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Faculty Members' Perception of the Thai University Administration Model in the Digital Age

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Abstract

The objectives of this research were (1) to study the Thai university administration model in the digital age, (2) to compare the opinions of faculty members toward the Thai university administration model in the digital age, and (3) to propose the Thai university administration model in the digital age. The researcher used a questionnaire with IOC at 0.87 and reliability at 0.91 to collect data from 400 faculty members on a voluntary basis. The data were analyzed by percentages, means, standard deviation, t-test, one-way ANOVA, LSD and content analysis. The results were in three folds. First, the Thai university administration model in the digital age holds four aspects: (1) production of graduates, followed by (2) research, (3) academic services to communities and (4) promotion of Thai art and culture. Prompt actions are required for teaching via web/e-learning tools, accelerating teachers' development to create a new body of knowledge, and increasing online innovations. The policy and plans for the production of graduates in the digital age are the urgent matters of the university. Encouragement for the dissemination of more international research, involvement of the community to join the university as a digital society, and promoting digital citizenship in preserving Thai cultural traditions are to be recognized by the new generation and the world community. Second, the faculty members with different academic experiences and positions had different viewpoints statistically significant at .05 in overall and across all aspects of the model. Third, the proposed university administration model in the digital age has its focus on development of modern technology networks, digital media center, and digital skills development for faculty members, students and support personnel. Urgently needed is research into teaching materials development, obstacles in online learning and teaching, digital learning exchange activities, digital community involvement, and methods of authentic assessment and evaluation to cope with rapid changes in the years to come.

Keywords: Thai university administration model, digital age, production of graduates, research, academic services, cultural promotion, community involvement

1. Background of the Study

The university or higher education institution offers both undergraduate and graduate programs. The role of universities as repositories and generators of knowledge with the obligation to help graduates to enter the workforce with good employment, while serving as an academic arena for the government's public policy and social/ economic development, as well as representing influential bodies in civil society (Ministry of Education, 2014). In Thailand, the traditional missions and functions of higher education institutions are teaching and learning for producing graduates, researching, providing

academic services to communities, and promoting Thai art and culture. Higher education institutions are to play vital roles as social conscience builders in the rapid socio-economic transformation of Thailand in the last two decades (Kirtikara, 2001). Meanwhile Phosa (2016) asserted that such roles require good management for efficiency in the use of manpower to make active and responsible organizations. The coherent government policy with clear continuity in planning is required for practicality in implementation, supported by relevant morale and physical/ digital infrastructure development.

As known, the 21st century as the digital age uses the Internet technology in storing, linking, sharing and disseminating information via electronic media across universities. Universities need to provide education using digital media and skills. The main and auxiliary media are to support e-learning in addition to the face-to-face teaching and learning management system. Learning through electronic media take various forms, such as online, website, e-learning, multimedia, multi-application programs and platforms for real time meeting or non-real time in combination. Rennie & Morrison (2013) emphasized that students must learn and adapt to keep up with changes in teaching and learning, develop information skills by searching through the web, creating a webpage and responding to online assessments via quizzes after accessing their lessons from e-books, group blogs, podcasts, webcasts, YouTube, Wikis, Skype and Line. Learners are to possess fluency in three aspects. First, technical skills in the use of use computers and the Internet: word processor, web browser, email, communication tools to access and retrieve knowledge from online database via search engine and cloud computing. Second, understanding context and evaluating digital media to be able to make decisions about the nature of work and the effects of network technology realizations on behaviors, perspectives, beliefs and feelings toward the outside world for effective communication and coordination at work. Third, creating contents and communicating them through a variety of digital media tools. Creating digital media is more than just knowing how to use word processing programs or writing emails, but it means that media users are able to create, modify and share contents in specific contexts via blogs, images, videos, social media and other forefront platforms (Media Smarts, 2015).

