2016). This habit to access the Internet seems to urge students to stay connected to the Internet and try to find a method to do so although the Internet connection might be unavailable in the classroom (LaRose and Eastin, 2004; Ang, 2017). If this behavior is repeated continuously, it will result in a habit. Related to media habit, such as the Internet habit, the frequency of accessing the Internet would then lead to the Internet habit (Wohn, 2012). Related to cyber slacking, students' habit of accessing the Internet for non-academic materials during lectures would then lead to non-academic Internet habit during lectures, such as accessing social media and doing status updates although the lectures are still running.

Discussion on cyber slacking is also related to media multitasking. A number of previous researches also found students' tendency to do unproductive multitasking activities during lectures, which is accessing non-academic materials during lectures or classroom tutorials (Judd, 2014; Bellur, Nowak and Hull, 2015; Junco and Cotten, 2012; Wentworth and Middleton, 2014; Gupta and Irwin, 2016). This media multitasking behavior seems to happen if the particular student has the confidence to do things by multitasking. Wu (2017) points to this confidence as the media multitasking efficacy (MME). If a student feels confident that he can multitask in a situation, such as accessing social media while listening to the lectures, he will tend to cyber slack in lectures. Students with higher MME seem to get involve more in media multitasking, including the possible unproductive media multitasking.

This paper aims to test the relationship between a few antecedents of cyber slacking behaviors: Internet habit strength, media multitasking efficacy (MME) and self regulated learning. The hypotheses proposed in this study are:

H1. Internet habit strength correlates with students' cyber slacking behavior. Students with stronger Internet habit tend to cyber slack during lectures.

H2. Media multitasking efficacy (MME) correlates with students' cyber slacking behavior. Students with more confidence in their ability to do multitasking will tend to cyber slack during lectures.

H3. Self-regulated learning corresponds to cyber slacking among students. Students with good self-regulated learning tend to avoid cyber slacking in lectures.

### 1.1 Academic Cyber Slacking Among University Students

Cyber slacking, also referred as cyber loafing, is originally studied in the field of the work behavior related to technology, which is when workers frequently access the Internet for personal matters unrelated to work during working hours (Block, 2001; Lim, 2002; Vitak, Crouse and LaRose, 2011). Perceived as unproductive behavior during working hours, cyber slacking is regarded as a problem to solve in order to improve workers' productivity at work (Ugrin and Michael Pearson, 2013; Lim, 2002; Vitak, Crouse and LaRose, 2011).

Later, the cyber slacking concept is applied in educational settings, specifically in higher education. This leads cyber slacking to be defined as the use of the Internet by students for non-academic purposes during lectures (Lavoie and Pychyl, 2001; Galluch and Thatcher, 2006; Gerow, Galluch and Thatcher, 2010). Later researches on cyber slacking started to apply a cyber slacking concept to describe students' behavior on Internet access during lectures (Taneja, Fiore and Fischer, 2015; Akbulut et al., 2016b; Rana et al., 2016; Varol and Yildirim, 2018). Research conducted by Akbulut, O. O. Dursun, *et al.* (2016) reveals that cyber slacking behaviors during lectures include sharing, shopping, real time updating, accessing online content, gaming and gambling. These indicators are used in the measurement tool for cyber slacking.

### 1.2 Internet Habit Strength

Ang (2017) defines Internet habit strength as the strength of someone's habit to connect to the Internet. This habit is acquired from a series of practices or repeated behaviors, which in this case is the behavior to connect to the Internet. LaRose and Eastin (2004) also mention the influence of this habit on someone. High Internet habit strength results in integrating the Internet as part of someone's routine, with a tendency to access the Internet without further consideration (LaRose and Eastin, 2004).

Other research conducted by Wohn, (2012) mentioned that Internet habit is less connected to the motivation to connect to the Internet, but more connected to the habit of accessing the Internet due to the stimulus from the environment, such as the availability of Internet access, which leads to accessing the Internet as a somehow natural deed to do.

