

SOAH DOCKET NO. 781-09-2910

IN THE MATTER OF THE INSTITUTE § BEFORE THE STATE OFFICE
FOR CREATION RESEARCH § OF
GRADUATE SCHOOL § ADMINISTRATIVE HEARINGS

1st AFFIDAVIT OF DR. PATRICIA NASON

Before me, the undersigned authority, personally appeared DR. PATRICIA NASON, who, being by me duly sworn, deposed as follows:

"My name is Patricia Nason, and I am of sound mind, capable of making this affidavit, and personally acquainted with the facts herein stated, as well as the expert opinions I herein express. This affidavit concerns my professional responsibilities (and personal knowledge) as a science education practitioner (of many years), which directly relate to my expertise in understanding and using and explaining the scientific method, all of the above being relevant to the specialized knowledge base I have and use as the Department Chair of the Science Education Department of ICR's Graduate School.

A. The following information is factually true, to the extent that this Affidavit recounts factual information, and truly indicates my professional opinions as an expert in Science Education, to the extent that this Affidavit includes inferences and opinions. Below I have summarized: (1) my education and professional background, with emphasis on my scientific education and my professional experience as a science educator within private sector Christian education contexts; (2) my teaching experience, with emphasis on teaching experience within private sector Christian education contexts; (3) my familiarity with natural science itself, and how it is often taught within private sector Christian education contexts; (4) my educated critique of Commissioner Paredes' 2008 decision regarding ICR Grad School; (5) my clarification regarding the difference between religion and science; etc.

B. Also, to the extent that I provide expert opinions below, those expert opinions are based upon my specialized knowledge, skill, experience, training, and/or education (as indicated below).

C. In providing this Affidavit, which contains a blend of personally known facts (e.g., my scientific education and experience teaching science to college students, including both creationist and evolutionist interpretations of scientific data) and personally held expert opinions (e.g., how evolutionists' uniformitarian assumptions have contributed to the conclusion of "billions of years" in contexts where the age of the earth is estimated), I have been consciously aware that it is important for me to provide expert opinions that are "based on scientifically valid principles" and "is relevant to the task at hand", even though the ultimate conclusions that I reach (and declare in this Affidavit) may not necessarily have "general acceptance" in the worldwide scientific community.

ATTACHMENT to 1st Amended Complaint
(for filing in N.D. Tex./Dallas 3:09-CV-00693-B)

I. INTRODUCTION

This affidavit presents my critique of Dr. Gerald Skoog's crusade for evolution as it affects his review of the proposal of the Institute for Creation Research for a Master's Degree in Science Education (see Appendix A). At the end of this Affidavit I have outlined my professional credentials.

This affidavit focuses on the quality of ICRGS's program; Standard 12 is the focus of the review. It states that:

The quality, content, and sequence of each course, curriculum, or program of instruction, training, or study shall be appropriate to the purpose of the institution and shall be such that the institution may reasonably and adequately achieve the stated objectives of the course or program. Each program shall adequately cover the breadth of knowledge of the discipline taught. . . ."

Specific requirements are not stated in Standard 12 but are subject to interpretation by the reviewer. Each of the stated criteria in Standard 12 has been met by ICRGS, especially the quality, content and sequence of courses and program appropriate to the **purpose of the institution** in achieving stated objectives of the program. The breadth of knowledge of the discipline is also adequate.

II. AUDIENCE OF THE PROGRAM

On Page 5 of the review, Dr. Skoog mistakenly refers to ICRGS students as public school teachers. It is highly probable that Dr. Skoog and others on the committee made decisions based on this invalid information. The ICRGS program prepares Christian school teachers, home school teachers and creation science lecturers. Making comparisons and contrasting origins

theories (creation and evolution) is therefore relevant to the population of graduate students ICR teaches and is appropriate both legally and conceptually.

Dr. Skoog's comments relating to SE 503 on p. 4 of the review read, "...most of these assignments would be typically completed in undergraduate courses unless this course is being designated for post-baccalaureate students seeking initial certification." It should be noted that the requirement for entrance into the graduate school is "an undergraduate degree from a regionally accredited college or university" (ICRGS catalog) but not a degree in teaching.

Furthermore, research on science teacher knowledge of instructional strategies supports the fact that pedagogical content knowledge is lacking in many teachers (see Friedrichsen P.J. et. al. "Does teaching experience matter? *Journal of Research in Science Teaching*, 46,4, 357-383 for references to research in this area). Therefore, learning about instructional strategies and how to implement them is not only relevant for a masters level science teacher education program, it is essential.

