

Factors Affecting Graduation of Undergraduate Students from the Human and Family Development Program at the School of Human Ecology, Sukhothai Thammathirat Open University

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Abstract

The study's objective was to examine how the combination of factors consists of personal characteristics, psychological factors and social factors affect the graduation within a curriculum time frame of students under the Human and Family Development Program at the School of Human Ecology, Sukhothai Thammathirat Open University. This research applied a quantitative method. The population in this study consisted of 420 students who graduated from academic years 2017 – 2019. The sample was selected based on proportional stratified random sampling by academic year of graduation. The instrument used was a questionnaire that was divided into two parts: the first part was in the form of a checklist designed to collect basic information of the respondents as a personal factor; and the second part was based on questions with responses in the form of 5-levels rating scale that covers both psychological factors and social factors. Data was collected through 260 mailed questionnaires, of which 230 completed questionnaires with valid responses were returned. The data were analysed by using descriptive statistics and Logistic regression analysis. The findings were as follows; factors affecting graduation of undergraduate students within a curriculum time frame statistically significant at 0.05 level, consisting of personal factors including characteristic of living, educational level aspect; and psychological factors including resilience and optimism aspects. The three social factors that were studied showed no significant influence on the student graduation. The result of the study can guide the curriculum development at the Sukhothai Thammathirat Open University. This contribution may be applied to distance education management for other universities around the Asian region and other regions.

Keywords: *distance education, graduation, Human and Family Development Program, motivation to learn, psychological capital, social support.*

Introduction

For Thai society and many other countries, graduation, especially in Asia, is considered a significant step of life and a beginning of a stable future career. It is an expectation of self, family, and society in which one lives, resulting in Asian students' devotional effort (Hsin & Xie, 2014). The distance education system at a university level focuses on students' ability to self-study without attending classes. It is an opportunity for those wishing to further their studies to acquire a degree in higher education and to learn as they wish without boundaries of time and location. Students can study via published materials as the main media while having a radio, television, and other electronic media to complement their learning, and heighten their knowledge. Upon their graduation, students can apply what they have learned in their job, improve their quality of life, and adapt to better fit within the society. However, distance education has some limitations that result in the dropout of some students, and some being unable to graduate within the program's time frame. Obstacles include lack of interaction between teachers and students, solitariness, inability to allocate time for study, having the duty of work as well as the responsibility of the family (Budiman, 2018; Aydin et al., 2019; Goswami & Barman, 2019). Most researches were carried out in the context of online distance learning systems and only covers a few factors. Thus, resulting in some important factors relating to graduation within a curriculum time frame of undergraduate students left unidentified.

The Human and Family Development Program of the School of Human Ecology in Sukhothai Thammathirath Open University is considered the first and only program in Thailand that provides courses about human and family development, focusing on developing family members of all ages and a body of knowledge regarding family and changing context in multiple dimensions. Through this distance education course, the entire system of family's and Thai society's quality of life can be improved. Although this course benefits the development of individuals and families toward a better quality of life, the record of previous courses revealed that the number of new applications of each year from the academic year 2018 to 2020 declined from 23.3% to 31.7%. The number of students who graduated within the curriculum time frame of study from the academic year 2016 to 2019 around 19 % to 41% and graduated over the curriculum time frame of the study tended to increase from 40 % to 64% (Office of Computer Service, Sukhothai Thammathirath Open University, n.d.). The data showed that many students were not graduating within the curriculum time frame of the study. Therefore, it is important to study to gain information to increase the overall number of students; and support students to maintain their status and graduate, which in turn benefits the operation of the curriculum and university.

Literature Review

This section describes three significant factors relating to graduation within a curriculum time frame: personal, psychological, and social factors.

Personal factors

Personal factors are an individual's basic characteristics and background. This consists of gender, age, marital status, occupation, characteristic of living, and educational level. Previous studies show that personal factors relate to learning achievement and graduation (Lasai, 2007; Ngamlamom, 2019; Zhang et al., 2019).

