

ODD Self-Efficacy Test
Academic Self-Efficacy Among College Students

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The Asian Conference on Education & International Development 2022
Official Conference Proceedings

Abstract

It has long been considered that persons with a high level of self-efficacy can tackle even the most difficult tasks. As a result, the harder the activity, the more self-confidence and self-control they have, and the more successful they will be. The ODD Self-Efficacy Test is a 100-item survey designed to test college students' self-efficacy. With a 4-point Likert scale, this test has three subscales: time management, efficiency/productivity, and disposition. These subscales are concerned with how students respond to difficult academic settings, such as school pressures and the stresses of all study-related activities. Furthermore, this was pilot tested among 360 college students from chosen universities in Camarines Sur and Albay, and content validated by three psychology professionals. The test's factor structure was analyzed using confirmatory factor analysis, resulting in a questionnaire that was reduced from a 100-item to a 48-item questionnaire with nine components. When the final 48 items were tested for internal consistency using Cronbach's Alpha, it was established that components' Time Management, Efficiency, Drive, Consistency, Productivity, and Confidence had adequate to good reliability. While Optimism, Disposition, and Prudence, on the other hand, may have limited applicability, but they are not reasons to discard the test based solely on its size or reliability coefficient. Disposition has the lowest reliability ($N = 3; =.483$), whereas Time Management has the highest reliability ($N = 12; =.83$). This means that individual differences in test scores are due to "real" differences in the attributes under examination, with chance errors accounting for the remainder.

Keywords: Self-Efficacy, Academics, College Students, Time Management, Efficiency, Drive, Consistency, Productivity, Confidence, Optimism, Disposition, Prudence

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Introduction

The ODD Self-Efficacy Test is a 48-item survey designed to measure the level of self-efficacy among college students in Camarines Sur and Albay. The name of this test is derived from the authors' initials: Odet, Dorothy, and Debbie. According to Bandura & Freeman (1999), *Self-efficacy* refers to the person's particular set of beliefs that determine how well one can execute a plan of actions in prospective situations. It pertains to one's capabilities to organize and execute these courses of actions required to manage such perspective situations. Moreover, self-efficacy refers to the beliefs about one's capabilities to learn or perform behaviors at designated levels (Bandura, 1986). It refers then to a person's belief in his/her ability to succeed in a particular situation.

In this 21st century, learning has been the strongest pillar of an individual achieving their desired goals. It is now apparent that everything is running on a modernized term, making a millennial do various things and ways to cope with the present. One of these coping strategies can be seen in a student's academic life. As the changes can be apparent, self-efficacy is readied to aid the students to be more encouraged, thus taking up new challenges in life through constant learning. It does not merely mean to be a motivational concept, but it supports an individual, like students, in achieving goals and their desired targets with the best if not the superior performance.

The objectives of this test are to:

1. Determine whether the college students (17 and above) in Camarines Sur and Albay have a generally good self-efficacy in life or not.
2. Help the schools know and monitor the student's efficaciousness and productivity amidst the college work demands.
3. Assist the schools' officials to resolve issues or find ways to help those students with a low level of self-efficacy in general, and that they may become what society wants them to be, responsible and motivated individuals.

Below is the table of specification. Included are the items measuring self-efficacy.

Area	Components	Item Placement w/ Reversed Scores	No. of Items	Percent of the Items
Self-Efficacy	Time Management	1 - 9	9	19%
	Efficiency	10 - 16	7	15%
	Drive	17 - 22	6	13%
	Consistency	*23 - *31	9	19%
	Productivity	32 - 35	4	8%
	Optimism	*36 - *38	3	6%
	Confidence	39 - 41	3	6%
	Disposition	*42 - *44	3	6%
	Prudence	45 - 48	4	8%

Table 1. Table of Specification

The table of specifications of the ODD Self-Efficacy Test shows that there are 48 questions regarding some situations that are being encountered by college students. The test developers choose nine subscales which are Time Management, Efficiency, Drive, Consistency, Productivity, Optimism, Confidence, Disposition, and Prudence.

The final 48 items after the factor analysis of the 100 items ODD Self-Efficacy Test is illustrated below. Together with the statements from the test, the table also presents the factor loadings, Percentage of Variance, Mean and Standard Deviations of each item. There was a total of 9 subscales of the final 48-item ODD Self-Efficacy test.

