Time Management Capabilities of Undergraduate Students at a Private Thai University

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Abstract

This research study examined the self-described time management capabilities of undergraduate students at a small private university in Thailand. Since completing a university degree requires taking many classes as well as participating in extracurricular activities, students need good time management skills to be successful. Developing such skills while they are still students will also help them to manage time effectively after they graduate and begin their professional lives.

The research instrument used for collecting data was a five-rating scale questionnaire with 58 items. The sample consisted of 320 undergraduate students during the 2015/2016 academic year. These were classified by gender, age, program of study, year of study, cumulative grade point average (CGPA), residence accommodations, and means of financial support.

The results show that students reported moderate levels of overall time management capabilities. In regards to planning time usage, female students reported a higher level of capability than male students did. In terms of formation of life objectives, students with government loans had higher scores than students who were self-financed.

Keywords: *Time management capabilities, undergraduate students*

Introduction

In a university, there are so many activities inside and outside of the classroom. Students need to manage their time to accomplish all their study tasks as well as to participate in required activities. In order to be successful, students need to plan their time wisely. Poser (2003) stated that "you need to manage time effectively if you're going to be successful. All other things being held constant, better time management skills can improve your grades, help you keep stress in check, and help you be competitive in the career you undertake following your university education." While many students achieve excellent academic results, many others receive low grades or fail courses and are not able to graduate due largely to their inability to manage their time well.

Time management skills are a major criterion that affects student achievement. Previous research studies have shown that positive time management behaviors boost students' CGPAs, whereas negative time management behaviors decrease academic performance (Britton and Tesser, 1991; Mpofu, D'Amico, & Cleghorn, 1996; Saketi & Taheri, 2010; Sevari & Kandy, 2011; Tanriogen & Iscan, 2009). It is generally assumed that students with good time management skills are able to manage time effectively even after they graduate and enter professional life.

According to Persky, Alford, and Kyle (2013), time management skills are a significant predictor of first-year performance of college students. Students who have no self-discipline and have never been trained to use time efficiently before entering university tend to find it difficult to engage in activities and yet get all the academic tasks done on time. The consequences are stress and failure in academic life. Satija and Satija (2013) believe that people choose to work on tasks that yield the highest utility. They found that people think about what they will gain by working on task (a) or task (b), and so if task (a) has a higher utility, then they are more likely to work on task (a) than on task (b). In other words, people maximize the expected utility.

Statement of the Problem

A private university located in Central Thailand had an enrolment of 1,134 students (both Thai and International) for the 2015/2016 academic year. In that same academic year, there were 78 students categorized as on either warning or probation status, which means that these students had achieved a GPA or CGPA lower than 2.00. In regards to poor academic achievement, previous research

studies have found that the ability to manage time affects academic achievement. This study was limited to the six time management steps suggested by Lokam (2007) as follows:

(1) Analysis of Problems Related to Time Usage

How to make the most use of time may be analyzed by evaluating problems that interfere with effective time management. Some problems that distract students from managing time are talking with friends, using the telephone, or waiting for something. These can be ascertained by keeping a record of all activities that happen each day. When students realize their weaknesses, then they will be able to plan for solutions to use their time more effectively.

(2) Formation of Life Objectives

Setting life objectives is to establish short-term and a long-term life plan. Having clear objectives helps a person to overcome obstacles in order to attain the set objectives. Setting long-term life objectives begins with self-examination regarding what students like. What are their abilities or skills? What makes students the happiest? By searching for information or consulting with experienced people like parents and teachers, students can establish their highest objectives in life. The long-term life objectives should be clear, practical, and realistic. Setting short-term objectives is secondary and should lead to the long-term life objectives.

(3) Planning of Time Usage

As time is limited, students need to plan how to use their time by prioritizing the most important activities that have to be done and leaving out the unimportant ones. The importance can be evaluated according to the value of work to the long-term objectives, and concern for the urgency and responsibility that have been assigned to it.

(4) Implementation of Projected Plans

In this step, a student establishes a timetable for the whole week, in divisions of 24 hours, in order to have a clear picture of all activities that have to be done each day. The most important activities should be scheduled in the timetable first. Then evaluate whether the timetable is appropriate and practical. Most of all, one needs to have self-discipline to follow the timetable.

