

Pedagogical Model of Gulen and Modern Theories of Learning

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In this article we review the educational (pedagogical) model described by Mr. F. Gulen in a series of sermons on marriage and parental education, and make comparisons and contrasts with some of the prominent theories of learning. Gulen's references for his pedagogical model are drawn mostly from the Islamic prophetic tradition. However, Gulen's interpretation has its own unique focus points, preferences and combinations that distinguish it from historical interpretations of the prophetic tradition and hence deserves recognition as a novel interpretation. While the model is intended for parental education of ethics, values, and behavior, many elements are applicable to education of secular subjects as well. Our thesis is that certain aspects of Gulen's model can be viewed as a set of pedagogical principles that parallel those stemming from three modern learning theories based on cognitive psychology, namely Bandura's Social Learning Theory, Vygotsky's Social Cognitive Theory, and Paivio's Dual Coding Theory. We also point out to certain principles and practices that are yet to be investigated by the learning research community.

Introduction

According to one definition that has behavioral roots, learning is a cognitive process of acquiring knowledge or skills that leads to observable, measurable, and relatively long term (permanent) changes in behavior potential [Kimble1961]. According to most theorists, learning is a process that mediates behavior [Hergenhahn00]. The online encyclopedia Wikipedia defines learning as follows [Wiki06]:

Learning is the process of acquiring knowledge, skills, attitudes, or values, through study, experience, or teaching, that causes a change of behavior that is persistent, measurable, and specified or allows an individual to formulate a new mental construct or revise a prior mental construct (conceptual knowledge such as attitudes or values).

Theories of learning explore how the process of learning takes place. Major categories of learning theories include behavioral or functionalistic, cognitive or meta-cognitive, constructivist, neurophysiologic, and social. This categorization is not an exclusive partition and learning theories often overlap. Many theories continue to evolve as well [McCormick96, Schunk99, Hergenhahn00].

Some of the prominent theories of learning include Genetic Epistemology by Piaget, also known as the developmental theory or the operational cognitive structures theory (Piaget), Constructivist Theory (Bruner/Piaget), Operant Conditioning or behaviorism (Skinner), Social Development Theory (Vygotsky), Conditions of Learning (Gagne), Cognitive/metacognitive or brain-based or neuroscience theories such as Connectionism Theory (Thorndike), Right-brain/Left-brain thinking, Dual Coding Theory (Paivio), Learning styles, Multiple Intelligences (Gardner), Communities of practice or social or situated learning theories (Vygotsky, Bandura, Lave), and Information Processing Theory (Miller) [McCormick96, Schunk99, Hergenhahn00].

While theories of learning explore how the process of learning takes place, theories of instruction, or pedagogy, on the other hand, explore methods to facilitate the learning process. Often, a theory of learning is associated with one or more pedagogical models that stem from the basic arguments of the theory. In this article, we will first outline some of the basic tenets of Gulen's pedagogical (educational) model and then compare and contrast this model with the pedagogical principles stemming from three theories of learning.

Gulen's Educational Model

Before we start the discussion of Gulen's educational model, it is helpful to clarify what we mean, and do not mean, by this term. We are referring specifically to the body of arguments, principles and practices that are promoted by Gulen in his sermons, articles and books about education of young children, mainly by parents but also in part by teachers [Gulen02]. The purpose of this education is to instill values, attitudes and behavior in children, and prepare them for challenges and opportunities of life. We do not consider the educational practices implemented in secular private schools established worldwide by entrepreneurs and educators who are inspired by Gulen's emphasis on the value of education.

In this context, Gulen's educational model specifies five top responsibilities for parents when it comes to child upbringing: (1) Meeting of physical needs; (2) Age-appropriate discipline or etiquette; (3) Moral education; faith and worship education; (4) Justice among siblings; (5) Protection from evil and the harm that may come from ill-intentioned people [Gulen02].

Gulen starts his discussion of child upbringing not after birth, but before marriage. He emphasizes the institution of marriage as a preparation of the learning environment for the child.

Establishment of Marriage on a Sound Foundation

Gulen sets forth upbringing of a desirable generation as a lofty goal for the establishment of the marriage. Consequently, he recommends choosing of a spouse by considering long term educational goals. He emphasizes the mother as the first and foremost teacher for the child and the father as the second most important teacher. He therefore recommends that the candidate spouses consider the educational outlook and qualities of their prospective partner as an important factor in deciding to get married.

