

Educational Attitudes of college students as related to their Personality Orientation in respect of Fixed and Growth Mindset Valences

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Abstract:

This investigation is intended to find relationship between educational attitudes (progressivism and traditionalism) and personality orientations (self-directed, social and activity-directed) and mindset (fixed vs. growth). The relation finding was aimed to find any utility of such relation in designing learning and teaching for better learning outcome. Investigator divided the participants in to traditionalists and progressivists groups on the basis of score obtained on educational attitude measure. Data obtained on mindset measure is used to further classify (creating two levels) of traditionalists and progressivists. Score obtained in terms of three orientations of personality (Self-directed, Social and Activity- directed) divided across two levels by attitudes and two levels of mindset has been put to data analysis. Thus it is 2X3 analysis of variance (ANOVA) for both groups of traditionalists and progressivists. Data analysis revealed that traditionalist college students do not differ significantly in terms of their mindset as well as their personality orientations. Also there has been no interaction effect for personality and mindset for traditionalists. Exactly similar results have been obtained for progressivists. In other words both traditionalists and progressivists show similar relation between personality mindset. This means in both case we find educational attitudes, personality orientations and mindset are independent entities. Finally we conclude that if college students are different in terms of attitudes, personality orientations and mindset does not necessarily mean variables have relation between

them. Thus if we know orientation for one of the variable it does not predict orientation for other variable as well.

Key words: attitudes, educational attitudes, personality orientations, fixed mindset, growth mindset

Introduction

Education is a complex venture, with numerous dimensions of performance which affect learning outcomes. Learning outcomes is a subjective concept; it can be both cognitive as well as non-cognitive. Although cognitive outcomes are relatively measurable, but non-cognitive factors are innumerable and complex in nature. At the same time non-cognitive outcomes cannot be ignored as these ultimately support the cognitive outcomes. While teacher should look to improve marks of the learner, but at the same time s/he cannot afford to ignore building learner's personality, values, manners and the like. In fact both cognitive and non-cognitive factors reinforce each other to improve the holistic outcomes of the learning. Educational research has been focused both on academic and supporting factors to ultimately improve the learner as well as learning, finally to be termed as learning outcomes. There are number of psychological variables investigated for their influence on learner's performance. The most preliminary and influencing variable are attitudes, personality, intelligence, motivation, interest and the like. Attitudes have been considered as component of our mental life, affect our approach to actions in one way or other. In education specifically educational attitudes (Progressivism and Traditionalism) as invented by Kerlinger would be of considerable importance. Attitudes are strongly influenced by other psychological variables like self-concept, motivation, achievement motivation, interest, personality and the like. It is also noticeable that

personality orientations can differ with the intelligence and belief about intelligence. Fixed mindset of intelligence believe in its fixed nature thus rejects the model of practice to improve the situation. On the other hand growth mind set model believes in malleable nature of intelligence, where practice, feedback, motivation, awareness etc. can cause incremental growth. It may be the case that only practical intelligence (Sternberg, 1985) improves, but it definitely affects the performance of the learner. As pointed out earlier personality orientation affect educational attitudes thus performance of the child. Investigator categorized personality orientation as self-directed, social and activity-directed. The individual may have an attitude alliance which decides his/her dominant personality orientation further affected by his/her mindset. Investigator thought it would be interesting to study how two diagonally opposite attitudes (traditionalism v/s Progressivism) are related to personality orientation and perception of intelligence (fixed mindset v/s growth mindset). This led to designing of the problem in present format.

Progressivism vs. Traditionalism attitudes

Attitude in general is considered as consistent favorable or unfavorable response towards an object of attitude. Object of attitude can be a physical object, subject, phenomenon, concept and the like. Educational attitudes means attitude towards education. Kerlinger (1956) in his study explored educational attitudes of individuals. He found that two types of educational attitudes, means two groups of individuals exist- Progressives and Traditionalists corresponding attitudes are labeled as Progressivism and Traditionalism. Progressivism advocates change, modernity, experimentation whereas traditionalism likes to maintain status-quo, believes in authority, discipline, perseverance and the like. This makes the two kind of attitude as distinct and diagonally opposite. This suggests that two

groups may be associated with different personality orientation and there may be further distinct when conditioned with mindset of persons.