III. "PURPOSE OF THE INSTITUTION"

The goals of the graduate school are intended to fulfill the Institute for Creation Research's mission and purpose - to study, teach and communicate the works of God's creation through research, education and communication (p. 3 of The Graduate School of the Institute for Creation Research General Catalog 2008-2009). Dr. Skoog continually points out biblical issues which, if removed, would not fulfill the requirement of Standard 12 stating "appropriate to the purpose of the institution."

The ICRGS General catalog states the graduate school's purpose and goals:

The purpose of ICRGS is (1) to prepare science teachers and other individuals to understand the universe within the integrating framework of a biblical perspective using proven scientific data, and (2) to prepare students for leadership in science education. A clear distinction is drawn between scientific creationism and biblical creationism, but it is the position of the Institute that the two are compatible and that all genuine facts of science support the Bible (emphasis added).

To begin making his case, Dr. Skoog altered the phrase “integrating framework of a biblical perspective using proven scientific data” (p. 10 of catalog; emphasis added) to “the program’s purpose of integrating biblical perspective and scientific knowledge” (paragraph 4 of Review; emphasis added). He bases his discussion on his assumption that the biblical perspective is “ill-suited to act as an ‘integrative framework’. . . with the scientific knowledge and data regarding the nature and history of the universe.” He does this by pointing out when the words “biblical,” “bible,” and “creation” are addressed in the course of ; this in essence proves that ICRGS is fulfilling the purpose of the Institute and school. This distortion of ICRGS’s educational purpose contaminates the entire critical analysis of Skoog’s comments.

Dr. Skoog’s passionate position for evolution and disdain for other scientific theories dates back to at least 1970 in the recommendations section of his dissertation, The Topic of Evolution in Secondary Biology Texts, 1900-1968 (1970). An example of his perspective that supports Darwin and biological evolution is stated in the recommendation section (in reference to writing high school biology):

9. The concept of evolution should be integrated throughout the biology textbook rather than being discussed in one isolated chapter often near the end of the textbook. The integration of evolution throughout the textbook will not only result in a better understanding of the concept of evolution, but also a better understanding of other biological concepts and phenomena. (p. 362)

Furthermore, his acknowledgement of the impact of biological evolutionary beliefs is referred to several places in the dissertation including the introduction:

Now, as then, **the validity and nature of evolution has not only concerned the scientist, but also the philosopher, theologian, politician, educator, and many others engaged in a variety of diverse occupations and professions.** The testing ground for evolution has not only been in laboratories and fields of nature, but in pulpits, courtrooms, legislative assembly rooms, school board meeting chambers and countless other places where scientific problems have seldom been the focus of attention (p. 1, Introduction; emphasis added).

In the recommendations section Skoog states: "The influence of biological science extends to every field of thought" (p. 360) and "the facts and thoughts concerning biological science have affected more than thought in the biological sciences" (p. 364). These stated recommendations are the focal point of Dr. Skoog's career and at the forefront of his crusade for evolution.

Furthermore, Dr. Skoog's campaign against religious beliefs, especially as they relate to science, is referred to in the dissertation. This reflects his zeal to ferret out those who would disagree with evolution.

Research is needed to determine the position of various religious groups toward the teaching of evolution. There has been a continual lessening of resistance to the concept of evolution by religious groups each year (p. 363, #2; emphasis added).

Throughout his career as a science teacher educator, Dr. Skoog continues with his own dissertation recommendations for further research as attested to in his curriculum vitae in which evolution in textbooks and standards is the theme of many of the articles and professional paper presentations listed. Of 42 articles, 6 refer to evolution, especially in biology textbooks. Other references to biological evolution include: 2 of 10 essays or chapters in books; 1 position paper; 2 of 8 reviews; 2 of 3 proceedings; 2 of 6 letters, 4 of 11 state funded research projects; and 39 of 107 professional papers. He also bashes creation and intelligent design in articles with titles such as "Religious conservatives bully textbook publishers;" "Pressures for creationism to be resisted

[Commentary];” “Equal time for creationism? No;” “Intelligent design: A reappearance of natural theology which has no place in science classrooms;” and “Creationism threatens the integrity of education, not advances in biology [letter to editor].” In fact, 11 of 42 of Skoog’s articles, 2 of 6 letters, and 6 of 107 paper presentations refer to creationism and/or intelligent design. Skoog’s crusade for evolution and against creation is apparent and this bias is reflected throughout the review.

