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“Learning to Work”

Work College Consortium

Post Project Report

1. Did you meet the goals and objectives in your project proposal?

I believe that we were successful in meeting all of the goals and objectives.

Goals:

- Develop students who are hardworking and reflective in their work.
- Promote a holistic work ethic.
- Develop character through work education.

Objectives:

- Assess the students' unstated assumptions on the value and purpose of work.
- Determine the relationship between a student's assumptions about work and their performance at their workstation.
- Develop a transferable academic model for teaching students a philosophy of work.
- Challenge students' paradigms of work through academic reading, writing, discussion, and mentoring.

2. What have you learned?

Critical reflection on the value and role of work in our lives encourages well-being, buy-in, and productivity in work stations at CofO. In my conversations with students throughout the study, many of those in the seminar highlighted the value of what we were doing by saying, “I wish all students [at CofO] could go through this seminar.” Together we were able to frame work in new and helpful ways for them, while also challenging the struggles of working in on-campus workstations. Critically reflecting, reading, and interacting also created a communal approach to work where students felt free to share and wrestle through their own experiences. Students who participated in the program averaged a 3.66% increase from their midterm to final work grade compared to students who did not participate, who only averaged a 1.55% increase. The lowest midterm grade from any student in the study was an 83%. Thus, 3.66% over such a small range is even more significant.

3. Please provide documentation on how you shared your research:

I presented my research at an Evangelical Theological Society meeting in Grand Rapids, MI this past March. It has also been interesting to see how other opportunities have opened up because of the research I completed. For instance, this past July I began a Ph.D. in Higher Education Leadership. In this degree I am finding more and more space to share about the WCC because of our unique contribution to American higher education.

4. Please provide direct and indirect evidence that supports and indicates the integration of work and learning:

I have provided the statistical evidence for our study in the accompanying appendices. However, one of the most significant dimensions of evidence that demonstrates the integration of work and learning in this study is that those students who participated in the seminar, who learned, were much more likely to be more productive workers than their peers. With as few as two extracurricular meetings, we found a noticeable change. As students gained a fuller understanding of the Biblical Meaning of Work (Hypothesis 1a) they performed at higher levels within their workstation. Also, as students critically reflected on the role of work in their lives (to form character, provide for others, and participate in who they were made to be) they were much more likely to work harder and more productively. As far as indirect evidence, I believe there are a variety of examples. First of all that there has been interest at CofO to provide similar reflection and training for work supervisors is a major step. Along with this there has been broad discussion of possibly integrating a critical reflection component on work in some of the freshman and sophomore classes. I take these to be indicators that CofO is ready for more intentional reflection on work and learning with students, staff, and faculty.

5. Were there any significant modifications made to the project? If so, please describe:

Yes, we had to make several changes to our timeline, seminar, and student involvement. These changes were primarily in response to scheduling and time constraints. For instance instead of doing one large seminar group, we broke the seminar group up into two smaller groups. Each group began with six members (12 altogether), however, only six students completed the whole experience. With these two groups, I also changed the frequency and length of our meeting time to accommodate student schedules. Rather than meeting once a week for eight weeks, we met three times for three hour sessions. In the end I believe this change was incredibly beneficial. It allowed students to carve out significant portions of time to reflect on work and also allowed us to move critically through the presentation material. The only other significant change I made was to do the benchmark study and the seminars in the same semester.

Findings from Survey

Hypothesis 1a: Biblical Understanding of Work (BUW) will increase significantly from T_1 to T_2 for those in the seminar. BUW will not increase significantly for those not in the seminar or those who only partially completed the seminar, or will increase less than for those who completed the seminar.

Results: For the 6 seminar students, BUW increased from an average of 3.94 to 4.21, which is statistically significant ($p=0.036$). For the other students ($N=21$), BUW increase from 4.28 to 4.32, which was not statistically significant ($p=0.310$). Thus Hypothesis 1 is supported.

t-Test: Paired Two Sample for Means

<i>Sem=S</i>	<i>BUW T1</i>	<i>BUW T2</i>
Mean	3.938333333	4.21
Variance	0.297816667	0.25384
Observations	6	6
Pearson Correlation	0.847570715	
Hypothesized Mean Difference	0	
df	5	
t Stat	-2.27475326	
P(T<=t) one-tail	0.036004582	
t Critical one-tail	2.015048373	
P(T<=t) two-tail	0.072009164	
t Critical two-tail	2.570581836	

t-Test: Paired Two Sample for Means

<i>N and P</i>	<i>T1BUW</i>	<i>T2BUW</i>
Mean	4.276666667	4.318095238
Variance	0.262143333	0.18867619
Observations	21	21
Pearson Correlation	0.692494395	
Hypothesized Mean Difference	0	
df	20	
t Stat	0.502390197	
P(T<=t) one-tail	0.310439883	
t Critical one-tail	1.724718243	
P(T<=t) two-tail	0.620879766	
t Critical two-tail	2.085963447	

Hypothesis 2: The external/financial motivation for work (EF) will decrease significantly from T_1 to T_2 for those in the seminar. EF will not decrease significantly for those not in the seminar or those who only partially completed the seminar, or will decrease less than for those who completed the seminar.

