

THE INTERNAL AND EXTERNAL FACTORS INFLUENCE ON STUDENTS STUDENT PARTICIPATION IN ONLINE TUTORIAL IN DISTANCE LEARNING

(A Case Study of Management's Graduate in Universitas Terbuka)

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ABSTRACT

The Online tutorial (Tuton) is one of learning support services provided Open University (UT) to students post graduate study in UT. This activity must be followed by students of Master of Management (MM) UT. In Tuton, students are required to participate actively, both in studying the initiation material, discussing, and writing tasks. The main problems that often occur in the Tuton is a student in following Tuton inactivity. This can be caused by internal factors and external factors of students. The data obtained were analyzed using factor analysis and SEM (Structural Equation Model) assisted by the Statistical Program for Social programs Sciences (SPSS) 17.00. The results showed that the internal and external factors have contributed to student participation rate of 18%. Most variations of this change is more influenced by changes in the internal factors rather than external factors students.

Keywords: Internal factors, external factors, student participation, online tutorials.

INTRODUCTION

Until now it is still underutilized Tuton S2 UT student, although to access the student does not have to pay in addition to the cost of the internet. Studies conducted Meilani (2005) finding of subjects that Management Studies Program in online tutorial, only 32% of students who use it. There are some students perceived obstacles in following this tutorial, namely the difficulty in accessing the website UT (35%), slow tutors provide initiation (35%), which is often problematic UT network (29%), less responsive feedback tutor or student answers on the material or questions provided tutors (16%), students do not have internet access from the location of residence and students cannot use the computer to the fullest each by 13%.

Budiwati research results (2007) found that the average student access the Master of Public Administration Program (MAP) for one semester for each course is less than 50% of that required. Even today there are subjects that access for one semester only 5%, and the highest range is only 55%.

This suggests the participation of students in the Tuton is not maximized. The reason, among others, students are not accustomed to accessing the Internet, face-to-face communication between the tutor to tutor Tuton is still minimal or none at all, the internet connection is slow, low ability students in the use of learning¹²⁶

technologies, and tutors delay in performing their duties.

Susanti (2007) highlighted the internal factors influence students' knowledge formation and action of student participation in Tuton.

The results showed although online tutorials for students of the UT Graduate Program is an activity which is mandatory for students, but it turns out in practice the level of student participation in this Tuton is low. It is seen from the number of days in a semester access does not reach half of that expected. The reason is the internal factors of students, especially the ability to use a low learning technology. MAP student participation in the follow Tuton the Administration Research Methods course is only about 41.67%. This article discusses the influence of internal and external factors on the level of student participation in Tuton.

Table 1. Data

Kode	Variable Research
PARTICIPATION	Participation Factors
Subjects	Total access material initiation
Discussion	Total access discussions
Tasks	Total access tasks
Y1	Tuton reading material online
Y2	Involvement in discussion forums Tuton
Y3	Working/send task
INTERNAL	Internal Factor
X1A	The ability of students to use computers
X1B	Students' ability to use the internet
X1C	Motivation in following Tuton
X1D	Allocation of time in following Tuton
X1E	financial capability
X1F	Easiness of access to the internet and location
EKSTERNAL	External Factor
X2A	Internet network disruption
X2B	Tuton management problems
X2C	Problem completeness Tuton facilities provided tutors
X2D	Tutor too late to give initiation/material/task
X2E	Tutors do not provide feedback
X2F	Problems in the use of the facility's ability tutor Tuton

The study was conducted with a sample of 241 students from eight (8) UPBJJ-UT. Data obtained using a questionnaire. Aspects that are asked in the questionnaire refers to the research questionnaire developed Meilani (2005) and Susanti (2007) with some modifications. The data obtained were analyzed using factor analysis and SEM (Structural Equation Model) program assisted the Statistical Program for Social Sciences (SPSS) 17.00. The data collected from the database record of learning support services (Tuton) which includes the number of students access to the materials initiation, discussion forums, and task Tuton, while other data are collected through a questionnaire. Participation was initially formed by six (6) indicators, but due to work/send task (Y3) is almost uniform or almost no variation, so it is not effective if it is used as an indicator, then do/send task (Y3) is not taken into account.

In addition, the activities do/send task is off line, because the task can be done without having to always access the Tuton, then this indicator is not used in the subsequent analysis phase.

Internal and external factors, each formed by 6 (six) indicator is X1A to X1F (internal factors) and X2A until X2F (external factors).