Educators need to assess learners' achievement in terms of gained knowledge and abilities in various learning activities based on blogging or peer assessment. After a course of study, students can be tested by electronic measuring instruments both in the classroom and afterward. According to Schwartz & Arena (2009), quite a few researchers noted the role of digital technology in upgrading assessment to be smarter, faster, fairer and more effective. Assessment is a broad term that includes formative, summative and other types of assessment, particularly e-assessment and e-portfolio. However, an argument here is that through the social affordances of digital technologies, such as social media, blogs, wikis, e-portfolios and electronic voting for assessment, there should be opportunities to extend assessment challenges to aggregated, collective, crowd-sourced grading for learners to decide on artifacts to be used in assessment by particular assessors or evaluators. Such new assessment opportunities can empower learners' decision-making skills, which are important in preparing young people to participate effectively in a democratic society.

Considering from the changing learning style in the digital era, Thai universities need to adjust their administration to keep up with information technology disruptions. In this regard, the researcher would like to look for a workable administration model of Thai

universities in the digital age. The researcher noted that a desired Thai university administration model is confined with four dimensions or aspects prescribed by the government's national higher education policy on graduate production, research, academic services to communities, and promotion of Thai art and culture. The researcher would like to obtain viewpoints from higher education personnel on the administration model short-and long-term in planning and development. Preparation for human resources for the proposed administration model cannot do without upgrading digital learning management, provision of appropriate media, followed by research into current issues related to academic services and promotion of Thai art and culture.

2. Research Objectives

The objectives of this research were (1) to study the Thai university administration model in the digital age, (2) to compare the opinions of faculty members toward the Thai university administration model in the digital age, and (3) to propose the Thai university administration model in the digital age.

The researcher expected that the faculty members classified by (1) gender, (2) age (3) education level, (4) position, (5) experience (6) type of university should have different opinions on learning administration in higher education in the digital age.

3. Conceptual Framework of Administration Model of Thai University in Digital Age

The researcher developed a conceptual frame work for the Thai university administration model based on the government's policy as follows:

- (1) A university is a community of faculty members, academics, administrators support personnel, and students, dedicated to learning, teaching to improve students' ability and quality. The traditional missions and functions of higher education institutions are teaching, researching, providing academic services to communities, and promoting Thai art and culture (Ministry of Education, 2014).
- (2) The government also has a policy on ICT literacy for teachers and students at all levels of education in preparation for information technology disruptions. Digital technology can support educational changes, particularly in the administration process in teaching and learning management, research, academic services to communities, and promoting Thai art and culture. Bates (2016) emphasized learning conceptualization for ideal future citizens via digital technology, commonly known as Information Communication Technology (ICT).
- (3) In Thailand, the government put ICT as the main driving force in digitally transforming the country's education and economy for a better future. Suchato (2017) emphasized the integrated information systems for modern education via networking and online courses.

4. Research Methodology

The participants in the study were 400 faculty members in public and private universities in Thailand, 200 for each type on a voluntary basis. The research instrument for collecting data was a questionnaire which was checked by three experts for its IOC value at 0.87 and reliability by Cronbach' alpha co-efficient at 0.91.

5. Data Analysis

As for data analysis, the researcher used percentages, means, and standard deviation, t-test, one-way ANOVA, LSD, and content analysis.

5.1 Thai University Administration Model in the Digital Age

The faculty member's opinions toward the Thai university administration model in the digital age were at a high level in total. In terms of process, the first aspect on the production of graduates by teaching and learning was at the highest level, followed by other three aspects: research, academic services to communities, and promotion of Thai art and culture, respectively. The details of four aspects are presented in Tables 2-5.

Table 1: Mean and Standard Deviation of Faculty Members' Opinions toward Thai University Administration Model in the Digital Age

Aspect	Process		SD	Meaning	Series no.
1	Teaching and learning	4.50	.59	highest	1
2	Research	4.16	.56	high	2
3	Academic services to communities	3.67	.57	high	3
4	Promoting Thai art and culture	3.62	.67	high	4
	Total	3.99	.47	high	

The faculty members' opinions toward the Thai University administration model in the digital age were at the highest level in 6 items. The highest was "Teaching through web / e-learning tools." Those relatively lower items were "Accelerating the development of faculty members to create new knowledge and innovations," "Determining policies and plans for the teaching in the digital age as urgent matters of the university," "Conducting and using Information Communication Technology (ICT)," "Being classified as a full-scale Smart University" and "Faculty members using Flipped Classroom method." The results on 23 items in the aspect of the production of graduates or teaching and learning are shown in Table 2.