Psychological factors

Motivation to learn

Motivation to learn is a driving force that induces one for learning. It is a need or desire to be good academically (Gubta & Milli, 2016). Motivation to learn is a desire to achieve a determined goal, a force that drives learning behaviours and maintain such behaviours to continue consistently. It is psychological variables related to students' recognition of their capability and ability to lead to an anticipated goal and expected outcomes (Deci & Ryan, 2008). This leads to effective learning behaviours and has a positive relationship with desirable behaviours and learning achievement (Wang et al., 2008). Thus, an individual becomes diligent, determined, and strives to battle any obstacles encountered during the study, resulting in self-learning behaviours and learning disciplines (Alkan & Arslan, 2019; American Psychological Association, 2020). Students with high internal motivation can maintain the level of motivation to learn consistently from the beginning of the course until graduation. They are glad to learn or participate in learning activities because those activities will get them closer to the goal they set (Deci & Ryan, 2008; Froiland, 2012; Neto, 2015). Motivation, thus, is influential on learning outcomes. Students with internal motivation have enthusiasm, drive and satisfaction with learning, so they have better learning outcomes. External motivation drives students to work or express effort positively to get a reward, yet the expression does not continue in the long term. On the contrary, students with internal motivation are eager to learn, so they do well academically on the topics they are interested in and have consistent behaviours to achieve the goal (Hasan et al., 2010; Froiland, 2012). Therefore, motivation to learn affects learning outcomes and graduation (Amrai et al., 2011).

Psychological capital

Psychological capital is a variable that is receiving increased attention currently. It is a positive state of mind that helps develop a person's characteristics, enabling the person to encounter situations with confidence, be optimistic, hopeful, resilient, patient, and achieve the goal. Therefore, having psychological capital relates to and is able to predict the learning achievement and graduation of students in a higher education level (Tjakraatmadja & Hary, 2007; Datu et al., 2018; Kuar et al., 2018). Psychological capital consists of four components called HERO (Hope, Self-Efficacy, Resilience, Optimism) (Luthans & Youssef, 2004). Past studies have revealed conclusive findings that students' psychological capital relates to and can be used to predict educational achievement and graduation from a university (Tjakraatmadja & Hary, 2007; Datu et al., 2018; Kuar et al., 2018). Psychological capital is applicable to predict motivation to learn, concentration to study, and students' learning achievement both in cross-sectional and long-term studies (Datu et al., 2018). Psychological capital positively correlates to learning achievement evaluated by the grade point average (GPA) and acts as a mediator variable of the relationship between positive emotion and learning achievement. That is, if students feel positive about their own study, psychological capital will increase, resulting in better learning achievement (Carmona-Halty et al., 2019). In this study, psychological capital expected to be variables affecting graduation in distance education consists of self-efficacy, hope, resilience, and optimism.

Social factors: Social support

Social support is a social exchange process that leads to developing behavioural patterns, values, and an individual's social intellect (Farmer & Farmer, 1996). An individual's relationships with others bring social support in various forms, including giving advice and suggestions, both verbally and non-verbally, offering help, and other actions resulting from closeness and bonding or relationship with others that please the recipient. Hence, social support is a quality relationship. A person facing a problem or situation that is difficult to handle, will feel cared for and loved when they receive the support they need. Social support

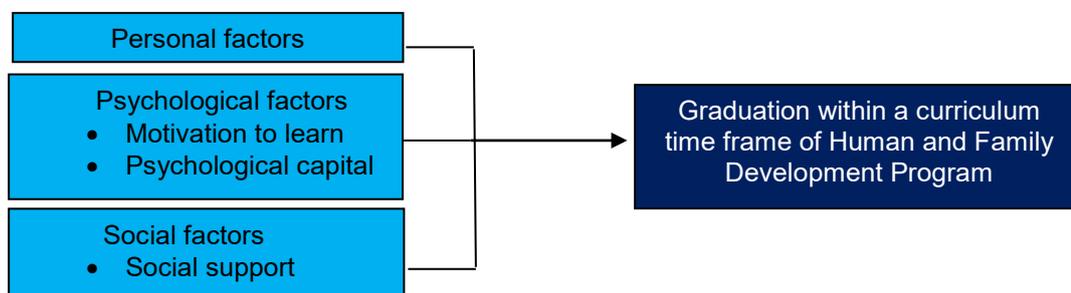
is an important component of life during studying and is a factor that influences learning achievement (Yasin & Dzulkifli, 2011; Le et al., 2018). This research studies social supports that range from social supports from family (in providing supports in terms of mental health and suitable learning environment), social supports from colleagues (in assisting and supporting for smooth work and study balance), and social supports from the university (in providing helpful information for learning, facilitation for joining learning activities and assistance when students are facing problems or obstacles from the study).