Because “his research and published work on the teaching of evolution has made him a well-known authority on this topic,” in 2005 Dr. Skoog wrote a Q&A on teaching evolution for the National Science Teachers Association. He developed questions that may be proposed by students and teachers relating to inquiry about the creation. He also wrote answers that science teachers could/should use:

- Why is the teaching of evolution such a controversial subject in the United States?
- What do anti-evolution groups want?
- Why have challenges to the teaching of evolution increased so dramatically in recent years?
- In general, how should I address questions from students and parents about alternative theories of biological evolution?
- How do I respond when parents say it's only fair that we present all theories and let students make up their own minds?
- How should I approach the topic of evolution to alleviate students' concerns or questions about it?
- Some say that evolution cannot be proven because we were not there to see it happen. How do I respond?
- Why not appease the anti-evolution folks and teach the "controversy" or the so-called "strengths and weaknesses" of evolution, which will clearly demonstrate why evolution is the most complete explanation about how life on Earth has changed and continues to change?
- Why do some say that gaps exist in the fossil record, which indicates a weakness in the theory of evolution?
- Evolution conflicts with my religion, which says God created the world as it appears today. Therefore, I cannot "believe" in evolution.
- I cannot accept the fact that I am descended from an ape; therefore, I do not support the theory of evolution.

- Some argue that a sudden appearance of "modern groups" of animals in the Cambrian explosion disproves evolution. Is this correct?
- I've heard that intelligent design is proven to be a valid scientific idea and should be included in science instruction.
- If polls indicate that some favor teaching other ideas along with evolution, shouldn't we just include these ideas?
- Local communities and states should have the universal power to decide what should be taught to their students. If a community wants to include evidence against evolution, shouldn't it be their prerogative?
- I'm frustrated at the amount of time and attention being devoted to the evolution issue, especially when I have so many other demands and challenges in the classroom. Shouldn't we all just keep a low profile and hope the issue goes away?

(Quoting from Gerald Skoog, "An NSTA Q&A on the Teaching of Evolution.")

In the introduction to the Q&A, we find the following quote:

By staying within these boundaries, science does not and will not enter the realm of religion and will never force students to make unnecessary choices about their beliefs. "Scientific knowledge cannot contradict religious beliefs because science has nothing to say for or against religious realities or religious values" (Francisco Ayala, quoted in Bybee 2004).

If this is the case, logically there would be no argument with ICRGS' proposed program and teachers would not be encouraged to redirect students' questions about creation by telling them that they are not studying religion but science. This is interesting since Dr. Skoog claims in his dissertation that belief in evolution affects other aspects of our culture.

Some of the answers to the Q&A are contrary to NSTA's own position statements on scientific inquiry which include some of the following (emphasis added):

NSTA recommends that science teachers:

- **Implement approaches** to teaching science **that cause students to question and explore** and to use those experiences to raise and answer questions about the natural world. The learning cycle approach is one of many effective strategies for bringing explorations and questioning into the classroom.
- **Guide and facilitate learning using inquiry** by selecting teaching strategies that nurture and assess student's developing understandings and abilities.

Regarding students' understanding about scientific inquiry, NSTA recommends that teachers help students understand:

- That **science involves asking questions** about the world and then developing scientific investigations to answer their questions.
- That **scientific inquiry is central to the learning of science** and reflects how science is done.
- That the **evidence** they collect **can change their perceptions about the world** and increase their scientific knowledge.
- The **importance of being skeptical when they assess their own work and the work of others.**

(Retrieved from <http://www.nsta.org/about/positions/inquiry.aspx> on Wednesday, July 1, 2009; Emphasis added.)

Evidently Dr. Skoog does not understand that inquiry does not put limits on or censor questions that are asked. Likewise, it does not censor the results that non-evolutionary-thinking scientists address.

Although Dr. Skoog highlights changes in syllabi objectives from the January version to the April version, the emphasis on creation science is still apparent throughout each syllabus. There is still an emphasis on creation science and biblical teaching. For example, SE 503 Course Objective 2 says "Propose science lesson plans from the creationist perspective using the Engage-Explore-Explain-Extend-Evaluate (5-E) model. SE 505 Course Objective 1g says "[Implement instruction that engages students through] comparison and contrasting of evolutionary and creationist science approaches."

Furthermore, the word "worldview" is synonymous with the word "perspective." Skoog rightfully concludes that "this review of the Science Education courses reveals that creationist perspectives are infused throughout" (p. 6 of the review), further substantiating that the "content is appropriate to the purpose of the institution as required by Standard 12.