(5) Assessment of Time Usage

At this step, students should honestly assess their time usage to know how well they have been able to follow the timetable, and if there are any obstacles at each step. Assessment of time usage should be done regularly to follow up progress and success in work, along with the amount of time used.

(6) Improvement of Projected Time Usage Plan and Revision of Wasted Time Activities

This final step is to search for the best method to improve time usage in order to increase work efficiency. There are causes of time wasting such as procrastination, unclear objectives, work not prioritized, no daily or weekly plan for time usage, spending a lot of time talking on the phone, waking up late, and spending a lot of time eating. Students have to examine their time usage and eliminate those activities that waste time in order to improve time usage. Finally, the results will mean that they have more time to work on important activities and achieve the objectives they have set for successful lives.

Purpose of the Study

The purpose of this study is to examine time management capabilities of undergraduate students and to generate helpful guidelines, especially for students with low academic achievement (probation and warning status). This may then be done by analyzing problems related to time usage, setting objectives, planning time usage, implementing plans, assessing time usage, improving projected time usage plans, and revising time-wasting activities. The researcher believes that this will eventually help students to improve their academic achievements, as well as succeed in their personal lives, while studying at university.

Literature Review

Many studies have been conducted at colleges and universities to examine the relationship between students' time management and their academic achievements. The results of several such studies related to this topic are summarized below.

Britton and Tesser's (1991) study showed that time management practices were a significant predictor of CGPA. In addition, time management attitudes and skills had a positive effect on academic achievement. Similar results were also found in the later studies of:

- Mpofu, D'Amico, and Cleghorn (1996), who found that students' perceived control of their time accounted for a significant proportion of variance in CGPAs.
- Tanriogen and Iscan (2009) also found that time management skills affected students' academic achievement at a significant level.
- Sevari and Kandy (2011) found that training in time management skills increased students' academic performance.

In addition, several studies compared time management skills by gender, and discovered interesting results. Misra and McKean (2000) investigated the interrelationship between academic stress, anxiety, time management, and leisure satisfaction. The results showed that female students possessed more effective time management skills than male students. Similar results emerged from a study in Thailand by Lokam (2007), which showed that females possessed higher time management abilities than males. A study by Saketi and Taheri (2010) showed no difference between genders in terms of time management skills, but in terms of academic achievement, female students once again outscored male students.

While Misra and McKean (2000) found that female students have more effective time management skills than males, yet they also experienced greater levels of academic stress and anxiety. These result seem to conflict with those of Macan, Shahani, Dipboye, and Phillips (1990), who found that students who had control of their time reported significantly higher evaluations of their performance, greater work and life satisfaction, less role ambiguity, less role overload, and less job-induced and somatic tension.

However, Macan et al. (1990) end with a thoughtful message suggesting that the dynamics of time management are more complex than previously believed. This may be because of rapid changes in the environment, social media, cultures, and transportation that influence today's students differently than in previous years.

Lokam's (2007) study of the steps of time management found a statistically significant difference in the overall time management capabilities of males and females. In addition, females possessed higher time management capabilities in the formation of life objectives, the improvement of projected time usage, and the revision of time wasting activities than males.

A comparison of students by year of study showed that juniors had higher scores than seniors in the area of assessment of time usage. This was because in their last year of study, senior students were planning to pursue their careers, and therefore may focus on preparing to search for jobs, while juniors took responsibility for leading university activities for the younger students. Juniors were also taking core and major courses that required more effort. In spite of these additional duties, which caused junior to carry heavier overall study and activity workloads, they felt a sense of satisfaction and accomplishment that is shown in higher assessment of time usage scores.

In terms of academic achievement, Lokam found that students with lower grades reported higher time management scores than students with medium and higher grades. These students tended to be involved in many activities with friends, such as listening to music, watching television, exercising, helping parents with household chores, and playing games. In general, they seemed to have better relationships with others, balanced lifestyles, and better overall quality of life. However, students with higher grades focused most of their time on academic assignments and paid little attention to other activities.

Sattayawaksakul, Maidom, and Cheewaprakobkit (2016) studied time management capabilities in an industrial workplace, using Lokam's questionnaire as the research instrument. The

results showed that female workers reported slightly higher levels of overall time management capabilities, as well as for each individual step. This may be because many female employees s feel more pressure in juggling career and family responsibilities (Worthley, MacNab, Brislin, Ito, & Rose, 2009). As a result, they learn to manage their time so that they can balance their professional and family life. These findings seem to indicate that gender differences in time management persist even after formal education is completed.

