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Send out your light and your truth! Let them guide me. Psalm 43:3

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The Greatest Constructivist Educator Ever: The Pedagogy of Jesus Christ in the Gospel of Matthew in the Context of the 5Es

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Jesus as a Constructivist Educator

The teaching methods utilized by Jesus Christ as recorded in the New Testament Gospel of Matthew demonstrated the use of a constructivist methodology as a pedagogical approach. Jesus continually challenged his disciples and followers through the use of experiences, parables, and questions in order to relate the context of His eternal message to their practical and daily lives. In this way, He centered His instruction on developing conceptually correct understandings that had to be discovered and personalized by the learner. For example, in the parable of the Sower (Matt. 13:3-9), Jesus described four types of environments where seed could be planted in order to grow into healthy crops. In only one of the four scenarios presented did the seed fall into fertile ground and provide a crop worthy of harvest. In the agrarian society of Israel, many would have had extensive previous knowledge and experience with growing crops from seeds and also would have understood the inherent need for rich soil that was well tended in which to plant and grow crops. For the learners, this parable metaphorically ties their previous learning and experiences to the truths of God, ultimately connecting to the need for personal salvation. As such, this process demonstrates a constructivist educator leading learners through a critical thinking exercise within a problem-solving context. It is the assertion of this article that the educational practices utilized by Jesus Christ embodied the foundations of constructivism. It is the purpose of this essay to demonstrate how Jesus implemented constructivist methodologies and sound pedagogical approaches in facilitating the learning process for His followers within the Gospel of Matthew.

Definition of Constructivism

Constructivism is a learning strategy that builds upon students' existing knowledge, beliefs, and skills (Brooks and Brooks, 1993). Within a constructivist approach, as students

encounter new information, they work to synthesize new understandings based on their current experiences and their prior learning. In other words, the constructivist approach to learning states that learners of all ages build new ideas on top of their personal conceptual understandings (Eisenkraft, 2003). In this process, students and teachers experience common activities, while applying and building on prior knowledge. Learners construct meaning while continually assessing their understandings of concepts.

Constructivism can be characterized as a five-phased process known as the 5Es, in which each phase begins with the letter E. The 5Es include the engagement phase, the exploration phase, the explanation phase, the elaboration phase and the evaluation phase (Bybee, 2006). Students and adults are enabled to construct a deeper and more comprehensive understanding through activities that match their cognitive capabilities: "The important point is that each (learner) has their own construction, their own understanding, rather than some common reality" (Duffy and Jonassen, 1992, p. 6). The key is to build on previous learning and to apply new learning in a meaningful context.

Attributes of a Constructivist Educator

In facilitating classroom learning, a constructivist teacher demonstrates a number of pedagogical attributes that characterize his or her individual teaching approach. The constructivist teacher sets up problems and monitors student exploration, guides student inquiry, and promotes critical thinking. Constructivist teachers ask students to explore concepts with their own data and to learn to direct their own explanations (Bybee, 2006). Ultimately, students begin to think of learning as an accumulated and evolving body of knowledge that relates directly to their own personal life and experiences.

In the constructivist classroom, the teacher utilizes questions in response to student ideas in order to uncover their fundamental understandings of topics. This instructional strategy forms the foundation for an inquiry-based classroom, one that is built on open-ended questions that reflect the learner's reality (Hofstein and Yager, 1982). This approach provides the instructor with a way to probe for deeper meanings, a fundamental goal in the teaching process. It is the student's inquisitive nature that needs to be activated and enhanced. Yet, without a process model with which to show and lead the learner, this may not be achieved. In this way, learning is not prescribed, but explored, and the learner has an active participation in the learning process. Meanings are assigned by students when they learn something, and in order to be effective, "any curriculum of a new education would have to be centered around question asking" (Postman and Weingartner, 1969, p. 81). Students are meaning makers, and classroom facilitators have to contribute to developing understanding in a conceptually correct manner for the learner. Currently, an instructor who facilitates through questioning impacts learning best within a structured discussion that raises basic issues, probes beneath surface meanings and pursues problematic areas of thought (Paul and Binker, 1990). This technique aids students in discovering their own thought structure and helps them develop clarity, accuracy, and relevance in their thinking. Learners search for evidence and reason, recognize and reflect upon assumptions, discover implications and consequences, and extrapolate from what is really known versus merely believed (Roth, 1989). The learning emphasizes the need to question the answers, not answer the questions. Teachers who effectively model questioning strategies in a constructivist framework show that students' ideas are respected and valued (Gould, 2000). The teacher is not only a communicator, but a model. "To communicate knowledge and to provide a model of competence, the teacher must be free to teach and to learn" (Bruner, 1960, p. 90).

