Influence of School-Image on Academic Self-Efficacy Belief

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Abstract

This study explores the academic self-efficacy and School-Image among higher secondary school students, on a sample of 652 XIth standard students drawn from Kerala, adopting proportionate stratified random sampling. The data was collected using Academic Self-Efficacy Scale and School-Image Scale. Significant difference exist in School-Image of secondary school students based on gender of the student, locale of school, type of management of school, and the subject being studied at higher secondary level. Girls, rural school students and aided school students have higher image of their school, compared to boys, urban school students and government school students. Nevertheless, gender, locale and subject of study do not make significant difference in the academic self-efficacy belief of students. Academic Self-efficacy is higher among aided school students than government school students. One eighth of secondary school students' academic self-efficacy is attributable to school image. Academic focus of the school, its involvement with parents and community, and leadership of the school significantly determine students' self-efficacy belief.

Influence of School-Image on Academic Self-Efficacy Belief

Secondary education is to empower students to become independent, self-regulated learners. When students graduate from high school and go on to college or enter the workforce, society expects a sense of personal agency for effectively and responsibly managing their behaviour and acting on the world in which they live. Individuals who proactively and efficiently manage their lives to achieve self-set goals are self-regulated learners. Self-regulated individuals feel empowered because of their adaptive self-motivational beliefs, particularly their perceptions of personal capability. Ordinary practices of school must contribute to the ingredients crucial to a student's sense of self-ingredients such as efficacy, agency, confidence and purpose (Bruner, 1996). Educational practices should be gauged not only by the skills and knowledge they impart for present use but also by what they do to students' beliefs about their capabilities (Bandura, 1986).

Self-efficacy beliefs influence task-choice, effort, persistence, resilience, and achievement (Bandura, 1997; Schunk, 1995). Compared with students who doubt their learning capabilities, those who feel efficacious for learning participates more readily, work harder, persist longer when they encounter difficulties. Self-esteem and self-efficacy are central to the sustained success of any individual. They combine to formulate a powerful vaccine against distress, depression, helplessness, dependency, and irrational cognition. They are the key to optimism, positive behaviour change and the achievement of goals. Self- efficacy's broad application across domains of behaviour has accounted for its popularity in contemporary motivation research (Graham & Weiner, 1996). Correlates of self-efficacy include attributions, goal setting, modelling, problem solving, reward contingencies, self-regulation and strategy training.

Academic Self-Efficacy

From Social Cognitive Theory perspective (Bandura, 1986), one's behaviour is constantly under reciprocal influence from cognitive (and other personal factors such as motivation) and environmental influences. Principle of reciprocal determinism explains that (a) personal factors in the form of cognition, affect, and biological events, (b) behaviour, and (c) environmental influences create interactions that result in a "triadic reciprocality." From an instructional perspective, students' academic performances (behavioural factors) are influenced by how learners themselves are affected (cognitive factors) by instructional strategies (environmental factors).

Self-efficacy is a multidimensional construct that varies according to the domain of demands (Zimmerman, 2000), and therefore must be evaluated at a level that is specific to the domain (Bandura, 1986; Pajares, 1996). Thus in academic settings, one measures Academic Self-efficacy rather than generalized self-efficacy. Academic self-efficacy refers to students' confidence in their ability to carry out such academic tasks, as preparing for exams and writing term exams (Zajacova, Lynch and Espenshade, 2005).

36 studies conducted between 1977 and 1988 on the relationship between self-efficacy, accounting consistently for approximately 14 percent of the variance in academic performance (Multon et al., 1991). Another line of research investigates the sources from where the efficacy beliefs stem. Bandura (1986) identifies four main sources of self-efficacy beliefs viz., mastery experience, vicarious experience, social persuasions, and physiological indices as well as major indicants within each source. Although a number of these have been explored and verified, future investigations might seek to identify sources of academic self-efficacy information other than those typically used viz. aptitude, ability, previous achievement to trace the genesis and development of self-efficacy beliefs as well as determine how perceptions of efficacy mediate the influence of these sources on self-regulatory strategies, on other constructs, and on subsequent performances.

