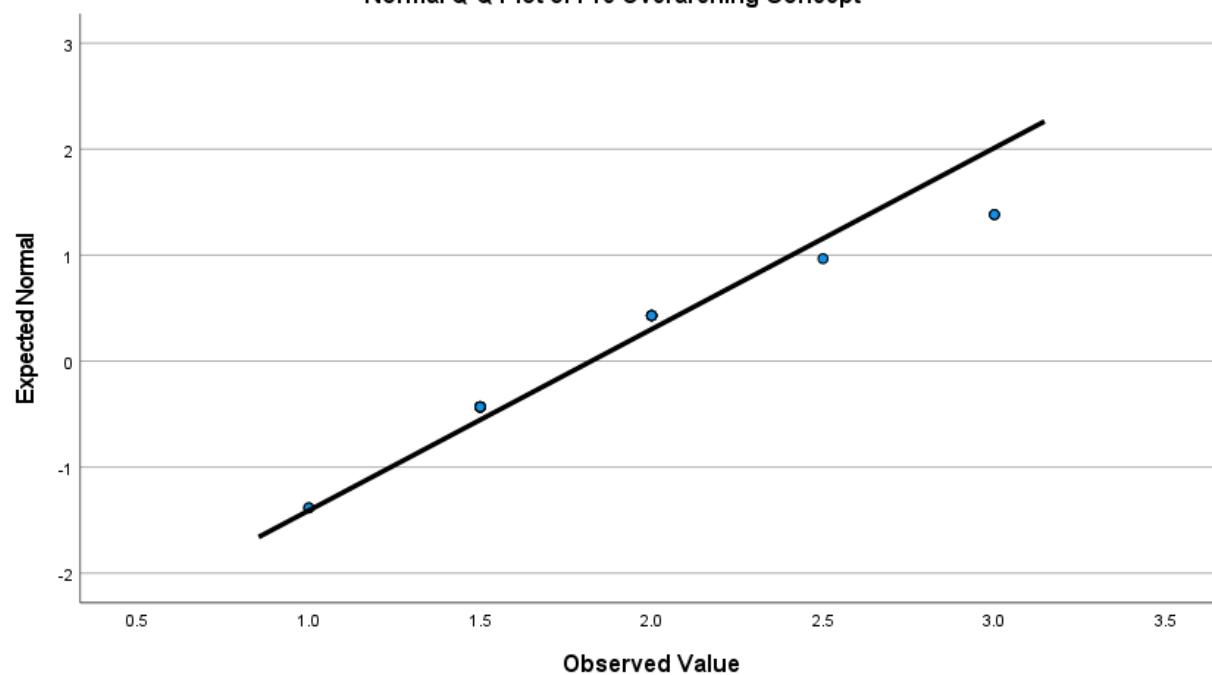


Normality Tests

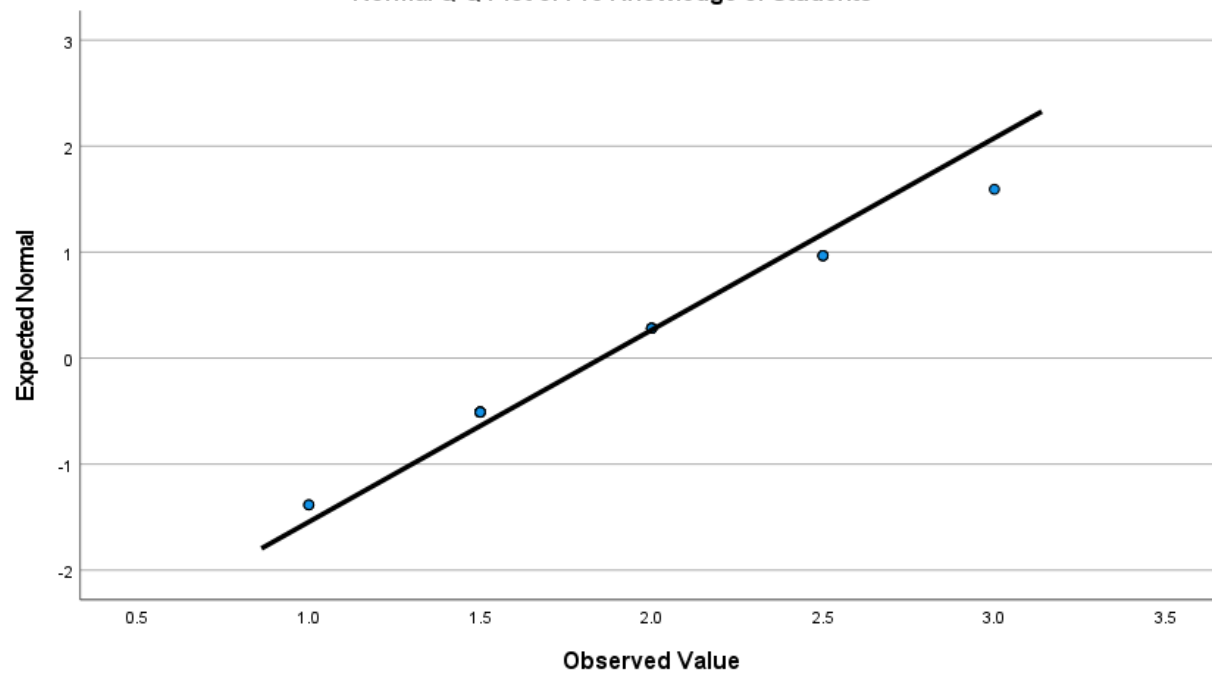
Variable	Shapiro-Wilk Statistic	df	Sig.