Results: EF decreased from an average of 3.31 to 3.08 ($p=0.27$) for seminar students, and decreased from 3.94 to 3.93 ($p=0.44$) for others. Neither of these decreases was statistically significant, thus there is not sufficient evidence to support Hypothesis 2.

t-Test: Paired Two Sample for Means

<i>S</i>	<i>T1EF</i>	<i>T2EF</i>
Mean	3.305	3.083333333
Variance	0.78727	1.032786667
Observations	6	6
Pearson Correlation	0.622461371	
Hypothesized Mean Difference	0	
df	5	
t Stat	0.650137097	
P(T<=t) one-tail	0.272144133	
t Critical one-tail	2.015048373	
P(T<=t) two-tail	0.544288266	
t Critical two-tail	2.570581836	

t-Test: Paired Two Sample for Means

<i>N and P</i>	<i>T1EF</i>	<i>T2EF</i>
Mean	3.944286	3.929048
Variance	0.314526	0.478499
Observations	21	21
Pearson Correlation	0.785666	
Hypothesized Mean Difference	0	
df	20	
t Stat	0.163041	
P(T<=t) one-tail	0.436061	
t Critical one-tail	1.724718	

P(T<=t) two-tail	0.872122
t Critical two-tail	2.085963

Hypothesis 3: Character Development (CD) will increase significantly from T_1 to T_2 for those in the seminar. BUW will not increase significantly for those not in the seminar or those who only partially completed the seminar, or will increase less than for those who completed the seminar.

Results: CD increased for seminar students from an average of 3.98 to 4.07 ($p=0.30$, not significant), and from 4.22 to 4.36 ($p=0.03$, significant) for other students. This runs counter to Hypothesis 3.

t-Test: Paired Two Sample for Means

<i>S</i>	<i>T1CD</i>	<i>T2CD</i>
Mean	3.981667	4.065
Variance	0.311737	0.14307
Observations	6	6
Pearson Correlation	0.751418	
Hypothesized Mean Difference	0	
df	5	
t Stat	-0.55063	
P(T<=t) one-tail	0.302792	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.605585	
t Critical two-tail	2.570582	

t-Test: Paired Two Sample for Means

<i>N and P</i>	<i>T1CD</i>	<i>T2CD</i>
Mean	4.221904762	4.35952381
Variance	0.26733619	0.217104762
Observations	21	21
Pearson Correlation	0.8106431	
Hypothesized Mean Difference	0	
df	20	
t Stat	-2.05860612	
P(T<=t) one-tail	0.026398299	
t Critical one-tail	1.724718243	
P(T<=t) two-tail	0.052796597	

t Critical two-tail

2.085963447

Hypothesis 4: Student’s dualistic view of work (DV) will decrease significantly from T_1 to T_2 for those in the seminar. DV will not decrease significantly for those not in the seminar or those who only partially completed the seminar, or will decrease less than for those who completed the seminar.

Results: For the seminar group, DV decreased from 1.67 to 1.17 ($p=0.09$), a borderline significant decrease, while DV actually increased for other students from 1.48 to 1.83, ($p=0.07$), a borderline significant decrease. The difference in change between the two groups was significant ($p=0.03$).

t-Test: Paired Two Sample for Means

<i>S</i>	<i>T1DV</i>	<i>T2DV</i>
Mean	1.666666	1.166667
Variance	0.566666	0.166667
Observations	6	6
Pearson Correlation	0.216930	
Hypothesized Mean Difference	0	
df	5	
t Stat	1.581138	
P(T<=t) one-tail	0.087343	
t Critical one-tail	0.174687	
P(T<=t) two-tail	0.174687	
t Critical two-tail	2.570581	

t-Test: Paired Two Sample for Means

<i>N and P</i>	<i>T1DV</i>	<i>T2DV</i>
Mean	1.4761	1.8333
Variance	0.4369	1.5833
Observations	9	33
Pearson Correlation	0.5210	
Hypothesized Mean Difference	0	
df	20	
t Stat	1.5238	
P(T<=t) one-tail	0.0716	
t Critical one-tail	1.7247	
P(T<=t) two-tail	0.1432	
t Critical two-tail	2.0859	

t-Test: Two-Sample Assuming Unequal Variances

	<i>DV change S</i>	<i>DV change other</i>
Mean	0.5	-0.357142857
Variance	0.6	1.153571429
Observations	6	21

Hypothesized Mean Difference	0
df	11
t Stat	2.17762295
P(T<=t) one-tail	0.026040282
t Critical one-tail	1.795884814
P(T<=t) two-tail	0.052080564
t Critical two-tail	2.200985159

Hypothesis 5: Student’s attitude toward the attributes of Work (AW) will increase significantly from T_1 to T_2 for those in the seminar. AW will not increase significantly for those not in the seminar or those who only partially completed the seminar, or will increase less than for those who completed the seminar.

Results: For the 6 seminar students, AW increased from an average of 3.83 to 4.29, which is statistically significant ($p=0.029$). For the other students ($N=21$), AW increase from 4.08 to 4.14, which was not statistically significant ($p=0.264$). Thus Hypothesis 5 is supported.

t-Test: Paired Two Sample for Means

<i>S</i>	<i>T1AW</i>	<i>T2AW</i>
Mean	3.833333333	4.29166667
Variance	0.066666667	0.13541667
Observations	6	6
	-	-
Pearson Correlation	0.043852901	
Hypothesized Mean Difference	0	
df	5	
	-	-
t Stat	2.447467877	
P(T<=t) one-tail	0.029058565	
t Critical one-tail	2.015048372	
P(T<=t) two-tail	0.058117129	
t Critical two-tail	2.570581835	

t-Test: Paired Two Sample for Means

<i>N and P</i>	<i>T1AW</i>	<i>T2AW</i>
Mean	4.083333333	4.142857
Variance	0.127083333	0.178571
Observations	21	21
	-	-
Pearson Correlation	0.414886909	
Hypothesized Mean Difference	0	
df	20	
	-	-
t Stat	0.641764454	
P(T<=t) one-tail	0.264156844	
t Critical one-tail	1.724718218	
P(T<=t) two-tail	0.528313689	
t Critical two-tail	2.085963441	