Parent Education on Child Upbringing

Gulen suggests that just as adults are required to go through a training course to obtain a vehicle driving license, they should go through a course for child education before they can get married. As child upbringing is no less important than the safety of people on the roads, proper education for such an important duty should not be at the mercy of young, inexperienced couples.

Parents as Role Models

Gulen emphasizes that whether they desire or not, parents are primary role models for their children. Therefore, their actions, words, treatment of each other and their relationships with the people outside set examples for their children. Parents should always try to retain a noble status in the eyes of their children so that their instructions and suggestions will carry weight with them.

The parents should behave according to the type of person they would like to see when their children grow up. If they want their child's worldview to be based on trust, love, compassion and generosity, they should exemplify these traits in their lives. The alternative is likely to lead to a person whose worldview is based on mistrust, lack of love and compassion, and stinginess.

Mother's Role as First and Foremost Teacher

Gulen emphasizes the role of the mother as the first and the foremost teacher of the child. He echoes the view of Nursi, who suggests that what a child learns from their mother forms the essential attributes of their character. All other learning through the consequent years is built upon this foundation.

Dedicating a Part of Life to Child Education

As a consequence of the points above, Gulen suggests that parents consider child education as a crucial duty in their lives and just as parents dedicate time on a regular basis for other activities, they dedicate regular periods for the education of their children.

Consideration and Preparation of the Environment

Gulen suggests that parents should be concerned about every aspect of a child's life and should plan and intervene in the selection or preparation of this environment. As a child continues to learn outside of home and classroom, the parents should analyze where the child spends time and make sure that possible sources of impressions on the child's mind are consistent with the parents' educational philosophy. He gives the example of a hair styler in this context. He suggests that a parent should know the philosophy and the life style of the hair styler where they take their children.

Teaching of Virtues by Means of True Illustrative Stories

Gulen recommends that instead of talking about virtues and how they are desirable in the sight of people or God, such virtues should be illustrated for the eye of the child's mind by means of stories of past pious people. He recounts how his parents inculcated virtues such as truthfulness, generosity, sincerity and compassion in him by means of the stories of the companions of the Prophet (upon whom be peace and blessings).

Emphasis on Sincerity

Gulen suggests that the parents, and for that matter, any person who is in a position to be an example for a child should act sincerely, out of sincere intentions. There should be no discrepancy between a person's intentions/thoughts and the observed behavior. In this context, Gulen suggests that rather than the words uttered by the parents, the child's observation of their behavior is more influential. For instance, a child who observes his/her parents in tears because of their sorrow for the sufferings of humanity will be more sensitive to this issue compared to a child who listens to the words of their parents. In this context he recounts the example of the leader of a major school of jurisprudence. A child is brought by his parents to this scholar to be advised on the harm that could come from excessive consumption of honey. The scholar asks the parents to return to their homes and bring the child back in 40 days. While puzzled, the parents oblige and return in 40 days. This time, the scholar clearly explains the risk of excessive consumption of honey to the child and chides him. Afterwards the parents pleasantly report that the child stops his habit. When asked about the 40 days period, the

scholar answers as follows: "The day you brought in your child, I had eaten honey myself. With the honey in my body, my words would have no effect on him. I wanted to wait until not trace of honey would remain in me and my words would be sincere."

Truthfulness and Trustworthiness (Credibility)

As the child learns his primary lessons from their parents, it is of jugular importance that the parents maintain credibility with their children through truthfulness and trustworthiness. This is crucial in inculcating a sense of trust in the child. They should take the child seriously and to the degree possible treat them as adults while recognizing their limitations in fulfilling responsibilities.

Gulen points out to the observation that while children may not immediately react in a case of un integrity, they are likely to retain this episode and reveal it later, at an emotionally loaded situation.

Age Appropriateness

Gulen suggests that the material to be taught and the teaching style should be age-appropriate. Some subjects should be taught only at a certain age and some subjects should be taught at increasing levels of sophistication as the child grows up.