Personality orientation

Lauri (2009) categorizes personality orientation as Power, People, Perfection and Peace. Power orientation is about likes of a person for exercising power, asserting one's own point of view, aggressive, outgoing, decisive, dominant, and the like. People orientation is represented by ability to adjust with others, share feelings and resources, willing to accept other's point of view, flexible, pleasant and creative. Perfection orientation is represented by the tendency of a person to be organized, systematic, good planner, demanding for things to be in order, consistent, rule based behaviour, critical of imperfect things and people, keen observer, curious, diplomatic and refined manager of people and resources. Peace orientation is about the likes of being self-sufficient, satisfaction, prefers simple routine, being modest, hesitant to come out or taking initiative, reserve, practical, concern for others, helping, stable and gentle person. Author in an earlier study modified this measure to form three components named Self-directed (equivalent to Peace orientation), Social (equivalent to people orientation) and Activity directed (sum of Power & Perfection). Self-directed means who is independent, take initiatives and the like. Social orientation implies a person who likes to cooperate, take others along and the like. Activity oriented personality means a person who likes to remain active, is creative and the like.

Fixed vs. Growth mindset

Mindset could be defined as "A mental attitude that determines how you will interpret and respond to situations." (<http://wordnetweb.princeton.edu/perl/webwn?s=mindset>)

Yesterday's theories say -we are born with intelligence, there is a fixed intelligence that can be measured using an IQ test (Dweck, 2008). No matter how much you learn or how hard you work your intelligence stays the same. Today's theory say- intelligence is plastic and mindset matters. The distinguishing feature of geniuses is their passion and dedication to their craft and particularly, the way in which they identify, confront, and take pains to remedy their weaknesses. (Good, Rattan, & Dweck, 2008). In other words, it's not what you are born with that matters; it's your mindset that matters. This is actually endorsing theory of plasticity of mind. Thus it is mindset rather than composition of mind that determine our approach to a problem or action. There can be two Mindsets- Fixed Mindset- Intelligence is a fixed trait and Growth Mindset- Intelligence is a quality that can be changed and developed (Dweck, 2008). Carol Dweck states, "In the fixed mindset, people believe that their talents and abilities are fixed traits. They have a certain amount and that's that; nothing can be done to change it. Many years of research have now shown that when people adopt the fixed mindset, it can limit their success. A Growth Mindset means a child will be open to challenge and welcome feedback, whereas a Fixed Mindset gives them a view that nothing will change their fixed intelligence. Investigator believes there must be some connection between three variables discussed here, thus developed as operation statement involving framework for the study.

Emergence of the problem:

With the advent of concept of fixed mindset and growth mindset (Carol Dweck, 1992, 2000, 2004, 2005 & 2012), a new dimension of relatedness between intelligence and psychological variables opened as subject of study. Author thought that educational attitudes must be affected with the personality orientation, but how they are related should depend on learners' perception in

respect of intelligence. Intelligence is a global variable which influence almost all psychological variables then personality and attitudes can be no exception. Personality orientation and educational attitudes combinations for fixed and growth mindset can give us some idea about developing teaching methodologies and behavioral models for enhancing learning. It is expected that growth mindset is a better perception compare to fixed mindset, present study ay advance some idea/theorization in this direction.

Objectives of the study

The study has been undertaken to attain the following objectives

- Construction and standardization of Educational Attitudes (Traditional Vs progressivism) Measure.
- Construction of Fixed and Growth Mindset Measure.
- Assessment of relatedness between Personality orientation across two levels of Mindset in two groups of educational attitudes (Traditionalism and Progressivism).
- There will be an attempt to theorize the relatedness in the context of learning strategies and other possible issues.

Sample for the study

Study falls in the category of survey type, and sample is disproportionate stratified random one. Hundred college students constituted the sample. Twenty students could not be included in the sample due to criterion set in respect of attitudinal assessment measure (they could not fall in any of the two available categories of traditionalists and progressivists). Finally eighty students divided across attribute variables Gender (male/female), nature of institution

(government/private), Locality (urban/rural) and Qualification (graduate/post graduate), constituted the sample.

Methodology

Investigator divided the participants in to traditionalists and progressivists groups on the basis of score obtained on educational attitude measure. This has been done by at least five points swing in one of the category (progressivism and traditionalism) for putting in the category. Data obtained on mindset measure is used to further classify (creating two levels) of traditionalists and progressivists. Score obtained in terms of three orientations of personality (Self directed, Social and Activity directed) divided across two levels by attitudes and mindset has been put to data analysis. Thus it is 2X3 ANOVA for both groups of traditionalists and progressivists. Student's t-test has been used wherever needed (after F-test) for further analysis for comparing means of the possible constituent groups.