Conceptual Framework

The literature review indicated four majors' components for understanding factors affecting graduation within a curriculum time frame of students in the Human and Family Development Program, School of Human Ecology, Sukhothai Thammathirat Open University. Motivation to learn and psychological capital are referred to as psychological factors. The conceptual framework in Figure 1 presents overall internal and external factors that are grouped as three significant factors: personal factors, psychological factors, and social factors.

Figure 1

Conceptual framework of factors affecting graduation within a curriculum time frame of Human and Family Development Program, School of Human Ecology



Research Objective

The objective of this study is to determine how the combination of personal factors, psychological factors and social factors affect the graduation of students within a curriculum time frame under the Human and Family Development Program at the School of Human Ecology, Sukhothai Thammathirat Open University.

Research Method

The research was conducted using quantitative method.

Population and sample

The population used in this study was 420 undergraduate students from the Human and Family Development Program, School of Human Ecology graduated during the academic year from 2017 to 2019. The size of the sample group was determined using the Yamane's equation (Yamane, 1973), resulting in a sample size of 205. The sample of students who passed in Professional experiences in Human and Family Development subject and graduated during the academic year from 2017 to 2019 was chosen using proportional stratified random sampling by academic year of graduation. In order to prevent

the loss of the sample group, 30% additional samples were collected, making it a total of 260 samples. The return questionnaires were 240 samples, and 230 were completed, making it 88.5% of all questionnaires.

Research instrument

The research instrument was the questionnaires that the author developed from a study of documents, textbooks, and related studies. The questionnaire was divided into two parts. The first part is a 6-question personal factors survey in the form of a checklist designed to collect basic information of the respondents. The second part consist 71-questions with responses in the form of 5-levels rating scales covering both psychological and social factors. Psychological factors were captured using 20 questions to measure motivation to learn and 16 questions to measure positive psychological capital. Social factors were captured using 35 questions regarding social support from a family, colleagues, and the university. The content validity of the questionnaire used in this study was carried out based judgements from five professionals. The reliability of this questionnaire calculated for internal consistency using the Cronbach's alpha coefficients that were found between 0.88 to 0.96

Data collection and analysis

Data are collected by the self-enumeration method from December 1, 2020 to February 1, 2021 due to most of the respondents who study in Sukhothai Thammathirat Open University were living in wider geographical areas. Thus, the questionnaires used to collect data were sent out via mail which cost much lower compared to personal interviews. The data collection and analysis process were as follows: First, questionnaires were mailed out with instructions, and consent forms with a registered return-paid envelope post so that the respondents can mail back the completed questionnaire directly. Secondly, the respondents completed and mailed back their responses to the questionnaires. Third, all 240 returned questionnaires were checked and a total of 230 completed responses were found, resulting in 88.5 % of all questionnaires that were then used for data analysis. Lastly, the completed responses were coded into a software package using Statistical Package for the Social Science (SPSS Version 25) to carry out statistical analysis. This include descriptive statistical analysis, including frequency distribution, mean, standard deviation, and logistic regression analysis.

Ethics of Research

This research was conducted with human subject protection by completing ethics approval requirements from the Ethics Committee on Human Research, School of Nursing, Sukhothai Thammathirat Open University, NS No. 21/2563.

Findings

Descriptive data for personal factors of students who are respondents presented as number and percentage in Table 1. The table presents the distribution of personal factors between respondents who graduated within a curriculum time frame as well as those who graduated over a curriculum time frame. Most respondents were female (87.39%). The age of respondents ranged from 21 to over 60 years old, with over fifty-six per cent being 21-40 years old (56.52%), and less than four per cent were over 60 years old (3.04%). In terms of marital status, most of the respondents were married (60%), and less than four per cent were divorced. While the occupation of respondents slightly varied, more than twenty-five per cent were private company officers followed by twenty-three per cent working as freelancer and twenty-two per cent with other occupations. Almost eighteen per cent of

respondents were business owners (17.83%), and a minority of the respondents were government officers or state enterprises officers (12.17%). The respondents' living characteristics include: (i) living with spouse almost fifty per cent (49.57%); (ii) living with parents were 17.83 per cent; (iii) more than eleven per cent of respondents lived with children (11.74%); and (iv) only ten per cent lived alone with the same amount of living with cousins and siblings (10.43%). The educational level of respondents ranged from Grade 9 Certificate to master's degree, with most respondents completing grade 12 (70%). Less than four per cent have obtained master's degree (3.91%).

Table 1

Number and percentage of personal factors affecting graduation within a curriculum time frame, categorised by graduation time frame.

