

Exploring Goal Orientation as a Determiner of Critical Thinking Disposition

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Abstract

Life is about making choices – personal, professional, political, religious and many more. Our choices determine who we become in our adult lives and how successful we can call our lives. While it may seem to be a simple exercise, the actual cognitive processes involved in making a choice are complex. It starts with the basic process of thinking. Many terms are associated with the concept of thinking; but when it comes to decision making, what matters the most is critical thinking. Critical thinking, in its simplest form, is about digging deeper and questioning what is offered on the surface. One of the most prominent goals of any education is to teach learners to think critically. Critical thinking is accepted to have two dimensions – skill as well as disposition. This paper explores the disposition dimension of critical thinking and attempts to identify Goal Orientation - in terms of Academic Goal Orientation and Social Goal Orientation as one of the determiners of Critical Thinking Disposition. It includes the findings of a study to establish relationships between the said variables.

This study, which was a descriptive correlational one, was conducted on 636 junior college (Class XI) students of Greater Mumbai. The findings of the study indicated a moderate positive relationship (0.40) between Critical Thinking Disposition and Academic Goal Orientation.

Introduction

Life is about making choices – personal, professional, political, civic, religious and many more. The difference between a successful and not so successful individual is of the 'choices' s/he makes in life. While it may seem to be a simple exercise, the actual cognitive processes involved in making a choice are many. It starts with the basic process of thinking. Simplest of choices assume great relevance if the context is a life altering decision. Children, with limited maturity and

experience but unlimited exposure, often becomes soft targets for many with selfish interests. As adolescents, they often find themselves standing at crossroads not knowing which road to take. They are unsure of the larger purpose of their lives, yet are required to make certain critical choices. One of the most prominent goals of any education is to teach children to think critically. Dewey stated that thinking is not a single unalterable faculty. According to him, every subject – from Greek to cooking and from drawing to Mathematics is intellectual in its power to start and direct significant inquiry and reflection, that is – thinking. Many terms are associated with the word thinking – inductive, deductive, lateral, creative, convergent, divergent and critical. But when it comes to decision making, what really matters is critical thinking.

Critical Thinking Skill and Disposition

Critical thinking is about digging deeper and questioning what is offered on the surface. It is a way of deciding whether a claim is [always true](#), sometimes true, partly true, or false. It is an important component of most [professions](#). It is a part of formal education worldwide and is increasingly gaining significance for students as they progress from schooling to [graduate education](#). Critical thinking is important in academics due to its significance in the learning process of [internalization](#), in the construction of basic ideas, principles, and theories inherent in content. It is also significant in the learning process of application, whereby those ideas, principles, and theories are implemented effectively as they become relevant in learners' lives. Good teachers cultivate critical thinking (intellectually engaged thinking) at every stage of learning, including initial learning. The teacher questions the students, often in a Socratic manner. The key is that the teacher who fosters critical thinking fosters reflectiveness in students by asking questions that stimulate thinking essential to the construction of knowledge. This way, they develop healthy attitudes and dispositions towards learning as a whole. The evaluations too are designed in a way to enforce critical thinking.

Generally speaking, there are two dimensions to critical thinking. In a statement by Michael Scriven and Richard Paul presented at the 8th Annual International Conference on Critical Thinking and Education Reform (1987); critical thinking can be seen as having two components:

1. A set of information and belief generating and processing skills, and
2. The habits, based on intellectual commitment of using those skills to guide behaviour.

Thus, in addition to possessing strong critical-thinking skills, one must also be disposed to engage with problems and decisions using those skills. The habits of mind that characterize a person strongly disposed toward critical thinking include a desire to follow reason and evidence wherever they may lead, a systematic approach to problem solving, inquisitiveness, evenhandedness, and confidence in reasoning. The dispositional element in critical thinking is perhaps just as, if not more, significant as the skill itself because one may have the skill, may know how to think critically, but may not possess the disposition to use the skill when the situation so demands.

