

# APPLICATION OF CONSTRUCTIVISM AND HUMANISM THEORY IN A 21<sup>ST</sup> CENTURY CLASSROOM

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## ABSTRACT

My philosophy on teaching practice is deeply embedded in constructivism, both cognitive and social, and humanism theories. My key aim is to teach through encouraging and motivating student engagement not only with lesson material but with their peers to develop a deeper understanding of a topic. Teaching and educating 21<sup>st</sup> century students can be a challenge however by adopting the role of facilitator I allow my students to develop independent learning, critical thinking skills and knowledge through participation. They become personally responsible for their own learning and goal setting, and are able to problem solve. My role as facilitator is to provide expertise and advice when required, and engage students with their current knowledge and introduce creative activities that transform and elevate their understanding of the topics they study. Examples of strategies employed are: self-directed reading and interaction with additional research articles; quizzes and video clips on GMIT VLE Moodle; peer interaction in practical sessions, fieldtrips, outdoor classrooms, peer discussion groups, group presentations, problem-based learning sessions, and flipped classroom sessions; and personal assignments. In addition, my student-centered approach allows for greater emotional and academic support for all students. In this modern day classroom, students, peers and teachers respect one another's viewpoints; students are highly motivated with positive attitudes towards their learning, teacher and surroundings; and are in a fun and safe environment. Cognitive and social constructivism, along with humanism theories have formed my teaching attitudes, values and beliefs and are central to my day-to-day interactions in the classroom.

**KEYWORDS:** Pedagogy, cognitive constructivism, social constructivism, teaching philosophy

## INTRODUCTION

Throughout my teaching, I employ both constructivist and humanist approaches to teach, encourage and motivate student engagement with lesson material, and their peers to develop a deeper understanding of a topic. This philosophy of education statement aims to detail the key theories which have formed my teaching attitudes, values and beliefs.

The research paper proceeds by introducing relevant literature on cognitive constructivist, social constructivist and humanist theory, and concludes with a summary of my philosophy of teaching.

## **LITERATURE ANALYSIS**

### **Constructivism Theory**

#### *Cognitive constructivism*

Cognitive development refers to changes in thinking whereby thoughts gradually and orderly change over time to become more challenging and complex (Woolfolk, 2008, p. 36). Cognitive approaches to teaching involve constructivism with cognitive constructivism developed by Piaget and social constructivism by Vygotsky. The origin of constructivism is Piagetian theory where thoughts are learned when a person physically interacts with their environment and/or observes peer behaviours within that environment (Piaget, 1971 in Bentham, 2002, p. 3). This is subsequently moulded with previous knowledge and/or experience of that environment as the person develops from childhood to adulthood, forming a deeper level of cognitive understanding and learned behaviour. Therefore, cognitive constructivism is defined as knowledge and skills learned by students over time where they incorporate new ideas into existing knowledge and understanding formed from self, and shared, participatory interactions with their peers during active learning (Kain 2002, p. 104; Piaget, 1952 in Mascolo, 2009, p. 3; Piaget, 1979 in Connell, Donovan, & Chambers 2016, p. 3). In support, Mascolo (2009, p. 4) summarising Piagetian theory highlighted that constructivism “involves the transformation of existing knowledge into increasingly higher-order forms” of thinking where “new knowledge develops out of existing knowledge”. Piaget believed there was a linear sequence of cognitive development through four stages: sensori-motor stage, pre-operational stage, concrete operational stage, and formal operational stage where everyone goes through the same phases of development, with each stage requiring more complex thinking than the last (Bentham, 2002, p. 5-8). However, Piagetian theory is not without its critic, recent authors suggest Piaget underestimated young children’s perception of the world and overestimated the ability of adolescences to think

mentally (Gelman 2000; Gelman & Cordes, 2001); his research did not clearly indicate at what age progression to the next developmental stage occurred (Miller, 2002), Keating (1980) highlighted that not everyone had the ability to think logically and where they do the pattern of thought varies to those suggested by Piaget (formal operational stage); and finally Piaget did not consider cultural factors in his cognitive constructivist development (Woolfolk, 2008, p. 50). Furthermore, while Piaget did not highlight the role of the teacher in his theories, his theories did place importance on fostering interaction between the student and their teachers and peers. This allows the student to reflect on their thinking ability, to be challenged, obtain feedback and observe how their peers solve similar problems (Woolfolk, 2008, p. 47).