Factor Loadings, Eigenvalues, Percentages of Variance, Mean and Standard Deviations of the 48-item Self-Efficacy Test

Self- Efficacy				
Component 1 Time Management				
Eigenvalues: 12.15; Percentage of Variance: 19.2%				
	FL	M	SD	
1 I can allot enough time in a day to study	0.408	2.84	.709	
2 I can prioritize and work on my requirements even without deadlines	0.520	2.95	.774	
3 I see to it that I can study every week.	0.638	2.81	.725	
4 I see to it that I read my notes every now and then.	0.676	2.61	.720	
5 I make sure to use my time productively.	0.708	2.93	.691	
6 I can still be productive even on weekends, holidays or vacations.	0.456	2.79	.848	
7 I can manage my time wisely.	0.484	2.74	.756	
8 I am certain that I will not waste my time doing unproductive stuff.	0.579	2.57	.735	
9 I am able to use my vacant time to study or work on my requirements.	0.504	2.77	.726	

Table 3. Time Management

The first component, Time Management, is consisted of items 1 to 9. Statements from all of the items indicate how an individual organize his/her time between various activities concerning productivity, accomplishment of necessary tasks, and the ability to multitask.

Self- Efficacy				
Component 2 Efficiency				
Eigenvalues: 4.75; Percentage of Variance: 9.37%				
	FL	M	SD	
10 I believe that my skills will enable me to accomplish many things.	0.449	3.19	.626	
11 I can remain calm when facing difficulties because I can rely on my coping abilities.	0.550	3.04	.713	
12 When I plan, I want to go over the smallest details	0.525	3.17	.648	
13 During challenging and critical situations, I can usually think of a solution.	0.733	2.98	.646	
14 I can plan ahead about the things I should work on.	0.524	3.07	.672	
15 I find it easy to make alternative plans if my previous plan failed.	0.647	2.93	.656	
16 When confronted with a problem, I can immediately think of a solution.	0.669	2.89	.679	

Table 4. Efficiency

The second component, Efficiency, is composed of items 10 to 16. These items state the ability of an individual to do tasks well, with minimum quantity of wasted time, effort, finances, and materials. These items concerned are distractions and unpreparedness.

Self- Efficacy Component 3 Drive		FL	M	SD
Eigenvalues: 2.56; Percentage of Variance: 9%				
17	Regardless of school demands and problems, I foresee that I will graduate on time.	0.427	3.38	.744
18	I can finish a task alone before the set deadline.	0.748	3.29	.655
19	I find means to finish a task/project before the deadline.	0.795	3.25	.646
20	I can balance academic and social life.	0.651	3.04	.673
21	I am confident that I can attend to every academic priority.	0.478	2.85	.752
22	I am able to submit requirements on time.	0.676	3.09	.756

Table 5. Drive

The third component, Drive is composed of items 17 to 22. These items state the need of an individual to satisfy or complete a school task or assignment regardless of demands and problems that arise. These items concerned is success-oriented.

Self- Efficacy Component 4 Consistency		FL	M	SD
Eigenvalues: 2.27; Percentage of Variance: 20.5%				
23	When I sleep late working with my requirements, I become lazy the next day to accomplish other school-related tasks.	0.432	1.99	.872
24	I cannot focus on a test at hand when I have problems.	0.544	1.93	.779
25	I am having difficulty managing my time allotment for school-related tasks.	0.567	2.01	.777
26	I cram most of the time.	0.480	2.18	.902
27	I find it difficult to feel motivated to work on my requirements when people don't support me.	0.678	2.02	.881
28	I am not capable of doing my assignments along with my chores at home.	0.732	2.24	.854
29	I am easily discouraged by changes in plans, deadlines, etc.	0.545	2.08	.826
30	When faced with a dilemma, I find it tough to decide.	0.427	1.92	.702
31	I lose track of my social life because of academic demands.	0.521	2.21	.849

Table 6. Consistency

The fourth component, Consistency is composed of items 23 to 31. These items refer to how the students keep positive attitudes and habits despite facing a lot of demands and other concerns in life. These items concerned about how consistent an individual in accomplishing things even if there are changes in plans or deadlines, and can do decision-making in a conflicting situation.

