

Faith-Based Education That Constructs

|

|

—

—

—

—

|

|

Faith-Based Education That Constructs

*A Creative Dialogue between Constructivism
and Faith-Based Education*

EDITED BY
HEEKAP LEE

WIPF & STOCK • Eugene, Oregon

FAITH-BASED EDUCATION THAT CONSTRUCTS

A Creative Dialogue between Constructivism and Faith-Based Education

Copyright © 2010 Wipf and Stock Publishers. All rights reserved. Except for brief quotations in critical publications or reviews, no part of this book may be reproduced in any manner without prior written consent from the publisher. Write: Permissions, Wipf and Stock Publishers, 199 W. 8th Ave., Suite 3, Eugene, OR 97401.

Biblical quotations are from the New Revised Standard Version

Wipf & Stock

An imprint of Wipf and Stock Publishers

199 W. 8th Ave., Suite 3

Eugene, OR 97401

ISBN: 978-1-60608-674-2

www.wipfandstock.com

Contents

Foreword vii
Preface xi
List of Contributors xv

PART 1: TRENDS AND ISSUES OF CONSTRUCTIVISM

- Introduction 3
- 1 Overview of Learning Theories 5
Debra Espinor
- 2 Constructivism: A Critique from a Biblical Worldview 23
Jack Fennema
- 3 Constructivism in the Classroom: Is It Biblical? 38
Calvin G. Roso
- 4 Three Faces of Constructivism 46
HeeKap Lee

PART 2: CONSTRUCTIVISM IN FAITH-BASED EDUCATION

- Introduction 67
- 5 Jesus' Teaching Model and Its Embedded Constructivist Principles 71
HeeKap Lee
- 6 Constructivist Curriculum Design 84
Harry Hall
- 7 Jesus and Bloom: How Effective was Jesus in Requiring People to Think Critically? 103
HeeKap Lee and Calvin G. Roso
- 8 Did Jesus Utilize Constructivist Teaching Practices? 124
Rhoda Sommers-Johnson
- 9 Beyond Constructivism: Exploring Grand Narratives and Story Constructively 139
E. Christina Belcher

- 10 Constructivism in an Era of Accountability: A Case Study
of Three Christian Public School Teachers 156
Jillian N. Lederhouse
- 11 Guided Discovery Learning 170
Cindy Harvel
- 12 A Constructive, Interactive Approach to Learning 185
Martha E. MacCullough
- 13 Oobleck: A Constructivist Science Lesson Viewed
from a Christian Perspective 204
Bruce Young
- 14 Fostering Online Communities of Faith 210
Damon Osborne
- 15 Project-Based Learning in Faith-Based Multicultural
Education 229
Pamela M. Owen
- 16 Until My Change Comes: Assessment in the Faith-Based
Classroom with Constructivist Components 238
Michael D. Dixon

PART 3: REFLECTIONS AND FUTURE CONCERNS

Introduction 261

- 17 Constructivism and Faith-Based Education: Children
Separated at Birth? 263
Stephen P. Metcalfe
- 18 If We Build It, They Will Come! Will Constructivism Matter
in the Future of Faith-Based Education? 276
HeeKap Lee and Gloria Edwards

Index 297

Constructivism in the Classroom: Is It Biblical?

Calvin G. Roso

INTRODUCTION

CONSTRUCTIVIST LEARNING THEORY is believed by many to be based on a postmodern educational philosophy that states that learning happens when students are given the opportunity to construct their own knowledge and meaning (Baines & Stanley, 2000; Chrenka, 2001; Olsen, 1999; Windschitl, 1999). At an extreme, this philosophy denies absolute truth and asserts that students can, and should, construct their own knowledge and truth (Chrenka, 2001; von Glaserfeld, 1995). Nevertheless, constructivism encourages student participation in the learning process, moving students away from a teacher-centered classroom and offering learning that connects to students' interests and learning styles and, ultimately, improves student learning. Because of its controversial philosophy, some conservative Christian educators argue against using constructivist methodologies (Baines & Stanley, 2000; Smerdon, Burkam, & Lee, 1999; Van Brummelen, 2002). In spite of the controversies, Christian educators must not deny current research, but must instead search the Scriptures to see if a biblical worldview supports or denies constructivist learning theories. This approach to evaluating current research in light of Scripture is supported by many including Saint Augustine (trans. 1982) who aptly said:

When they [secularists] are able, from reliable evidence, to prove some fact of physical science, we shall show that it is not contrary to our Scripture. But when they produce from any of their books a theory contrary to Scripture . . . either we shall have some ability to

demonstrate that it is absolutely false, or at least we ourselves will hold it so without any shadow of doubt. And we will so cling to our Mediator, "in whom are hidden all the treasures of wisdom and knowledge," that we will not be led astray by the glib talk of false philosophy or frightened by the superstition of false religion.