IV. "BREADTH OF KNOWLEDGE" & "QUALITY OF THE DISCIPLINE TAUGHT"

The term "breadth of knowledge," according to the University of Ohio's description, is used for introductory and undergraduate courses. Even so, the requirements for planning and submitting a course for approval state that :

In more practical terms, an academically rigorous Breadth of Knowledge course will ask the student to critique what is to be learned; or the course will ask the student to apply what has been learned to a different context or situation; or the course will require the student to synthesize the content of the course so that he or she will engage in the process of putting facts, ideas, and materials together in a way that is coherent. In other words, Breadth of Knowledge courses require that students go beyond learning a certain content. These courses will also **require of students that they be able to apply, critique, and synthesize what they learn.** . . . Breadth of Knowledge courses...ask you to consider more than the course's content in your planning. You must also consider, . . . how students will be asked to apply, critique, or synthesize the content of this course. Consider what sorts of assignments will give students practice in these activities. Consider what content is necessary for the students to engage in an informed and sensible process of critique, application, or synthesis." (retrieved from <http://www.ohio.edu/gened/help/bok.cfm> 6/30/2009 ; emphasis added)

As can be noted, the criteria emphasize higher level thinking skills in Bloom's Taxonomy including application, synthesis, and analyze and evaluation (the ability to critique) Examples of verbs that are used in course objectives meet the criteria of breadth of knowledge are:

Course	Objective by level (Objective number in parens)
SE 501: Advanced Educational Psychology	Application: Apply developmental theories (11)
	Synthesis: Give examples (6)
	Analyze and Evaluate (Critique): Evaluate theories (1); Assess theories (2); Compare and Contrast theories (3); Analyze temperament and self-esteem perspectives (4); Support [the use of] higher-level teaching skills (7); Compare and contrast cognitive views of learning (8); Defend aspects of development (10)
SE 502: The Science Curriculum	Synthesis: Design a curriculum guide (5)
	Analyze and Evaluate (Critique): Compare and contrast curriculum theories (1); Assess NSES (3); Justify your position (7); Defend integration (8)
SE 503:	Application: Utilize charts (7)

Planning Science Instruction Methods	Synthesis: Design instructional strategies (1); Propose lesson plans (2); Incorporate questioning strategies (4); Create instructional aides (5); Plan lab and field investigations (6); Analyze and Evaluate (Critique): Evaluate lesson plans (3)
SE 504: Research in Science Education	Synthesis: Design support materials (3); Write a research proposal (4) Analyze and Evaluate (Critique): Compare and Contrast research methods (1); Interpret science education research (2)
SE 505: Implementing and Assessing Science Teaching	Application: Implement engaging instruction that uses effective communication, a variety of teaching strategies, technology, scientific instruments; scientific method, questioning strategies; compare and contrast (1) Analyze and Evaluate (Critique): Assess students throughout instruction (2); Assess you own teaching practices (3)
SC 501: The History and Nature of Science	Analyze and Evaluate (Critique): Evaluate the concepts behind each of the nature of science tenets as they have changed to fit the worldview of particular historical time period (2); Assess the various tenets of the nature of science to determine how each could be used to undermine and/or support alternative science concepts (3); Contemplate the consequences of using the power of inquiry to mess with someone's mind. (4); Evaluate the relationship among science, technology, and society (5)

On p. 3 of the review, Dr. Skoog states "this reviewer is not familiar with the textbook, which has a title that indicates a focus on developmental perspectives of Christian education." On p. 4 he writes "This reviewer is not familiar with -- but its contribution to a science methods course is questionable." Skoog is referring to the text *Nature that is Christian: Developmental perspectives on Christian Education* that is used in SE 501 and SE 503.

It is obvious that the title with the word "Christian" in it biased his review. Dr. Skoog was assigned to review the ICRGS materials and made recommendations on material he did not take time to review!

The bias against anything with a biblical application (which is necessary to achieve Standard 12's "purpose of the institution" statement) is apparent. The book in question has the following chapters:

Ch. 2: The Power of Piaget

- Ch. 3 The Power of Kohlberg
- Ch. 4 The Power of Fowler
- Ch. 5 The Power of Erikson
- Ch. 6 The Power of Perry and Belenky
- Ch. 7 The Power of Vygotsy
- Ch. 12 Developmental Discussion
- Ch. 13 The Developmental Use of Lecturing
- Ch. 14 The Developmental Use of Mentoring
- Ch. 15 Developmentalism and Groups

Chapters 2-7 are used in the SE 501 Advanced Educational Psychology and Ch. 12-15 are used in SE 503 Planning Science Instruction: Methods. If Dr. Skoog had reviewed the book, he would have found the content is appropriate to the courses in question.

Dr. Skoog, in his “rush to judgment,” is quick to point out what is in the program that he claims should not be in the program but he fails to use educational standards to indicate why he disapproves the content. Even worse, he fails to show which content science education graduate students should learn that was (supposedly) excluded in ICRGS’s program.