Goal Orientation

One of the most widely supported theories from the field of organizational behaviour is the goal orientation theory, which has its origins in educational psychology. Goal orientation refers to the goals individuals implicitly pursue while attaining performance outcomes. Theorists over the past few decades have proposed a two, three and most recently four-factor model of goal orientation. Goal setting theory (Locke and Latham 1990) highlights the importance of goals by suggesting that they affect learning behavior in several ways: (1) directing attention to a task, (2) mobilizing on-task effort, (3) developing task strategies, (4) encouraging task persistence, and (5) setting levels of task proficiency. Recent research and theory has suggested that a range of achievement goals may also affect students' engagement in, and outcomes from learning. A new thought which is also emerging is that students can and do hold multiple goals in school settings. These could be related to academics or social behavior. A large body of research on achievement motivation has focused on identifying how different types of goal orientations influence various self-regulatory processes like dispositions.

Critical thinking— not only skill but also disposition is an important objective in education. Teaching of a skill is a comparatively straightforward process. But teaching dispositions (to use the skill) which is a self-regulatory process, is not so easy. It requires a deeper understanding of those processes that can make an impact on the said dispositions. The question that arises is – can critical thinking dispositions (CTD) and goal orientation (GO) be correlated to each other? Can one of the indicators of high or low CTD be GO (more specifically academic goals and social goals)?

To answer these questions, the authors of this paper conducted a descriptive correlational study on junior college (Grade XI) students of Greater Mumbai with the objective to ascertain if there exists a relationship between these two variables – CTD and GO. The sample consisted of 636 students and the following standardized tools were used to collect data:

- i) California Measure for Mental Motivation (CM3) (Giancarlo & Facione, 2000) with Cronbach's Alpha of 0.83, 0.73, 0.74 and 0.53 for its four sub-variables - learning orientation, creative problem solving, mental focus and cognitive integrity respectively.
- ii) Goal Orientation and Learning Strategies Survey (GOALS-S) (Dowson & McInerney) with Cronbach's Alpha for Goal Orientation ranging from 0.72 – 0.87.

The Findings:

Pearson's Coefficient of Correlation was used to arrive at 'r'. The following table 1 gives the calculated value of 'r':

Table 1
Pearson's Coefficient of Correlation between Critical Thinking Dispositions (CTD) And Goal Orientation (GO) for Total Sample

Variables	N	df	Calculated 'r'	Level of Significance
CTD with GO	636	634	0.02	NS
CTD with Academic Goal Orientation (AGO)			0.40	0.01
CTD with Social Goal Orientation (SGO)			-0.02	NS

The obtained values of 'r' (+0.02 and -0.02) for GO and Social Goals respectively were not significant. But the value of 'r' with respect to the relationship between CTD and AGO (+0.40) was significant at 0.01 level which signifies a moderate relationship. This implies that students who are high on academic goal orientation have a high disposition towards critical thinking and vice versa.

The Significance

These findings lead us to one of the determiners of CTD which could be AGO. AGO involves the following -

- i) Mastery, i.e., a desire to show academic competence, understanding or improved performance (relative to self-established standards);
- ii) Performance, i.e., a desire to outperform others academically or obtain tangible rewards accompanying academic performance; and
- iii) No Work Avoidance, i.e., not shying away from academic effort.

Critical thinking necessarily includes the habits to guide behavior, which are based on intellectual commitment of using the critical thinking skills (Michael Scriven and Richard Paul, 1987). The moderate relationship between CTD and AGO signify that the three components of AGO – mastery, performance and no work avoidance contribute to the habits stated above. So if students can be encouraged to constantly work towards enhancing their own standards of performance (as against competing with the achievers) and not shying away from academic effort (by making it interesting, sensitive to their abilities and not overly challenging), we can move a step closer to developing their CTD.

The Conclusion

School is a miniature society and students' attitudes and dispositions are shaped in schools, alongside home. These attitudes and dispositions go a long way in determining the individuals they will become in their adult lives. While intelligence may be fixed, studies have shown that thinking and dispositions can be changed. Further, we are all lifelong learners, we have to constantly keep learning and adding value to our lives. As a learner stands on the threshold of entering the adult competitive world, what he need from education is KSD (knowledge, skills and disposition) to be able to find his/her equilibrium.

Today Indian education is looking for progressive ideas to move to the next higher level by developing the required dispositions among learners, which can have a strong bearing on the kind of individuals they will be in their adult lives, where they will be required to use critical thinking in all areas of their life for making the smallest of choices be it personal, professional, social, civic or any other. Interestingly, the authors of this paper could not find any study in India in their literature review on CTD. Maybe it is about time we expanded our horizons and also looked at ways of developing CTD in addition to the skill.

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