Methodology

This study adapted Lokam's (2007) questionnaire as the research instrument to examine the self-described time management capabilities of 320 undergraduate student samples at a private university. A questionnaire using a 5-level Likert rating scale was comprised of 2 sections:

Section 1: Student's Demographic Information. This part asked for information about personal factors including gender, age, Faculty of study, CGPA, student accommodations, and sources of financial support.

Section 2: Student's Personal Time Management Capabilities. This part was divided into six aspects and consisted of 58 questions, which were both positive and negative.

The questionnaires were distributed to all levels of undergraduate student on campus. They were distributed to freshmen students during the evening Study Hall time. For sophomores, juniors, and seniors, the researcher received permission to use 10-15 minutes of lecture time from selected instructors, and distributed and collected questionnaires in their classrooms.

Study Results

The personal information of sampled undergraduate students for the 2015/2016 academic year regarding gender, age, Faculty of study, year of study, CGPA, student accommodations, and source of financial support is shown below as follows:

Table 1. Biographical Information

Variable	Sample (320)	Percentage	Variable	Sample (320)	Percentage
Gender			**CGPA**		
Male	98	30.6	Lower than 2.00	3	0.9
Female	222	69.4	2.01 – 2.50	60	18.8
Age			2.51 - 3.00	96	30.0
18 years	35	10.9	3.01 – 3.50	90	28.1
19 years	49	15.3	More than 3.50	71	22.2
20 years	43	13.4	**Accommodation**		
21 years	69	21.6	Dormitory/Residence	288	90.0
Over 22 years	124	38.8	Own house	20	6.3
Faculty of Study			Off campus	12	3.7
Art and Humanities	76	23.8	**Financial Support**		
Business Administration	84	26.3	Private Scholarship	34	10.6
Education and Psychology	27	8.4	Government Loan	157	49.1
Nursing	110	34.4	Family	101	31.6
Religious Studies	14	4.4	Other	28	8.8
Science	9	2.8			
Year of Study					
Freshmen	65	20.3			
Sophomore	73	22.8			
Junior	63	19.7			
Senior	119	37.2			

Biographical Information

Table 1 shows that most participants were female (69.4%) and 20 years of age or older. Large numbers of respondents were majoring in Nursing (34.4%), Business Administration (26.3%), and Arts and Humanities (23.8%). The highest number of participants were seniors (37.2%), followed by sophomore level (22.8). The most common range of cumulative grade point average (CGPA) was between 2.51 to 3.00 (30.0%), followed by a range of 3.01 to 3.50 (28.1%). Most participants lived in university dormitories or residences (90.0%), and the largest number of supported their studies with government loans (49.1%), or were supported by their families (31.6%).

Overall Level of Time Management Capabilities

The results of the study in Table 2 show that students reported a moderate level of capability in all time management steps (X = 3.36, SD = 0.39).

Table 2. Overall Level of Time Management Capabilities

Time Management Capabilities	$\bar{x}$	S.D.	Capability Level
Analysis of problems related to time usage	3.08	0.42	Moderate
The formation of life objectives	3.47	0.53	Moderate
The planning of time usage	3.48	0.62	Moderate
The implementation of projected plans	3.45	0.54	Moderate
The assessment of time usage	3.34	0.48	Moderate
The improvement of projected time usage plan and revision of wasted time activities	3.37	0.61	Moderate
Average	**3.36**	**0.39**	Moderate

Time Management Capabilities Compared by Gender

Table 3 shows a comparison of time management capabilities between male and female students in both overall time management and the six related steps. The results for the t-test indicate no statistically significant difference between male and female students in overall time management capabilities ($p < 0.05$). However, there was a statistically significant difference in the planning of time usage among students by gender ($p = 0.03$). Female students possessed higher time management capabilities in the area of planning time usage. Male and female students show no differences in the other five aspects.