Wohn (2012) argues that this Internet habit will grow stronger since that particular person will get involved more in social media, such as playing online games on social media. Related to the routines, then it seems that playing online games on a daily basis will result in a higher Internet habit strength. In other words, if someone accesses the social media habitually, then the Internet habit strength is formed resulting in the action to connect to the Internet whenever there is available access (Ang, 2017). Regarding the Internet habit, repetitive behaviors or connecting to the Internet repeatedly is the key to the formation of the Internet habit, in which an Internet access pattern is mentally formed in someone (Ang, 2017).

### 1.3 Media Multitasking Efficacy (MME)

The concept of media multitasking efficacy is rooted in Bandura's self-efficacy theory (Wu, 2017) about the confidence of an individual in completing a specific task. In this concept, media multitasking efficacy (MME) is defined as the confidence of an individual to simultaneously use several media in his activities (Wu, 2017). Related to the Internet access, MME is someone's confidence to use several software applications simultaneously.

Related to the cyber slacking academic context, students accessing non-academic materials during lectures is connected to the concept of MME since it is plausible for students to access several gadget applications while accessing academic materials (Gaudreau, Miranda and Gareau, 2014). On the premise that someone with confidence to do something will tend to really do it, then someone who can multitask well will tend to multitask (Wu, 2017). However, it is interesting to note that students often overestimate their capability in multitasking. Brooks (2015) mentioned that confidence in multitasking with computers will drive the person to multitask when working with computers. Related to cyber slacking, students who are confident in their capability in media multitasking tend to access several online software applications during lectures because they are confident that they can join the

lectures while also engaging in non-academic activities. On the other hand, academic achievement which is often used as an indicator to measure students' understanding towards the lectures is often negatively correlated to the students' media multitasking (Junco and Cotten, 2011; Calderwood, Ackerman and Conklin, 2014; Wentworth and Middleton, 2014). This notion is consistent with Wu (2017) who argues that confidence in multitasking sometimes has no correlation to a poor performance.

#### 1.4 Self Regulated Learning (SRL) and Academic Cyber Slacking

Self-regulated learning (SRL) is defined as someone's capability to direct his cognition, affection and behavior to achieve the pre-determined learning objectives (Zimmerman and Schunk, 2011). The assumption of this theory is that a student is an active agent in constructing his learning process. The learning process is directed to attain particular pre-determined objectives and the learner can make necessary adjustments to do that (Zimmerman and Schunk, 2011).

Schunk (2012) argues that self-regulated learning involves the choice of the learner to engage in a certain behavior in learning situations. In this notion, the learner will choose and formulate his desired learning objective. This objective may vary from one learner to another, based on the learner's own considerations towards his capability and his external environment. After formulating the learning objective, the learner will then monitor his own learning behavior and assess whether that particular behavior is capable of helping him achieve his learning objective.

A study conducted by Kadioglu, Uzuntiryaki and Aydin (2011) resulted in SRL indicators, which are motivation regulation, planning, effort regulation, attention focusing, task strategies, using additional resources and self-instruction. These findings are rooted in the research on self-regulated learning by Zimmerman, Bonner and Kovach (1996). On those indicators, there is a difference in learning behaviors between individuals with high SRL and those with low SRL. For instance, a learner with a high SRL on motivation regulation could maintain his learning motivation to achieve his learning objective despite the difficult academic tasks. Besides that, an individual with high SRL seems capable of focusing his attention on things supportive for his learning processes.

Related to academic cyber slacking, a student with high SRL seems to be able to exercise control

over his desire to access non-academic materials when he has to complete his academic tasks (Simanjuntak, 2018). Students with high SRL seem to exercise control over their behaviors when accessing the Internet by focusing only on matters relevant to their learning process in class. During lectures, these students will limit themselves by avoiding access to irrelevant materials. By conducting research on students bringing laptops to lectures Zhang (2015) proved that self-regulation is an important factor for students to stay focused on learning materials despite the possible access to non-academic materials.

## 2 METHOD

### 2.1 Procedure

This study was conducted in a private university in Surabaya by asking students to fill in questionnaires disseminated by research assistants at the end of lectures. Before disseminating the questionnaires, the research assistants asked permission from the lecturers in charge to briefly explain the questionnaires and that participating in this study was to be done voluntarily. The questionnaires were anonymous, recording only demographic data such as gender and age.