Factors	Graduation within a curriculum time frame		Graduation with over a curriculum time frame		Total	
	n	Percentage	n	Percentage	n	Percentage
Personal factors						
Gender						
Male	14	48.28	15	51.72	29	12.61
Female	107	53.23	94	46.77	201	87.39
Age						
21-40 years old	64	49.23	66	50.77	130	56.52
41-60 years old	52	55.91	41	44.09	93	40.44
Over than 60 years old	5	71.43	2	28.57	7	3.04
Marital status						
Single	40	54.05	34	45.95	74	32.17
Married	72	52.17	66	47.83	138	60.00
Divorced	4	50.00	4	50.00	8	3.48
Widowed	5	50.00	5	50.00	10	4.38
Occupation						
Government officer/State enterprises officer	17	60.71	11	39.29	28	12.17
Private company officer	30	51.72	28	48.28	58	25.22
Business owner	22	53.66	19	46.34	41	17.83
Freelancer	31	59.62	21	40.38	52	22.61
work in other occupation	21	41.18	30	58.82	51	22.17
Characteristic of Living						
Living alone	15	62.50	9	37.50	24	10.43
Living with spouse	55	48.25	59	51.75	114	49.57
Living with children	18	66.67	9	33.33	27	11.74
Living with parents	18	43.90	23	56.10	41	17.83
Living with cousins and siblings	15	62.50	9	37.50	24	10.43
Educational level						
Grade 9 certificate	9	47.37	10	52.63	19	8.26

Factors	Graduation within a curriculum time frame		Graduation with over a curriculum time frame		Total	
	n	Percentage	n	Percentage	n	Percentage
Grade 12 certificate	78	48.45	83	51.55	161	70.00
Vocational certificate	9	45.00	11	55.00	20	8.70
High vocational certificate	6	75.00	2	25.00	8	3.48
Bachelor's degree	11	84.62	2	15.38	13	5.65
Master's degree	8	88.89	1	11.11	9	3.91

The analysis of mean, standard deviation, and interpretation of mean of factors affecting students' graduation in the Human and Family Development Program at the School of Human Ecology was conducted by categorising graduation time frame in shown in Table 2. It was found that students who are respondents graduated within a curriculum time frame and over a curriculum time frame had the highest level of factors affecting graduation, including motivation to learn, psychological capital in self-efficacy and hope, and social support from educational institutions. Besides, it found a high level of factors affecting graduation consisting of social support from a family and colleagues and psychological capital in terms of resilience and optimism aspects.

Table 2

Mean, standard deviation, and mean interpretation of factors affecting students' graduation within a curriculum time frame, categorising by graduation time frame.

Factors	Graduation within a curriculum time frame			Graduation with over a curriculum time frame		
	M	SD	Interpretation	M	SD	Interpretation
Psychological factors						
Motivation to learn	4.24	0.48	Highest	4.21	0.48	Highest
Positive psychological capital in self-efficacy	4.33	0.53	Highest	4.24	0.56	Highest
Positive psychological capital in hope	4.40	0.51	Highest	4.30	0.61	Highest
Positive psychological capital in resilience	4.17	0.57	High	4.16	0.60	High
Positive psychological capital in optimism	3.95	0.54	High	3.80	0.49	High
Social factors						
Social support from a family	3.86	0.74	High	3.94	0.73	High
Social support from colleagues	3.58	0.99	High	3.67	1.01	High
Social support from an educational institution	4.15	0.65	High	4.24	0.59	Highest

Factors affecting graduation were examined by analysing the combination of elements consisting of: (i) personal factors which includes six categorical variables, namely gender, age, marital status, occupation, characteristic of living, and education level; (ii) psychological factors consisting of five continuous variables: motivation to learn, and psychological capitals in self-efficacy, hope, resilience, and optimism; and (iii) social factors referring to social supports as continuous variables, namely social support from family, colleagues, and educational institutions to find out factors affecting graduation within a curriculum time frame. The output from the data analysis is shown in Table 3.

Table 3

Factors affecting graduation within a curriculum time frame of students in the Human and Family Development Program, School of Human Ecology, Sukhothai Thammathirat Open University.