The Engagement Phase

Constructivism usually begins with the engagement phase. An activity of engagement should help the learner to make connections between past and present learning experiences. The process of engagement should also help focus the students to become thoughtfully involved in the concept, process, or skill to be learned. In other words, the student should relate to the problem being posed and be invested in pursuing a solution.

Constructivism may be defined as an active process of learning in which learners construct new ideas or concepts based upon their current and past knowledge (Bruner, 1960). The learner encounters and processes information, formulates hypotheses, and makes decisions, relying on a cognitive structure to do so. Cognitive structure (*i.e.*, schema, mental models) provides meaning and organization to experiences and allows the individual to move past supplied information (Bruner, 1960). A successful pedagogical method, constructivism stimulates enthusiasm in students and helps them deepen their understanding through experience. It is the individual's experience that ultimately provides the meaning of learning opportunities (Brown, Collins and Duguid, 1989). In constructivist teaching, it is the engagement in activities that uniquely shapes each person's gain in content understanding (von Glasersfeld, 1989).

In the Sermon on the Mount, Jesus employed a number of engagement strategies that integrated the familiar settings and experiences of His audience into his teaching. For example, Jesus presented the truths of heaven in a way that allowed the listeners to see themselves in the fabric of His message. This became a key point for having them become engaged in the process of personal salvation. He stated, "You are the light of the world, a city set on a hill cannot be hidden nor do they light a lamp and put in under a basket, but on a lamp stand, so that it may give light to all who see it. Let your light so shine before men that they see your good works and

glorify your Father in heaven" (Matt. 5:18-22). The central idea that each person can experience spiritual salvation was built around topics that were familiar and real in the lives of the people in the audience. This engagement process helped the learners to see themselves in the teaching of Jesus, to become connected to His message and to the process to follow.

Fundamentally, constructivism centers on the idea that students learn by doing and that learning is the responsibility of the learner (Dewey, 1902). The constructivist approach allows students to have experiences in order that they may address misconceptions and develop proper conceptual connections (Rutherford and Algren, 1990). It is important that the curriculum be aligned with the learner and the learner's experiences, so that it can be seen as evolving and ever changing. In constructivist education, it is "the development of experience and into experience that is really wanted" (Dewey, 1902, p. 24). Constructivism builds on prior knowledge and gives students and instructors an opportunity to make sense of the world by engaging them in exploratory investigations (Yager, 1991). The engagement phase should activate the critical thinking processes by integrating authentic activities that involve real world topics (Duffy and Jonassen, 1992). In the Sermon on the Mount, Jesus presented his teachings in the environment of the people. In this setting, on the shores of the Sea of Galilee, the audience could see nearby cities which sat on the hillside in full view of everyone, which could not be hidden from their sight. The audience would also understand that a lamp gives light and that the light is useful to guide someone through the dark.

The Exploration Phase

The exploration phase provides students with a common base of experiences. The learners identify and develop concepts, processes, and skills based on an open-ended approach in which students actively explore their environment or manipulate materials. These approaches

rely on establishing real world connections, using materials and manipulatives for hands-on interactions and providing a common base of experiences from which to grow and learn. After Christ had engaged His early followers, He identified twelve who would become his Apostles. These men of Israel would walk with Him, learn from him and have opportunities to explore His teachings. In facilitating these interactions, Jesus would often pose problems in the form of parables to the Apostles that they would in turn explore in order to understand the truth within it.

In the classroom, constructivist curriculum must be designed so that it reflects real life situations (Bentley, 1995). For example, in the parable of the wheat and tares, Jesus described a situation in which a person sowing seeds in a field dispersed both seeds for wheat, which contained fruit, and tares, which were empty and without fruit (Matt. 13:3). The Apostles themselves would readily understand how vital it was to explore the fields of wheat in order to distinguish the differences between the wheat and tares in a physical sense. Wheat with fruit was vial as nourishment for life, while a tare without fruit was worthless and literally taking up space needed for fruitful crops.