RESULTS AND DISCUSSION

Relationship or correlation between indicators for each of the factors explored by analyzing factors on each factor. Factor 1 in participation is the level of accessibility in the Tuton, while the second factor is the level of learning activities in Tuton.

Correlation indicator MATERIALS against factor 1 (level of accessibility) and factor 2 (level of learning activities) respectively 0.337 and 0.519. Indicators such materials containing levels of accessibility and the level of learning activities at $0.3372 + 0.5192 = 38\%$.

In other words, the contribution or communality index indicator is material to the participation of 38%. Indicators contain any material dominant learning activity level than the level of accessibility.

DISCUSSION

The correlation indicator to factor 1 (level of accessibility) and factor 2 (level of learning activities) respectively 0.639 and 0.211. The indicator contains a discussion of the level of accessibility and level of learning activities at $0.6392 + 0.2112 = 45\%$.

In other words, the contribution or communality index indicator is a discussion on the participation of 45%. Indicators contain any discussion more dominant than the level of accessibility of learning activity level.

Correlation indicators TASK against factor 1 (level of accessibility) and factor 2 (levels of learning activity) is equal to 0.618 and 0.074. Indicators task contains levels of accessibility and the level of learning activities at $0.6182 + 0.0742 = 39\%$.

In other words, the contribution or communality index indicator is the duty of the participation of 39%. Indicators contain any task is more dominant than the level of accessibility of learning activity level.

Correlation indicator reading material online Tuton (Y1) to factor 1 (level of accessibility) and factor 2 (learning activity level) is equal to -0.348 and - 0.642. Indicators Tuton online reading material contains high levels of accessibility and the level of learning activities of $(-0.3482) + 0.6422 = 53\%$.

In other words, the contribution or communality index indicator reading material online Tuton (Y1) for participation is 53%.

Indicator reading material online more dominant Tuton contain any learning activity level than the level of accessibility.

Table 2.
Correlation and Contributions diversity indicators to factors Participation in
Tuton Methode: Maximum Likelihood Factor Analysis for 2 Factors Varimax-
Rotated Factor Loadings

Indicator	Out put		Criteria $r \geq 0.4$		Unique Var	Contribution (Communalities)
	Factor 1	Factor 2	Factor 1	Factor 2		
PARTISIPATION						
SUBJECTS	0.337	0.519	-	0.519	0.617	0.38
DISCUSSION	0.639	0.211	0.639	-	0.547	0.45
TASKS	0.618	0.074	0.618	-	0.613	0.39
Y1	-0.348	-0.642	-	-0.642	0.467	0.53
Y2	0.008	-0.510	-	-0.510	0.740	0.26
INTERNAL						
X1A	0.395	-0.244	-	-	0.784	0.22
X1B	0.024	0.793	-	0.793	0.371	0.63
X1C	0.161	0.816	-	0.816	0.308	0.69
X1D	0.391	0.196	-	-	0.809	0.19
X1E	0.682	0.643	0.682	0.643	0.122	0.88
X1F	0.360	0.061	-	-	0.867	0.13
EKSTERNAL						
X2A	0.474	0.031	0.474	-	0.774	0.23
X2B	0.664	0.345	0.664	-	0.441	0.56
X2C	0.491	0.362	0.491	-	0.627	0.37
X2D	0.112	0.629	-	0.629	0.591	0.41
X2E	0.310	0.885	-	0.885	0.120	0.88
X2F	0.626	0.587	0.626	0.587	0.264	0.74

Correlation indicator of involvement in discussion forums Tuton (Y2) to factor 1 (level of accessibility) and factor 2 (levels of learning activity) is 0.008 and - 0.510. Indicators of involvement in the discussion forum contains a level of accessibility and level of learning activities at $0.0082 + (-0.5102) = 26\%$. In other words, the contribution or communality index indicator Tuton involvement in the discussion forum for participation is 26%. Indicators of involvement in the discussion forum Tuton more dominant contain any learning activity level than the level of accessibility. Of the five indicators, only the indicator reading Tuton material which has the largest contribution in influencing the level of participation (53%). This is logical because S2 student must follow Tuton, and their minimum opening and reading material provided online tutor because these materials will be discussed during the tutorial face to face later.

Factor 1 is internal to the carrying capacity of resources, especially financial and factor 2 is the ability of the individual student level. Indicators of proficiency using the internet (X1B) and the strength of motivation to follow Tuton (X1C) is the individual student's ability level, each indicator has 63% commonality and 69%. Financial indicators (X1E) contain the individual's ability level of students (factor 1) and also has a carrying capacity of financial resources (factor 2), so that a high commonality of this indicator by 88%.

