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Использование платформы социальных медиа для продвижения аутентичной среды обучения в высших учебных заведениях

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Проблема и цель. В настоящем обзоре предпринята попытка изучить восприятие преподавателями и студентами университетов использования социальных сетей для создания аутентичной среды обучения.

Методология. С этой целью 249 преподавателей университетов и 329 студентов приняли участие в опросе, в ходе которого им было предложено составить конкуренцию 27 пунктам перечня аутентичной среды обучения в социальных сетях (SOMALEVI). Статистический анализ Rasch с использованием программного обеспечения Winstep был выполнен для оценки ответов как преподавателей, так и студентов.

Результаты. Facebook-исследования показали, что участники ежедневно проводили большую часть своего времени в WhatsApp, Facebook, Instagram и Twitter, соответственно, причем большая часть доступа была сделана с их мобильных телефонов. Большинство участников показали положительное отношение к использованию социальных сетей для продвижения аутентичной среды обучения (NT-преподаватели = 247,99 %; NST-студенты = 309,93,9 %), в то время как остальные показали свое негативное восприятие. Большинство тех, кто воспринимает позитивно, – женщины (64,53 %) в возрасте от 21 до 30 лет (32,18 %). Результаты также показывают, что социальные сети предоставляют студентам возможность поделиться своим опытом и учебной деятельностью (MR1, LVI = -0,97), предложить студентам возможность учиться у экспертов (EP1, LVI = -0,82), чтобы они могли получить много информации по конкретным вопросам (EP3, LVI = -0,70). Интересно, но не удивительно, что как преподаватели, так и студенты обнаружили, что социальные медиа помогли им в обучении с учебными ресурсами, такими как видео, демонстрация, учебные файлы, позволяя студентам понять учебные материалы (EP2, LVI = -0,85). Тем не менее, исследование выявило некоторые критические проблемы, касающиеся использования социальных медиа для аутентичной среды обучения,

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такие как неподходящее представление реальной жизни, трудности в сотрудничестве с другими и трудности в признании их потенциала обучения.

Заключение. Социальные медиа – это альтернативная мобильная технология, которая облегчает преподавателям и студентам создание аутентичной среды обучения.

Ключевые слова: мобильные технологии; социальные медиа; аутентичное обучение; аутентичная среда.

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The use of social media platform to promote authentic learning environment in higher education setting

Abstract

Introduction. This current survey attempts to explore university teachers and students' perception of using social media to promote an authentic learning environment.

Materials and Methods. To this end, 249 university teachers and 329 students participated in the survey where they were asked to compete of 27 items of A Social Media Authentic Learning Environment Inventory (SOMALEVI). Statistical Rasch analyses using Winstep software were performed to evaluate both teachers and students' responses.

Results. Findings of the study showed that participants spent most of their time daily on WhatsApp, Facebook, Instagram and Twitter, respectively with most access was made from their mobile phones. Most of the participant showed positive views about the use of social media to promote authentic learning environment ($N_{teachers} = 247, 99\%$; $N_{students} = 309, 93.9\%$) while the rests showed their negative perception. The majority of those who perceive positive are female (64.53%) aged range 21-30 years (32.18%). Findings also indicate that social media provided opportunities for students to share their experiences and learning activities (MR1, LVI = -0.97), to offer students the opportunity to learn from experts (EP1, LVI = -0.82) so that they were able to obtain a lot of insight on particular issues (EP3, LVI = -0.70). It is interesting, but not surprising that both teachers and students found that social media benefited them with learning resources such as video, demonstration, learning files, allowing students to comprehend the learning materials (EP2, LVI = -0.85). However, the study identified some critical issues regarding the use of social media for authentic learning environment, such as unsuitable real-life representation, difficulty to collaborate with others, and difficulty in recognizing their learning potential.

Conclusions. Social media is an alternative mobile technology that facilitate teachers and students with the creation of an authentic learning environment.

Keywords

Mobile technology; Social media; Authentic learning; Authentic environment.