Factors	B	SE	Sig	Exp(b)
Personal factors				
Male ¹	-.876	.502	.081	.416
Age				
21-40 years old ²	-2.539	1.401	.070	.079
41-60 years old ²	-2.624	1.403	.061	.073
Marital status				
Single ³	-.939	.874	.282	.391
Married ³	-.871	.850	.305	.418
Divorced ³	.589	1.163	.613	1.802
Occupation				
Government officer/State enterprises officer ⁴	-.427	.577	.459	.652
Private company officer ⁴	-.222	.453	.623	.801
Business owner ⁴	-.318	.512	.535	.728
Freelancer ⁴	-.763	.467	.102	.466
Characteristic of Living				
Living alone ⁵	.844	.697	.226	2.326
Living with spouse ⁵	1.457	.767	.057	4.293
Living with children ⁵	.395	.806	.624	1.485
Living with parents ⁵	1.455	.598	.015	4.285*
Educational level				
Grade 9 certificate ⁶	4.002	1.536	.009	54.732*
Grade 12 certificate ⁶	3.632	1.437	.011	37.779*
Vocational certificate ⁶	3.604	1.521	.018	36.755*
High vocational certificate ⁶	1.987	1.614	.218	7.291
Bachelor's degree ⁶	1.986	1.644	.227	7.289
Psychological factors				
Motivation to learn	-.332	.432	.442	.718
Psychological capital in self-efficacy	.008	.586	.990	1.008
Psychological capital in hope	-.700	.554	.207	.497
Psychological capital in resilience	.840	.425	.048	2.317*
Psychological capital in optimism	-.855	.374	.022	.425*
Social factors				
Social support from a family	.030	.243	.901	1.031
Social support from colleagues	.060	.172	.727	1.062
Social support from an educational institution	.376	.311	.227	1.456

Remarks * statistically significant at the $\alpha = 0.05$ level

- 1 use females as a reference group
- 2 use respondents aged over 60 as a reference group
- 3 use divorce status as a reference group
- 4 use work in other occupations as a reference group
- 5 use living with cousins and siblings as a reference group
- 6 use master's degree education level as a reference group

From table 3, the analysis of factors affecting graduation within a curriculum time frame showed that personal factors: characteristic of living and education level shows an influence on the student's graduation. Particularly, those living with parents are found to affect the graduation with statistically significant at 0.05 level. The respondents living with parents have 4.29 times more chance to graduate in a curriculum time frame than respondents living with cousins and siblings. As for educational level factors, it was found that different academic levels affected the tendency to graduate within a curriculum time frame. Grade 9 certificate, grade 12, and vocational certificate levels tended graduation within a curriculum time frame statistically significant at 0.05 level. Respondents with grade 9 certificates had 54.73 times more chance to graduate within a curriculum time frame. In comparison, respondents with

grade 12 certificates had 37.78 times more opportunities to graduate within a curriculum time frame, while respondents with vocational certificates had 36.76 times more chance to graduate within a curriculum time frame, compared to graduate students, respectively.

The psychological factors that significantly affects graduation within a curriculum time frame are psychological capital in optimism, and psychological capital in resilience. Psychological capital in resilience affected graduation within a curriculum time frame; statistically significant at 0.05 level. Respondents with high psychological capital in resilience have 2.32 times more chance to graduate within a curriculum time frame than those with lower psychological capital in resilience. Meanwhile, psychological capital in optimism affected graduation within a curriculum time frame; statistically significant at 0.05 level. Respondents with higher psychological capital in optimism had less chance to graduate within a curriculum time frame than respondents with lower psychological capital in optimism.

Social factors did not influence graduation within the time frame of the curriculum in this study.

The findings were used to determine the following equation to predict students' graduation in the Human and Family Development Program:

$$\text{Graduation within a curriculum time frame} = 3.913 + 1.456 \text{ living with parents} + 4.002 \text{ grade 9 certificate level} + 3.632 \text{ grade 12 certificate level} + 3.604 \text{ vocational certificate level} + .840 \text{ psychological capital in resilience} - .855 \text{ psychological capital in optimism}$$

The analysis of logistic regression effectiveness in predicting the chance of graduation within a curriculum time frame and over a curriculum time frame of students in the Human and Family Development Program is shown in Table 4. It was found that the effectiveness of the logistics regression equation to predict the chance of graduation in the Human and Family Development Program at the School of Human Ecology, Sukhothai Thammathirat Open University for all student is at 67.4 %. While, the prediction of the likelihood of graduation within a curriculum time frame is at 67.2%, and the prediction of the chance of graduation with over a curriculum time frame is at 67.6%.

Table 4

The effectiveness of logistic regression in predicting the chance to graduate within a curriculum time frame and over a curriculum time frame of students in the Human and Family Development Program, School of Human Ecology, Sukhothai Thammathirat Open University.