Testing normality of the data

Normality of the data has been ascertained by using most powerful test for the purpose called K-S test (Kolmogorov-Smirnov test). The observed values of $I_{c.p.e} - c.p.oI_{max}$ has been found to be less than expected values for both the groups (traditionalists & progressivists) in respect of all the personality orientations. This permits us to use parametric statistical tests for comparing means for hypotheses testing.

Hypotheses testing

Testing of hypothesis H_1 : *“There exist significant differences in mindset orientation (fixed vs. growth) among college students having traditionalist educational attitudes.”*

Summary of two –way ANOVA has been presented in table 1.

Table 1: Summary of 2x3 ANOVA (Unequal cells)

Source of Variation	df	Sum of Squares	Mean Square Variance	F- ratio
A (Mindset)	1	6.8694	6.8694	0.4059
B (personality orientation)	2	8.5356	4.2678	0.2521
AxB (MS X PO)	2	38.6313	19.3157	1.1412
With in Conditions	99		16.9257	
Total	104	54.0363		
From Table: $df_1= 1; df_2= 99$ $F = 3.94$ ($p=.05$), 6.90 ($p=.01$) $df_2= 2, df_2= 99$ $F = 3.09$ ($p=.05$), 4.82 ($p=.01$)				

The observed F value ($F=0.4059$) is much below the table values. This implies that traditionalist college students do not differ significantly in terms of their mindset. In other words fixed mindset or growth mindset valences are equally distributed across the traditionalist population of college students.

H_2 : “There exist significant differences between personality orientations irrespective of mindset of college students having traditionalist educational attitudes.” The observed F value ($F=0.2521$) is much below than expected value. These personality orientations are uniformly distributed among the traditionalist college students. In other words traditionalist college students have no special alliance with any of the personality orientation (self-directed, social and activity-directed) taken in the study.

H_3 : “There exist significant interactions between AXB (Mindset X Personality orientation) for traditionalist college students.” Like first two hypotheses the observed F value ($F=1.1412$) in this case also could not reach the expected values. This means there is no interaction effect among the two variables under study. The personality orientation across two mindset orientation does

not interact with each other. In case of traditionalists personality orientation alliance is not affected at two levels of mindset and vice versa i.e. alliance with different mindset is not affected with alliance with three personality orientations. In other words personality orientation is not influenced in anyway by mindset of the college students and vice-versa when they are traditionalists in their educational attitudes.

H₄: “There exist significant differences in mindset orientation (fixed vs. growth) among college students having progressivist educational attitudes.”

Summary of two –way ANOVA has been reproduced in table 2.

Table 2: Summary of 2x3 ANOVA (Unequal cells)

Source of Variation	df	Sum of Squares	Mean Square Variance	F- ratio
A	1	23.4679	23.4679	1.1777
B	2	1.1599	0.5800	0.0291
AxB	2	3.4787	1.7394	0.0873
With in Conditions	123		19.9276	
Total	128	28.1065		
From Table: df ₁ = 1; df ₂ = 123 F = 3.92(p=.05), 6.84 (p=.01) df ₂ = 2, df ₂ = 123 F = 3.07 (p=.05), 4.78 (p=.01)				

The observed F value (F=1.1777) is much below the table values as described in the table. This implies that mindset college students do not differ significantly across mindset for progressivist college students. In other words fixed mindset or growth mindset valences are equally distributed across the population of progressivist college students. It is unexpected result as we expect people differ in their mindset orientation, due to their approach to life activities and decision making in general.

H₅: “There exist significant differences between personality orientations irrespective of mindset of college students having progressivist educational attitudes.” The observed F value

($F=0.0291$) is much below the table values. These personality orientations are uniformly distributed among the progressivist college students. Progressivist college students have no special alliance with any of the personality orientation taken in the study. This implies hypothesis Result is unexpected as we believe people differ in their personality orientations as they are different from one another in their personality characteristics. There can be a reason that personality of the students have not yet crystallized, or there may be some problem with methods and procedure of the study.

H_6 : *“There exist significant interactions between AXB (Mindset X Personality orientation) for progressivist college students.”* Like previous two hypotheses the observed F value ($F=0.0873$) in this case also could not reach the expected values. This means there is no interaction effect among the two variables under study. The personality orientation across two mindset orientation does not interact with each other. In case of progressivist personality orientation alliance is not affected at two levels of mindset and vice-versa is also true i.e. mindset alliance is not affected by virtue of three personality orientations. The personality orientation across two mindset orientation does not interact with each other. In other words personality orientation is not influenced in anyway by mindset of the college students when they are progressivists in their educational attitudes.