Self- Efficacy Component 5 Productivity		FL	M	SD
Eigenvalues: 1.65; Percentage of Variance: 5.50%				
32	When working on my academic responsibilities, I can ignore distractions.	0.614	2.69	.794
33	I am able to be productive most of the time.	0.580	2.66	.748
34	I can do school-related things enthusiastically.	0.520	2.75	.706
35	I can still be productive even on weekends, holidays or vacations.	0.435	2.79	.848

Table 7. Productivity

The fifth component, Productivity is composed of items 32 to 35. These items refer on the ability of individuals to produce results, while also being responsible and enthusiastic in situations where there are distractions.

Self- Efficacy			
Component 6 Optimism			
	FL	M	SD
Eigenvalues: 1.47; Percentage of Variance: 2.85%			
36 I procrastinate a lot.	0.480	1.96	.798
37 I over think about minor things.	0.618	1.79	.844
38 I find it difficult to work when I feel lazy.	0.654	1.57	.676

Table 8. Optimism

The sixth component, Optimism is composed of items 36 to 38. These items state how an individual can do tasks while viewing things from the general perspective, being attentive even to minute details despite the struggles and challenges in situations. These items concerned how an individual can recover quickly from setbacks and disappointments from certain situations.

Self- Efficacy			
Component 7 Confidence			
	FL	M	SD
Eigenvalues: 1.4; Percentage of Variance: 3.42%			
39 I am confident that I can pass most of my exams.	0.570	2.98	.739
40 Compared to other people, I can perform outstandingly	0.488	2.56	.784
41 I am confident that I can excel in my exams this semester.	0.700	3.02	.775

Table 9. Confidence

The seventh component, Confidence is composed of items 39 to 41. These items refer to an individual's sense of self-belief that he/she is capable of doing an outstanding performance. These concerns how they tend not to give up quickly because they believe that they are capable of achieving something.

Self- Efficacy			
Component 8 Disposition			
	FL	M	SD
Eigenvalues: 1.21; Percentage of Variance: 2.87%			
42 It is impossible for me to work on my requirements with distractions.	0.407	2.13	.810
43 I feel guilty when I know that I can get higher scores.	0.660	1.99	.892
44 When faced with a dilemma, I find it tough to decide.	0.426	1.92	.702

Table 10. Disposition

The eighth component, Disposition is composed of items 42 to 44. These items state the individual's readiness or tendency to act in a certain way, even if there are distractions to make decisions, even in challenging situations.

Self- Efficacy				
Component 9 Prudence				
	FL	M	SD	
Eigenvalues: 1.18; Percentage of Variance: 3.40%				
45 I am able to recite or answer my teacher whenever I am asked.	0.426	3.00	.706	
46 I am inherently able to find solutions to my problems.	0.540	2.98	.622	
47 I can make alternative plan, if Plan A fails.	0.469	3.18	.680	
48 I can always get back on my feet whenever I encounter problems.	0.487	3.08	.678	

Table 11. Prudence

And with the last component, Prudence is composed of items 45 to 48. These items refer to the concerns of an individual for the consequences of his/her actions and decisions. The items concerned is about having practical reasoning.

Reliability

The second part of the analysis is the reliability testing. The Reliability of a test is often defined as the extent to which the scores on the test are free from error. The final 48-items were tested for internal consistency using Cronbach's Alpha. It was found that, Time Management (N = 12; $\alpha = .833$), Efficiency (N = 7; $\alpha = .783$), Drive (N = 6; $\alpha = .801$), Consistency (N = 9; $\alpha = .785$), Productivity (N = 4; $\alpha = .750$), and Confidence (N = 3; $\alpha = .727$) are the components with adequate to good reliability. On the other hand, Components' Optimism (N = 3; $\alpha = .550$), Disposition (N = 3; $\alpha = .483$), and Prudence (N = 4; $\alpha = .624$) may have limited applicability, but they are not the basis for solely rejecting the test based on their size or reliability coefficient (these components were reversed scored). Component 1, Time Management has the highest reliability (N = 9; $\alpha = .83$), while Component 8, Disposition has the lowest reliability (N = 3; $\alpha = .483$). This implies that the individual differences in the test scores are attributable to "true" differences in characteristics under consideration and the extent to which they are attributable to chance errors. Furthermore, a low value for alpha may mean that there are not enough items in the component.

