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Role of educational factors in college students' creation worldview

Steve Deckard, Chard Berndt, Mary Filakouridis, Tim Iverson and David A. DeWitt

What one believes about origins is a significant component of an overall worldview. An ongoing study at Liberty University is being conducted to define and measure a creationist worldview while determining factors that influence the beliefs and attitudes about origins in a Christian college student population. The Creation Worldview Test (CWT) was administered before and after completion of a required apologetics course. Previous attendance at a creation seminar or course was associated with a stronger initial creation worldview, however prior completion of a college science course appeared to have no impact. Importantly, students who attended a public high school had a significantly weaker initial creation worldview than those who attended Christian high schools or home school. Following the apologetics course which was taught from a young-Earth Creation perspective, a large number of students showed a much stronger creation worldview. In particular, the number of students in the 'conservative Biblical theism' category doubled from 64 to 128 (out of 195 students in the study). These results demonstrate the importance and the clear impact of teaching students from a young-Earth Creation perspective.

College students' beliefs regarding origins are very important as these beliefs form a major portion of one's personal worldview¹⁻⁴. Many college students claim to believe in a supernatural Creator.⁵⁻⁸ Many also report being born-again and thus claim a personal relationship with the Creator. Such a relationship should impact all aspects of one's personal life and worldview.

Scripture reveals the existence of a dichotomy between those that believe the Creation account and those who do not (1 Corinthians 2:14-16 and Romans 1:20). Only the truly born-again believer is able to take every thought and

attitude and compare it to the thoughts and attitudes of the Creator Jesus Christ (2 Corinthians 10:5 and Colossians 1:16). This God-ordained worldview is vital to discerning the truth about both Biblical theism and a naturalistic evolution. The clash is between two all encompassing worldviews, a 'Creationist Worldview' and an 'Evolutionary Worldview'.⁹ Research regarding this dichotomy of worldviews is under way at Liberty University under the guidance of Drs Steve Deckard and David DeWitt. Examples of the findings are summarized in this article.

Background for the Liberty University Study

As part of an on-going research program at Liberty University, Deckard and DeWitt studied two sections of a Spring (2002) semester apologetics class at Liberty University. This class was taught from a young-Earth Creation (YEC) perspective. The two classes were pre- and post-tested using the CWT (Creationist Worldview Test).¹⁰ The CWT test is a 51-item instrument constructed to measure views related to creation and evolution.¹¹ The instrument has been refined and now reports subscale scores in four realms. These include a Total Scale (TS) (which can be used to determine an overall worldview in either the YEC domain or the evolutionist domain). It also contains, a Science Scale (SS) measuring science attitudes related to creation and evolution, a Theology Scale (ThS) measuring theological attitudes, and an Age Scale (AS) measuring attitudes toward the age issue as it relates to creation and evolution. The CWT items were standardized on a scale of -100 to +100 using the following: 70-100 = Conservative Biblical theism (CBT), 30-69 = Moderate Christian (MC), 0-29 Secular Humanism (SH), and < 0 = Socialism (S) (Marxist/Leninism, atheist). Data related to a number of student variables was also gathered.

Research questions and findings

The first research question considered was: does attending a course, seminar or presentation, on creation generate a worldview affect?

We considered the effect of having taken a college science course versus attending a course, seminar or presentation on creation as related to student worldview, prior to taking the apologetics course. An analysis of variance using SPSS 11.0 was conducted. The dependent variable (DV) was TS and the independent variables (IV's) were completion of a college science class (IV1) and or having attending a creation course seminar or presentation (IV2).

The means for IV1 were 62.1 for those answering yes and 59.2 for those answering no. The F test value¹² was 1.12 with a probability of 0.292, which is not significant. The means for IV2 were 67.7 for those answering yes and 53.6 for those answering no. The F test value was 25.95 with a probability of 0.000. This would dictate acceptance of the alternative hypothesis which would be that the means are significantly

different and not due to chance.

Next the effect of the DV time was studied. This was done by conducting a mixed ANOVA test using the GLM¹³ in SPSS 11.0. The DV time was dichotomized into the Pretest scores (TSpre) and Posttest scores (TSpost). The IV's were IV1 and IV2.

Analysis of research question one

Having attended a creation course seminar or presentation is a better predictor of a creationist worldview than having completed a college science class.

Completion of a science class was expected to lead to higher CWT pretest scores but surprisingly this was not the case. Since the students tested in the study tended toward a creationist worldview, the science class may not have had an impact if the amount of the curriculum specifically focused on Creation/evolution issues is small. This could particularly be the case if the course were chemistry or human anatomy. A college science course taught by a Christian with a YEC perspective may not impact students' worldviews in the same way as an apologetics course directly addressing creation/evolution issues. Further, we believe that teaching for worldview change is distinct from teaching course content.

Some of the students may have taken their science course at a college other than Liberty University, including ones that teach from an evolutionary view. This could also impact the pretest scores. More research is needed to understand why the science class did not appear to have a significant impact on students' Creation worldview.

The second question considered was: what effect does the type of high school attended and the students GPA have on worldview?