### 2.2 Participants

Participants were students of a private university in Surabaya with a total number of 385 students, within the ages of 17 – 28 years old. There were 289 female participants and 96 male participants from the Faculty of Psychology, Pharmacy, Nursing, Medicine and Philosophy. Most participants did cyber slacking during lectures, proven by the answer towards the item "Do you use the Internet to access non-academic materials during classroom lectures, (e.g. chatting with friends, accessing social media, browsing sites unrelated to lectures)?" There were 344 participants answering yes while only 41 participants answered no. This indicates that most participants do cyber slacking during classroom lectures.

### 2.3 Measures

Cyber slacking scale in this study is the translated version of a cyber slacking scale developed by Akbulut *et al.* (2016). This scale consists of 30 items measuring 5 cyber slacking indicators: sharing,

Table 1: Descriptive statistic of the participants (N = 385).

Questions		Frequency	%
Doing non-academic access during lectures	Yes	344	89.3
	No	41	10.6
Average time for non-academic access during lectures	< 1 hour	91	23.6
	30 minutes – 1 hour	59	15.3
	15 – 30 minutes	95	24.6
	> 15 minutes	118	30.6
Reasons to do cyber slacking during lectures (participants can answer more than one reason)	Boring lectures	235	61
	Uninteresting teaching methods	150	38.9
	Communicating with friends	106	27.5
	Searching information	156	40.5

Table 2: Correlation between cyber slacking, internet habit strength, media multitasking efficacy and self regulated learning (N = 385).

Variables	1	2	3	4
1. Internet habit strength	-			
2. Media multitasking efficacy	.263*	-		
3. Self regulated learning	-.030	-.083	-	
4. Cyber slacking behaviour	.300*	.324*	-.018	-

\*p < .01

Table 3: Regression results for cyber slacking, internet habit strength, media multitasking efficacy and self regulated learning (N = 385).

Predictor	Estimate	SE	Z	p	Odds ratio	95% Confidence Interval	
						Lower	Upper
Intercept	-2.59766	1.10631	-2.348	0.019	0.0744	0.00851	0.651
Internet habit strength	0.20433	0.04479	4.562	0.001*	1.2267	1.12361	1.339
Media multitasking efficacy	0.06052	0.02199	2.752	0.006*	1.0624	1.01757	1.109
Self regulated learning	-0.00428	0.00977	-0.438	0.661	0.9957	0.97685	1.015

shopping, real time updating, accessing online content and gaming or gambling. The answers range from Never to Great Extent. Cronbach’s alpha coefficient of cyber slacking scale is 0.925.

Internet habit strength was measured by using an Internet habit strength scale developed by Ang (2017). The scale is adopted in Bahasa Indonesia and it consists of 3 items with answers ranging Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. The Internet habit strength scale has Cronbach’s alpha coefficient 0.703.

Media multitasking efficacy (MME) was measured by using a media multitasking efficacy scale developed by Wu (2017) and it is adopted in Bahasa Indonesia. The author of the MME scale has approved the scale to be translated and used for subjects in Indonesia. This scale consists of 5 items with 6 alternative answers, which are 1 (not at all

like me), 2 (not much like me), 3 (neutral), 4 (somewhat like me) and 5 (very much like me). Cronbach’s alpha coefficient for MME scale is 0.751.

Self-regulated learning (SRL) scale was the development of the self-regulatory strategies scale (SRSS), which is developed by Kadioglu, Uzuntiryaki and Aydin (2011) and it is adopted in Bahasa Indonesia. The scale consists of 28 items and has Cronbach’s alpha coefficient 0.759, which measures indicators of motivation regulation, planning, effort regulation, attention focusing, task strategies, using additional resources and self-instruction.