In his campaign for evolution, Dr. Skoog has failed to realize that the words science and evolution are not synonymous. Page 23 of the National Science Education Standards Inquiry defines scientific inquiry as “**the diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work**” (emphasis added). Dr. Skoog states in the review that “Proposed courses select the data and findings that support their perspective and, in the process, ignore the data and findings that contradict their perspective and ideology” (p. 1 of Review). This is humorous because he wants all references to creation science to be eliminated! Dr. Skoog has evidently also failed to read any of the research materials ICR has published; if he had done so, he would find that ICR scientists often use the same data that conventional scientists use. It is the interpretation of the data from a different worldview than he crusades for that is bothersome to him – when the analysis does not fit Dr. Skoog’s perspective,

he considers it to be faulty rather than critically analyzing the results. ICR's studies reflect of AAAS's description of scientific inquiry in *Benchmarks for Scientific Literacy* and have yet to be challenged on their scientific merit through rigorous scientific analysis rather on their underlying beliefs:

- Scientists differ greatly in what phenomena they study and how they go about their work (p. 12).
- What people expect to observe often affects what they actually do observe. Strong beliefs about what should happen in particular circumstances can prevent them from detecting other results (p. 12).
- Investigations are conducted for different reasons, including to explore new phenomena, to check on previous results, to test how well a theory predicts and to compare different theories (p. 13).
- Hypotheses were widely used in science for choosing what data to pay attention to and what additional data to seek, and for guiding the interpretation of the data (both new and previously available) (p. 13).
- Scientists in any one research group tend to see things alike, so even groups of scientists may have trouble being entirely objective about their methods and finding (p. 13).
- New ideas in science are limited by the context in which they are conceived; are often rejected by the scientific establishment; sometimes spring from unexpected findings; and usually grow slowly, through contributions from many investigators (p. 13).

V. COURSE CONTENT

Christian school teachers in the ICRGS program are accepted on the basis of their undergraduate science relative to the minor they choose and are prepared to teach. Course objectives in the minors reflect the same quality and breadth of knowledge that the Science education courses relate. The courses were designed to help teachers instruct their students in their minor. Courses are designed to inform teachers of the current research; the students read and discuss a variety of current professional journal articles in the field.

Dr. Skoog continues to show his bias against the creation perspective and his crusade for evolution only by referring to words like "creationism" and "integrated biblical framework" as

well as citing any references to biblical creation in the course descriptions and rationales. Skoog continues to put down references to anything biblical or creationist but does not refute scientific ideas that are referenced within the courses. In other words, he seems to be looking for words such as “biblical” and “creation” to make his point rather than making legitimate scientific points. This makes one wonder if during his review of the materials he read the books or materials that he was assigned to write critiques.

ICRGS did a review of AAAS Benchmarks; the purpose was to show that we teach science by aligning course content with the Benchmarks. (See Petition for Contested Case Status by Institute for Creation Research Graduate School, Appendix A.)

Faculty also aligned their course content with the Texas Teaching Domains (Found in Appendix Q of THECB Progress Report, 2008-2009). A listing of each course was included along with the course objectives and aligned with the Texas Teaching Domains and Competency requirements. The purpose was to show that teachers in our program would receive an education comparable to Texas science teachers.

VI. ADDITIONAL ANALYSIS & CRITIQUE OF THECB DECISION-MAKING

A. Standard #12 A (RELATING TO THE CONTENT OF THE DEGREE)

Dr. Paredes and the THECB implied that the “quality, content, and sequence of each course, curriculum, or program of instruction, training or study” at ICR Graduate School did not meet the criteria of THECB standards. The issue is not lack of rigor in the courses or the program nor is it the lack of breadth of knowledge that is being taught. ICRGS’s course of study is similar to every Texas state university science education program with whom ICRGS was asked to compare. This course of study is more rigorous than my own degree program was at TX A&M as

a PhD student; I learned equally from the school district in which I taught science (Cypress-Fairbanks ISD in Houston) and the through the experiences I had at UNC Charlotte and Stephen F. Austin State University in Nacogdoches, TX.

'Seemingly Dr. Parades and THECB do not believe that the content covered in the ICR graduate school's degree program meets THECB's and its review committee (or reviewer) understanding of "science." Thinking "outside the box" and critically analyzing various theories by comparing and contrasting the evidence for and against those theories as well as proposing alternate theories is not only good science but is also the mark of a well-educated person.