Hofstein and Yager promoted using social issues as an organizer for the curriculum, and viewed this method of content organization as contextualizing the concepts taught in distinct and unique disciplines of study. Researchers cross over the barriers between disciplines all the time, and seldom operate solely on isolated areas of content, but integrate the use of language, knowledge and process application. Research based programs give students the ability to retain facts through critical thinking by working through problems logically and making connections to the real world. Jerome Bruner further emphasizes this point by writing, "Students should know what it feels like to be completely absorbed in a problem. They seldom experience this feeling in school" (Bruner, 1960. p.50). In using the parable of the Sower, Jesus went further to describe

four results that could happen from this farmer sowing seeds in his field, and states, “Some fell on rocky ground, where it had little soil. It sprang up at once because the soil was not deep, and when the sun rose it was scorched, and it withered for lack of roots. Some seed fell among thorns, and the thorns grew up and choked it. But some seed fell on rich soil, and produced fruit, a hundred or sixty or thirty fold. Whoever has ears ought to hear." (Matt. 13:5-9) In this teaching moment, Jesus highlighted the sowing of seeds in order to produce plants as an opportunity for His followers to explore and search for understanding. In the use of such parables, Jesus encouraged His students to seek answers to their own questions, a fundamental approach to guiding students in the exploration phase.

Students exploring a concept should be given opportunities to work with materials and manipulatives so that they can have experiences that are real and primary. Hands-on learning plays a valuable role in the constructivist paradigm, as it is the process of experiencing learning that is utilized in the exploration phase. So much fascinating content is at the fingertips of learners everywhere, and with the increase in affordability of technology, more and more is present in their homes. It is important to engage students in learning situations that effectively integrate their own experiences and familiar materials that they can use to understand specific concepts better. For example, students who enjoy skateboarding can be given opportunities to explore the concepts of velocity, acceleration, center of gravity, and centrifugal and centripetal forces. They may also use the skateboard and a local skatepark to investigate topics such as inclined planes, levers, fulcrums, and screws. The purpose of this approach is to allow the students to explore meaningful science topics set in the context of something they enjoy doing.

As students explore concepts, they develop a broader understanding of those concepts. When they relate what they are learning, seeing or doing to others, they can begin to see

similarities in their understandings with others, as well as to self-identify misconceptions they may have about content material. This is evident in the parables that Jesus uses in the Gospel of Matthew, in which he uses situations and materials that were familiar and readily available to his followers, such as mustard seeds and salt. Further, by framing his teaching in terms of parables and questions, Jesus facilitated discussion between his followers as they explored for meaning themselves. This sharing within cooperative groups is a fundamental strategy in constructivism as it allows the teacher to facilitate the learning process, and also helps to develop a common base of experiences on which to help make connections to content. Problem-solving strategies depend on conceptual understandings, and hands-on exploration of simple topics combined with collaborative interaction among students helps to build an understanding of processes and concepts (Apple, 1993).

The Explanation Phase

The explanation phase helps students uncover the content surrounding the concepts they have been exploring. Students should now have opportunities to verbalize their conceptual understanding, to encounter new content material or to demonstrate new skills. This phase also provides opportunities for teachers to introduce primary content materials such as formal terms, definitions, and other content information. The implementation of this phase provides the learner with opportunities to identify skills and behavior in order to both experience and discover content that may be useful in context. For example, the Apostles were inherently familiar with the law and scriptures of the Old Testament, and they were infused into the everyday life of the Jews living in Israel. The Jews combed these scriptures in order to understand the characteristics and circumstances that the Messiah, their new King of Israel, would bring to the Promised Land. Although the Apostles clearly knew this by tradition, they did not completely understand how

Jesus Christ embodied this Jewish prophecy. For today's classroom, once learners have opportunities to engage and explore a topic, which has the conceptual knowledge embedded within it, they can begin to have anchors of experience on which to fasten specific content knowledge. In constructivist terms, content delivery should focus on primary sources and materials in which content knowledge is applied and integrated. Sources can include textbooks, the Internet, mentors, film, lectures, or publications. Students should be directed to utilize the information they gather and encounter in ways that encourage them to analyze and synthesize. These behaviors, as well as interactions with the content, promote higher order thinking skills, including problem solving.