### *Social constructivism*

Social constructivism, developed by Vygotsky, suggests that qualified, experienced teachers should communicate knowledge to those less experienced (instructed learning) leading to higher mental functions such as problem solving (Bentham, 2002, p. 10). Through this theory, gaps between individual student potential and what they can achieve with experienced help (zone of proximal development (ZPD)) are reduced resulting in students achieving and understanding more than if they were working on their own (Bentham, 2002, p.10). Vygotsky placed importance on the skilled teacher in facilitating and directing the learning of students and in providing supports (scaffolding), through language, to aid students with their learning. Scaffolding, coined by Bruner (Wood, Bruner, & Ross, 1976 in Woolfolk, 2008, p.61), offers support in problem-solving and learning via clues, reminders, encouragement, providing examples, and breaking the problem down into steps (Woolfolk, 2008, p.61). Thus, both parties (skilled teacher and unskilled student) play a role in bridging the knowledge gap (intersubjectivity) for the student through reading and discussing the topic. However, support and advice needs to target the student's ZPD to be effective (Bentham, 2002, p. 11) and should only be provided when the student is struggling (cognitive development) (Bentham, 2002, p. 11; Woolfolk, 2008, p. 62). Critics of Vygotsky's theory suggest he may have put too much emphasis on social and cultural interaction particularly around a child's basic understanding, which is natural, and he did not consider the cognitive processes allowing students to interact in advanced and independent social activities (Woolfolk,

2008, p. 56-57). Theories by Piaget and Vygotsky agree that students should be taught in the “magic middle” (Berger, 2006 in Woolfolk, 2008, p. 62), a zone where they are developmentally, cognitively and culturally ready for the concepts of the learning outcomes but where they are pushed outside their comfort zones to understand the topic with supports from peers and teachers, where needed (Woolfolk, 2008, p.62). Therefore, the student grows in competency and more independent work can be achieved.

### *Application of cognitive and social constructivism in a modern day classroom*

Application of cognitive and social constructivism approaches throughout my teaching include self-directed reading of lecture notes, self-directed interaction with additional research articles, quizzes and video clips on GMIT VLE Moodle, peer interaction in practical sessions, fieldtrips, outdoor classrooms, peer discussion groups, group presentations, problem-based learning sessions, flipped classroom sessions, and personal assignments. These activities allow for active, self-discovery (discovery learning) and internalisation of information (Bentham, 2002, p. 14). However, for these constructivist approaches to be successfully implemented, I additionally inspire a high level of self-motivation and encouragement in students using humanist approaches. This third approach is particularly important for students struggling to settle into college life and make friends, and those who have mental health issues and learning difficulties.

### **Humanist Theory**

Humanist approaches emphasis the student’s personal freedom, choices, self-determination and personal goals (Woolfolk, 2008, p.407). Rogers, a founding father of humanistic theory, states that humanist approach involves providing a safe learning environment through teacher empathy, warmth and acceptance of viewpoints and incorporates student-centred learning techniques that value the student’s contribution to peer discussions (LeFrancois, 1997). The student is in control of their own new learning while the teacher acts as facilitator (Bentham, 2002, p. 29-30). Through cooperative learning, students develop four key skills: positive interdependence, individual accountability, interpersonal and small group

skill development, and face-to-face interactions (Johnson, Johnson, Holubec, & Roy, 1984). This learning approach is advantageous in allowing students to acquire academic, personal and life skills (Snow & Swanson, 1992; Johnson & Johnson, 1994). In support, Maslow (1968, 1970 in Woolfolk, 2008, p. 407) proposed a “hierarchy of needs” containing seven levels with the lower levels dealing with basic personal survival, safety, belonging, and self-esteem (deficiency needs) extending up towards intellectual achievement, aesthetic appreciation, and finally self-actualisation (being needs) where a person’s potential is fulfilled. A key criticism of Maslow’s theory however it that not everyone behaves in such an ordered way and that in many cases multiple needs may motivate the person to succeed (Woolfolk, 2008, p. 407). Motivating students using Rogers and Maslow’s theories increases their competency, self-esteem, and autonomy (Woolfolk, 2008, p. 407) and allows the balance to shift from extrinsic (gaining as many marks as possible from an assignment) to intrinsic (developing an interest to learn about the topic for personal goals) motivation (Woolfolk, 2008, p. 410).

## **CONCLUSION AND TEACHING PHILOSOPHY**

In conclusion, my philosophy on teaching practice is to teach and educate the next generation of students through facilitating their learning needs where students develop independent learning, critical thinking skills and knowledge through participation (cognitive & social constructivism & humanism), are personally responsible for their own learning and goal setting (cognitive constructivism & humanism), are able to problem solve (cognitive & social constructivism), students, peers and teachers respect one another’s viewpoints (social constructivism & humanism), are highly motivated with positive attitudes towards their learning, teacher and surroundings (humanism), and are in a fun and safe environment (humanism). My role as facilitator is to provide expertise and advice when required (constructivism), and engage students with their current knowledge and introduce creative activities that transform and elevate their understanding of the topics they study (constructivism & humanism). In addition, my student-centered approach (humanism) allows for greater emotional and academic support for all students.

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