Table 3. Time Management Capabilities Compared by Gender

	Female (n = 222)		Male (n = 98)			
Time Management Capabilities	$\bar{x}$	S.D.	$\bar{x}$	S.D.	t	p
Analyses of problems related to time usage	3.07	0.42	3.11	0.43	0.66	0.51
The formation of life objectives	3.48	0.52	3.45	0.54	-0.53	0.60
The planning of time usage	3.53	0.58	3.36	0.69	-2.20	**0.03**
The implementation of projected plans	3.47	0.50	3.40	0.61	-1.01	0.32
The assessment of time usage	3.36	0.44	3.30	0.57	-1.04	0.30
The improvement of projected time usage plan and the revision of time-wasting time activities	3.35	0.61	3.42	0.61	1.00	0.32
Average	**3.38**	**0.38**	**3.34**	**0.43**	-0.76	0.45

Time Management Capabilities Compared by Age

The results of a One-Way Analysis of Variance (ANOVA) showed no statistically significant differences in overall time management capabilities among students of different ages. However, there was a statistically significant difference in the implementation of a projected plan ($p = 0.01$). Table 4 shows the level of time management capabilities by age.

Table 4. Time Management Capabilities Compared by Age

Variance	F	P
The analyses of problems related to time usage	1.49	0.21
The formation of life objectives	1.12	0.35
The planning of time usage	2.20	0.07
The implementation of projected plans	3.74	**0.01**
The assessment of time usage	1.42	0.23
The improvement of projected time usage plans and revision of time-wasting activities	1.65	0.16
Overall Capabilities	2.33	0.06

The results from Scheffe's method shows that there were statistically significant differences between two pairs of groups: students who were 18 and 20 years of age, and those who were 20 and 21 years. In both cases, students who were 18 and 21 years old possessed better time management capabilities than those who were 20 years old. In other words, students who were 20 years old reported weaker time management capabilities than those who were younger or older ($p < 0.05$).

Time Management Capabilities Compared by Faculty of Study

The results of a One-Way ANOVA test showed statistically significant differences in the overall time management capabilities among students from different Faculties of Study. In addition, there were also statistically significant differences in several time management steps, including formation of life objectives, planning of time usage, and implementation of projected plans among students from different Faculties ($p < 0.05$). Table 5 shows student levels of time management capabilities by Faculty of Study.

Table 5. Time Management Capabilities Compared by Faculty of Study

Variance	F	P
The analyses of problems related to time usage	2.29	0.05
The formation of life objectives	7.05	**0.00**
The planning of time usage	4.32	**0.00**
The implementation of projected plans	2.72	**0.02**
The assessment of time usage	0.66	0.65
The improvement of projected time usage plans and revision of time-wasting activities	1.13	0.35
Overall Capabilities	3.09	**0.01**

The overall capabilities and the three steps that were statistically significant were further tested by Scheffe's method. The findings showed (Table 5) that firstly, three pairs that included nursing students showed statistically significant differences in the formation of life objectives. These pairs consisted of Nursing and Arts and Humanities students, Nursing and Business Administration students, and Nursing and Education and Psychology ($p < 0.05$) students. In each case, nursing student scores for the formation of life objectives were higher than for the other three Faculties. Secondly, nursing students also showed a statistically significant difference in the planning of time usage when compared with Arts and Humanities students.

Time Management Capabilities Compared by Year of Study

The results (Table 6) of a One-Way ANOVA showed statistically significant differences in overall time management capabilities among students in different years of study. Significant differences were found in several steps, including analysis of problems related to time usage ($p = 0.01$), formation of life objectives ($p = 0.01$), implementation of projected plans ($p = 0.03$), and improvement of projected time usage/revision of wasted time activities ($p = 0.00$).

Table 6. Time Management Capabilities Compared by Year of Study

Variance	F	P
The analyses of problems related to time usage	4.31	**0.01**
The formation of life objectives	4.31	**0.01**
The planning of time usage	2.23	0.09
The implementation of projected plans	3.04	**0.03**
The assessment of time usage	1.00	0.39
The improvement of projected time usage plans and revision of time-wasting activities	4.91	**0.00**
Overall Capabilities	3.71	**0.01**

In Table 6, use of Scheffe's test method revealed a statistically significant difference in overall capabilities in the pairs of freshmen and juniors, with freshmen reporting higher time management capabilities than juniors. Furthermore, statistically significant differences were found for three of the time management steps:

(1) Analysis of problems related to time usage, with sophomores reporting better time management capabilities than did juniors;

(2) Implementation of projected plans, with freshmen showing better abilities to implement projected plans than juniors; and

(3) Improvement in projected time usage and revision of wasted time activities, with seniors rating higher than did juniors in improving time usage plans.