Studies show that boys than girls have better self-efficacy perceptions (Phillips and Zimmerman, 1990; Wigfield, Eccles, & Pintrich, 1996; Santiago & Einarson, 1998 and Ku, 2002). And, African American students had higher expectations for success than Caucasian children (Graham, 1994); island students reported lower academic self-efficacy than the mainland students (Yamauchi and Green, 1997). These studies, which indicate to the emphasized effect of cultures and local influences on academic ability perceptions, necessitate more examination of Academic Self-efficacy based on gender, locale and cultural factors.

School-Image

Present study investigates influence of vicarious experience from School-Image on Academic Self-efficacy. Dissatisfaction and disillusionment with the public school system are not passing fads, the public is clamouring for results; they want to see good and effective schools. Classroom environment variables of involvement, knowledge, professional skills, and higher order thinking skills explained 32 percent of the variance in academic self-efficacy (Byer, 2001). These factors are the components of the broader concept, School-Image. Successful schools embody both effectiveness and 'goodness' and therefore, "educators who care about the fate of all children must define goodness before they worry about effectiveness" (Glickman, 1987). Renihan and Renihan (1988) used two dimensions - pastoral concerns (nurturing effective relationship, respect, openness) and cosmetic concerns (promoting school success in the community, attending to appearances) to describe five School-Image types, viz., synergistic schools - highly effective both pastorally and cosmetically; candy store schools - high emphasis on appearances, little attention to relationships; disaffected schools - low emphasis both pastorally and cosmetically; monastic schools - low emphasis on appearances, high emphasis on relationships; and, survivor schools - mediocre in both dimensions. School-Image is "the sum of subjective opinions about the quality of the learning and social environment ..., the collective 'feeling' developed by the various publics as a result of their observations and experiences of the school".

Objective of the study

Present study explores the academic self-efficacy and School-Image to find out what aspects of School-Image affect self-efficacy beliefs of higher secondary school students of Kerala.

Sample of the Study

The study is conducted on 652 XIth standard students drawn from Kerala, adopting proportionate stratified random sampling technique.

Measures

The data was collected using Academic Self-Efficacy Scale and School-Image Scale.

Academic Self-efficacy Scale prepared and standardized for higher secondary school students based on the Self-efficacy theory of Albert Bandura (1977) builds on the idea that the efficacy of the higher school students in each of the dimensions of academic work would contribute to the overall academic self-efficacy. Construct validity was assured through the expert judgments of the face validity and inclusion of representative items from all dimensions of the construct (Learning process, Reading, Comprehension, Memory, Curricular Activities, Time Management, Teacher Student relationship, Peer Relationship, Utilization of resources, Goal Orientation, Adjustment and Examination) to obtain sampling validity. Test-retest coefficient of correlation was 0.85 (N=30) indicating stability of score over time. Split-half reliability is 0.90 (N=370). Concurrent validity with the criterion ‘General Self-efficacy scale’ (Matthias & Ralf Schwarzer; 1979] is 0.43 (N=58).

Major components of School-Image (Renihan & Renihan, 1998) - effective relationship with parents and community, successful appearance of the school, effective leadership; factors of school effectiveness - safe and orderly climate, expectation of minimum mastery by all the students, clear

academic goals, evidence of collegiality (Rutter et al., 1979) that come in tune approximately with Bolender's (1997) seven components of School-Image - Leadership, School Vision, School climate, Involvement with parents and local community, Academic focus, Collegiality of staff members and physical environment are reflected in the School-Image scale. Test retest reliability (r=0.76, N=31), split-half reliability (r=0.90, N=370) and Internal consistency (Cronbach Alpha=0.90, N=370) were very high. Content validity was assured by expert judgment and including maximum items from all of the sub domains of the construct. Concurrent validity with scores on School Social System Questionnaire (Gafoor & Farooque, 2003) is 0.71(N=30). The seven subscales also possess desirable indices of reliability and validity.