### 3 RESULTS

Descriptive results showed mean and standard deviation for cyber slacking behaviour ( $M = 69.38$ ;  $SD = 20.29$ ), media multitasking efficacy ( $M = 16.43$ ,  $SD = 5.22$ ), Internet habit strength ( $M = 9.78$ ;  $SD = 2.63$ ) and self-regulated learning ( $M = 97.37$ ;  $SD = 11.12$ ). Regarding the reasons for participants cyber slacking, Table 1 shows that there were several reasons and some participants might have more than one answer. The most chosen reason was the boredom felt during lectures (235 participants), uninteresting teaching method of the lecturers (143 participants), wishing to communicate with friends (106 participants), finding information for personal interests (156 participants). The data showed that boring lectures is the main reason for students to do cyber slacking in class.

Hypotheses are analyzed using ordinal regression analysis and the results of regression are presented in Table 3. Based on hypothesis test on H1, results show that H1 is accepted with  $r = 0.30$  ( $p < .01$ ). It means that the Internet habit strength is related to cyber slacking behavior among students. Thus, it is concluded that there is a significant relationship between Internet habit strength and cyber slacking behavior.

Hypothesis test H2 on the media multitasking efficacy (MME) proved that MME correlates with the cyber slacking behavior ( $r = 0.32$ ,  $p < .01$ ). Thus, students confident in their ability to multitasking tend to cyber slack during lectures.

Hypothesis test H3 on the relationship between self-regulated learning (SRL) with cyber slacking proved that there is no significant correlation between SRL and cyber slacking ( $r = -0.01$ ). Thus, it was possible for students with high SRL to cyber slack in lectures. It also applies to students with low SRL that they also do cyber slacking during lectures.

Regression results in Table 3 show that media multitasking efficacy and Internet habit strength are strong predictors for cyber slacking behavior ( $p < 0.01$ ). However, self-regulated learning is not a significant predictor of cyber slacking behavior. Students with high and low SRL might also engage in cyber slacking behavior.

### 4 DISCUSSION

Results of hypothesis 1 and 2 are consistent with the theories and results of previous researches about Internet habit strength and media multitasking efficacy. Someone with high Internet habit strength

tends to get used to connecting to the Internet wherever he was (LaRose and Eastin, 2004; Wohn, 2012; Ang, 2017). Thus, a student with high Internet habit strength will try to access the Internet during classroom lectures. The environment is quite supportive by the availability of the Internet access at campus or the Internet access through students' own smartphones. This makes it difficult for students to avoid accessing the Internet for their favorite sites. This is in accordance with Rosen *et al.*, (2013) stating that it is difficult for young people of this generation to leave their technology gadgets for more than 10 minutes. Besides that, this Internet habit strength drives the person to automatically search for things that make him/her comfortable and relaxed.

Descriptive data shows that the reason for students cyber slacking is their boredom towards the lectures. Related to the Internet habit strength, this boredom is related to finding things which are entertaining through the technology in his possession, including playing online games in social media such as Facebook (Wohn, 2012). Research conducted by Ang (2017) on Internet habit strength also mentioned the connection between Internet habit strength and online communication between an individual and his peers. It is supported by descriptive data in this study that most cyber slacking behavior conducted was communicating with friends. Thus, students' Internet habit strength is capable of predicting the possibility of those students cyber slacking.

The hypothesis about the correlation between media multitasking efficacy and cyber slacking showed that students' confidence in their ability in media multitasking would influence their cyber slacking behavior. This is in line with the findings of Wu (2017) that students with confidence in multitasking on the completion of certain tasks as well as operating several software applications simultaneously would have a high probability of cyber slacking during lectures. These students are confident that they would understand the lectures while accessing the Internet at the same time. Wu (2017) argues that the problems were that some students tend to be overconfident about their ability, leading to the lack of awareness that not all lectures could be understood properly while cyber slacking. This student's perception and confidence are not totally correct, because the theory of thread cognition by Salvucci and Taatgen (2011) stated that an individual is able to use two or more information channels if that particular individual has already mastered one of the tasks to complete. Salvucci and

Taatgen (2011) explained that multitasking is possible if an individual is able to do one of the tasks well. Thus, it is unnecessary for that particular individual to recount the steps to do one task since that particular task is no longer on the level of declarative memory, but is already in the procedural memory, which involves skills. This condition is doable when one of the tasks at hand is no longer something new. In classroom cyber slacking, it is possible that both things conducted by students (explanations of new materials from their lecturers and reading a friend's chat on a new information) are relatively new, making students unable to understand the lectures well despite their strong confidence in their media multitasking ability (Zhang, 2015; Wu, 2017).