Pre Overarching Concept	0.875	17	0.026*
Pre Knowledge of Students	0.923	17	0.168
Pre Knowledge of Curriculum	0.874	17	0.025*
Pre Instructional Strategies	0.948	17	0.419
Pre TPACK Overall Mean	0.958	17	0.587
Pre MCOP ² Student Engagement Mean	0.934	17	0.253
Pre MCOP ² Teacher Facilitation Mean	0.952	17	0.486
Pre MCOP ² Overall Mean	0.942	17	0.343
Post Overarching Concept	0.854	17	0.012*
Post Knowledge of Students	0.898	17	0.064
Post Knowledge of Curriculum	0.871	17	0.023*
Post Instructional Strategies	0.790	17	0.002*
Post TPACK Overall Mean	0.888	17	0.044*
Post MCOP ² Student Engagement Mean	0.971	17	0.829
Post MCOP ² Teacher Facilitation Mean	0.940	17	0.319
Post MCOP ² Overall Mean	0.960	17	0.640
Gain TPACK Overarching Concept	0.936	17	0.279
Gain TPACK Knowledge of Students	0.876	17	0.027*
Gain TPACK Knowledge of Curriculum	0.897	17	0.06
Gain TPACK Instructional Strategies	0.948	17	0.422
Gain TPACK Overall Mean	0.949	17	0.446
Gain MCOP ² Teacher Facilitation	0.934	17	0.256
Gain MCOP ² Student Engagement	0.955	17	0.537
Gain MCOP ² Overall Mean	0.976	17	0.914