Correlation

The third stage of analysis in this test construct is the Correlation testing between the components. The statistical result is shown below:

Variable	1	2	3	4	5	6	7	8	9
1 Time Management	1	0.470	0.506	0.169	0.726	0.212	0.562	-0.053	0.481
2 Efficiency	0.470	1	0.464	0.029	0.447	0.041	0.544	-0.133	0.591
3 Drive	0.506	0.464	1	0.211	0.485	0.064	0.502	-0.057	0.435
4 Consistency	0.169	0.029	0.211	1	0.232	0.543	0.161	0.560	0.027
5 Productivity	0.726	0.447	0.485	0.232	1	0.198	0.512	-0.029	0.433
6 Optimism	0.212	0.041	0.064	0.543	0.198	1	0.159	0.364	0.029
7 Confidence	0.562	0.544	0.502	0.161	0.512	0.159	1	-0.015	0.468
8 Disposition	-0.053	-0.133	-0.057	0.560	-0.029	0.364	-0.015	1	-0.093
9 Prudence	0.481	0.591	0.435	0.027	0.433	0.029	0.468	-0.093	1
N	360								

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 12. Correlation Matrix

The relationship between the components was explored through correlation analysis. Components 1 Time Management, 2 Efficiency ($r=0.470$, $p<0.001$), 3 Drive ($r=0.506$, $p<0.001$), 4 Consistency ($r=0.562$, $p<0.001$), 5 Productivity ($r=0.726$, $p<0.001$), 6 Optimism ($r=0.212$, $p<0.001$), 7 Confidence ($r=0.470$, $p<0.001$), and 9 Prudence ($r=0.481$, $p<0.001$) are found to have a significant relationship with the central construct, Self-Efficacy, while Component 8, Disposition ($r=-0.053$, $p=0.316$), was found to be a negative/inverse correlation. Component 5, Productivity, was found to be most strongly correlated with Self-Efficacy ($r=0.726$, $p<0.001$), while Component 8, Disposition, was the least correlated ($r=-0.053$, $p=0.316$). All total component scores ($r=0.785$, $p=<0.001$) from the 360 respondents held moderate to high correlations with Self-Efficacy.

Scoring

This test will utilize a 4-Point Likert Scale that will measure college students' self-efficacy in selected schools in Camarines Sur and Albay. This will be designed and administered in Google Forms, which will be sent in virtual means to the target participants of the test.

The items found in each subscale will be respectively rated, while others in negative statements will be scored in reverse. Each item is given a weighted score from one (1) to four (4). Hence, the ODD Self-Efficacy Test will be scored using the 4 - Point Likert Scale where: 4 = I Strongly Agree that this is me; 3 = I Agree that this is me; 2 = I Disagree that this is me, and 1 = I Strongly Disagree that this is me.

In specific, four as "I strongly agree that this is me" having a value of 4 points means that the individual can fully and completely relate to the statement or situation given; 3 as "I agree that this is me" has a value of 3 points, where the individual can relate to the statement provided; 2 as "I disagree that this is me" means that the individual does not agree with the statement; that he/she cannot relate with the given situation, it has a value of 2 points; while, one as "I strongly disagree that this is me," with a value of 1 point means that the individual cannot at all relate to the given situation.

In reverse scoring, it is the same as the scoring of the regular items/constructs, and the only difference is that they are stated in reverse and are presented in negative statements.

To gain the self-efficacy level of the students, the average of all the weighted scores will be determined. One hundred forty-seven (147) points will be the maximum scores, while ninety-three (93) points become the minimum.

The Mean of the participant's rating will be interpreted according to the following interpretation: 3-4 – High Self-Efficacy; 1-2 – Low Self-Efficacy.

The scoring will be done using SPSS and JAMOVI. This is a scientific platform that makes computation easier using the latest development in statistical measurements.

INTERPRETATION

To identify the scores to be interpreted, means scores of the students are determined by adding the numerical value of their respective answers. The lower mean score is commensurate with the lower level of self-efficacy of the students.