Contrary to THECB's claim, it is obvious to the careful observer that the ICRGS program is in question because it does not adhere to the perspectives of those who are making decisions. Education is the accumulation of knowledge and skills – not indoctrination of a particular philosophy. If THECB is genuinely interested in the knowledge and skills that ICRGS students gain by going through the ICR Masters of Science in Science Education program, they would perceive that ICRGS students learn an equal amount of [evolutionary] science and [humanistic] philosophies as other "like" graduate level teacher education programs in the state. The real concern for THECB is that OTHER philosophies of science and possibly science education are being taught. Such an attitude negates the very essence of science in which "the testing, revising, and occasional discarding of theories, new and old, never ends" (*Benchmark 1A/H3bc*). Teachers and students who are prepared to do and use science should be taught to be "skeptical" about the analysis of scientific data when there is more than one explanation.

Each program shall adequately cover the breadth of knowledge of the discipline taught

The science education information presented in the ICR graduate school science education course of study was developed considering the major areas of expertise that a master teacher or leader in science education should have: (a) an appreciation for his/her students and how they learn so the teacher can adequately address individual and group learning during classroom instruction; (b) thoughtful consideration of how the curriculum is developed which includes a grasp on the curriculum philosophies that each will be promoting through his/her choice of curriculum approaches; (c) the knowledge and skills to instruct his/her students so that learning has life-long meaning and promotes understanding, application, and critical thinking; (d) the ability to interpret science research and science education research so that each can apply the current findings in his/her own classroom and apply those skills to critically address the effectiveness of his/her own teaching; and (e) the ability to assess his/her students and themselves in order to effectively meet high expectations and teaching goals.

When comparing the similarities and differences among the ICRGS science education masters program with programs offered at other Texas universities we found that they are similar in titles (Appendix E: Comparison of Program Titles of ICRGS *THECB Progress Report*), purpose (Appendix F: Comparison of Program Purposes of ICRGS *THECB Progress Report*), admissions criteria (Appendix G: Admissions Criteria Purposes of ICRGS *THECB Progress Report*), curricula (Appendix I: Comparison of Curricula of ICRGS *THECB Progress Report*).

Coursework must build on the knowledge of previous courses

The above list of criteria that an expert or master teacher ascertains as a student in the ICR graduate school programs MUST be taught in sequential order in order for teachers to be adequately prepared for the next course. Questions: How can a teacher determine what a students needs to know if they do not understand the student and how her/she learns? How can a teacher

plan for effective learning to take place in the classroom if s/he does not understand how the student learns? How can a teacher learn about and apply new teaching practices if s/he does not have an understanding of instruction? How can a teacher solve problems in his/her own classrooms if s/he does not know how to use research to help find the answers and/or develop adequate evaluative assessments? Lastly, how can teachers effectively reflect on their own teaching if they do not comprehend the criteria they are to judge? The sequence of courses offer a breadth of knowledge in science teaching because they build on each other to accomplish the stated program objectives and institutional goals. See "Appendix K: Scope and Sequence of the Program" of ICRGS *THECB Progress Report* for further details. Appendix G: Admissions Criteria describes the admissions criteria which relate basically to the minors and show how undergraduate knowledge is built.

It is my experience as a graduate student at TX A&M and professor at various public universities that, although prerequisites are in place to take graduate level courses, when a class does not "make" students are encouraged to take their courses out of sequence to continue in their education. Taking courses out of sequence at these universities did not affect my learning nor my students' learning; however, the sequence of ICRGS science education courses is absolutely necessary for the student to comprehend the material in any particular course -- many courses utilize assignments from one course to expand on in another. For example, creating a curriculum outline in SE 502 leads to writing lesson plans with appropriate instructional strategies in SE 503 and implementation of those lesson plans in SE 505. The courses in the minor are taken before SE 502 (The Science Curriculum) so that students have developed strong content knowledge to use while preparing curriculum outlines (SE 502) and lessons (SE 503).

B. STANDARD #12 D (RELATING TO THE DESIGNATION OF THE M.S. DEGREE)

- a. Degree level of the major course of study shall be appropriate to the curriculum offered
- b. Degree designation shall be appropriate to the curriculum offered
- c. The designation of the major course of study shall be appropriate to the curriculum offered

It was suggested in the letter of May 21, 2008 to Dr. Henry Morris III from Dr. Paredes and THECB that "Approval would require either a change in the designation of the degree or a change in the content covered."

Interpretation, in my mind, of this statement is that we either make it a Bible degree (change in the designation of the degree) or eliminate the creation science (change in content covered).

In such cases ICRGS would be deceiving the public because the MS in Science Education is NOT a degree in religion and science is taught in the minors.

Creation science is a viable scientific explanation for origins and the traditional evolutionary world view is taught.