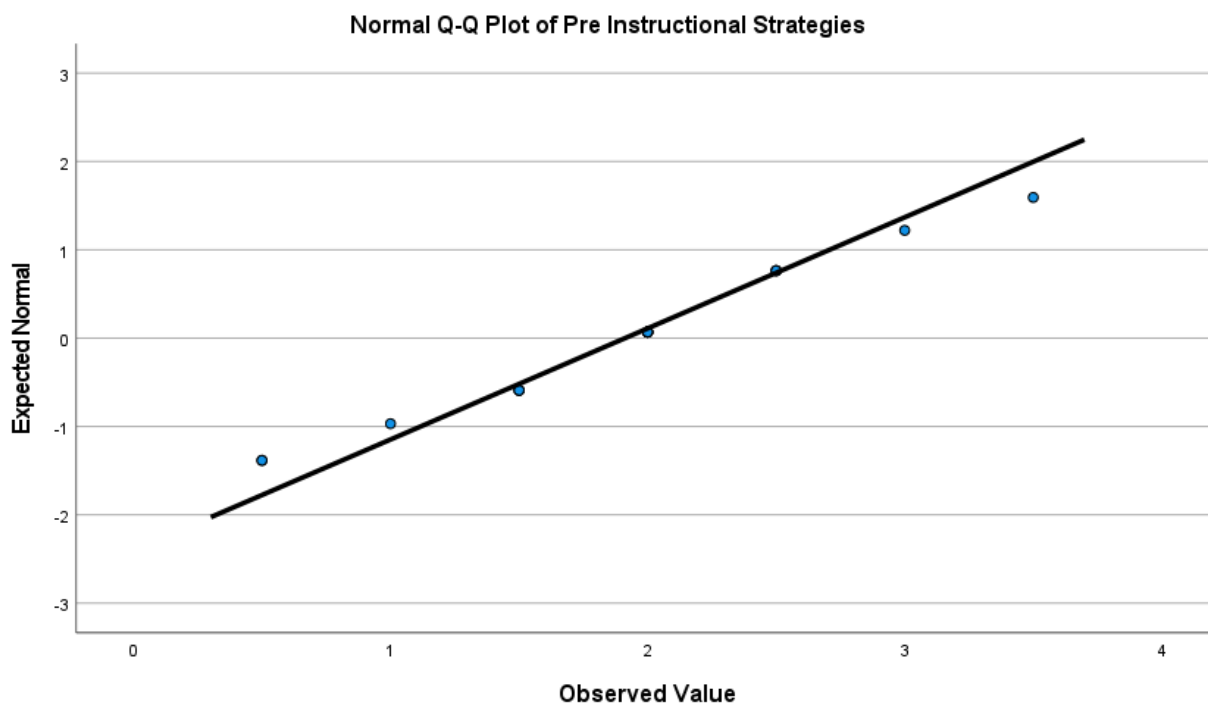
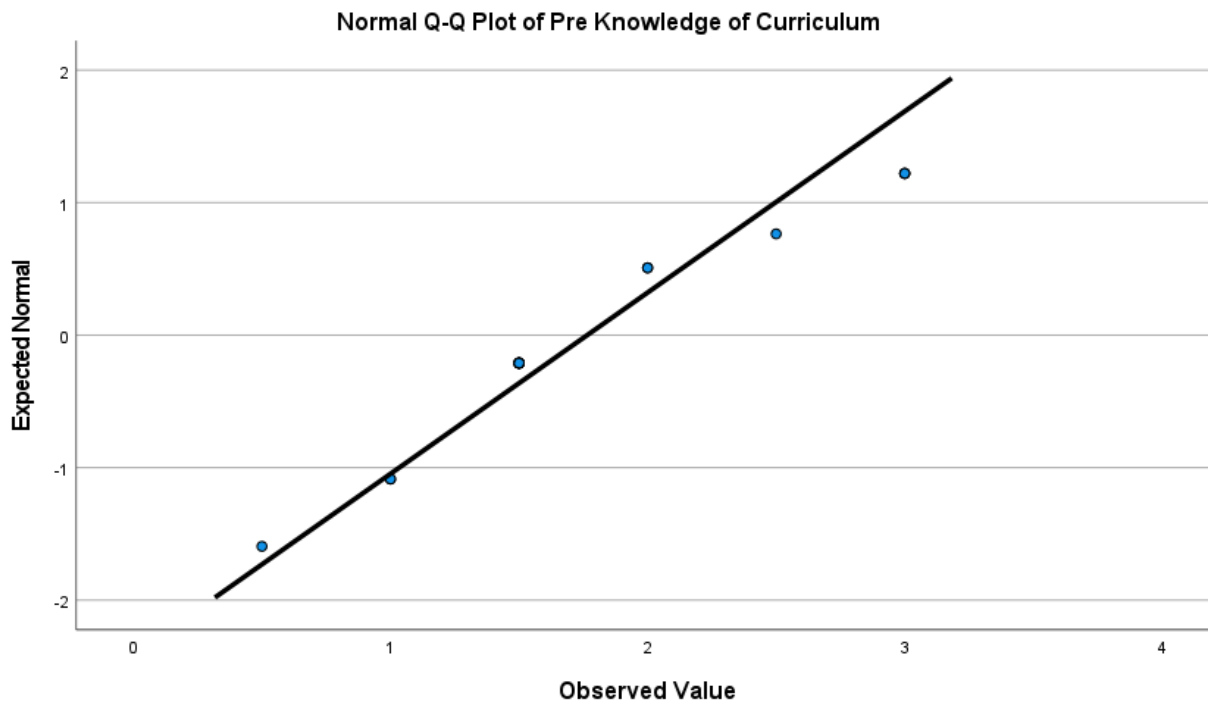
*p < 0.05.

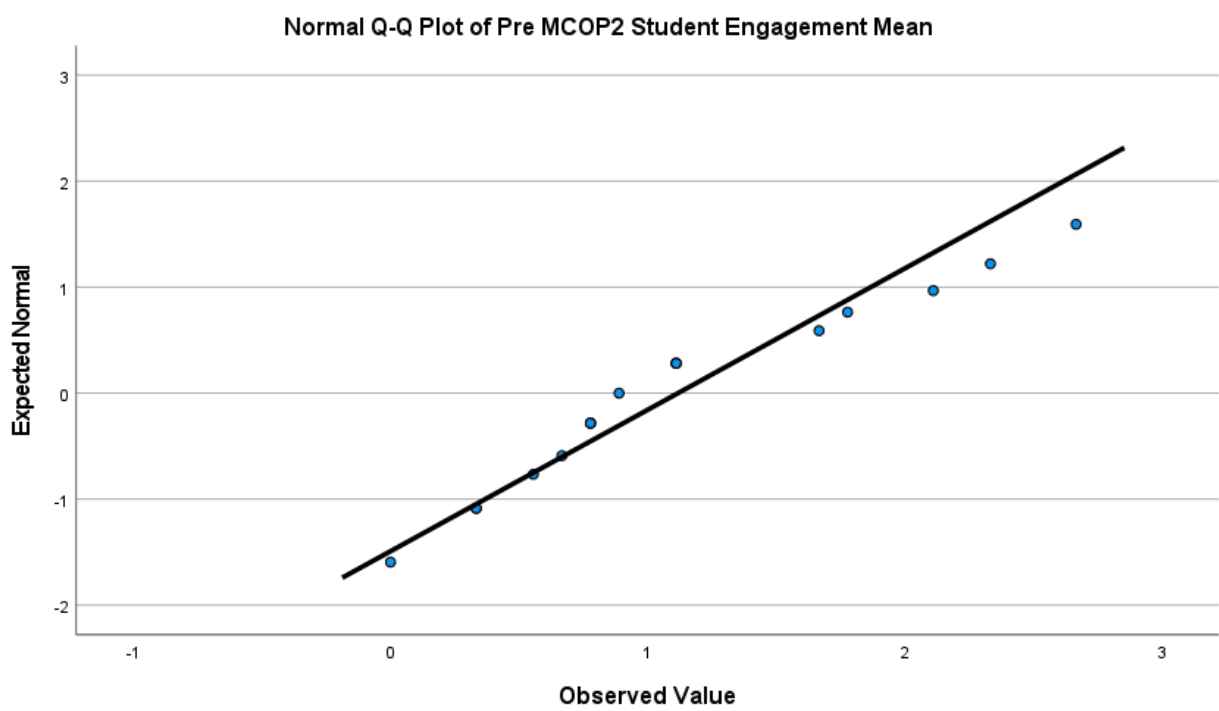
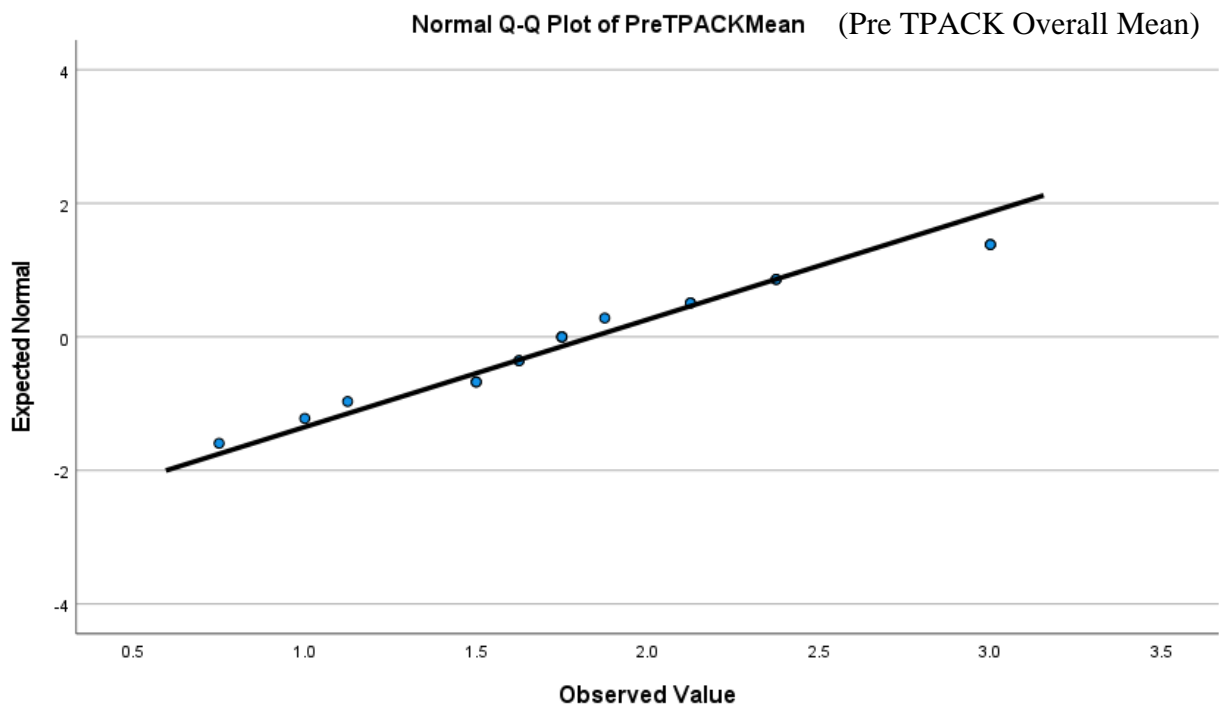
Normal Q-Q Plot of Pre Overarching Concept

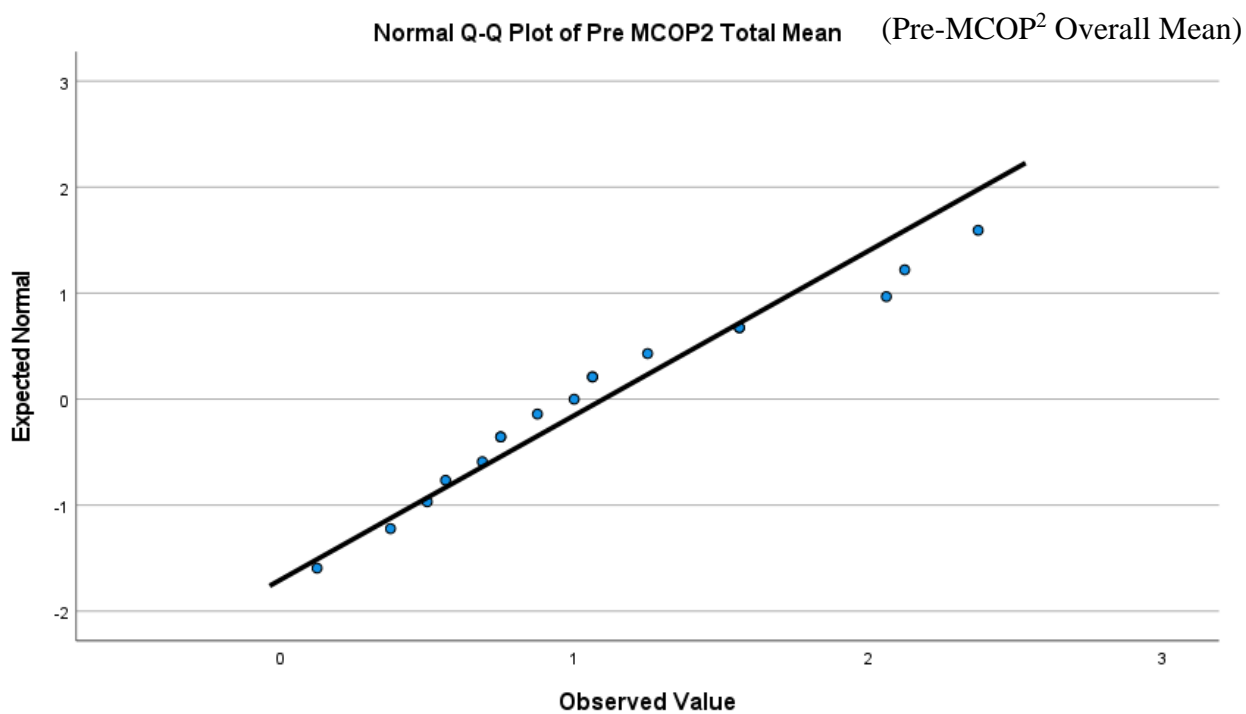