Meaning is a human construction interacting with a social situation; we are defining it for ourselves. Yet, one must beware of regarding the learner's point of view "as something finally significant in themselves" (Dewey, 1902, p.20). Each learner understands content and concepts differently based on their previous experiences. The students need opportunities to address their prior knowledge in order to address misconceptions and develop concepts correctly. In an effective classroom, learning requires more than connecting new material to old ways of thinking; rather, it requires students to arrive at new ways of understanding. "Students come to school with their own ideas, some correct and some not, about almost every topic they are likely to encounter" (Rutherford and Alhgren, 1990, p. 198). Jesus implemented a similar strategy in the Gospel of Matthew as He guided the Apostles through many learning situations in which He questioned and encouraged them to problem solve His parables. In time, Jesus delivered specific content information that not only revealed the meanings, but also revealed the truths of His coming to the Nation of Israel. For example, Jesus began by explaining His purpose for using parables, and how the parables were used to encourage learners to explore for deeper

connections (Matt. 13:10-17). Yet, Jesus went further with His Apostles to explain and relate the content of His parables to specific instances in the real world of the believer.

The explanation phase should also allow students to develop skills and behaviors that will help them to be successful in their learning. Students also need experiences that help them to develop new views and make better sense of their world. If learning is the responsibility of the learner, it is also critical that the teacher guide the learning process with content materials and classroom experiences. Communication from and between multiple peoples and perspectives is important and vital to learning. A person who successfully explains a body of knowledge to others may be said to have mastered this knowledge. In describing and explaining ideas to others, the learner synthesizes material in a way that requires higher-order thinking. For example, Jesus explained both the four types of hearers of the Word of the Kingdom (Matt. 13:18-23) and the parable of the wheat and tares (Matt. 13:36-43) to the Apostles, uncovering not only the symbolism of the parables, but the conceptual understandings of His teachings. As such, Jesus delivered conceptually correct content information to learners following a set of experiences that included multiple opportunities to seek their own answers. In constructivist terms, He explained content in context after His students had previously searched for meaning within it themselves.

The Elaboration Phase

The elaboration phase is designed to extend students' conceptual understanding in areas of skills and behaviors. In a constructivist framework, the educator provides opportunities in which learners can practice and refine their skills and behaviors in authentic contexts. Students are also given multiple opportunities in order to deepen and broaden their knowledge base and integrate that knowledge into their conceptual understandings and actions, both inside and outside of the classroom. This instructional strategy allows the student to spend time exploring

and explaining the process, with time for reflection and numerous experiences upon which to synthesize information. As He taught the Apostles, Jesus began to lead them to an understanding that their commitment to His kingdom would be an effortful and lifelong pursuit. Shifting from parables to explanations, Christ began to show the Apostles that they had to be prepared to give everything in order to receive the gifts of the kingdom to come (Matt. 13:44-51).

Through new experiences, the learners develop deeper and broader understanding of major concepts, obtain more information about areas of interest, and refine their skills. In classroom settings, constructivist educators in the elaboration phase introduce variables that students can explain in deeper ways. Issues can be looked from multiple perspectives and cultural viewpoints. The key is to build on previous learning and to apply new learning in a meaningful context. This deepening and broadening of their understanding of the Messiah and the consequences of a commitment to Him gave Jesus a platform to guide His Apostles in the elaboration phase of learning. The truths now became revealed with not only earthly impacts, but spiritual and heavenly impacts, including actions for being prepared, active, and compassionate (Matt. 25:1-46). Knowledge is as much about process as it is about content, and the two must be integrated effectively so that the learner sees the value of the content in a conceptually correct context (Hoehn, 1990). No real world issue is done compartmentally; the impact is felt throughout multidisciplinary domains. Ultimately, students today, like the Apostles before them, should be engaged and participating both in and outside of class, as this is crucial to learning and the construction of purposes and meanings. The teacher should actively promote and encourage positive group interactions and cooperative behaviors that foster the types of thinking interactions that enhance the learning process (Bossert, 1989). The learning should move from insight to action, from content to concept, from a static situation with a single focus to an ever-

changing myriad of opportunities, which requires intense problem-solving, cooperative learning and critical thinking.