Results

The values of Mean, Standard Deviation, Skewness and Kurtosis obtained for the variables under study are given in Table 1.

Table 1

Statistical Constants of Academic Self-Efficacy and School-Image for the Total Sample

Variables	Mean	SD	Skewness	Kurtosis
Academic Self-efficacy	135.37	19.45	0.10	-.14
School-Image	156.23	21.61	-.71	0.09

Note: N= 652

The indices of skew ness (0.10) and kurtosis (-0.14) of distribution of academic self-efficacy scores show that the distribution is slightly positively skewed and platikurtic. Skewness (-0.71) and kurtosis (0.09) of distribution of School-Image scores show that the distribution is slightly negatively skewed and mesokurtic.

Academic Self-Efficacy and School-Image in Sub samples of Higher Secondary School Students

Mean difference analysis was done to examine the difference between subsamples in Academic Self-efficacy and School-Image. The sub samples are based on Gender, Locality of Schools, Type of management of schools and the subject group (humanities, science and commerce) of students (Table 2).

Table 2

Gender, Locale and Type of School Management-wise Comparison of Academic Self-Efficacy and School-Image

Variable	Gender	Mean	SD	t
School-Image	Female	161.46	17.62	8.29**
	Male	147.70	24.63	
Academic Self-efficacy	Female	136.15	18.281	1.31
	Male	134.09	21.205	
School-Image	Rural	158.23	20.14	3.46**
	Urban	152.01	23.92	
Academic Self-efficacy	Rural	135.32	18.50	-.08
	Urban	135.45	21.36	
School-Image	Government	144.84	21.48	-13.11**
	Private	164.79	17.35	
Academic Self-efficacy	Government	133.15	19.42	-2.53*
	Private	137.03	19.34	

* & **denote p<.05 & p<.01 respectively

Academic Self-Efficacy of boys and girls are not significantly different, (t= 1.31, p>.05). The difference between boys and girls in School-Image (t=-8.29, p<.01) is significant with girls being significantly superior to boys. There is no significant rural-urban difference in the Academic Self-Efficacy (t= 0.08, p>.05). Significant difference exists between School-Image of rural and urban higher secondary school students (t= 3.46, p>.01); rural students significantly exceed the urban students. Private higher secondary school sample has significantly higher School-Image (t= -13.11, p<.01) and academic self-efficacy (t = -2.53, p<.05) than government higher secondary school sample (Table 2).

Difference in the mean scores of three subject groups' viz., humanities, commerce and science groups in the academic self-efficacy and School-Image was studied using test of significance of difference between means (Table 3).

Table 3

Subject of Specialization-Wise Comparison of Academic Self-Efficacy and School-Image

variable	Groups compared	N	mean	SD	t
School-Image	Humanities	226	156.07	20.37	4.32**
	Science	182	146.35	25.07	
School-Image	Humanities	226	156.07	20.37	-4.50**
	Commerce	244	163.73	16.41	
School-Image	Commerce	244	163.73	16.41	8.62**
	Science	182	146.35	25.07	
Academic self-efficacy	Humanities	226	133.85	18.49	-.95
	Commerce	244	135.48	18.69	
Academic self-efficacy	Commerce	244	135.48	18.69	-1.64
	Science	182	137.09	21.47	
Academic self-efficacy	Humanities	226	133.85	18.49	-.82
	Science	182	137.09	21.47	

** p<.01

There exist significant pair wise mean difference in School-Image among the three subject groups, viz., Humanities, Commerce and Science of higher secondary school students. In the mean scores of School-Image commerce group (163.73) is highest and the science group (146.35) is least with humanities group (156.07) lying in between. Mean scores of Academic self-efficacy of science (137.09), humanities (133.85) and commerce (135.48) students of higher secondary students are not significantly different.