MOST of the science that is taught in schools are neutral to either perspective. See the following documents for support:

- Appendix A in *Petition for Contested Case Status*: gives examples from syllabi, texts used and articles to show that ICRGS teaches each of the *AAAS Benchmarks* in its program
- Appendix B in *Petition for Contested Case Status*: in response to a statement that was made by a member of the advisory committee - "The program doesn't fit the standards of The American Association for the Advancement of Science's Project 2061" - is a

statement showing that ICRGS addresses the benchmarks and how ICRGS program satisfies the Texas Teaching Domains.

- Appendix C in *Petition for Contested Case Status*: A spreadsheet listing the 9th-12th grade Benchmarks that indicates the Benchmarks that include both perspectives, those that forma defense for teaching the creationist perspective, and those that are purely evolutionary in perspective. Of the 295 total benchmarks, 275 (93%) fit both the creation and evolution perspectives.

C. CLARIFYING THE DIFFERENCE BETWEEN RELIGION AND SCIENCE

Teaching religion is what I did when I taught Sunday School class and taught 60 women through the books of the Pentateuch and I and II Corinthians each over a two year study. It is using the Bible as the text and the focus of study. References to situations and examples outside the Bible and biblical history is applied for relevance. The goal of religion is that the teacher is trying to persuade the learner that the Bible is truth (apologetics) and they should live their lives accordingly.

Teaching science involves the cognate ability to understand the world around us through scientific endeavors.

The content relies on **scientific** theories that have been and are still being tested, use of those theories to develop technology so we can solve societal problems, and application of those theories to explain past events.

Teaching science includes developing an understanding of the nature of science and part the scientific method plays in developing theories and making new scientific discoveries.

VII. CONCLUSION

In conclusion, the review of the ICRGS program was conducted by Dr. Skoog who was prejudiced by his crusade for evolution as evidenced in his publications and rhetoric in the review.

It is reasonable to conclude that he did not consider the appropriate criteria nor look at the program as one who should judge fairly and without bias. THECB Standard 12 requirements are obviously met by the ICRGS especially in light of the purpose of the institution and the students ICRGS serves. These conclusions are based upon my expertise (as outlined below) in the area of Science Education, especially Science Education taught in the private sector to students who anticipate using their learning in Christian education contexts.

VIII. MY PROFESSIONAL / EDUCATIONAL CREDENTIALS

Below I have outlined many of my credentials that pertain to my specialized education, teaching experience, familiarity with the teaching of natural science in Christian education contexts.

A. EDUCATION & PROFESSIONAL BACKGROUND

I received her M.Ed and Ph.D. from TX A&M University December, 1994. My "chair" was Dr. Bob James, head of the secondary science education program in Curriculum and Instruction in the College of Education. I taught both elementary and secondary science methods courses as a lecturer.

B. TEACHING EXPERIENCE

1. **Associate Professor and Science Education Department Chair at the Institute for Creation Research Graduate School; Santee, CA. Jan., 2004 to present. Duties include teaching science education courses, developing the online Masters in Science Education Program, training professors to use internet resources for teaching online, converting courses in minors (biology, Astro-geophysics, and geology) for online implementation. Courses created and implemented: Advanced Educational Psychology, Research in Science**

Education, The Science Curriculum, Planning Science Instruction, Curriculum Implementing and Assessing Science Teaching, Inquiry and the Nature of Science.

I chose to come to ICR as a professor because I wanted to teach from a scientific creation viewpoint. Teaching without reference to creation science, God and/or the Bible and having to be careful to not mention either kept me from expressing my point of view which, in essence, was part of who I am. Not being able to mention scientific views that presented an alternative to evolution (such as creation science) was a violation of her academic freedom and constituted indoctrination into the evolutionary worldview. I felt that a well-educated person will examine both sides critically assessing the strengths and weaknesses of both to come to a scientific conclusion about origins. The ability to teach students to think and present science as described in the Project 2061 9-12th grade Benchmarks (AAAS) was discouraged.

Examples include:

Topic: Nature of Science –

The Scientific Worldview: “more than one theory may fit an observation,”

Scientific Inquiry: “Reasons for investigations: explore new phenomena; check previous results, test how well a theory predicts; compare different theories”

Scientific Inquiry: “New ideas limited by context they're conceived, rejected by establishment; spring from unexpected findings; grow slowly through contributions made by many investigators.”

Topic: Habits of the Mind –

Critical Response Skills “Suggest alternative ways of explaining data and criticize arguments in which data, explanations, or conclusions are represented as the only ones worth consideration, with no mention of other possibilities.”

While teaching at the following universities I integrated principles from a Christian worldview without quoting the Bible or referencing God. Before teaching a concept I would examine it to see if what I taught was misrepresenting Christian morals and principles and/or if it would hinder anyone in class from faith in the God of the Bible.