The Evaluation Phase

The evaluation phase both requires learners to assess their own understanding and abilities and allows the teacher to evaluate students' understanding of key concepts and skill development. As such, students learn to assess their own abilities, identify areas of mastery that they now possess, and strengthen developing understandings and abilities. This provides opportunities for the teacher to evaluate students' performance of new knowledge integration through presentations or demonstrations. In the final days of Christ, when He knew that He was going to the cross to bear the sins of the world, He not only continued to instruct the Apostles, but also gave them opportunities to be evaluated. He explicitly made clear the criteria by which they would be evaluated in the present and the future. He was not giving a test or requiring them to build a project to turn in for a grade, but Jesus was assessing them based on their ability to analyze, synthesize and evaluate situations and to utilize the criteria He had shown them.

Evaluation has been defined as methods utilized to clarify and understand the level of knowledge that a learner has obtained. This broad definition implies that assessment methods can range from the simple to the complex, from a teacher's observations of students in class to an all-day standardized test. The level of knowledge implies that what a student knows constantly changes over time, and that we as instructors can make judgments about student achievement. Assessment decisions affect grades, instructional needs, advancement, placement, and the curriculum. As such, Jesus instructed the Apostles to not stay isolated in Jerusalem or even in Israel, but to venture throughout the world in order to seek converts to Christianity. In what is often called the Great Commission, the Apostles (and all followers of Christ) were commanded

to "go therefore and make disciples of all the nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit, teaching them to observe all things that I have commanded you; and lo, I am with you always, even to the end of the age" (Matt. 28:18-20).

Good assessment information provides accurate estimates of a learner's performance and enables instructors to make appropriate decisions concerning student learning. The results of a good test or assessment, in short, represent how a student performs on the objective which those items were intended to assess but tells little about how students perform on unique situations that the learner has never confronted previously. For example, while in Jerusalem, He found an upper room in the city where He and the Apostles could have the Passover celebration. Yet, during this traditional feast, He added the commandment of communion, in which believers would effectively and symbolically emulate the conditions of Christ's crucifixion in order to be reminded of His sacrifice. It was also seen (and continues to be seen) as an act of obedience for Christians, a method that the Apostles had to model and implement on their own (Matt. 26:26-29).

For the constructivist educator, these opportunities for evaluation also extend to the learner, who can assess his/her own abilities based on projects, discussions and interactions with others and feedback from the teacher. Students can peer-review the work of others, share their own work and get feedback from others and also self assess their work based on strengths and areas that need to be strengthened. The important point is that the learner looks to understand what her or she knows and defend that construction of knowledge so that it is accepted as conceptually correct by the teacher and experts in the field. The Apostles had to continually assess their own abilities, integrate feedback from colleagues and others in order to identify the areas that needed to be strengthened and refined within their knowledge base.

Conclusion

First and foremost, constructivism is a valid teaching strategy that employs five basic organizational elements that include engagement, exploration, explanation, elaboration, and evaluation. As a pedagogical strategy, it allows educators a process by which to facilitate learning opportunities for students. The main premise of this approach is that learners need to take responsibility for their learning and that they learn by being involved in active strategies that require them to problem solve and think critically. In order to guide learners to advancement in critical thinking concerning given concepts or topics, the educator facilitates the learning process, and the constructivist method with its 5Es becomes an organizational pathway for curriculum development and delivery. The tasks that learners perform need to be organized from the most fundamental to the most complex concepts, and to tie directly to real world circumstances. The connections learners make and the knowledge they gain should allow them to address misconceptions they may have, and through their experiences, to create new schemas for understanding that bring them to a deeper and broader knowledge that is both practical and functional in their everyday lives.

In terms of faith for the Christian believer, Jesus Christ modeled the foundation in terms of behaviors, actions and thoughts. Additionally, in terms of teaching practices and the effective use of pedagogical techniques, Jesus also forms the cornerstone for the implementation of the constructivist method. As Paul the Apostle wrote, the challenge put forth by Christ was for the believer to "put your mind on things above, not on things of the Earth." (Col 3:2, King James Revised). For educators, the Gospels themselves, and specifically the Gospel of Matthew in this article, deliver a story of a Savior, but also of a teacher whose methods and practices served as an effective example of how to teach in a constructivist fashion. The use of parables and open-

ended questions placed the responsibility for learning directly on the learners, and by employing experiences for learning by doing, Jesus helped the Apostles to encounter new knowledge, to address their misconceptions, and to integrate the new knowledge into their understanding and action. As an educator, Jesus was not only the primary example of a facilitative educator, but one who demonstrated an explicit model of constructivist teaching in practice.

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