Time Management Capabilities Compared by CGPA

The results of a One-Way ANOVA test showed statistically significant differences in overall time management capabilities among students with different CGPAs. In addition, statistically significant differences were found for all of the time management steps among students with different CGPAs.

Table 7. Time Management Capabilities Compared by CGPA

Variance	F	P
The analyses of problems related to time usage	2.42	**0.05**
The formation of life objectives	4.57	**0.00**
The planning of time usage	5.18	**0.00**
The implementation of projected plans	3.63	**0.01**
The assessment of time usage	2.62	**0.04**
The improvement of projected time usage plans and revision of time-wasting activities	4.43	**0.00**
Overall Capabilities	5.76	**0.00**

Students' overall time management capabilities and each of the six aspects were further tested by Scheffe's method to determine which ranges of CGPAs were significantly different from the others (see Table 7). The results showed statistically significant differences in overall time management capabilities by two pairs of student groups:

1) those with CGPAs below 2.00 had *lower scores* than those with CGPAs from 2.01-2.50.
2) those with CGPAs above 3.50 had *lower scores* those with CGPAs from 2.01-2.50.

In terms of the individual time management steps, students with CGPAs below 2.00 were less proficient in the *planning time usage* step than groups with higher CGPAs; these differences were statistically significant at the 0.05 level. This finding is not surprising, and low CGPAs are probably the result of poor time planning usage skills.

For the *implementation of projected plans* step, however, students with CGPAs from 2.01-2.50 outperformed those with CGPAs above 3.50. The same was true for the *improvement of projected time usage plans and revision of wasted time activities* step; students with modest CGPAs (2.51 – 3.00, and 3.01 – 3.50) outperformed those with CGPAs above 3.50 at statistically significant levels. These results may indicate that weaker or average students must put more effort into the time management process than do very bright students in order to achieve acceptable results.

Time Management Capabilities Compared by Student Accommodations

A One-Way ANOVA test showed no statistically significant differences in overall time management capabilities among students with different accommodation arrangements.

Time Management Capabilities Compared by Source of Financial Support

The results of One-Way ANOVA show a statistically significant difference in the ability of students to formulate life objectives among students with different financial support ($p < 0.05$).

Formation of life objectives was further tested by Scheffe's method (please see Table 8 on following page) to determine which mean scores for financial support were significantly different from the others. Statistically significant differences were found for the pair of students receiving government loans and those who were supported by their families. Students with government loans reported better time management skills than students whose education was financed by their families.

Table 8. Time Management Capabilities Compared by Source of Financial Support

Variance	F	P
The analyses of problems related to time usage	0.09	0.91
The formation of life objectives	6.35	**0.00**
The planning of time usage	3.11	0.05
The implementation of projected plans	1.20	0.30
The assessment of time usage	0.44	0.64
The improvement of projected time usage plans and revision of time-wasting activities	1.14	0.32
Overall Capabilities	2.94	0.06

Results and Discussion

This study examined both overall time management capabilities and the six steps identified in the time management process. The results are discussed as follows.

Analysis of Overall Time Management Capabilities

Undergraduate students' time management capabilities were measured using Lokam's (2007) questionnaire in a small Thai university, with a similar sample and setting. Results were similar to Lokam's; most respondents reported a moderate level of overall time management ability. In contrast, a study by Sattayawaksakul et al. (2016) in an industrial company found higher overall levels of time management capabilities among educated, experienced adult employees. Thus, adults' time management capabilities appear to be better developed than those of university students, which is not a surprising result. An analysis of significant factors that influenced these findings is shown below.

Relationships between Demographic Factors and Time Management Capabilities

1. Gender: Gender differences in the planning of time usage step were statistically significant. Female students displayed a higher level of time management abilities than did males. This result is similar to Lokam's (2007) findings. This may be because brain connections are streamlined at an earlier age in females than in males of the same age, according to a recent study by scientists at Newcastle University in the United Kingdom (Lim, Han, Uhlhaas, & Kaiser, 2015). The researchers concluded that this may explain why females generally mature faster in certain cognitive and emotional areas than males during childhood and adolescence. Another reason may be that females spend more time on their studies, while many male students spend more time on sports and leisure activities. A Residence Hall Dean who works closely with dormitory students was interviewed. His observation was that girls are more responsible, thorough, pay attention, and have better motivation to get things done. On the other hand, males simply agree to do things, but do not take them seriously and are easily distracted. They also engage in more outside class activities such as sports, hanging out with friends, and playing computer games. Many of these students could not prioritize the most important things they were required to do.