Educational significance of the problem

Both attitudes and mindset of learners are very important aspects of educational venture, and personality is a natural correlate to almost all of characteristics of performances in life. Investigator had an idea to develop a relationship between these three variables, which unfortunately failed at least for now. The relation finding was intended to theorize a bit both

teaching and learning for college students. College students were deliberately chosen as subjects of study, as personality orientation, and attitudes crystalize only after adolescent age. Nonetheless the idea has not lost its importance; it needs to be studied for finally acceptance or rejection of the hypotheses. If the results are correct then one would be sure that attitudes, mindset and personality orientation do not affect each other and there is no need to take these in to account while building strategies for teaching or learning and even for choosing career for students.

Findings:

- College students have distinct educational attitudes- traditionalism & Progressivism.
- College students could be divided in to different personality orientations groups- self-directed, social and activity directed.
- College students could be categorized in to fixed mindset and growth mindset.
- It means three variables had existence and tools used were effective to categorize persons in to groups.
- Traditionalist college students do not differ significantly in terms of their personality orientations.
- Traditionalist college students do not differ significantly in terms of their mindset orientations.
- In case of traditionalists personality orientations do not differ at two levels of mindset and vice - versa.
- Progressivist college students do not differ significantly in terms of their personality orientations.
- Progressivist college students do not differ significantly in terms of their mindset orientations.
- In case of progressivists personality orientations do not differ at two levels of mindset and vice - versa.

- Three variables are independent entities and have no relation with each other.
- This means any effort of finding a combination between components of these variables had failed at least in present investigation.

Concluding remarks

As study revealed that there is no real relation between attitudes, personality orientation and mindset of college students. This prevented us to theorize anything about relation between various combinations of components of these measures. In a way we could not find anything worthwhile for helping a new model of prediction in terms of these variables. It has two meanings- if we are true then we should admit that these are three independent entities or this study is needed to be repeated with more sophisticated tools, analytical methods and designs to settle the issue. At the same time we do not consider it as a waste effort, as it remained successful in at least bringing the issue to the focus.

REFERENCES:

- Blackwell, L., Trzesniewski, K., & Dweck, C.S. (2007). Implicit Theories of Intelligence Predict Achievement Across an Adolescent Transition: A Longitudinal Study and an Intervention. *Child Development, 78*, 246-263
- Cimpian, A., Arce, H.-M., Markman, E. M., & Dweck, C. S. (2007). Subtle linguistic Cues Impact Children's Motivation. *Psychological Science, 18*, 314-316.
- Dweck, C.S., & Leggett, E.L. (1988). A Social-cognitive approach to Motivation and Personality, *Psychological Review, 95*, 256-273.

- Dweck, C. S. (2000). *Self-Theories: Their Role in Motivation, Personality, and Development*. Philadelphia, PA: Taylor and Francis.
- Dweck, C.S. (2003). Ability Conceptions, Motivation, and Development. *British Journal of Educational Psychology (Special Issue: Motivation and Development)*.
- Dweck, C.S., Mangels, J., & Good, C. (2004). Motivational effects on Attention, Cognition, and Performance. In D.Y. Dai & R.J. Sternberg (Eds.), *Motivation, Emotion, and Cognition: Integrated Perspectives on Intellectual functioning*. Mahwah, NJ: Erlbaum.
- Dweck, C.S., & London, B.E. (2004). The Role of Mental Representation in Social Development. *Merrill-Palmer Quarterly (50th Anniversary Issue)*, 50, 428-444.
- Dweck, C.S., & Molden, D.C. (2005). Self-Theories: Their Impact on Competence Motivation and Acquisition. In A. Elliot & C.S. Dweck (Eds.) *The Handbook of Competence and Motivation*. New York: Guilford.
- Dweck, C.S. (2007). The Secret to raising Smart Kids. *Scientific American: Mind*. De-cember/January, 36-43.
- Dweck, C. S. (2008). *Mindset: The New Psychology of Success*. New York, NY: Ballantine Books.
- Dweck, C. S. (2012). Mindsets and Human Nature: promoting Change in the Middle East, the Schoolyard, the Racial Divide, and Willpower, *Am Psychol*, 67(8), 614-22.
- Frederickson, N., Simmonds, E., Evans, L., & Soulsby, C. (2007). Assessing the Social and Affective Outcomes of Inclusion. *British Journal of Special Education*, 34(2), 105-115. doi:10.1111/j.1467-8578.2007.00463.
- Fredrickson, N. L. & Turner, J. (2003). Utilizing the Classroom Peer Group to address Children's Social Needs: An Evaluation of the "Circle of Friends" Intervention Approach. *Journal of Special Education*, 36(4), 234-345. Retrieved from <http://www.sed.sagepub.com/content/36/4/234>