Proportionality of Praise or Rewards

Gulen suggests that positive or negative reinforcement be proportional to the importance of the action. Parents should view the trust and love between themselves and the child as an important asset and help the child become aware of this view. Consequently, significant acts such as a violation of the trust should be dealt with proportionally, while insignificant acts should not merit immediate and severe consequences. This strategy, in the long run, will help establish the proper priorities in the child's mind.

Learning Theories and Gulen's Educational Model

We will examine the educational model proposed by Gulen in relation to pedagogies stemming from three theories of learning: Bandura's social learning theory, Vygotsky's social learning theory and Paivio's dual-coding theory.

Bandura's Social Learning Theory and Gulen's Educational Model

Observational or social learning theory concerns the type of learning when an observer's behavior changes through the observation of the behavior of a model. "An observer's behavior can be affected

by the positive or negative consequences--called vicarious reinforcement or vicarious punishment-- of a model's behavior" [Bandura63, Bandura71, Bandura86, Clark91, Bandura93]. In this theory, several factors affect whether and how the observed behavior is learned by the observer and expressed as behavior. Learning by observation involves four separate processes: *attention, retention, production and motivation*.

Attention is crucial to observers' learning. Attention is influenced by such factors as the learner's like or dislike of the model, learner's expectations and the level of emotional arousal. Retention is also required for persistent learning to take place. *Retention* is facilitated and enhanced by the learner's ability to encode the information in an easily memorable form or a mental model. *Production* refers to the observers' physical or intellectual capability of producing the desired behavior. Reproduction of the model's actions may sometimes require skills that the observer has not yet acquired.

Finally, observers perform the desired behavior only if they have some *motivation* or reason to do so. Various factors determine motivation. The presence of reinforcement or punishment, either to the model or directly to the observer, is an important factor. An important component of motivation in Bandura's theory is an *self-efficacy*, defined as "individuals' confidence in their ability to control their thoughts, feelings, and actions, and therefore influence an outcome" [Bandura94]. Perceptions of self-efficacy is associated with the learners's actual performances [Locke84, Schunk81] including academic performance [Multon91], and achievement [Ames84, Nicholls84], emotions [Bandura77], and effort and perseverance [Brown78].

Bandura cites four principal sources from which a learner acquires information to evaluate their self-efficacy: (1) Actual experiences, (2) Vicarious, or observational, experiences, (3) Verbal persuasion, and (4) Physiological indexes. While the first source, an individual's own experience is the most reliable source of assessment; it is also the most time consuming one and is not always feasible. Observation of peers or adults performing similar tasks also conveys a sense of self-efficacy. However, this influence does not happen automatically. Information gained from peers and adults are cognitively processed before a judgment is made on self-efficacy. An important factor in the influence of observational learning is the credibility of the persuader [Schunk89]. The more credible the observed individual is, the more impact their actions have on the observer. The observations about self-efficacy and the role of credibility are in line with Gulen's emphasis on role models and their credibility.

In value and attitude education, Gulen strongly recommends true stories of virtuous people over abstract verbal persuasion [Gulen02]. In such stories, the virtuous typically are rewarded by their conscience, by the society or by God. In Bandura's social learning theory, the adoption of a behavior or attitude is affected by the consequence of model's action. If an action of the model results in a positive

consequence for the model, then the learner is more likely to adopt the model's behavior. The preference of true stories also serves as a tool for invoking mental imagery by verbal stimuli, which we will discuss below.

Vygotsky's Social Cognition Theory and Gulen's Educational Model

Vygotsky is one of the leading contributors to the science of learning with his theory of social cognition [Vygotsky62, Vygotsky78]. His theory places a great importance on the culture in which a child develops. Every human child develops in the context of a culture and according to the social cognition theory, culture is the prime determinant of individual development. A child's learning development is affected in two main ways by the culture, including the culture of family environment: First, the content of child's thinking and second, the process or means of thinking, called tools of intellectual development.

Every function in the child's cultural development appearstwice: first, on the social level, and later, on the individual level; first,between people (interpsychological) and then inside the child(intrapsychological). This applies equally to voluntary attention, to logicalmemory, and to the formation of concepts. All the higher functions orig inateas actual relationships between individuals [Vygotsky78, p57].