1. **Associate Professor at Stephen F. Austin State University**, Nacogdoches, TX; Fall, 1997-December 2003 – K-8 Classroom Management, K-8 Social Studies Methods, K-8 Science Methods, K-8 Reading in the Content Area, Technology, Case Studies of the Middle School Child (6-8), the Middle Level Learning Community (6-8); Learner Centered Middle Schools (6-8), Integrating Middle Grades Learning (6-8), Science in the Middle Grades (6-8); Developer and professor of record of 6 distance education courses beginning Summer, 2001 PBIC students; taught 2 per semester. Director and designer of new state certification middle school program beginning Fall, 2001
2. **Assistant Professor at the University of North Carolina**, Charlotte, NC; Fall, 1994-Summer, 1997 - Research & Analysis of Teaching (middle and secondary levels); Issues in Science Education; Teaching Science to Middle & Secondary School Learners; Microcomputer Applications in Education (all levels); Topics in Education; Trends and

- Issues in Middle Level Education; The Early Adolescent Learner; Elementary School Science Methods; Instructional Design and Technology (all levels)
3. Lecturer at Texas A&M University, College Station, TX; Spring, 1992-Summer, 1994 - Elementary School Science Methods; Middle School and Secondary Science Methods
 4. 6th grade science teacher and Department Chair in Cypress-Fairbanks ISD, Watkins, Junior High and Labay Junior High; Cypress, TX; Fall, 1986-Summer, 1991

C. FAMILIARITY WITH NATURAL SCIENCE IN CHRISTIAN EDUCATION

While working for the public school system in the state of TX and the university systems in Texas and North Carolina, I taught pre-service, PBIC, and in-service teachers science methods at all levels (elementary, middle grades, secondary).

Although I presented several workshops at Christian schools, my experiences until 1999 were mainly in the secular venue. I first began teaching at ICR's graduate school during the summer of 1999 and continued as an adjunct until January, 2004. I have been at ICR since that time helping the science faculty develop online courses in the natural sciences as well as developing and teaching science education courses to graduate students who teach in Christian schools.

I have presented creation science and Biblical creation topics at the Association for Christian Schools Intentional (ACSI) Conferences. The workshops included information on science fairs and the scientific method (Galveston, 2007), evidence for creation at Dinosaur National Monument (Galveston, 2008 and Greensboro, 2007), Biblical Creation at Galveston, 2007, Dallas, 2006, and Kansas City, MO, 2006; and evolution's impact on our society, Dallas, 2006. (see Vita for further details).

I participated in a Back to Genesis Conference: The Battle for the Beginning in Colorado Springs, CO April 28, 2007. *Creation Science in the 21st Century: Engaging and Influencing the Culture* was the topic of her presentation.

During the Spring of 2005, I presented creation science topics to over 400 public school teaching in Riga, Latvia. Presentations: *Worldviews in Our Minds, In the Beginning, The Flood, Those Daunting Dinosaurs, and Biological Origins*. I also taught a course on Origins and World Views at Koinonia Theological Seminary in Davao, Mindanao, Philippines during the Summer of 2003.

I also taught adult Sunday school with biblical creation as the foundation, supporting the Bible with scientific creationism.

Other experiences in biblical training, teaching, and leadership include the following:

1. Associate Teaching Director and Teaching Director for Community Bible Study in Nacogdoches, TX. Fall, 2004-Spring, 2007.
2. Sunday school with biblical creation as the foundation supporting the Bible with scientific creationism; Nacogdoches, TX at Grace Bible Church, Spring, 2004.

3. Student at Columbia International University (Columbia, SC) extension campus at Charlotte, NC, 1994, 1995.
4. Sponsor and organizer of Christian Educator's Association International chapter for teachers and Preservice teachers on TX A&M's campus, College Station, TX, 1992-1994.
5. Sponsor and organizer of Higher Dimensions, a school sponsored Christian club in public schools; Watkins Jr. High and Labay Jr. High; Cypress-Fairbanks ISD, Houston, TX 1985-1991.
6. Sponsor and organizer of Houston chapter of Christian Educator's Association International, 1988-1990.
7. Pioneer Girls leader at local chapter, Cypress Bible Church, Houston, TX and counselor at camp in Athens, TX; 1979-1985.

FURTHER THIS AFFIANT SAYETH NAUGHT.

Dr. Patricia Nason
 Dr. Patricia Nason, Affiant

SWORN TO AND SUBSCRIBED before me, the undersigned Notary public in and for the State of Texas, on this the 6th of July, A.D. 2009.

Sarah E. Mull
 Notary public, State of Texas

Printed name of notary: Sarah E Mull

My commission expires: 8-1-2009