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Introduction

The advancement of mobile technology has widened the students' access to education through formal and informal learning environment [1]. Many authors believe that the integration of advanced mobile technology in education settings not only allows communication and interaction between teacher and student as well as between students, without restrictions of time and place [1–3], but also to develop students' interest and motivation to demonstrate mastery of learning outcomes (Herrington and Oliver, 2000 [5]; Parker, Maor, and Herrington, 2013 [4]). Although, the integration of mobile technology into learning activities also raises concerns about its negative effects, such as disruption, texting, cheating, sexting, and accessing information or materials that are not relevant to learning [6].

Specifically, literature has suggested the use of social media application to facilitate formal and informal learning in higher education [7–10]. In this paper, the term social media is used to refer digital application, frequently embedded in a mobile technology, that enables users to generate content or online social interaction [11; 12]. The term media in social media is given to emphasize the creation and exchange of information that occurs in social networks, digital networks and digital devices [13]. The term comprises of the following activities: “communication with friends; watching news; sharing photos, videos; involvement in public topic discussion; adding instant message with real-time web chat; and playing games” [14]. Some social media applications that fit with such definitions and activities include, among others, social network site (e.g. Facebook, Google+,

Youtube, QQ), professional network sites (e.g. LinkedIn), chatboards, social games (e.g. Farmville), Tinder, Instagram, Wanelo and Yik Yak [12].

As the rapid growth of people using social media, the usage of social media at university remains to rise as well [15]. Many teachers have adopted social media to facilitate teaching and learning practices both in formal and informal settings. Irwin, Ball, Desbrow, and Leveritt [16] practiced of using Facebook pages to promote an interactive learning resources for university students. In the practice, Facebook pages were developed to provide students with relevant information regarding the courses they took and to enable interaction among the students and students and instructors. Makoe [17] developed and implemented social media application called MXit to facilitate collaborative learning within distance education settings at University of South Africa. Chawinga [10] integrated Twitter and blogs into two courses at Mzuzu University in Malawi. Naidoo and Kopung [18] devised WhatsApp to connect students with their mathematic learning community. Awada [19] adopted WhatsApp to increase learning motivation and to help her students learn about critique writing of English as a foreign language. Some accounted effects of social media adoption on students' learning include: it helps deliver teaching materials and information [15], facilitates peer-to-peer dialogue [20; 21], promotes the sharing of learning resources [21], increases students' interaction and engagement [22–25], facilitates collaborative learning [15; 17] and learning motivation [26]. Social media is also reported to help develop students' writing ability

[27; 28], though Lau [29] has reminded that the usage of social media for academic purposes may not be a significant predictor of students' academic performance.

In addition to the above value of social media adoption for learning, studies suggest the benefits of social media to promote the creation of authentic learning environment [1; 30; 31]. Authentic learning in this paper is concerned with education approaches aiming to provide learners with opportunity to use their knowledge as well as ability to understand and engage in addressing real world problems [32]. Within an authentic learning environment facilitated by a mobile technology like social media application, students can learn to use the technology as a cognitive tool to solve problems, which are contextual or close to their daily life [30; 33]. Furthermore, Bozalek et al. [31], argue that the emerging of mobile technology for authentic learning enables learners to build the integration of collaboration, knowledge building, and individual or a group discussion.

The contextual aspect of learning in an authentic learning environment enable both teachers and the students to achieve an effective and meaningful learning activity [34; 35]. However, despite the values offered by the adoption of social media in learning activities, some authors have identified some challenges that researches, practitioners and teaches are required to address such as lack of teachers' interests due to the known negative effects of mobile technology integration [6; 13], complexity of learning environment, lack of learner's understanding, ability and experience in utilization of social media and lack of teachers' knowledge of adopting mobile technology to create authentic learning environment for learners [34].