- Gardner, H. (2006). *Multiple Intelligences: New Horizons*. New York: Basic Books.
- Gould, S. J. (1981). *The Mismeasure of man*. New York: W. W. Norton.
- Grant, H. & Dweck, C.S. (2003). Clarifying Achievement Goals and their Impact. *Journal of Personality and Social Psychology*, 85, 541-553.
- Henniger, M.L. (2004). *The Teaching Experience: An Introduction to Effective Practice*. Upper Saddle River, NJ: Pearson, Merrill Prentice Hall.
- Heyman, G. D., Dweck, C. S. (1992). Achievement Goals and Intrinsic Motivation: Their Relation and their Role in Adaptive Motivation. *Motivation and Emotion*, 16(3), 231-247. doi: 10.1007/BF00991653
- Hutchins, R.M. (1954). *Great Books: The Foundations of Liberal Education*. New York: Simon & Schuster.
- Jaeggi, S.M., Buschkuhl, M., Jonides, J., & Perrig, W.J. (2008). *Improving Fluid Intelligence with Training on Working Memory*. Proceedings of the National Academy of Sciences.
- Kamins, M., & Dweck, C. S. (1999). Person vs. Process Praise and Criticism: Implications for Contingent Self-worth and Coping. *Developmental Psychology*, 35, 835- 847.
- Kerlinger, Fred. N. (1967). *Attitudes and Perception of Desirable Traits and Behavior of Teachers*, Final Report, (ERIC Document Reproduction Service No. ED-019742).
- Kerlinger, Fred.N. (1956). The Attitude Structure of the Individual: A Q – Study of the Educational Attitudes of professors and laymen, *Genetic Psychology Monographs* , LIII, pp 283 – 329.
- Kotulak, R. (1997). *Inside the Brain: Revolutionary Discoveries of how the Mind works*. Kansas City, MO: Andrews McMeel.
- Machintosh, N. (2011). *IQ and Human Intelligence*. London: Oxford University Press.

- McMullen, M. B. & Alat, K. (2002). Education Matters in the Nurturing of the Beliefs of Preschool Caregivers and Teachers. *Early Childhood Research and Practice*, 4(2).
- Mueller, C. M., & Dweck, C. S. (1998). Intelligence Praise can undermine Motivation and Performance. *Journal of Personality and Social Psychology*, 75, 33-52.
- Onwuegbuzie, A. J., Witcher, A. E., James, T. L., & Minor, L.C. (2002). Changes in Teacher Candidates' Beliefs about Education. *Academic Exchange Quarterly*, 6(3), 136-140.
- Perkins, D. N. (1995). *Outsmarting IQ: The emerging Science of Learnable Intelligence*. New York: Free Press.
- Piaget, (1950). *The Psychology of Intelligence*. London: Routledge & Kegan Paul.
- Resnick, L. B. (1999). *Making America smarter*. Education Week, June, 16, pp. 38–40.
- Sternberg, R. J. (1985). *Beyond IQ: A Triarchic Theory of Intelligence*. Cambridge: Cambridge University Press.
- Steele, C. M. (2010). *Whistling Vivaldi: How stereotypes affect us and what we can do*. New York, NY: W. W. Norton Company, Inc.
- Thurstone, L. L. (1946). The Measurement of Social Attitudes. *Journal of Abnormal and Social Psychology*, 26, 249-269.
- Whimbey, A., Whimbey, L. S., & Shaw, L. (1975). *Intelligence can be taught*. New York: Erlbaum.

Net Sources:

- <http://jamesclear.com/fixed-mindset-vs-growth-mindset>
<http://jamesclear.com/fixed-mindset-vs-growth-mindset>
<http://mindsetonline.com/howmindsetaffects/mindsetforachievement/index.html>
<http://wordnetweb.princeton.edu/perl/webwn?s=mindset>

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