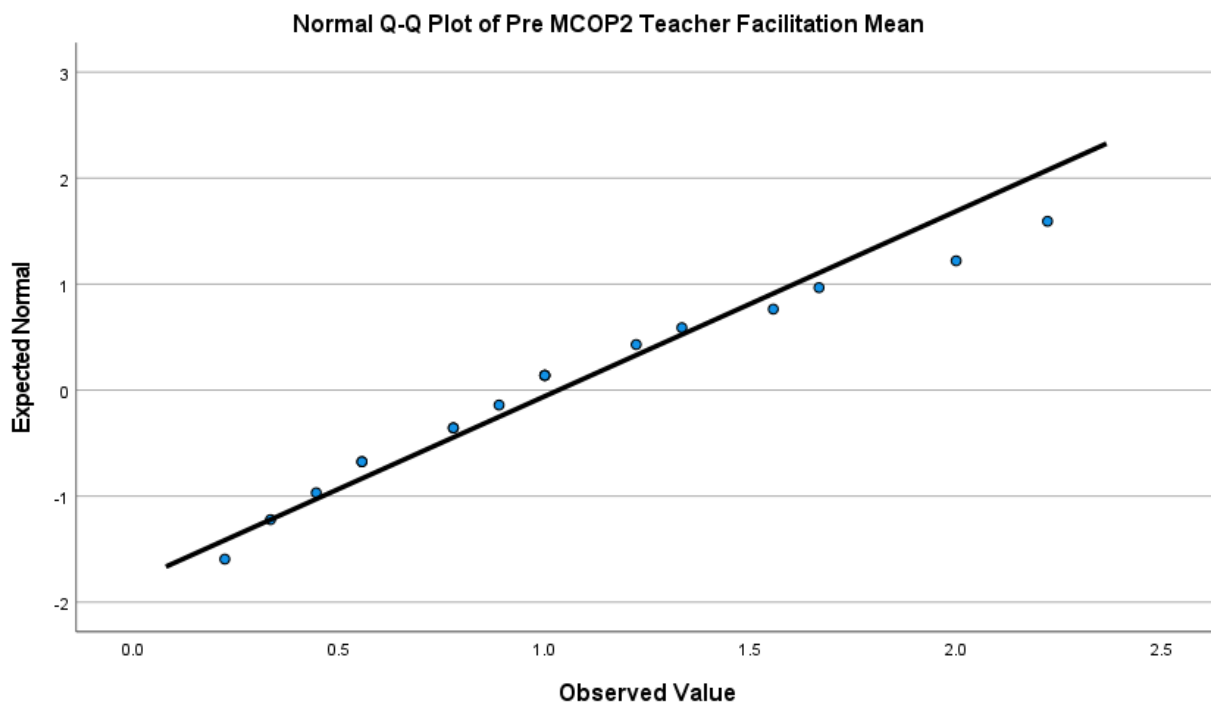


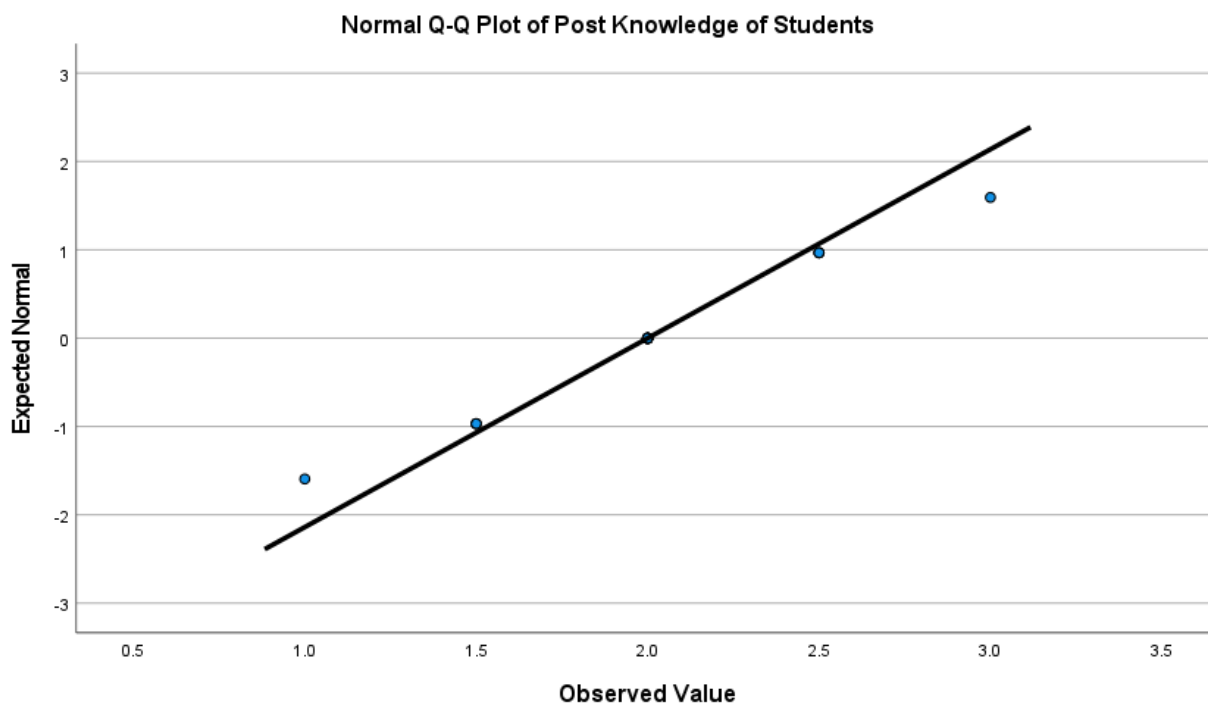
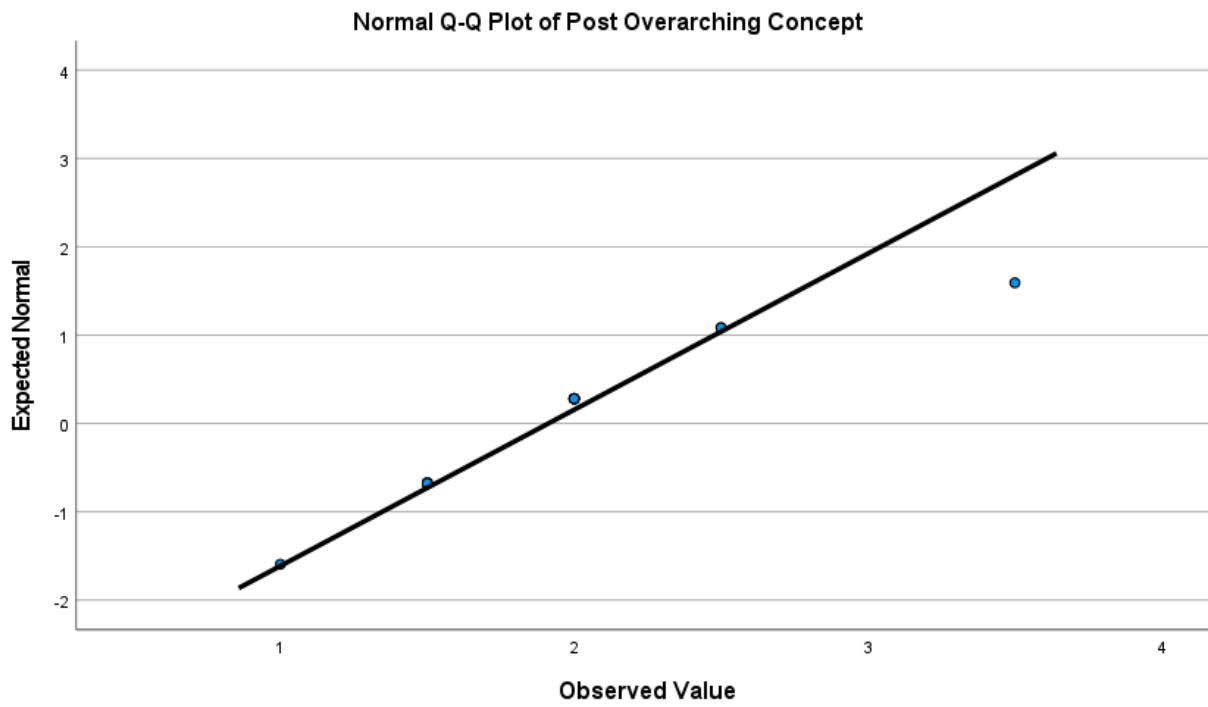
Normal Q-Q Plot of Pre Knowledge of Students



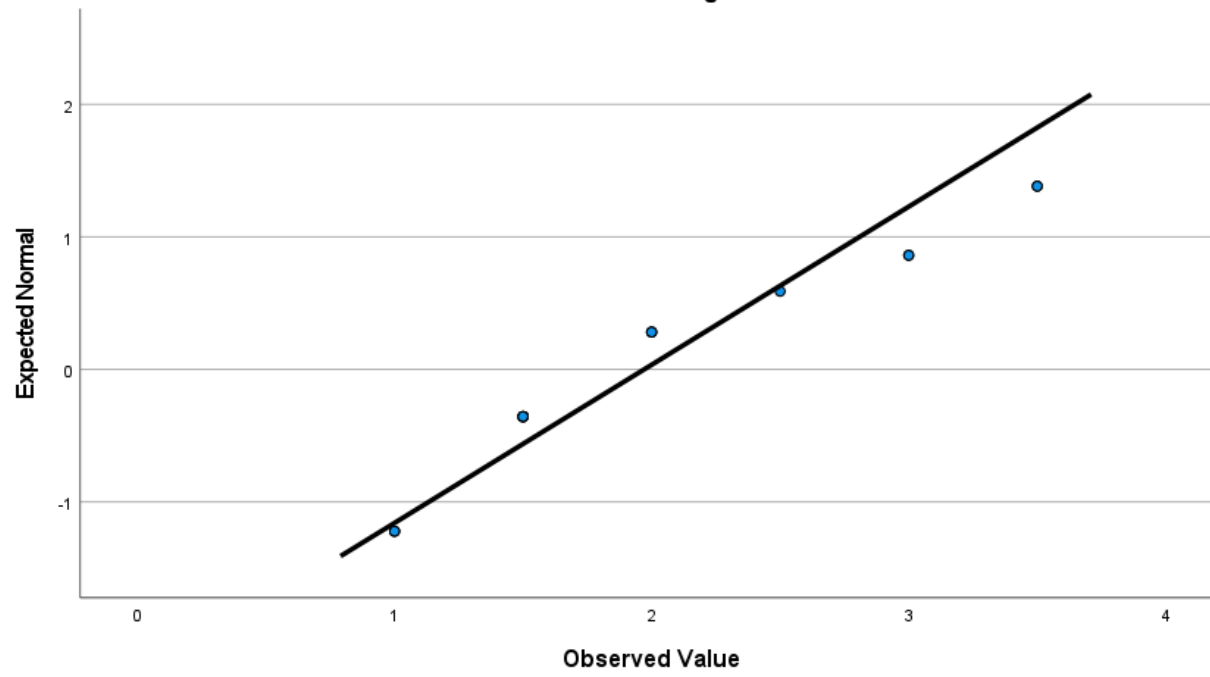




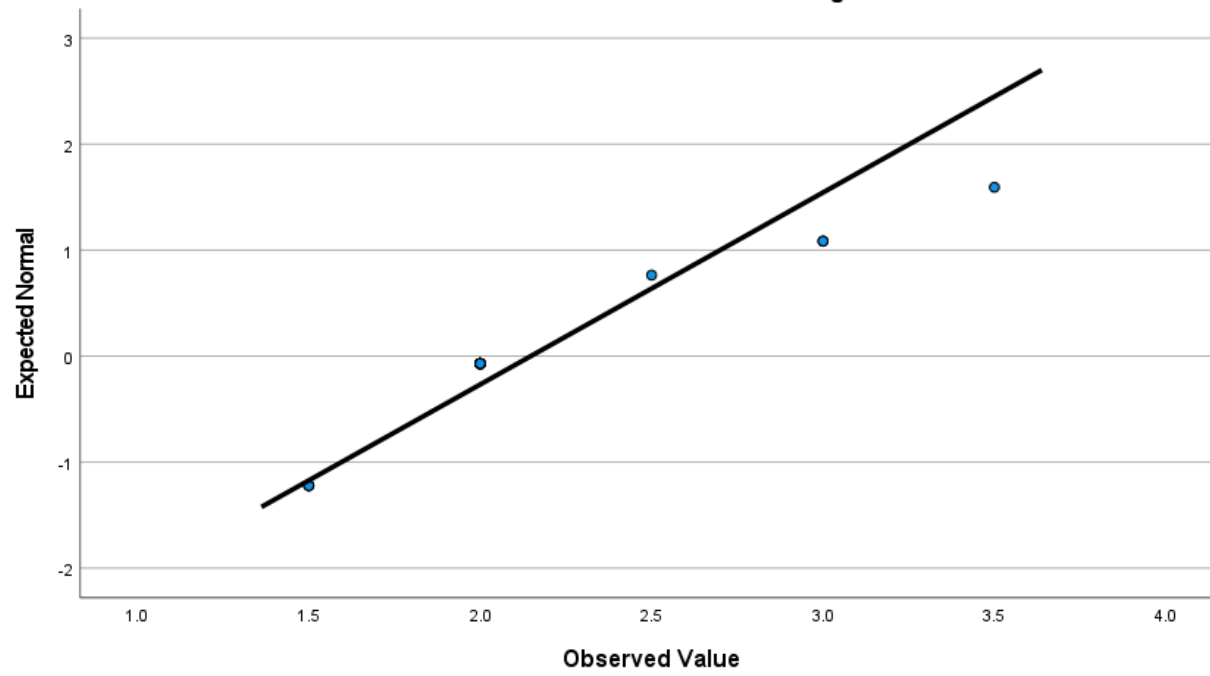