In Indonesia, statistical data on internet and social media show a rapid increase in usage. A survey by the Indonesian Communications and

Informatics Ministry [36] disclose that 95 % of 63 million internet users are user of media users. Meanwhile, 55 million of the said internet users, access the web through mobile phones, at a rate of 28 million users per day. Such an increase is also reported in We are Social and Hootsuite in January 2018 as quoted in Laksana [37], showing that 97.9 % of 132,7 million internet users are social media users. Recent 2019 survey by We are Social also suggest that the active social media users are aged between 18 and 34 with YouTube, WhatsApp and Facebook are the most popular social media platforms. The ages of social media users have indicated the trend of using social media among upper secondary school and university students. However, little is known about how university teachers and students perceive the usage of social media for learning. The current study thus was motivated to address this inquiry, aiming to explore Indonesian university teachers and students' perspective of social media use to facilitate teaching and learning activities, in particular, to promote authentic learning environments. The study attempts to address the following research questions: 1) How do university teachers and students perceive the use of social media in promoting authentic learning environments? and 2) Do university teachers and students' perception differ accordance to their role (i.e. teachers and students), gender and ages?

Materials and Methods

A total of 578 university teachers and students participated in the survey where they were asked to complete 27 items of A Social Media Authentic Learning Environment Inventory (SOMALEVI). The 578 teachers and students were coming from both public and private university across Indonesia. The demography of the participants is detailed in the following table:

Table 1

Demography of the participants

Demography	Details	N	Percentage
Status	Teacher	249	43.08
	Student	329	56.92
Regions	Java	448	77.51
	Sumatera	63	10.89
	Kalimantan	27	4.67
	Sulawesi	25	4.33
	Bali	3	0.52
	Papua	1	0.17
	NTB	7	1.21
	Maluku	4	0.69
Gender	Male	185	32.01
	Female	393	67.99
Ages	< 20 Years	166	34.43
	21 – 30 Years	201	34.78
	31 – 40 Years	125	21.63
	> 40 Years	86	14.88

Instrumentation

The current study employed social media authentic learning environment inventory (SOMALEVI) to gather data from the participants. The scale was developed based upon Herrington and Oliver’s [5] elements of authentic learning environment and was in reference with the relevant literature [5; 30–32; 38–39]. The inventory instrument comprised of nine

authentic learning environment aspects with 27 items, including: authentic contexts (AC), authentic tasks (AT), expert performances (EP), multiple roles and perspectives (MR), collaboration construction (CC), reflection (R), articulation (A), coaching and scaffolding (CS), and authentic assessment (AA). Table 2 below presents the operating definitions for each construct in SOMALEVI:

Table 2

Herrington and Oliver [5] constructs of authentic learning environment and the operating definition

Construct	Operating definitions
Authentic contexts (AC)	Provide authentic contexts that reflect the way the knowledge will be used in real life
Authentic tasks (AT)	Provide authentic activities.
Expert performances (EP)	Provide access to expert performances and the modelling of processes
Multiple roles and perspectives (MR)	Provide multiple roles and perspectives
Collaboration construction (CC)	Support collaborative construction of knowledge.
Reflection (R)	Promote reflection to enable abstractions to be formed.
Articulation (A)	Promote articulation to enable tacit knowledge to be made explicit
Coaching and scaffolding (CS)	Provide coaching and scaffolding by the teacher at critical times
Authentic assessment (AA)	Provide for authentic assessment of learning within the tasks

The 27 items of SOMALEVI was developed in a 5-point Likert scale, involving 5 alternative responses: strongly agree (SA), agree (A), fair (F), disagree (D) and strongly disagree (SD). Additional demographic and social media penetration questions were added to the inventory, such as status (i.e. teacher or student), gender, age, frequency of using social media, electronic equipment to access social media and types of social media use.

SOMALEVI was developed using the native of Bahasa Indonesia, to allow university teachers and students' comprehension towards each of items in the inventory. For the purpose of presenting and discussing the result of data analysis, in this paper, the items was translated to English. It is important to note that consent from the participants were collected prior to the data analytical procedure carried out.

Data analytical procedure

The collected data were analysed under several stages: First, the quantitative data were tabulated using Microsoft Excel application and then imported into Winstep Application to enable the transformation of the raw ordinal data into log odd unit (logit). Linacre [40] argues that the transformation of ordinal data into help the researchers in maintaining an equal interval from a linear scale which thus may ease the data analysis. In the final stage, Rasch analysis was performed to 578 records to examine the reliability and validity of the inventory and to analyse the distribution of the quality of participants' responses towards the items in the inventory in reference to their role (i.e. teachers and students), gender and ages.