Graduation	Prediction of graduation		Accuracy percentage
	Within a curriculum time frame	Over a curriculum time frame	
Within a curriculum time frame	80	39	67.2
Over a curriculum time frame	35	73	67.6
Total			67.4

Discussion

This study revealed that characteristic of living and education levels are two personal factors that affected graduation in the Human and Family Development Program significantly. Students living with parents while studying had more chance of graduation within four years. This is possible because a family is an institution that influences personal characteristics, behaviours, emotions, feelings, intellect and gives love, warmth, and safety

both physically and mentally, promoting confidence and pride (Krainatee et al., 2020). By living with family members, students were supported and encouraged to study more smoothly, which conforms with the findings by Tang et al. (2013), who reported that students supported by family and parents would be successful in their study.

Meanwhile, the findings showed that students with grade 9 certificate, grade 12 certificate, and vocational certificate tend to graduate within four years. A possible explanation is perhaps that the graduation from higher education is considered an important step of life in Asia (Hsin & Xie, 2014). Sukhothai Thammathirat Open University is a distance university that provides an opportunity for further studies for those who are interested to learn regardless of gender or age. The findings differed from Lasai (2007), which reported that students with a degree in higher vocational college, diploma, and higher than bachelor's degree could graduate within a time frame more than students with a lower degree or secondary education.

The findings from this study also revealed that social factors consisting of support from family, colleagues, and a university did not affect the graduation within a curriculum time frame. Sukhothai Thammathirat Open University students are adult learners with experiences and ability to be independent. They also tend to have higher cognitive development to think and solve problems independently (Santrock, 2020). This is also in line with Kaochim's (2006) study which reported that social support, whether from a family, friends, or university, and learning behaviours did not affect the learning achievement of undergraduate students. Nevertheless, Le et al. (2018) argued that a higher level of social support enabled undergraduate students to achieve satisfactory learning and reduce emotional fatigue.

Psychological factors of psychological capital in resilience and optimism affected the graduation within a curriculum time frame. Students with high psychological capital in resilience had more chance to graduate within four years than students with lower positive psychological capital in resilience. This finding parallels the finding by Li (2017) who found that resilience related positively to learning success. Students encounter problems and learning obstacles in various forms during their study. This can lead to burnout, causing students to feel depressed and desperate to the point of resignation (Ooyu et al., 2018). Individuals with resilience can show their full potential and adapt to threatening situations (Fletcher & Sarkar, 2013; Toland & Carrigan, 2016). With high resilience, students maintain their perseverance to achieve their study goals (Borjian, 2018). Thus, resilience is an essential component for students to overcome problems and obstacles, and reach their goals.

The findings also showed that students with higher psychological capital in optimism have less chance of graduating within four years than students with lower psychological capital in optimism. This aligned with previous studies that optimism did not relate to learning success (Schumacher, 2006). Consistently, Akram & Suneel (2018) did not find the relationship between optimism and self-esteem and learning achievement. A possible explanation may be that optimism is only a form of viewing and expecting things. Therefore, it cannot guarantee that the future outcomes will be as what an individual anticipates. Optimism might not directly influence learning achievement, yet it may affect other related factors and benefit an individual's learning behaviours. According to Vizoso et al. (2018), learning burnout strongly affects students' learning results. However, students with optimism have a lower chance of facing learning burnout and tend to have satisfactory learning results and become successful with their studies. This shows that although optimism is not a direct factor affecting graduation, it is worth promoting optimism to support students to have ease of mind and continue their study smoothly.

Conclusion

This purpose of this research is to study factors affecting graduation within a time frame of the Human and Family Development Program at the School of Human Ecology, Sukhothai Thammathirath Open University using a quantitative research methodology. Data collection was done by mailing questionnaires and applying a rating scale to survey opinions from 230 students who graduated from 2017 to 2019 in the Human and Family Development Program. The findings revealed that factors affecting graduation within four years consisted of personal factors in terms of characteristics of living and education level; psychological factors in terms of psychological capital in resilience and optimism. The results of this study may be an important guideline to Sukhothai Thammathirath Open University in distance education management to promote students to graduate within a curriculum time frame. The information gained may also be used to determine desirable characteristics of the graduates in terms of having psychological capital and optimism, which are remarkable factors in promoting students to manage and overcome obstacles by themselves and succeed at their education. Findings from this study may also be applied to distance education management in other universities around the Asian and other regions.

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