Despite the significant correlation between media multitasking efficacy and Internet habit strength regarding cyber slacking behavior, the effect level of both variables is relatively low compared to other researches (Ang, 2017; Wu, 2017). There are some possible explanations for these findings. First, both variables are from internal aspects of the subjects and there are some possibilities that external factors influence the cyber slacking behavior of the subjects such as regulations on Internet use and teaching methods used by lecturers in the classrooms ((Lim, 2002; Vitak, Crouse and LaRose, 2011; Ugrin and Michael Pearson, 2013). Second, most of the students as digital natives use the Internet every day for completing the tasks and there could be no difference in cyber slacking in the classrooms between students who believe they have capabilities in doing multitasking and students who are not confident in doing multitasking. Most of the students use the Internet in the classrooms due to social reasons in order to communicate with friends (Simanjuntak, 2018). Referring to this condition, cyber slacking could happen in the classrooms due to students' need to communicate with peers despite their belief in their multitasking capabilities. These possible explanations also apply to Internet habit strength in which most of the students as digital natives have a strong internet habit (LaRose and Eastin 2004; Kolikant, 2010; Akcayir, Dundar and Akcayir, 2016).

The result of this study is in opposition to the hypothesis on self-regulated learning (SRL) which indicates that there is no significant correlation between SRL and cyber slacking behavior in classroom lectures. Thus, students with high SRL or students with low SRL both have the same tendency to do cyber slacking. Correlated to the descriptive

data, most participants (89.3%) tend to cyber slack in classrooms, which explains why self-regulation has nothing to do with cyber slacking. When correlated to the reason for participants cyber slacking, then it is caused by the feeling of boredom towards the lectures. This is in line with the findings of Gupta and Irwin (2016) stating that high interest lectures will influence cyber slacking behavior. Students who feel that the lectures are uninteresting tend to alternate their sights to Internet access in accordance to their interests (Junco and Cotten, 2012; Gupta and Irwin, 2012). This actually indicates how weak the self-regulation factor is, especially the aspect of attention focus. However, the rejection of this hypothesis might also be due to the absence of data to describe the participants' SRL condition since the SRL scales are yet to measure the real behavior of the participants.

Related to the cyber slacking in educational settings, the results of this study are in line with several researches which find that Internet access availability tends to drive students to access non-academic materials during lectures (Askew *et al.*, 2014; Taneja, Fiore and Fischer, 2015; Akbulut *et al.*, 2016). The results of this study confirm that cyber slacking is also happening in educational settings aside from work contexts. Future researches on cyber slacking in educational settings are necessary to better described cyber slacking behavior in classroom contexts in order to prepare proper countermeasures.

## 5 CONCLUSIONS AND LIMITATIONS

The results of this research prove that the cyber slacking that happens in the work field context is also happening in educational settings, when students access the Internet for non-academic purposes during classroom lectures. The results show that there is a correlation between Internet habit strength and media multitasking efficacy on cyber slacking behavior conducted by the students. Stronger Internet habit tends to lead students to do more cyber slacking. There is also a correlation between students' confidence in their abilities in media multitasking towards their tendency to cyber slack. Results also show that there is no correlation between self-regulated learning and cyber slacking.

The drawback of this research lies in the cyber slacking measurement tool which can be further developed into observation in experimental

situations in order to better observe the students' cyber slacking behavior in reality. Besides that, the SRL measurement tool is still limited to self-report, which is limited in describing the real condition of students' SRL. Future researches to develop a cyber slacking model of university students should include internal factors such as personality, procrastination tendency and ability to hide cyber slacking behavior. Besides that, there are external factors to be considered, such as extrinsic learning motivation, lecturers' teaching skills to foster learning engagement and classroom Internet access policy.

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