Findings and discussion

Internal consistency of the inventory

Fit statistics were employed to examine the reliability of the SOMALEVI inventory with the result of a such statistic is presented in Table 3.

Table 3

Reliability of SMOLEVI inventory

	Mean	Reliability	Separation	Cronbach Alpha
Person	2.12	0.92	3.47	0.95
Item	0.00	0.98	7.01	

As shown in Table 3, the participants' responses to the items in the inventory statistically shows consistent score alongside with the Cronbach α which is higher than 0.90 (Cronbach's $\alpha = .95$). The reliability values of person and item revealed great results ($r_{\text{person}} = .92$, $r_{\text{item}} = .98$) together with good separation indexes (Person separation index = 3.47, item separation index = 7.01). Such results present good interactions between persons

(responses) and the items, suggesting that the item possessed excellent and reliable attributes [41–43].

In addition, the validity of the SOMALEVI inventory was examined under a construct validity perspective. For such a purpose, fit statistics were employed to evaluate the unidimensionality aspects of the instrument with the use of Winstep [40; 44]. Table 4 below presents the result of item statistic measure,



evaluating the point measure correlation (PTME), outfit mean square (OUTFIT MNSQ) and outfit z-standard (OUTFIT ZSTD) of the data and Table

5 and 6 are employed to interpret the quality of instrument use respectively.

Table 4

Item measure statistic

Item No	Total Score	N	Measure	Model S.E.	INFI T MNQ	INFI T ZSTD	OUTFI T MNSQ	OUTFI T ZSTD	PTME	ITEM CODE
6	2344	578	-0.25	0.07	1.26	3.56	1.20	2.61	0.59	AT3
3	2180	578	0.58	0.07	1.20	2.85	1.23	3.23	0.62	AC3
24	2402	578	-0.59	0.08	1.22	3.00	1.19	2.42	0.59	CS3
1	2261	578	0.19	0.07	1.16	2.34	1.16	2.16	0.62	AC1
5	2107	578	0.90	0.07	1.08	1.25	1.14	2.12	0.63	AT2
2	2137	578	0.77	0.07	1.12	1.79	1.13	1.90	0.63	AC2
22	2381	578	-0.46	0.08	1.1	1.39	1.08	1.14	0.6	CS1
7	2440	578	-0.82	0.08	1.09	1.26	1.06	0.83	0.59	EP1
10	2463	578	-0.97	0.08	1.01	0.14	1.08	1.02	0.6	MR1
11	2256	578	0.22	0.07	1.04	0.59	1.08	1.13	0.64	MR2
25	2267	578	0.16	0.07	1.04	0.55	1.08	1.21	0.66	AA1
18	2252	578	0.24	0.07	1.05	0.76	1.03	0.41	0.65	R3
8	2445	578	-0.85	0.08	1.01	0.20	1.04	0.48	0.58	EP2
15	2106	578	0.91	0.07	0.96	-0.6	1.02	0.36	0.68	CC3
19	2367	578	-0.38	0.08	1.02	0.34	1.01	0.14	0.62	A1
23	2371	578	-0.41	0.08	1.00	0.04	0.95	-0.69	0.63	CS2
27	2363	578	-0.36	0.08	1.00	-0.03	0.92	-1.13	0.64	AA3
17	2170	578	0.63	0.07	0.96	-0.57	0.99	-0.19	0.66	R2
4	2180	578	0.58	0.07	0.96	-0.52	0.97	-0.39	0.64	AT1
13	2261	578	0.19	0.07	0.96	-0.52	0.95	-0.74	0.66	CC1
14	2275	578	0.12	0.07	0.93	-1.1	0.92	-1.17	0.68	CC2
9	2421	578	-0.7	0.08	0.92	-1.25	0.89	-1.53	0.63	EP3
20	2296	578	0.01	0.07	0.85	-2.28	0.82	-2.78	0.67	A2
21	2315	578	-0.09	0.07	0.84	-2.53	0.8	-2.94	0.66	A3
16	2272	578	0.13	0.07	0.78	-3.55	0.82	-2.72	0.67	R1
26	2240	578	0.3	0.07	0.77	-3.68	0.79	-3.35	0.70	AA2
12	2303	578	-0.03	0.07	0.78	-3.53	0.76	-3.63	0.67	MR3