An ANOVA using the DV TS and IV's high school attended and reported college GPA is summarized in Table 1. For the GPA ANOVA, $F = 0.507$ and $p=0.678$. For High School attended the $F= 10.625$ with $p=0.000$. This indicates that a significant amount of the variance is explained by the high school attended and not by their GPA.¹⁴

A comparison of the means of the three categories of the high school attended variable shows a significant difference between public high school, when compared to both private Christian and homeschool categories. For public versus private Christian the mean difference of 6.6 was significant at the 0.05 level. For the public versus homeschool the mean difference of 19.3 was significant at the 0.05 level. In contrast there was no significance between private Christian and the homeschool categories at the 0.05 level.

Analysis of question two

The means reveal a pattern indicating that the high school attended is an important factor in determining the Pretest score on the CWT. This is evidence of the negative impact of a public school based education on student worldview. On the other hand it shows the positive influence of a private

Christian school or homeschool education on student worldview. These results could also be explained if families with a stronger YEC view are more likely to send their children to Christian schools or home school.

There is also support for the idea that one's worldview has a non-cognitive aspect. This reflects the reality of the creation and evolution tension in that the evolutionists see the controversy as one related to science and evidence, whereas the creationist worldview allows for both the physical evidence and the spiritual aspects.

The third research question examined the worldview shift upon completion of the apologetics course.

A crosstabs¹⁵ analysis was run using the Pre-test (TSpre) as the IV and Post-Test (TSPost) as the DV. This is summarized in Table 2. A Chi-Square value of 43.41 was reported with a probability of 0.000. This indicates that the changes in frequencies are not due to chance.

Analysis of question three

The treatment variable (apologetics course) directly influenced the worldview of the students showing a significant shift of worldview attitudes. In particular, the Conservative Biblical Theism worldview experienced a net gain of 64 students. This is accounted for by 69 students whose post-test score shifted up to this category, and five students whose score shifted downward into other worldviews.

Implications for Christian colleges

The changes in student worldview which were brought about by the teaching of an apologetics course from a YEC

Table 1. Distribution of mean CWT pre-test scores by high school type and college grade point average.

Type of High School Attended*	College GPA	Mean CWT Pre-Test Score
Public N=77	3.5 – 4.0	67.4
	3.0 – 3.5	56.8
	2.5 – 3.0	52.3
	2.0 – 2.5	42.8
	Total	57.8
Private Christian N=48	3.5 – 4.0	69.4
	3.0 – 3.5	59.0
	2.5 – 3.0	62.3
	2.0 – 2.5	74.8
	Total	64.4
Home School N=11	3.5 – 4.0	72.3
	3.0 – 3.5	79.0
	2.5 – 3.0	81.7
	Total	77.1

Table 2. Pre- to Post-test shift in worldview distribution (treatment: Apologetics Course) N=195.

	Pre-test distribution	Post-test distribution
Conservative Biblical Theism	64 32.8%	128 65.6%
Moderate Christian	121 62.1%	54 27.7%
Secular Humanism	10 5.1%	11 5.6%
Socialism	0 0.0%	2 0.5%
	195 100%	195 100%

perspective place a bright light on the importance of teaching, curriculum and course content that leads to worldview change. It is imperative that Christian Colleges and Universities across America stand on the firm Biblical foundation of YEC worldview. This dictates that Christian colleges take a number of important steps. Among these would be: 1) to make sure that the curriculum is YEC based, 2) to make sure that the mission statement is clear regarding YEC, and 3) to implement an assessment program that would show outcomes in terms of change in student worldview.¹⁶

Conclusions

The research summarized in this article provides strong evidence that attending a creation course, seminar, or presentation has a positive impact on the formation of a Creationist worldview. This is an indicator of the need for creationist organizations to continue offering seminars and outreach ministries. Second, the research indicates the importance of family decisions regarding the choice of schooling. This is shown by the fact that the Christian school and homeschool students had a significantly higher Creationist worldview. Third, we found that a creationist-based apologetics course significantly impacted student worldview, highlighting the importance of choosing the right Christian college.

Overall this research supports the idea that teaching a Biblical view of origins is fundamental to worldview adoption and development. Training in an environment of evolutionary thinking or in an environment where creationism is not firmly taught, is a certain formula for causing the student to depart from the Christian faith. Departure from this faith will lead to the acceptance of the only alternative, evolution. Few issues could be of greater importance to the Christian family and the church than to teach the Biblical doctrine of creationism.

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- An F test is a statistical procedure used for testing hypotheses about differences among two or more means, and other purposes.
- GLM is a general linear model used to analyze differences between DV's which are measuring the same or similar attributes.
- The students were asked 'Do you consider yourself a born-again Christian?' N for yes = 171 and the N = for no = 2. Nineteen did not respond. This indicates that we are talking about mostly Christians (88%) who are attending the different schools.
- Crosstabs — know as crosstabulation, is a method for describing relationships between variables.
- This can be done by pre-testing the freshmen and post-testing the seniors. This type of assessment would be of great value to College constituents and to accrediting agencies.

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