While the contribution of communality indicators using computer proficiency (X1A), busyness students (X1D), and the ease and range of internet access locations (X1F), indicate the carrying capacity of financial resources and the ability of the individual student level is very weak due to the correlation of the three indicators of small around 13 %-22%. External factors are 1 in feasibility level facilities and factor 2 is the level of effectiveness tutor. Almost all indicators correlate quite strongly with one or two external factors.

However, the three indicators, namely the Internet network interference (X2A), the feasibility of the facility (x2c), and complete facilities Tuton (X2D) correlation is not as strong as other indicators, so komunalitasnya low around 23%-41%.

While the management indicator Tuton (X2B), providing feedback by tutors (X2E) and the ability to utilize the facilities tutors Tuton (X2F) has contributed to considerable height, respectively 56%, 88% and 74%. Tuton management indicators (X2B) and providing feedback by tutors (X2E) is predominantly influenced by the feasibility level facilities while the tutor's ability to utilize the facilities Tuton (X2F) influenced by the facility feasibility and effectiveness of the tutors. Based on factor analysis, it can be concluded that the decisive factor internal to the participation of students is the ability of students to use the internet, student motivation in following Tuton and financial capabilities of students, while the external determinants are Tuton management, feedback given tutor and the tutor's ability to utilize the facilities Tuton. Based on the feasibility test the model using the Chi-Square, RMSEA (Root Mean Square Error of Approximation), GFI (Goodness of Fit Index) and AGFI (Adjusted Goodness of Fit Index) found that the model can be accepted as a model to describe the data Tuton participation.

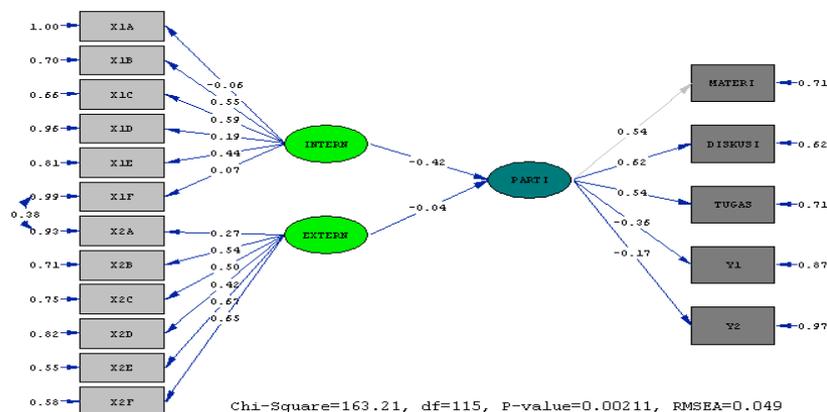


Figure 1. Model of measurement and structural participation in Tuton

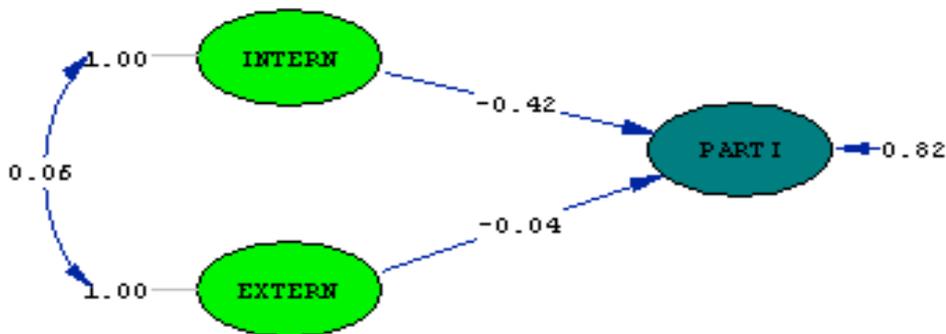


Figure 2.
Model of Structural Student Participation

In Figures 1 and 2 show together internal and external factors determining the participation of 18% ($R^2=0.422=17.6\%$).

Under the influence coefficient, internal and external factors have a negative effect on the level of participation Tuton, with each internal factor (coefficient -0.42 influence/significant) and external factors (influence coefficient -0.04/not significant).

This means that there is compliance with the hope that any reduction of barriers to internal factors and external factors, together, resulting in increased levels of participation Tuton.

Or otherwise, any additional barriers to internal factors and external factors will reduce student participation in Tuton.

