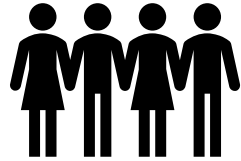


TUTORIAL PROGRAM AND MATHEMATICS PERFORMANCE OF COLLEGE STUDENTS

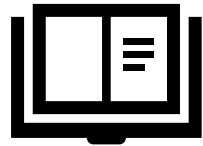
By: **JOCELL D. CALMA** and **AIZA D. VILLAVICENCIO**

Presented by: **JOCELL D. CALMA**
Pampanga State Agricultural University

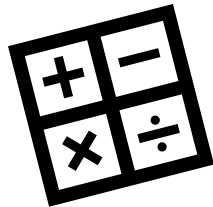
FREE MATH TUTORIAL PROGRAM



- It is an extension program of the BS Mathematics Extension Unit in collaboration with the Mathematics Society (MathSoc).



- It is conducted twice a semester (Midterm and Final term) since 2014 up to present.



- The objective is to prepare and review students who find difficulties in their Mathematics Subject.

METHODOLOGY



MathSoc officers disseminated the information of the free math tutorial program through printed materials and social media.



Before the tutorial proper, participants (respondents) were given a pre-test.



During the tutorial program, tutors (MathSoc officers/members) were guided by Math faculty members.

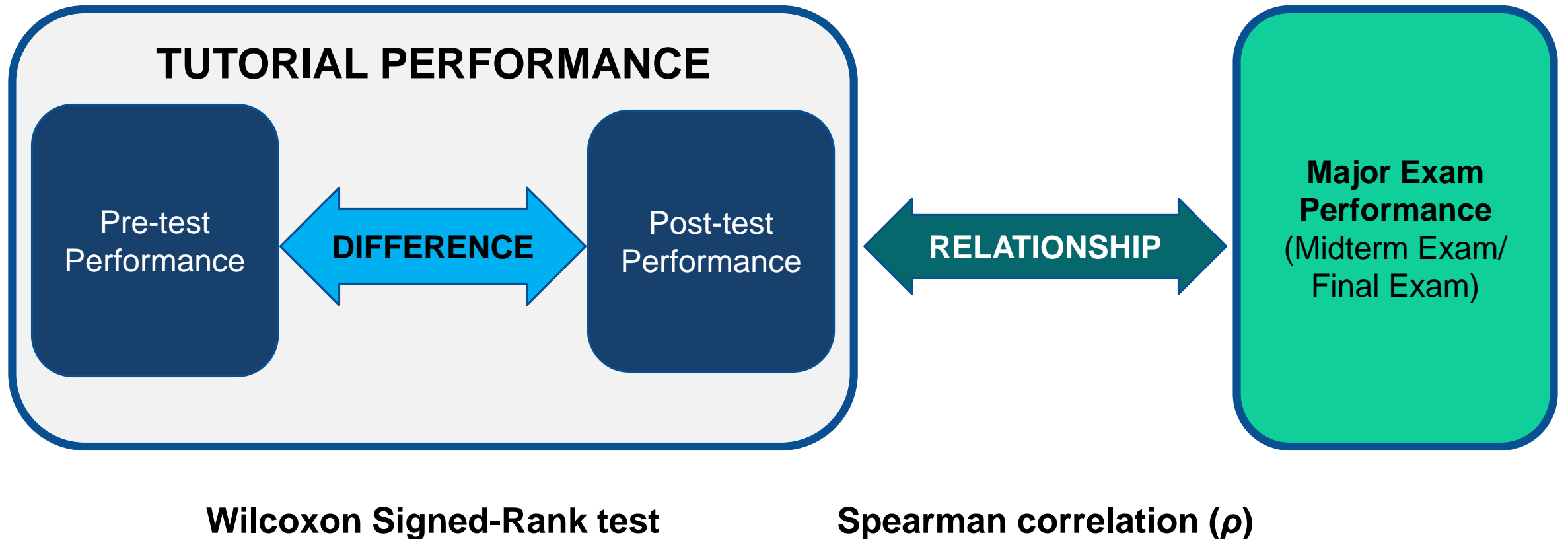


Afterwards, post-test were administered to the participants.