This paper summarizes the negative aspects of constructivist philosophy and presents the positive outcomes of constructivist learning theory and classroom methodology. Finally, constructivist ideas are examined in relationship to a biblical perspective and Jesus' teaching to see how Christian educators can use constructivism in the classroom.

CONSTRUCTIVISM IN FAITH-BASED EDUCATION

Constructivist Philosophy of Education

Constructivism advocates that people learn better by actively constructing their own understanding and by reconciling new information with previous knowledge (Smerdon et al., 1999). Constructivists believe that "to arrive at meaningful knowledge, they [the learners] must learn through deep inquiry. As the unexamined life is not worth living, so the unexamined fact is not worth believing" (Perkins, 1999, p. 11).

According to some theorists, constructivism is more of a philosophical approach than a set of instructional practices (Smerdon et al., 1999). As a philosophy, constructivism assumes that "what constitutes 'knowledge' may be culturally constructed, rather than [absolute] truth or fact" (Smerdon et al., 1999, p. 4). Constructivism advocates the possibility of constructing world truth in many different ways. Those who support constructivist philosophy believe that current knowledge is no more valid than past beliefs (e.g., the belief that the world is round is no more true than the earlier belief that the world was flat) (Chrenka, 2001). Van Brummelen (2002, p. 32) suggests that Christian educators must be aware of the negative philosophical and theoretical basis of constructivist learning theory:

Few teachers realize the theoretical basis of constructivism. . . . The theory breaks radically with the Western—and Christian—tradition that knowledge can be gained through the senses and thus leads to a picture of the real world. Constructivism holds that humans do not discover knowledge or read the book of nature. Rather, it claims that humans construct all knowledge either

individually or through social interaction. Knowledge does not discover or reflect a world that exists out there. Instead, humans make knowledge and impose it to help them cope with their experience. . . . No ultimate, true, objective knowledge exists. Knowledge is strictly subjective.

Constructivist Learning Theory and Classroom Methodology

The teacher-student relationship changes in constructivist education and puts the teacher in the role of facilitator and coach instead of the role of the classroom lecturer (Baines & Stanley, 2000; Olsen, 1999; Windschitl, 1999). Some constructivists advocate that even if a teacher *does* know the answer, the teacher is not supposed to communicate it to the students—"that would be a tyrannical imposition of the teacher's will upon the minds of the students" (Baines & Stanley, 2000, p. 3). The constructivist classroom teacher must motivate students, create "problem situations, foster retrieval of prior knowledge, and create a positive environment for learning" (Phye, 1997, as cited in Olsen, 1999, p. 2). "Teachers must ask themselves, 'Is my role to dispense knowledge or to nurture independent thinkers? How do I show respect for the ideas of the students? Am I here to learn from the students?'" (Windschitl, 1999, p. 3).

Constructivists believe that learners are capable of intellectual autonomy (Windschitl, 1999), and they acknowledge three *types* of learners: the active learner, the social learner, and the creative learner (Perkins, 1999; Piaget, 1950). The use of collaborative or cooperative learning often, although not always, fosters learning. Engaging in discovery and rediscovery energizes students and brings deeper understanding (Perkins, 1999).

There are multiple approaches to constructivist teaching methodologies, each encouraging active, social, and creative learning (Piaget, 1950). In turn, the constructivist classroom moves away from being teacher-centered to become student-centered in nature. Constructivist teaching practices include, but are not limited to: improving student thinking, using questions to allow students to identify their own theories, promoting classroom dialogue between and among students and teachers, encouraging student collaboration, enabling students to elaborate on their individual ideas, challenging thinking by presenting contradictions to students' ideas, promoting analysis and inquiry through questioning, allowing *wait time* during discussions and questioning, providing ample time for student thinking and processing of ideas, en-

couraging self-reflection and metacognition, and organizing classroom curriculum around real-life problems (Brooks, 1990, as cited in Olsen, 1999). In addition, Bruner (1973) suggested several additional constructivist concepts: Learners construct new ideas based upon their current and past knowledge; curriculum should be organized in a spiral manner so students can continually build upon what they have already learned; and, instruction should be concerned with experiences and contexts that make the student willing and able to learn (i.e., student readiness). Freire (1964) further promoted dialogue and collaboration in instructional methodology by advocating that through dialogue teachers and students are jointly responsible for the learning process.