According to this model, first, the direction of the coefficients according to expectations that any reduction of barriers to internal and external factors (mean increase of internal factors or external circumstances for the better), together, result in an increase in the level of student participation in Tuton.

Second, internal and external factors have contributed to student participation rate of about 18%. That is, changes in the level of student participation in the Tuton approximately 18%.

However, because of the external coefficient is very small when compared with the internal coefficient of the level of participation, it can be said that the variation in student participation Tuton about 18% determined by the student's internal capabilities.

Thus, based on the indicators, internal factors which influence the participation Tuton is the ability of students to use the Internet, the motivation to follow Tuton, and financial capabilities.

External factors influence the same (balance) between the level of the condition of the indicators of the level of student participation in Tuton.

Table 3.
Tuton participation according to the internal state of the influential

Internal Factor	Students	Average Access	Reading Materials (%)	Forum Discussion (%)
Motivation:				
Yes	168	293.3	92.3	85.1
No	11	192.6	63.6	72.7
Ability to use Internet				
Skillful	172	295.6	91.9	84.3
Sufficient	7	78.9	57.1	85.7
Financial Support :				
Yes	171	288.8	90.6	83.6
No	8	250.8	87.5	100.0
Overage	179	287.1	90.5	84.4

The Effect of Motivation In Following Tuton

Comparison of students who are highly motivated by the lack motivation for participation indicators can be seen in Table 3. Students with high motivation to follow Tuton, access Tuton 293 times on average, 92% read initiation, and 85% are involved in the discussion forums , while students who have low motivation to access 192 times on average, 63% read initiation, and 72% are involved in the discussion forum.

Thus, students with high motivation to follow Tuton have better participation rates than students with low motivation. These differences appear to be more evident in terms of access Tuton and reading initiation, whereas in terms of involvement in the discussion forum, looks are not too different.

The Effect Of The Ability To Use The Internet

Students' ability to use the Internet to differentiate their participation in the follow Tuton, namely in terms of access Tuton and reading initiation. Average access Tuton proficient students use the internet access is 295 times higher than those computer capabilities enough (on average 78 times of access). Percentage of students who did read initiation activities for students who are proficient using the Internet is 92%, higher than the participation of students with enough computer capabilities (57%). As the influence of motivation, participation in terms of involvement in discussion forums do not differ much between the internet proficient students and students with a sufficient level of ability in using the Internet.

Effect of Financial Capability

Financial ability to distinguish the level of participation in aspects of access. In reading initiation mapun discussion, although participation figures look different, but this difference is not too large. Considerable difference shown by the many aspects Tuton access. Students with financial ability to have greater access Tuton (average 288 access) than students whose financial ability is low (average 250 access).

CONCLUSION

Tuton participation rate is influenced by internal factors (coefficient -0.42 influence) and external factors (influence coefficient -0.04). Internal factors and external factors have contributed to student participation rate of 18%. That is, changes in the level of student participation in Tuton by 18% due to internal and external factors studied. Most variations of this change is due to changes in the internal factors rather than external factors.

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REFERENCES

- Budiwati, Y. (2007). *Pengaruh Pengelolaan Tutorial Online Terhadap Partisipasi Mahasiswa*. Jurnal Pendidikan Tinggi Jarak Jauh, Vol. 8 (1), 54-67
- Bollen, K. A. (1989). *Structural Equations with Latent Variables*. John Wiley & Sons, New York.
- Ferdinand, A. (2000). *Structural Equation Modelling dalam Penelitian Manajemen*. Badan Penerbit Universitas Diponegoro, Semarang.
- Meilani, A. (2005). *Potret Aktivitas Tutor Dan Mahasiswa Dalam Tutorial Online Universitas Terbuka (Studi Kasus Program Studi Manajemen-Fekon)*.

Meilani, A. (2011). *Aktivitas Tutor Pendidikan Jarak Jauh Dalam Tutorial Online.*

Riady, Y. (2014). *Assisted Learning Through Facebook: A Case Study of Universitas Terbuka's Students Group Communities In Jakarta, Taiwan And Hong KongStudents).* *TOJDE Journal.*

Susanti. (2007). *Pengaruh Faktor Internal Mahasiswa Terhadap Partisipasi Mahasiswa Dalam Tutorial Online.* *Jurnal Pendidikan Terbuka dan Jarak Jauh, 8 (1), 62-82.*

Sharma, S. (1996). *Applied Multivariate Techniques.* John Wiley & Sons, New York.