Table 2: Faculty Members' Opinions toward Thai University Administration Model in the Digital Age by Teaching and Learning

	Teaching-Learning Description	x	SD	Meaning	Series no.
1	Determining policies and plans for the teaching in the digital age as urgent matters of the university	4.64	.58	highest	3
2	Conducting and using Information Communication Technology (ICT)	4.58	.59	highest	4
3	Accelerating the development of faculty members to create new knowledge and innovations	4.65	.57	highest	2
4	Being classified as a full-scale Smart University	4.57	.75	highest	5
5	Teaching through web / e-learning tools	4.70	.44	highest	1

	Teaching-Learning Description	x	SD	Meaning	Series no.
6	Faculty members using Flipped Classroom method	4.53	.68	highest	6
7	Students studying via social networks	4.41	.85	high	
8	Students transacting with the university via electronic system	4.42	.77	high	
9	Using cashless payment	4.43	.59	high	
10	Making transactions via smart ID cards	4.41	.85	high	
11	Having online courses mixed with regular courses	4.41	1.00	high	
12	Promoting the administration of all parts of the university into the electronic system	4.46	.84	high	
13	Appropriate equipment to support learning activities in the digital age	4.47	1.02	high	
14	Having Intelligence Library with digital technology	4.47	.68	high	
15	Promoting teaching and learning activities through a	4.49	.59	high	
	variety of applications: Google classroom, class Start, Zoom, MS team, Line, WeChat				
16	Developing an open education system for free, and sharing knowledge in the form of a large number of learners (MOOC=Massive Open Online Course) to facilitate learning in the digital age	4.45	1.02	high	
17	Providing sufficient budget for online teaching in the digital era	4.48	.68	high	
18	Emphasizing the organization of digital media in a concrete manner	4.49	.59	high	
19	Developing learners' high competencies and digital literacy (Media and Information Literacy or MIL)	4.47	1.02	high	
20	Developing university infrastructure to suit the digital age	4.49	.68	high	
21	Organizing IT personnel to give good IT services in the digital age		.59	high	
22	Continuously organizing training on skills in using modern technology		.80	High	
23	Developing information technology systems to facilitate various aspects of teaching and learning.	4.48	.59	High	
	Total	4.50	.59	highest	

As for the aspect of Research, the faculty members perceived at the highest level "Having research R to R, and developing more teaching materials." The other high-level items were "Creating a new body of knowledge to achieve the Thailand 4.0 policy," "Promoting research cooperation activities within the university," "Having more R & D research for teaching and learning in the digital age," and "Determining policies, research plans to create more digital knowledge both long-term and short-term," and "Encouraging the dissemination of more international research. The details are shown in Table 3.

Table 3: Faculty Members' Opinions toward the Thai University Administration Model in the

Digital Age by Research **Research Description** $\overline{\mathbf{x}}$ SD Meaning Series no. 1 Having research R to R, and developing more 4.52 .68 highest 1 teaching materials 2 Creating a new body of knowledge to achieve 4.46 .60 2 high the Thailand 4.0 policy 3 3 Promoting research cooperation activities within 4.38 .59 high the university 4 Having more R & D research for teaching and 4.37 4 .67 high learning in the digital age 5 Determining policies and research plans to 4.36 .67 high 5 create more digital knowledge both long-term and short-term 6 Encouraging dissemination of more 4.35 .74 high 6 international research .77 10 7 Gearing research studies in the direction of 4.21 high technology to promote sustainability 8 Building a research network to access 4.26 .71 high 7 information to create more research innovation chains between universities in the country 9 Supporting research studies in the area of 4.21 .77 10 high sustainability 3.79 10 Having research cooperation presentation of 1.06 high 12 research results as a group of partner universities 11 Promoting more research activities through 4.21 .62 high 8 electronic media 12 Promoting the preparation of information 4.21 .70 high 9 articles to support research dissemination Total 4.26 .56 high

Considering the aspect of Academic Services to Communities, the faculty members put at the highest level: "Organizing activities to open up the worldview and giving the community an opportunity to collaborate with the university in the digital society." The other high-level items were "Continuously promoting information about living in the digital age to the community through various media channels," "Organizing activities to raise awareness of digital citizenship in communities," and "Collecting information about the preparation of necessary digital skills of people in the community in the digital age." The results are shown in Table 4.

