



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	British Journal of Education, Society & Behavioural Science
Manuscript Number:	2013_BJESBS_5177
Title of the Manuscript:	Learning Probability in the Arts Stream Classes: Do Colour Balls with STAD-Cooperative Learning help in Improving Students' Performance?

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments																																																												
<p>The author needs to understand that there is a difference between ANOVA and ANCOVA, not only in their requirements but also in their uses, results and interpretation. The analysis requires the use of ANCOVA (Analysis of CO-variance) and not ANOVA (analysis of variance). Although the literature cited is correct, however, such assertion is not relevant to this situation. I think the quality of the paper will be enhanced by this and by extension the quality of the journal. Barring this, the paper is fully acceptable to me.</p>	<p>The authors understand the requirements, uses, results and interpretation of ANCOVA.</p> <p>The data had been computed to test if the assumption of homogeneity of regression slopes was met before proceeding with the ANCOVA analysis.</p> <p>It was found that the significance level of the interaction between the treatment and the covariate (Group * PreTest) was statistically significant ($P = .000$), indicating that the assumption of homogeneity of regression slopes had been violated; therefore we could not proceed with the ANCOVA analysis to explore the differences between the treatment groups.</p> <div><p>Tests of Between-Subjects Effects</p><p>Dependent Variable: PostTest</p><table><tr><th>Source</th><th>Type III Sum of Squares</th><th>df</th><th>Mean Square</th><th>F</th><th>Sig.</th></tr><tr><td>Corrected Model</td><td>31221.257^a</td><td>3</td><td>10407.086</td><td>215.645</td><td>.000</td></tr><tr><td>Intercept</td><td>94917.773</td><td>1</td><td>94917.773</td><td>1966.793</td><td>.000</td></tr><tr><td>Group *</td><td>665.483</td><td>1</td><td>665.483</td><td>13.789</td><td>.000</td></tr><tr><td>PreTest</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Group</td><td>1976.330</td><td>1</td><td>1976.330</td><td>40.952</td><td>.000</td></tr><tr><td>PreTest</td><td>27896.344</td><td>1</td><td>27896.344</td><td>578.041</td><td>.000</td></tr><tr><td>Error</td><td>7528.587</td><td>156</td><td>48.260</td><td></td><td></td></tr><tr><td>Total</td><td>585725.000</td><td>160</td><td></td><td></td><td></td></tr><tr><td>Corrected Total</td><td>38749.844</td><td>159</td><td></td><td></td><td></td></tr></table><p>a. R Squared = .806 (Adjusted R Squared = .802)</p></div> <p>As a result of that, the authors did the analysis using a t-test based on guideline given by Gay & Airasian (2003)(Please refer to the attached scanned PDF page)</p> <p>“To determine whether analysis of covariance is necessary, calculate a t- test on the two pretest means. If there is a significant difference between the two pretest means, use the analysis of covariance. If not, a simple t test can be computed on the post-test means”.</p> <p>(Gay & Airasian, 2003, Paragraph two, page 467)</p>	Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Corrected Model	31221.257 ^a	3	10407.086	215.645	.000	Intercept	94917.773	1	94917.773	1966.793	.000	Group *	665.483	1	665.483	13.789	.000	PreTest						Group	1976.330	1	1976.330	40.952	.000	PreTest	27896.344	1	27896.344	578.041	.000	Error	7528.587	156	48.260			Total	585725.000	160				Corrected Total	38749.844	159			
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	<p>In this study, it was found that there was no significant difference between the two pretest means as has been stated on line 348-351, therefore the post-test scores were compared using an independent t-test.</p>
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