2. Age: Age differences were statistically significant in the implementation of projected plans. Students aged 18 and 21 displayed higher time management capabilities than did 20-year olds. This may be because most 20-year olds were in their junior year, taking more difficult core and major courses that required more effort. Though these students should be already familiar with the university schedule and environment, they may relax too much and not manage their time as well as before. A Dean expressed his opinion that 18-year old freshmen need to adjust to the university regulations and a new environment. In addition, most of them come right after high school, where rules and regulations are part of school programs. Therefore, it is easier for them to follow rules and adjust to the university's class schedule. In addition, 21-year old seniors were more mature and better at managing and taking responsibility for their duties, unlike the 20-year olds, who were mostly sophomore and junior students.

Though seniors are better prepared to accept responsibility for balancing their studies with other duties, many of them still struggle to do a good job of managing their time well. Many are involved in more extracurricular activities. They face situations where they must choose and make decisions. In addition, they begin to question why so many rules, restrictions, and requirements must be followed. Some choose to break the rules, and so this is a challenging time for them to manage their studies as well as other aspects of their lives. The Dean emphasized that at this time in their lives, this is natural behavior for young people.

3. Faculty of Study: Students in the Faculty of Nursing reported statistically significant differences in scores for the formation of life objectives step and higher scores for the planning of time usage step than students from other Faculties. This may be because nursing students must display higher levels of self-discipline and self-preparedness because they are aware that their profession deals with patients' lives and health. A study by Park (2015) also showed high levels of career preparation behavior among Korean nursing students.

4. CGPA: Students with low but passing CGPAs (2.01 – 2.50) reported higher time management scores than either students with very high (3.50 or higher) or very low CGPAs (below 2.00). These results were statistically significant for overall time management, as well as for several steps in the process including *planning of time usage, implementation of projected plans, and improvement of projected time usage plans and revision of time-wasting activities* (CGPAs of 2.51 – 3.00). This indicates that weak or average students often find it necessary to put more effort into managing their time effectively than do either very bright or very weak students in order to achieve acceptable academic results. It also implies that good time management skills may help to compensate for lack of innate scholastic ability, enabling diligent but ordinary students to achieve academic success.

5. Student's Financial Support: The formation of life objectives step showed statistically significant differences among student groups. Students with government loans displayed better time management skills than students who were supported by their families. This maybe because students with government loans realized their debt burden; therefore, they paid more attention to planning their academic activities. The university's student finance officer expressed some thoughts regarding this finding. She felt that students who face financial uncertainty often struggle to do their best in the hope of a better life in the future. In addition, government loans do not cover all educational expenses for the entire semester; thus, parents must pay the remaining balances. Government loans are given only to students whose parents have a total income of not more than 200,000 Baht per year. Therefore, many students choose to work in order to lighten their family's financial burden. Students endeavor to make the best use of their time by balancing study requirements and part-time jobs at the same time. In addition, working helps them to understand the value of money, because they realize how difficult it is to earn. Also, if students owe a large debt, it motivates them to seriously study in order to graduate on time and find a good job. Then they can earn enough to pay back the government loan. Another reason that motivated them to repay their loans was that loan contracts require their parents to be their guarantors, and so they did not want their parents to be in trouble if they did not repay them.

Conclusion

In conclusion, the students of a private Thai University reported moderate levels of overall time management skills in all steps of a time management process, showing that there is still room for further improvement. Students may improve their time management practices by examining time usage, establishing a timetable or daily schedule, examining the causes for wasted time, and honestly and consistently assessing their time usage. This study's scope was limited to only six time-management steps, but more aspects of time management could be investigated in a future study.

About the Author

At the time that this article was written, Anchalee Chanpisut was a candidate in the Master of Business Administration Program at Asia-Pacific International University, Muak Lek, Thailand.

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