Table 4: Faculty Members' Opinions toward the Thai University Administration Model in the Digital Age by Academic Services to Communities

	Academic Services to Communities Description	X	SD	Meaning	Series no.
1	Organizing meetings, seminars, exchange learning experiences in digital learning management	3.72	.83	high	8
2	Collecting information about the preparation of necessary digital skills of people in the community in the digital age	4.40	.59	high	4
3	Organizing activities to open up the worldview and giving the community an opportunity to collaborate with the university in the digital society	4.44	.67	high	1
4	Organizing activities to raise awareness of digital citizenship in communities	4.42	.59	high	3
5	Continuously promoting information about living in the digital age to the community through various media channels	4.43	.69	high	2
6	Providing advice on continuous innovation and technology changes to the community	3.84	.75	high	6
7	Strengthening adaptation to digital technology literacy	3.95	.94	high	5
8	Providing recommendations for preventing the negative impact of digital technology	3.58	.82	high	9
9	Creating a project for cooperation in a digital society between the university and the community	3.84	.99	high	7
	Total	4.07	.57	high	

The faculty members perceived all items of Promotion of Thai Art and Culture at a high level. the highest-level item was "Raising awareness of the continuation of the country's artistic and cultural traditions among personnel in all parts of the university." The other high-level items were "Collaborating with the organization and the community to carry on Thai cultural traditions in transferring them to the youth of the country through various media," together with "Organizing activities with local communities to honor good people in preserving Thai cultural traditions, and disseminate to the international community," "Promoting cultural exchange with foreign countries," and "promoting activities to preserve Thai art and culture in higher education via online media."

Table 5: Faculty Members' Opinions toward the Thai University Administration Model in the Digital Age by Promoting Thai Art and Culture

	Promoting Thai Art and Culture Description	$\overline{\mathbf{x}}$	SD	Meaning	Series no.
1	Organizing meetings, seminars, exchange learning experiences for preserving art and culture in the digital age	3.65	.83	high	8
2	Promoting awareness of Thai identity in the digital age	3.88	.59	high	7
3	Promoting activities to preserve Thai art and culture in higher education via online media	4.00	.67	high	5
4	Promoting cultural exchange with foreign countries	4.03	.67	high	4
5	Expanding knowledge in arts, traditions, and diverse cultures to the world community through various media channels	3.98	.69	high	6
6	Disseminating folk culture to the global community in the digital age		.75	high	10
7	The university leading in preserving Thai art and culture to maintain continually in the digital age		.94	high	9
8	Raising awareness of the continuation of the country's artistic and cultural traditions among personnel in all parts of the university		.82	high	1
9	Collaborating with the organization and the community to carry on Thai cultural traditions in transferring them to the youth of the country through various media		.54	high	2
10	Organizing activities with local communities to honor good people in preserving Thai cultural traditions, and disseminate to the international community	4.26	.63	high	3
	Total	3.97	.67	high	

5.2 Results of Comparison of Faculty Members' Opinions toward Thai University Administration Model in the Digital Age

The results of comparison of faculty members' opinions toward the Thai university administration model in the digital age are shown in Tables 6-7.

Table 6 reveals that the total items of four aspects of the Thai university administration classified by gender and university type were not different. The aspects were statistically significant at the level .05 between administrator /non-administrator in Teaching and Learning and between Education MA and Ph.D. in the aspect of Research.