MAIN CONSTRUCT

Self-Efficacy

High (121 to 147): A person with a high self-efficacy level is capable of overcoming school-related tasks and challenges where they are able to address them with efficiency. They are able to think positively in spite of the difficulties encountered.

Low (93 to 120): A person with low self-efficacy level tends to be of lesser or no confidence at all in overcoming the school-related challenges, having difficulty in addressing the situation at hand. There is a reflection of weaker commitment to accomplish a task, difficulty in making decisions or failure to get back after setbacks. There is a lack of determination to accomplish tasks and assignments.

SUBSCALE

Self-Efficacy through Time Management

High (121 to 147): A person with a high self-efficacy level can overcome school-related tasks and challenges where they can address them with efficiency. They can think positively despite the difficulties encountered.

Low (93 to 120): A person with a low self-efficacy level tends to be of lesser or no confidence at all in overcoming the school-related challenges, having difficulty in addressing the situation at hand. There is a reflection of weaker commitment to accomplish a task, difficulty making decisions, or failure to get back after setbacks. There is a lack of determination to accomplish tasks and assignments.

Self-Efficacy through Efficiency

High (31.6 to 28): The person can accomplish many tasks in a given period. Despite limitations and interruption, the person can be productive and finish his tasks on time and adequately.

Low (7 to 31.5): The person finishes little or no work at all.

Self-Efficacy through Drive

High (16 to 24): The individual has a more profound interest in the activities they participate in. They can satisfy themselves by completing school tasks regardless of unexpected situations that arise. The individual can finish their task on or before its due date while also maintaining a good balance of work and life priorities.

Low (6 to 15): The person quickly loses the spirit in personal abilities to do well in their school-related tasks.

Self-Efficacy through Consistency

High (28 to 36): The person tends to form a more substantial commitment to their interests and school-related activities.

Low (9 to 27): The person tends to avoid dealing with challenging tasks; he/she tends to postpone tasks and homework, which results in procrastination. Have low levels of commitment to things/situations.

Self-Efficacy through Productivity

High (11 to 16): The person can produce great results with his/her school responsibilities and be enthusiastic in situations where there are distractions, or even can work during holidays, weekends or vacation.

Low (4 to 10): The person tends to fail in living up to the academic expectations; low on accomplishment results. There is the consequent unwillingness of the individual to exert effort.

Self-Efficacy through Optimism

High (7.6 to 12): The individual can recover quickly from academic setbacks and disappointments. They can accept that some things are out of their control, but they can still focus on the things that matter - the person views challenging situations or problems as something/tasks to be mastered.

Low (3 to 7.5): The person tends to focus on personal failings and adverse outcomes.

Self-Efficacy through Confidence

High (7.6 to 12): The individual has a great sense of self-belief that he/she can do an outstanding performance in school, such as passing an examination.

Low (3 to 7.5): The individual doubts his / her capacity and skills to achieve his / her desired academic/personal goals. He/she believes that complex tasks and situations are beyond his / her capability.

Self-Efficacy through Disposition

High (7.6 to 12): The person can have a positive frame of mind and adjust to changes in school-related tasks and assignments, is organized, makes appropriate decisions to achieve what is set to process, and is encouraged to do so.

Low (3 to 7.5): The person tends to be disorganized, disoriented, and tends to make ineffective decisions, especially when confronted with challenging and complex decision-making related to school tasks and assignments.

Self-Efficacy through Prudence

High (11 to 16): The individual forms practical reasoning that help him/her resist the impulse to satisfy short-term pleasures at the expense of long-term goals.

Low (4 to 10): The person tends to be narrow-sighted, lacks concern for the consequences of one's action and decisions.

Conclusion

To summarize, people with a high level of self-efficacy have long been seen to be capable of completing even the most difficult tasks. As a result, the more difficult the activity, the more self-assurance and self-control the individual has, and the more effective they are.

The researchers hope this test will be used in future studies, and that it will help empower students' academic self-efficacy by assisting in determining how successfully one can carry out a strategy in a situation, as well as identifying an individual's ability to plan and carry out steps necessary to deal with their situations. Furthermore, to assist others in becoming more aware of the obstacles that students experience, allowing them to be understood and encouraged rather than being driven to make judgements in order to achieve their desired goals and targets with the greatest, if not the best, performance.

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