Biblical Perspective of Constructivism in the Classroom

In contrast to the philosophical foundation of constructivism, a biblical philosophy of education acknowledges absolute truth (Byrne, 1977; Van Brummelen, 1998) and sees the teacher as the authority in the classroom, not simply a facilitator (Byrne, 1977; Zuck, 1998). In addition, the pupil is seen as a child with a sinful nature, and in need of redemption (Byrne, 1977). Finally, the purpose of education from a biblical view is righteous living and discipleship—bringing man into relationship with God in order to serve God (“Education,” 1980; Van Brummelen, 1998), educating the pupil spiritually, socially, intellectually, emotionally, and physically (Byrne, 1977). Children are directed, nurtured, loved, and instructed in biblical truth from an early age, so that they can ultimately learn to make righteous choices regarding their lifelong relationships with God and others.

A biblical worldview also acknowledges that God is the author of all truth. All truth and knowledge ultimately come from God, so the Christian educator can say, like Saint Augustine, that wherever truth may be found, it is our Lord’s (Augustine, trans. 1958). Although constructivist philosophy contradicts a biblical philosophy of education, there are several constructivist discoveries and methods that are true (e.g., inductive thinking, inquiry, and application) and can be used by the Christian teacher to God’s glory.

If we view God as our teacher and biblical examples as God’s instructional methodology, we will find that God uses a variety of instructional methods—many that could be labeled as *constructivist*. Although the Bible clearly disagrees with constructivist philosophy regarding the acquisition of

knowledge and truth, the Bible supports the use of both traditional instructional methodologies and constructivist instructional methodologies.

The Bible clearly advocates that there is ultimate truth and knowledge that students should learn. In addition, students should learn lower-level knowledge—as seen in the admonishment to teach and know God’s commands and actions (Deut 4:9). However, the Bible seems to advocate many ways of “teaching” core knowledge, and not all are through the “teacher-as-lecturer” approach advocated by traditionalists. For example, in the Garden of Eden, God used *choice* to teach Adam and Eve about good and evil and sin and redemption. God *challenged Cain’s thinking* by presenting contradictions to Cain’s ideas. Noah was allowed time for *self-reflection* as he spent over one hundred years building the ark. The same is true for Abraham, who waited decades for God’s promise to come true. Joseph’s trials can be viewed as life lessons that presented *conceptual clusters of problems* for him to resolve. God spoke to Moses by questioning and allowing *wait time* for Moses to process his thoughts.

Many of the prophets and apostles also used constructivist methods to teach. For example, although Moses presented great portions of the law to the Israelites, much of it was rehearsed and applied as the children of Israel wandered through the desert. The concept of learning while doing (versus rote memorization) is a Jewish concept that Moses instructed parents to use in teaching their children: “These commandments that I give you today are to be upon your hearts. Impress them on your children. Talk about them when you sit at home and when you lie down and when you get up” (Deut 6:6–8). Essentially, learning was to happen continuously, inside and outside of the formal classroom setting. Gideon’s task was one of teaching through collaboration. Samson spoke in riddles and promoted inquiry through questioning. Samuel used questioning to confront Saul. Likewise, Nathan used questioning to confront David. Sometimes the messages presented by major and minor prophets were simple and sometimes they were quite complex—each prophet aligning curriculum according to students’ levels of development.

CHRIST AND CLASSROOM INSTRUCTION

Jesus Christ is the master teacher. As traditional educators, Christians often mistakenly assume that Jesus’ chief method of instruction was in the style of a classroom lecture, with all his pupils sitting in straight rows, practicing rote memorization. Yet the style and content of Jesus’

teaching was unlike that which anyone had ever seen before (Mark 1:22; Luke 19:48). Jesus was effective because, as the master teacher, he deconstructed misconceptions (Luke 11:39–52) in order to reveal God's truth (John 14:6). Jesus spoke with authority (Matt 7:29), making each lesson applicable to individual students (Matt 9:36–37).

Jesus used a variety of methods to present God's truth:

Teaching with authority. Luke 4:32 says that because he taught with authority, Jesus' teaching was unlike the teaching of others. This example helps teachers today understand that teaching is more than facilitating and that the teacher's job is to impart new knowledge and learning for the student.

Teaching, preaching, and healing. Jesus' teaching style included several actions that promoted dialogue and student thinking. Matthew 4:23 says that Jesus went about teaching, preaching, and healing—exemplifying the need to align instructional methodology with the need and readiness of the learner.

Encouraging active learning. Much of Jesus' teaching required people to physically *do* something. Changing water to wine required servants to physically draw water (John 2:1–12). The fishermen were required to cast out nets. Peter learned a lesson about taxes by catching a fish. The then lepers walked and were healed. The woman with the issue of blood followed Jesus through the crowd. In addition, Jesus healed by making mud and requiring the blind man to wash in the pool of Siloam (John 9:6–7).

Teaching through parables. Parables required students to process new information. Jesus' use of parables constitutes over 90 percent of his recorded teaching in the gospels. Ironically, the multitudes often went away without having heard the explanation of the stories (Matt 13:34–35) thus *constructing* their own meaning to Christ's teaching.