Table 6: Comparison of Faculty Members' Opinions toward Model of Thai University Administration Classified by Gender Education Position and University Type

Aspect	University		nder	Educ		Posi			sity Type
	Administrati	(Male/	female)	(MA/	PhD)	(Administrator		(Public U.	
	on					/non- administrator)		/Private U.)	
		t	sig	t	sig	t	sig	t	sig
1	Teaching and learning	0.83	.41	66	.51	7.44*	.00	1.31	.19
2	Research	-0.32	.89	-3.03*	.00	-1.18	.24	-1.30	.18
3	Academic services to communities	-0.28	.77	.28	.77	1.14	.16	51	.61
4	Promoting Thai art and culture	-0.68	.66	- 16	.88	-1.13	.27	-1.32	.19
	Total	-0.16	.90	87	.38	1.81	.07	-1.62	.08

^{*}Statistical significance at level .05

Table 7 reports the results of the analysis of variance of total and individual aspects classified by Experience statistically significant at the .05 level. The results on pair comparison classified by Experience of faculty members \geq 31 years show a higher mean than those with 6-15 years in total and individual aspects, those with \leq 5 years in total and individual aspects of Teaching and Learning, Research, Academic Services to Communities and Promoting Thai Art and Culture.

Table 7: Analysis of Variance of Faculty Members' Opinions toward Thai University Administration Model in the Digital Age Classified by Experience

Aspect	Strategies	Sources of Variance	SS	df	MS	F	Sig
1	Teaching and	between group	27.679	3	9.226	32.834*	.000
	learning	within group	111.21	396	.281		
		total	03.741	399			
2	Research	between group	9.002	3	3.001	16.084*	.000
		within group	73.938	396	.187		
		total	82.965	399			
3	Academic services to communities	between group	2.268	3	.756	3.124*	.009
		within group	95.748	396	.242		
		total	98.574	399			
4	Promoting Thai Art and Culture	between group	11.020	3	3.673	8.893*	.000
		within group	163.475	396	.413		
		total	200.676	399			
	Total	between group	7.297	3	2.432	11.863*	.000
		within group	81.102	396	.205		
		Total	88.699	399			

^{*}Statistical significance at level .05

6. Proposed Thai University Administration Model in Digital Age

Based on the obtained results from the questionnaire and content analysis of additional comments given by the participating faculty members, the Thai University Administration Model in the Digital Age proceeds with the four major aspects as prescribed by the government: (1) The Production of Graduates or Teaching and Learning, (2) Research, (3) Academic Services to Communities, and (4) Promotion of Thai Art and Culture. As for the aspects of Teaching and Learning, and Research, the participating faculty members focused on a modern digital media center in short- and long-term planning, development and implementation. Long-term development of digital skills for faculty members, support personnel, and students in all work units and MOOCs to assist teaching. They also prioritized knowledge management (KM) and funded action research to (1) support creation of appropriate teaching materials, (2) identify problems and obstacles in online teaching and learning management, select teaching techniques, assessment/ evaluation methods to cope up with rapid changes in students' demands for autonomous learning management. In the aspect of Academic Services to Communities, the faculty members requested mutual support and assistance for activities to be arranged

for target communities as guided by the government's National Plan on Social and Economic Development. Digital technology definitely serves as the main tool in communicating and disseminating knowledge and activities the Thai universities want to impart to communities and society at large. Exchanged learning about digital literacy as well as preservation of Thai art and culture via appropriate media and through artistic/cultural events should deserve attention of the public for sustainability in the long run.

7. Conclusion of Results

The major results of the study were concluded as follows:

- 7.1 The participating faculty members viewed the Thai University Administration Model in the Digital Age regarding its total and individual aspects at a high level. The highest was the aspect of Production of Graduates or Teaching and Learning. The other three aspects followed in importance: Research, Academic Services to Communities and Promoting Thai Art and Culture.
- 7.1.1 Teaching and Learning had six items at the high level; the highest mean was the "Teaching through web/ e-learning tools." The other high-level items were "Accelerating the development of faculty members to create new knowledge and innovations," "Determining policies and plans for the teaching in the digital age as urgent matters of the university," Conducting and using Information Communication Technology (ICT)," "Being classified as a full-scale Smart University," and "Faculty members using the Flipped Classroom method."
- 7.1.2 According to the faculty members' perception, the aspect of Research carried the highest mean of the item on "Having research R to R, and developing more teaching materials." They expected teaching and learning activities through various applications, such as Google Classroom, Class Start, and Zoom meeting." The other high-level items were "Promoting research cooperation activities within the university," and "Having more R & D research for teaching and learning in the digital age." They preferred contents in teaching and learning that emphasize students' awareness of morality and experience enhanced by ICT. Through research, teachers should be able to handle online courses and develop modern teaching materials as pertinent to students' needs.
- 7.1.3 Academic services to communities had the highest mean of the item "Organizing activities to open up the worldview and give the community an opportunity to collaborate with the university in the digital society." The other high-level items called for involvement of people in communities in the use of various media and channels, their awareness of digital citizenship in communities and necessary preparation of digital skills.
- 7.1.4 Promoting Thai art and culture had the highest mean of the item "Raising awareness of the continuation of the country's artistic and cultural traditions among personnel in all parts of the university." The other high-level items involved collaboration with the organization and the community to preserve Thai traditions and culture through

various media, to honor good people as models for the local and international community as part of cultural exchange among higher education institutions.

- 7.2 As for the comparison of various items under four major aspects, there was a statistical significance at level .05 in the total aspect of the Thai university administration model, but those classified by gender and university type were not different. There was statistical significance at level .05 between Administrator /non-administrator in Teaching and Learning, and between the education levels MA and Ph.D in the aspect of Research. The total and individual aspects when classified by experience was statistically significant at the .05 level. The faculty members with experience \geq 31 years had a higher mean than those with 6-15 years in total and individual aspects, and those with \leq 5 years in total and individual aspects of Teaching and learning, Research, Academic services to communities and Promoting Thai art and culture.
- 7.3 The proposed Thai university administration model in the digital age has its focus on the production of graduates or teaching and learning. What is urgently required falls on the use of network, a modern digital media center, short- and long-term development of digital skills for all groups of university personnel. MOOCs and funded research into teaching materials development should deserve priority in planning, development and implementation. Academic services to communities require involvement, participation and mutual support and assistance from those concerned. It is obvious that digital technology plays a vital role in all four aspects of the Thai university administration model and the aspect of Promoting Thai Art and Culture is no exception. Cultural exchange can help Thai art and culture survive in the home society and the international arena. The university should disseminate and expand knowledge of Thai culture through various media channels for preservation and continuation.

8. Discussion of Results

This section deals with discussion of three major findings as follows:

8.1 The aspect of the production of graduates or teaching and learning is in fact the main role of the university prescribed by the Thai government, and the faculty members appeared to agreed accordingly upon the assigned function. To them, it was not a surprise to be guided along the digital trend in teaching and learning, research, academic services to communities, and promoting Thai art and culture. Faculty members need to be able to handle web / e-learning tools and online innovation as an urgent matter of the university. This point was earlier discussed by Suchato (2017) in that the role of faculty members in the use of teaching tools, such as web and e-learning to communicate with students in class (class communication), and management (organizing) for required documents. School supplies (materials), evaluation measurements (assessments), and other accounts (rosters) can create teaching activities through a variety of applications; the most frequently used is Line, followed by Google Classroom and Zoom. Some scholars suggested online teaching design to provide students with easy access to resources, and asserted that interaction between learners and teachers in a simple and diverse manner will account for success in online teaching (Athanasu, 2009; Schwatz & Arena, 2009; Pineida, 2011; Ghavifekr et al., 2015; Jindanuruk, 2016).

8.2 The results on the compared aspect items were significantly different at the .05 level in total in Teaching and Learning when classified by position, and Research classified by the education levels MA and PhD and experience. When classified by Experience, the faculty members with \geq 31 years had higher mean than those with 6-15 years in total and all aspects, those with \leq 5 years in total and aspects of general management and educational evaluation, and those with 16-30 years in educational evaluation and research. As pointed out in the study by Banoobhai (2017), faculty members who started their teaching career early are able to accumulate their research skills and obtained academic ranks rather early as well.