Data were tabulated and analyzed using the test of difference and the test of relationship.

STATISTICAL CONCEPT



TIMELINE

School Year	Semester	Term
2014-2015	1 st semester	Midterm
		Final term
	2 nd semester	Midterm
		Final term

School Year	Semester	Term
2016-2017	1 st semester	Midterm
		Final term
	2 nd semester	Midterm
		Final term

School Year	Semester	Term
2015-2016	1 st semester	Midterm
		Final term
	2 nd semester	Midterm
		Final term

School Year	Semester	Term
2017-2018	1 st semester	Midterm
		Final term
	2 nd semester	Midterm
		Final term



RESULTS

Table 1. Significant Difference between the Pre-test and Post-test Performance of College Students

School Year	Semester	Term	n	p-value*	Interpretation
2014-2015	1 st semester	Midterms	234	0.000	Significant
		Finals	32	0.000	Significant
	2 nd semester	Midterms	34	0.000	Significant
		Finals	11	0.049	Significant
2015-2016	1 st semester	Midterms	61	0.000	Significant
		Finals	17	0.000	Significant
	2 nd semester	Midterms	9	0.021	Significant
		Finals	12	0.043	Significant
2016-2017	1 st semester	Midterms	14	0.002	Significant
		Finals	22	0.030	Significant
	2 nd semester	Midterms	10	0.025	Significant
		Finals	15	0.007	Significant
2017-2018	1 st semester	Midterms	12	0.027	Significant
		Finals	19	0.001	Significant
	2 nd semester	Midterms	8	0.017	Significant
		Finals	10	0.015	Significant

*Significantly different at 5% level of significance

RESULTS

Table 2. Significant Relationship between the Tutorial Performance and Major Exam (Midterms/Finals) Performance of College Students

School Year	Semester	Term	p-value*	ρ^{**}	Interpretation
2014-2015	1 st semester	Midterms	0.000	0.258	Low positive correlation
		Finals	0.003	0.503	Moderate positive correlation
	2 nd semester	Midterms	0.000	0.757	High positive correlation
		Finals	0.030	0.650	High positive correlation
2015-2016	1 st semester	Midterms	0.019	0.301	Low positive correlation
		Finals	0.049	0.668	High positive correlation
	2 nd semester	Midterms	0.049	0.668	High positive correlation
		Finals	0.035	0.611	High positive correlation
2016-2017	1 st semester	Midterms	0.002	0.745	High positive correlation
		Finals	0.045	0.431	Moderate positive correlation
	2 nd semester	Midterms	0.021	0.710	High positive correlation
		Finals	0.035	0.546	Moderate positive correlation
2017-2018	1 st semester	Midterms	0.019	0.661	High positive correlation
		Finals	0.019	0.532	Moderate correlation
	2 nd semester	Midterms	0.002	0.899	Very high positive correlation
		Finals	0.000	0.947	Very high positive correlation

*Significantly related at 5% level of significance

** ρ	Interpretation
0.00	No correlation
± 0.01 to ± 0.20	Slight correlation
± 0.21 to ± 0.40	Low correlation
± 0.41 to ± 0.60	Moderate correlation
± 0.61 to ± 0.80	High correlation
± 0.81 to ± 0.99	Very High correlation
± 1.00	Perfect correlation

CONCLUSION

- The Free Math Tutorial Programs conducted from 2014 to 2018 are found to be effective since the pre-test performance of participants is significantly different to their post-test performance. Moreover, the relationship of their tutorial performance and their major exam performance are significant with positive correlation.

RECOMMENDATIONS

- The MathSoc and Math faculty members should continue conducting the free tutorial program in different Mathematics subjects;
- Free tutorial program for the additional Mathematics subjects should be offered since there is a new curriculum for General Education courses (e.g. MMW); and
- Proper dissemination and announcement of the free tutorial program through social media and other forms should be executed so the number of participating students will also increase.

THANK YOU

Mabuhay ang PSA