Vygotsky's emphasis on culture, including the family environment, parallels Gulen's emphasis on parental responsibility to control the child's experiences within their culture. According to Gulen, the child learns within every context of culture. In order for the messages that the child is getting to be consistent, the parents need to be concerned about the whole environment, and not only the home and the school. The theory of social cognition asserts that interactions with surrounding culture and social agents, such as parents and more competent peers, contribute significantly to a child's intellectual development.

An important component in Vygotsky's theory is the notion of "zone of proximal development". This term refers to the potential level of development a learner is capable of learning with the help of a peer or guide, as opposed to the learner's actual level of development at a particular time. The child can learn much more effectively and efficiently when the learning activity is designed to be just beyond the child's current level of development. The adult overseeing the child's education can *scaffold* their learning by continuously adjusting the difficulty level of learning process. The concept of proximal zone of development and continuous adjustment is similar to Gulen's principle of education suitable for the level of development. Gulen mentions the responsibility of parents and teachers is assessing this level of development and not missing signs regarding this level.

Paivio's Dual Coding Theory and Gulen's Educational Model

Gulen advocates the use of stories of virtuous, actual people from the past for instilling virtues in children, as opposed to an abstract discussion of these topics. The use of true stories invoke the imagination and the visual memory of the child.

According to the dual coding theory of Paivio, human cognition has specialized circuitry and processing mechanisms for dealing with language and non-verbal objects, such as images [Clark91, Paivio71, Paivio86].

Human cognition is unique in that it has become specialized for dealing simultaneously with language and with nonverbal objects and events. Moreover, the language system is peculiar in that it deals directly with linguistic input and output (in the form of speech or writing) while at the same time serving a symbolic function with respect to nonverbal objects, events, and behaviors. Any representational theory must accommodate this dual functionality." [Paivio86, p53].

Dual Coding theory has been applied to learning situations such as problem solving, concept learning and language learning. According to this theory, there are two cognitive subsystems, one specialized for the representation and processing of language (verbal) information and one specializing on non-verbal information such as images. Dual Coding Theory identifies three types of cognitive processing: (1) Representation, in which verbal or non-verbal descriptions are directly activated. (2) Referential, in which the verbal system is activated by the non-verbal system and vice versa. (3) Associative, in which verbal or non-verbal system is activated by itself. Any task may involve one or more of these types of processing.

A pedagogical principle emerging from the Dual Coding theory is to represent information in both verbal and non-verbal forms, such as actual or mental images. Gulen's recommendation to instill virtues by the true stories of virtuous people can be seen as a form of stimulated imagery through auditory stimuli. The stimulated imagery helps a learner construct mental images and subconsciously encode the concepts in both verbal and non-verbal memory. This form of stimulated imagery may be helping the child learn in other ways in addition to the use of visual memory, such as increased believability and attachment to the model [Broudy87, Kaufman96].

Analysis of Sources

According to a biography by Unal [Unal00, Unal01], Gulen never received formal education in theories of learning. There is no evidence that he educated himself on these theories either. In his sermons he frequently mentions the names of Western philosophers and scientists such as Kant, Pascal, Comte, James Jean etc. yet there is no mention of any theoreticians of learning. We do, however, know that Gulen has an in-depth knowledge of the Islamic prophetic tradition. The fact that he dedicates a chapter of his book on the life of Prophet Muhammad(*) to the educational aspects of his life is evidence of this view [Gulen96]. It follows, therefore, that Gulen's educational model is not a product of an education in modern theories of learning. Instead, it is his interpretation, in part traditional and in part novel, and compilation of the prophetic tradition. In this light, it is interesting to note that many principles and practices in Gulen's educational model are indeed supported by modern theories of learning and their associated pedagogical models.

Conclusion

In this article we have presented some salient aspects of Gulen's educational model as it relates in part to parental and in part school education of values, attitudes and behavior in children. We have shown that important aspects of this model parallels pedagogical models associated with modern theories of learning, in particular Bandura's social learning theory, Vygotsky's social cognition theory and Paivio's dual encoding theory. This overlap is interesting in the light of the fact that Gulen is not known as self-educated or having been educated in modern theories of learning. It remains an interesting research question, therefore, to investigate other aspects of this educational model and determine if positive educational outcomes can be expected in the area of value, ethics and behavioral education in a religiously diverse society.

(*) Upon whom be peace and blessings.

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