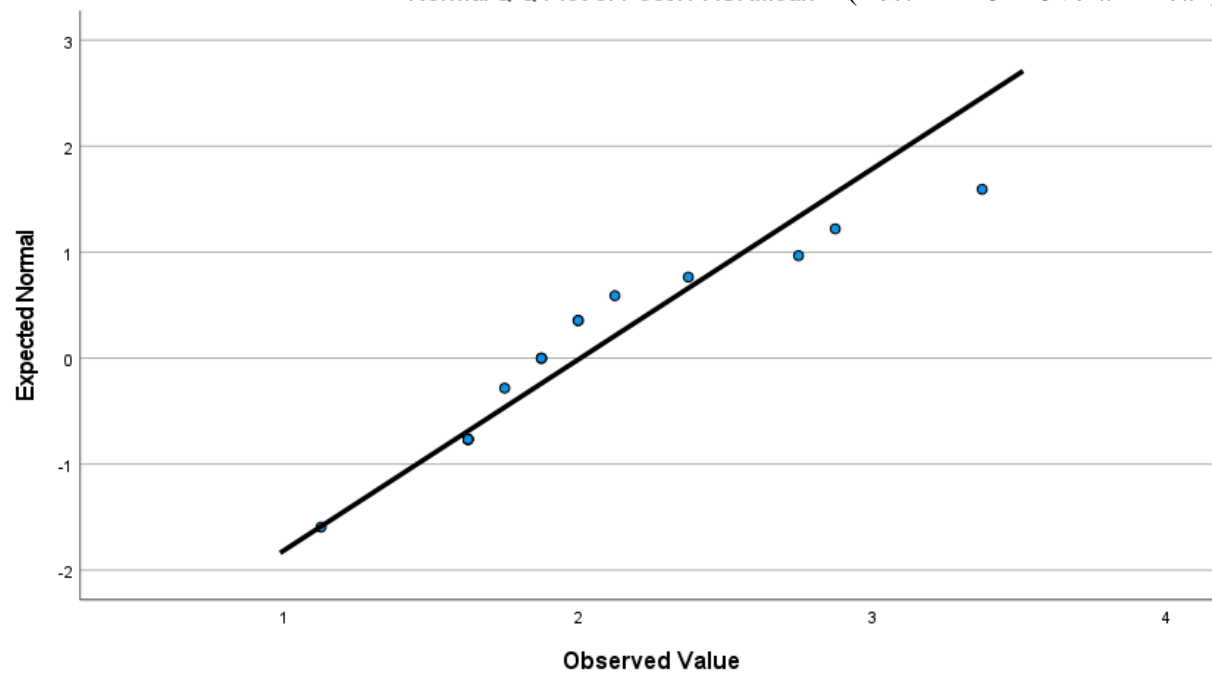
Normal Q-Q Plot of Post Knowledge of Curriculum



Normal Q-Q Plot of Post Instructional Strategies



Normal Q-Q Plot of PostTPACKMean (Post TPACK Overall Mean)



Normal Q-Q Plot of Post MCOP2 Student Engagement Mean