Effect of School-Image on Academic Self-Efficacy

Correlation between academic self-efficacy and School-Image (r= 0.34, p<.01) indicate 11.56 percent shared variance (r^2x100) among the variables. To find out which component of School-Image contributed to academic self-efficacy belief of students multiple regression analysis was employed. The results of the multiple regression analysis , in terms of coefficient of multiple correlation (R) between the School-Image components and self-efficacy belief, R^2 , change in R^2 as a result of addition of new attribute variable (component of School-Image), the F ratio and its significance are presented in Table 4.

Table 4
Multiple Regression Analysis for Academic Self-Efficacy by School-Image Components

Variables entered in successive steps	R	R^2	Change Statistics R^2 Change	F	df	Sig. F Change
Academic focus	.298	.089	.089	63.54	1,650	.000
Academic focus, Involvement with parents and Local community	.352	.124	.035	45.83	1,649	.000
Academic focus, Involvement with parents and Local community, Leadership	.366	.134	.010	33.40	1,648	.006

Three of the seven components of School-Image - Academic focus, Involvement with parents and Local community, and school leadership- significantly affect academic self-efficacy belief of secondary school students, when School Vision, School Climate, Collegiality of Staff Members and Physical environment are constant (F=33.40, p=0.006). The most powerful part of School-Image in effecting academic self-efficacy is academic focus (8.90 percent), followed by Involvement with parents and Local community (3.5 percent) and school leadership (one percent). School's Academic focus, Involvement with parents and Local community, and Leadership together have 13.40 percent (more than 1/8) influence on students' academic self-efficacy belief.

Conclusion

Difference exist in School-Image of secondary school students based on gender of the student, locale of school, type of management, and the subject being studied at higher secondary level. Girls, rural school students and aided school students have higher image of their school, compared to boys, urban school students and government school students. Nevertheless, gender, locale and subject of study do not make significant difference in the academic self-efficacy belief of students. Academic Self-Efficacy is higher among aided school students than government school students.

Other factors remaining the same, one eighth of secondary school students' academic self-efficacy is attributable to the image student has about own school. Academic focus of the school, its involvement with parents and community, and leadership of the school significantly determine students' self-efficacy belief.

Many of the studies reviewed reported that females have lower self-perceptions of academic ability than males (Wigfield, Eccles, & Pintrich, 1984; Phillips and Zimmerman, 1990; Santiago & Einarson, 1996; Bong, 1998 and Ku, 2002). However the present study agrees with some other studies that showed no gender difference in Academic self-efficacy (Owen & Froman, 1992; Kelly, 1993; Santiago & Einarson, 1998; Hampton & Mason, 2003). The differences based on locality and subject of study at higher secondary level are not significant in the case of Academic self-efficacy.

School-Image poses difference in respect of all the considered criteria of comparison viz., gender, locality of schools, type of management of schools and subject. Girls display better feeling of 'goodness' about their schools. Comparatively poor school-image among boys may be a favourable factor, if it stems from their wish to overcome the existing conditions. Urban school students' weaker image than rural school students of their school may be due to their exposure to highly arranged and hierarchical educational systems in their immediate surroundings. Urban students are less satisfied with status-quo. Access to better educational opportunities is less in rural areas, which may have caused them to be satisfied with status-quo. Among the three subject groups, science-group ranks least in

school-image while they are generally better off in academic achievement. It is very clear that science students with the higher achievement are less satisfied with the opportunities they get in respect of schooling.

The thrust of school in raising its image among public in general and its students in particular needs to be on academic planning, implementation and evaluation, than on cosmetic physical changes. Students want their school to connect to the parent community. Involvement with community is not only raising the opportunities for socializing goals of education, but also effecting students' self-beliefs. The professional leadership of school, as in any other enterprise, will help enhance its image and it can affect self-confidence, especially academics among students.

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