Table 5

Mean-square value for the instrument evaluation [44]

Mean-square value	Implication for measurement
> 2.0	Distorts or degrades the measurement system. May be caused by only one or two observations.
1.5 – 2.0	Unproductive for construction of measurement, but not degrading.
0.5 – 1.5	Productive for measurement.
< 0.5	Less productive for measurement, but not degrading. May produce misleadingly high reliability and separation coefficients.

Table 6

Z-Standard value for the instrument evaluation [44]

Standardized value	Implication for measurement
≥ 3	Data very unexpected if they fit the model (perfectly), so they probably do not. But, with large sample size, substantive misfit may be small.
2.0 - 2.9	Data noticeably unpredictable.
-1.9 - 1.9	Data have reasonable predictability.
≤ -2	Data are too predictable. Other "dimensions" may be constraining the response patterns.

The above Table 4 shows that all the value in the OUTFIT MNSQ fall between .5 and 1.5 with several items in the OUTFIT ZSTD column are observed less than -1.9 or higher than 1.9 (highlighted gray in the Table 4). These results indicate that all the items in SOMALEVI inventory were productive for measurement but with careful supervision for some items, such as item 1, 3, 6, 12, 16, 20, 21, 24, and 26.

Penetration of the social media

The result of the survey reveals that 97.75 % of the participants use social media daily (N=565, M=2.12). Less than 2 % of the participant have mentioned their use of social media on weekly or monthly basis. WhatsApp was reported to be the most frequent used social media platform by Indonesian university teachers and students followed by Facebook (79.58 %),

Instagram (9.52 %), Twitter (3.63 %) and other social media applications (2.77 %). In addition, participants reported to access social media from their smartphone (96.13 %), laptop (2.59 %), tablet (1.04 %), and Personal Computer (0.17 %). The participants also mentioned of using social media for communication with family (12.96 %), communication with friends (28.89 %), to access information about the campus life (17.47 %), to manage academic activities (17.65 %), and other businesses (23.01 %).

University teachers and students' perception of social media to promote authentic learning environment

The first research question explored university teachers and students' perception about the use of social media to promote authentic learning environment. To address this question,

Table 7

Item stratifications with their logit value item (LVI)

Category	Criteria	Item/LVI
<i>More Difficult to be Considered</i>		
Difficulty Strata I	LVI > 0.59	CC3 (LVI = 0.91)
		AT2 (LVI = 0.90)
		AC2 (LVI = 0.77)
		R2 (LVI = 0.63)
Difficulty Strata II	0.59 > LVI > 0.23	AC3 (LVI = 0.58)
		AT1 (LVI = 0.58)
		AA2 (LVI = 0.30)
		R3 (LVI = 0.24)
Difficulty Strata III	0.23 > LVI > 0.14	MR2 (LVI = 0.22)
		AC1 (LVI = 0.19)
		CC1 (LVI = 0.19)
		AA1 (LVI = 0.16)
<i>Moderate to be Considered</i>		
Difficulty Strata IV	0.14 > LVI > -0.02	R1 (LVI = 0.13)
		CC2 (LVI = 0.12)
		A2 (LVI = 0.01)
<i>Easier to be Considered</i>		
Difficulty Strata V	-0.02 > LVI > -0.37	MR3 (LVI = -0.03)
		A3 (LVI = -0.09)
		AT3 (LVI = -0.25)
		AA3 (LVI = -0.36)
Difficulty Strata VI	-0.37 > LVI > -0.69	A1 (LVI = -0.38)
		CS2 (LVI = -0.41)
		CS1 (LVI = -0.46)
Difficulty Strata VII	LVI < -0.69	CS3 (LVI = -0.59)
		EP3 (LVI = -0.70)
		EP1 (LVI = -0.82)
		EP2 (LVI = -0.85)
		MR1 (LVI = -0.97)