Testing preconceived notions. Jesus' conversation with Nicodemus (John 3:3) tested Nicodemus's ideas about doctrine and spiritual birth. Jesus' willingness to converse with the Samaritan woman at the well (John 4:27) tested the disciple's notions about cultural propriety and tested the woman's notions about the Messiah. Both of these lengthy conversations also showed that Jesus provided time for individual student processing and thinking.

Several other passages show that Jesus' style of teaching was far from the traditional style of lecturing but was actually an example of what today's educators might label constructivist methodology. Some of these examples include:

- Applying old and new ideas (Mark 11:17)
- Using relevant demonstrations (Mark 12:13–17; Luke 9:46–48)
- Questioning students (Mark 12:16; Luke 20:3; John 14:9–10)
- Using wait time and leaving some questions unanswered (Luke 8:10)
- Speaking with love and respect (Mark 10:21)
- Teaching through discipline and correction (Luke 7:40–47)
- Encouraging pupils to elaborate on what they had learned (Luke 8:39)
- Promoting critical thinking skills (Mark 12:28–34)
- Opening students' minds to understanding (Luke 24:45)
- Teaching through example (Luke 14:1–4; John 13:15)

CONCLUSION

As Christian educators, we should purpose to use all of Christ's instructional methods in our classrooms, and a great majority of those methods support constructivist methodology. In addition, we should examine all educational philosophies and methods—secular and Christian—in light of the Scriptures (Col 2:8; Acts 17:11). We should always be willing to try new ways to bring students to a greater understanding of God's truth and academic knowledge (1 Cor 9:22).

The pronouncement that one method of teaching is best seems dubious. In a constantly changing environment, a teacher must be eclectic, spontaneous, and highly adaptable. The insistence on a single strategy bears the hallmark of academic educators who are isolated in their own theoretical models. (Baines & Stanley, 2000, p. 4)

Christian educators should turn to Scripture to examine biblical principles of teaching and how Christ taught. From the Bible we see that the *best* methods include a variety of instructional approaches that are backed up by current research. For the Christian educator, Scripture supports the use of a constructivist methodology without supporting the philosophical premise upon which constructivism is based.

REFERENCES

- Augustine. (trans. 1982). *Saint Augustine: The literal meaning of Genesis* (J. H. Taylor, S. J., Trans.). New York: Newman.
- Augustine. (trans. 1958). *Saint Augustine: On Christian doctrine* (D. W. Robertson, Trans.). New York: Macmillan. (Original work published 427.)
- Baines, L. A., & Stanley, G. (2000). We want to see the teacher: Constructivism and the rage against expertise. *Phi Delta Kappan*, 82(4), 327-330.
- Bruner, J. (1973). *Going beyond the information given*. New York: Norton.
- Byrne, H. W. (1977). *A Christian approach to education: Educational theory and application*. Milford, MI: Mott Media.
- Chrenka, L. (2001). Misconstructing constructivism. *Phi Delta Kappan*, 82(9), 694-695.
- Education. (1980). In *Webster's 1828 dictionary*. San Francisco: Foundation for American Christian Education.
- Ellis, A. K. (2001). *Research on educational innovations*. Larchmont, NY: Eye on Education. (3rd ed.)
- Freire, P. (1964/1993). *Pedagogy of the oppressed*. New York: Continuum.
- Olsen, D. G. (1999). Constructivist principles of learning and teaching methods. *Education*, 120(2), 347-55.
- Perkins, D. (1999, November). The many faces of constructivism. *Educational Leadership*, 57, 6-11.
- Piaget, J. (1950). *The psychology of intelligence*. London: Routledge and Paul.
- Smerdon, B. A., Burkam, D. T., & Lee, V. E. (1999). Access to constructivist and didactic teaching: Who gets it? Where is it practiced? *Teachers College Record*, 101(1), 5-34.
- Van Brummelen, H. (1998). *Walking with God in the classroom: Christian approaches to learning and teaching*. Seattle, WA: Alta Vista College Press. (2nd ed.)
- Van Brummelen, H. (2002). *Steppingstones to curriculum: A biblical path*. Colorado Springs, CO: Association of Christian Schools International. (2nd ed.)
- von Glaserfeld, E. (1995). A constructivist approach to teaching. In L. Steffe & J. Gale (Eds.), *Constructivism in education* (pp. 3-16). Hillsdale, NJ: Erlbaum.
- Windschitl, M. (1999). The challenges of sustaining a constructivist classroom culture. *Phi Delta Kappan*, 80(10), 751-755.
- Zuck, R. B. (1998). *Spirit-filled teaching: The power of the Holy Spirit in your ministry*. Nashville, TN: Word Publishing.