8.3 The proposed Thai university administration model emphasizes teaching and research with the use of digital skills. Faculty members value Internet technology, use of electronic media and channels not only for their academic work, but benefits for their students, as shown in MOOCs, and activities arranged as academic services to communities and art and cultural events for preservation and continuation. Such mutual benefits were studied by Odora & Matoti (2015) who pointed out that lecturers perceive their new roles in the digital age by using computer-based technology and other digital technologies for their work both in and out of the classroom. Rennie & Morrison (2013) emphasized that it was important to improve students' digital literacy and skills to enable them to search through the web, create a webpage, and handle online assessment and quizzes. They need to familiarize themselves with the use of Blog, Podcast, Webcast, Wiki, YouTube, Skype, and LINE groups, and other relevant applications. In this regard, one major government university in Thailand conducted research into digital literacy and skills and concluded that graduate students require digital skills for the knowledge-based economy and deep knowledge learning (Ministry of Education, 2014). This point was supported by Kiss (2017) who said that digital skills are required of modern learners to search, collect, process, and use information systematically, able to assess the connection and distinguish reality from the virtual world. Certainly, the aspect of Research cannot do without digital literacy and skills for a researcher to complete a systematic inquiry on the basis of obtained information and needed data.

9. Suggestions

The researcher would like to see Thai university administration takes a prompt action on developing their academic staff members to use digital skills and networks for their teaching and learning management to meet the current needs of their students. Undoubtedly, leadership from the university authorities concerned determines speed in the direction of digital competencies as a dominant part of their personal lives, their teaching and learning management, support and facilitation for their work in research, academic services and activities/ events arranged for target communities as planned. It is without doubt to academics and support staff members that going digital is a necessity to survive in their university career, and no longer as an option.

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11. The Author

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12. References

Athanasou, J.A. (2009). Decent and its implication for career, Australia. *Journal of Career Development*, 2009, 19(1) 36-44.

Banoobhai, M. (2017). Can student feedback improve teaching and learning? A case study at a University of Technology. *Journal of Social Science*, *July 2017*, *51*(1-3), 23-28.

Bates, T. (2016). Teaching in a Digital Age. Campus. doi: 10-4288/1.0224023.

Ghavifekr, S., Wan, R. & Wan, A. (2015). Teaching and learning with technology: Effectiveness of

ICT integration in schools. (2015). *International Journal of Research in Education and Science*, *Summer 2015*), 1(2), 175-191.

Jindanuruk, T. (2016). Professional Science Teachers. (Online). http://e-jodil.stou.ac.th *Year* 6, *January-June*, 2016, 1, 159, March 5, 2022.

Kirtikara, K. (2001). Higher education in Thailand and the national reform roadmap. An invited paper presented at *the Thai-US Education Roundtable*, 9 January 2001, Bangkok, Thailand.

Kiss, M. (2017). *Digital Skills in the EU Labor Market. Members' Research Service*. European Union: Publications Office of the European Union.

Media Smarts. (2015). Digital literacy fundamentals. (Online). http://mediasmarts.ca/digital-media-literacy-fundamentals/digital-literacy-fundamentals, March 11, 2021.

Ministry of Education. (2014). Ministry of Education Announcement on Thailand Qualifications Framework for Higher Education: TQF: H Ed. (Online). http://www.mua.go.th/users/tqf-hed/, October 2, 2021.

Odora, R. J & Matoti, S.N. (2015). The digital age: Changing roles of lecturers at University of Technology in South Africa. *Journal of Social Science*, 2015, 42(1-2), 165-173.

Phosa, B. (2016). Address of President. International Student Union, Chiang Mai University, Chiang Mai, Thailand.

Pineida, F.O. (2011). Competencies for the 21th century: Integrating ICT to life, social and economic development. *Procedia- Social and Behavioral Sciences*, 2011, 28, 54-57.

Rennie, F. & Morrison, T. (2013). *E-Learning and Social Networking Handbook Resources for Higher Education*. Second edition. New York: Routledge.

Schwartz, D. L. & Arena, D. (2009). *Choice-Based Assessments for the Digital Age*. Stanford, CA: School of Education, Stanford University.

Suchato, A. (2017). Learning Revolution in Higher Education. A lecture at Chulalongkorn University on 17 March 2017.