As shown in Table 7, four items considered the easiest to be agreed by the participants, such as EP3 (LVI = -0.70), EP1 (LVI = -0.82), EP2 (LVI = -0.85), and MR1 (LVI = -0.97). The findings indicate that both teachers and students perceived that social media provided students with opportunities to share their experiences and learning activities (MR1, LVI = -0.97). Social media also were sought to enable them to learn

from experts (EP1, LVI = -0.82) so that they were able to obtain a lot of insight on particular issues (EP3, LVI = -0.70). It is interesting, but not surprising that both teachers and students found that social media benefited them with model and resources such as video, demonstration, learning files that enabled students comprehend the learning materials (EP2, LVI = -0.85). It is important to note that it is common in Indonesian

university classrooms that teachers provided materials online to allow their students access to the materials without having time and place. These findings corroborate the existing literature documenting the value of social media to help teachers and students to access teaching and learning resources [15], to allow the sharing of learning resources [21], increases students' interaction and engagement [22–25], and to enable both teachers and students to connect to learning communities [45] within which they could learn from more able people.

In addition, four items were identified to be the most difficult for participants to agree, including R2 (LVI = 0.63), AC2 (LVI = 0.77), AT2 (LVI = 0.90), and CC3 (LVI = 0.91). The findings indicate that social media application was unlikely to allow students identify their strengths and weaknesses in learning

(R2, LVI = 0.63), to learn thing that reflected real-life situations (AC2, LVI = 0.74) and real-life problem (AT2, LVI = 0.90), and the last, students' collaboration in social media did not reflect real-life collaboration (CC3, LVI = 0.91).

University teachers and students' perception of social media to promote authentic learning environment from gender and age perspectives

The second research question explored university teachers and students' perceptions about the use of social media in reference to their role (e.g. teacher or students), gender and ages. To address the second question, Differential Item Functional (DIF) was calculated using Winsteps application. Table 8 describes the overall perception of teacher and students' perceptions and Figure 2 presents the result of DIF calculation.

Table 8

Overall teachers and students' perceptions

Perception	N	%	Status		Gender		Ages			
			Lecture	Student	Male	Female	<21	21–30	31–40	>41
Positive	551	95.33	247	309	178	373	159	186	120	86
Negative	27	4.67	7	20	7	20	7	15	6	0

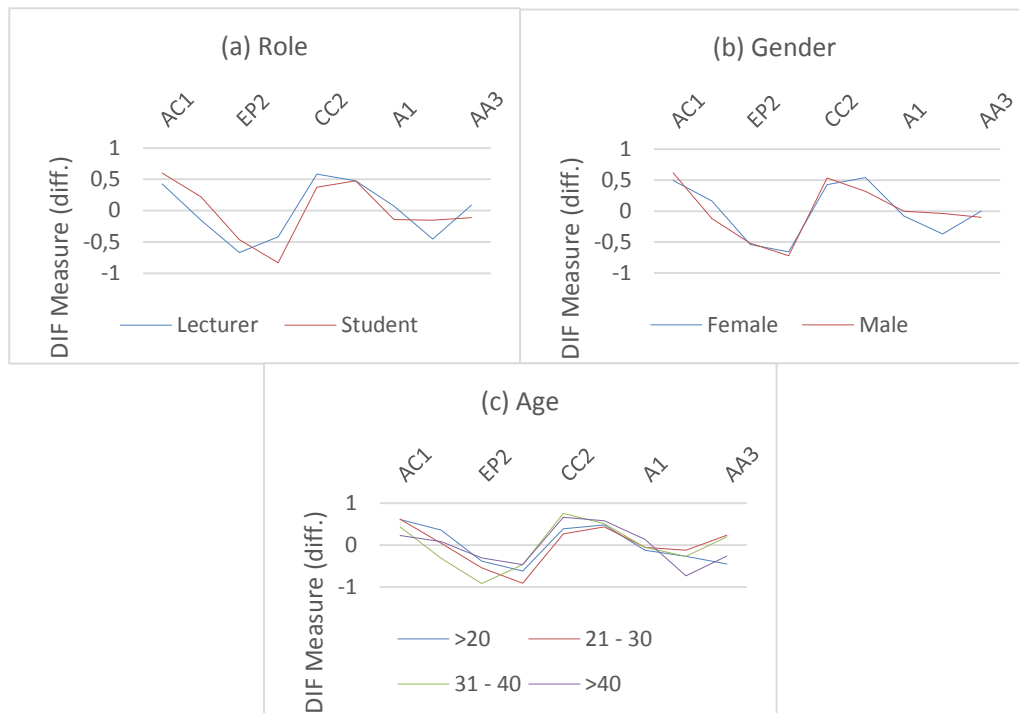


Figure 2. DIF calculation for role, gender and age

As shown in Table 8, most teachers and students had a positive perception towards the use of social media in authentic learning environments (N=551, 95.33%, LVI > -0.39) and only a few expressed negative views (N=27, 4.67 %, LVI < -0.33). Students found it more positive about promoting authentic learning using social media compared to teachers. In Figure 2a, students felt that social media eased the sharing of knowledge (MR1, diff. = -0.8343) and expressed opinions (A1, diff. = -0.1428) in community studies. Such findings correspond to a study by Cox and McLeod [45] that suggest the usage of social media for learning does not only allow communication among teachers and students but also enable them to create learning communities.

Teachers revealed the value of social media for facilitating teachers to provide instructional material in the form of video/file or demonstration (EP2, diff. = -0.6682). Social media was reported to enable teachers to monitor students'

performance and provide feedback (CS3, diff. = -0.453). The access to instructional materials and teachers' attention to their students over monitoring activity as well as giving feedback to the students may promote students' enthusiasm for learning and play an active role in authentic learning environments. However, both teachers and students had similar view that social media was unable to help them to reflect learning in accordance with real life (R1, diff. = 0.477).

In addition, female had more positive perception than male (64.53 %). As shown in Figure 2b, male students and teachers perceived that the use social media provided opportunities for students to interact with people and other activities in different conditions (AT3, diff. = -0.1207). Particularly, alongside the primary role of a facilitator, male teachers perceived that it is very essential to provide an evaluation for students to accomplish their real-life issues encountered (AA3, diff. = -0.101).

Whereas female students and teachers found it easy to express ideas through a social media or to carry out a group discussion (A1, diff. = -0.0799). Also, it is crucial for the female teachers to monitor, observe, and provide feedback to students during the learning process through social media (CS3, diff. = -0.371). Female teachers also felt that providing materials/models was also crucial to assist students to comprehend the material (EP2, diff. M= -0.5424, diff. F= -0.5199).

Furthermore, people from all aged had positive view on social media for learning. Students and teachers aged <30 years had a positive impression on the use of social media which can provide a cavity for students' mutual sharing (MR1, diff. < 20 = -0.6156, diff. 21 – 30= -0.9096). Regarding the use of social media, students and teachers age range 31–40 years perceived that teachers had to provide students a well-done material/model for authentic learning environment (EP2, diff. = -0.9123). Learning activities using social media required

teachers to monitor, observe and provide positive evaluations to students (CS3, diff. = -0.7319).

Conclusions

This current survey aimed to explore university teachers and students' perception of using social media to promote an authentic learning environment. Most of the participant showed positive views about the use of social media to promote authentic learning environment. The adoption of social media is valued for its capability to offer opportunities for the students to share their experiences and learning activities, to offer students the opportunity to learn from experts so that they were able to obtain a lot of insight on particular issues. Social media helps students to access the teaching and learning resources such as video, demonstration, learning files, allowing students to comprehend the learning materials. However, the study identified some critical issues regarding the use of social media for authentic learning environment, such as unsuitable real-life representation, difficulty to collaborate with others, and difficulty in recognizing their learning potential.

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