Creativity of Disaffected Students

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Disruptive students are often perceived to be unmotivated, low in self-concept, and lack of academic potentials and creative characteristics such as originality and imagination power. A total of 99 students from the 6th grade classes of a primary school in Hong Kong completed a survey asking about their academic self-concept, effort goal orientation in school motivation, originality in thinking, and imagination. The reliabilities of the 4 scales were good (alphas = .69, .73, .73, and .66, respectively). Principal component analysis supported the 4 factors and the low to medium correlations among them (rs from .28 to .47) showed that the factors were distinct from each other. Among the students in the 6th grade classes, those students found by teachers to be disaffected and occasionally disruptive (n=20) were compared with all the other students (n=79) in the 4 measures. Analysis of variance results showed that students found to be disaffected and disruptive did not differ from the other students in self-concept and their effort goal orientation. However, the disaffected and disruptive students scored significantly higher in their self-perceptions of originality and imagination. The results cast doubt not only on the assumption of the weaknesses of disaffected students, but also the appropriateness of the school curriculum to suit their needs. Curriculum designers and teachers should consider learning activities that may fully nurture the disaffected students' creativity components to help them become useful citizens.

Gardner (1993) has proposed that every individual has multiple intelligencies that enable the individual to display his or her talents and potentials. Thus if the school can provide a nurturing environment for the development of various intellegencies, adolescents should be able to strengthen their specific talents and develop into successful individuals (Ainscow et al., 1994; Gardner, 2000; Renzulli & Reis, 1997). According to Erikson's (1963, 1968) theory of development, students aged 12 to 14 are experiencing a critical stage in their development of a sense of competence and self-concepts. Unfortunately, for some students of this age group who do not find success in their academic achievement, their talents and potentials may be geared unduly to some form of undesirable behavior that may have the unwelcome function of attention seeking or establishing a self-identity in an undesirable way (Wallace, 1983; Whitmore, 1980). Given their originality and creativity, talented students could generate all kinds of unpredictable ways to upset the harmonious climate of the classroom. The present study examines the motivation, self-concept, and creativity of disaffected 6th grade students who have displayed some form of talents in a primary school in Hong Kong.

The Disaffected Talents

It is generally believed that students can learn better if they are emotionally stable, motivated, and are able to think divergently and creatively (Freeman, 1991; Gardner, 2000). Unfortunately, not all children with the wits to think divergently and creatively manage to establish their self-identity through achieving academic excellence. Those who fail to achieve the desirable academic targets may inevitably become disaffected, misbehaved, and often

disruptive. As suggested by some researchers, this kind of talented students is not rare in the Hong Kong classrooms (Chan & Chan, 1999; Clark & Chan, 1999; also see desouza Fleith, 2000).

In the era of education reforms, the potential of the school environment to promote students' motivation, self-concept and creativity has been emphasized for successful lifelong learning (e.g., Curriculum Development Council, Hong Kong, 2001; Education Commission, Hong Kong, 1984; 2000, 2002; UNESCO, 2000). These characteristics are often believed to be typical of the talented and yet lacking in the disaffected students.

School motivation. Motivation is important because students' academic behavior and achievement are thought to be closely associated with their motivation in schoolwork (Ames, 1992; McInerney, Roche, McInerney, & Marsh, 1997; McInerney, Yeung, & McInerney, 2001; Wentzel, 1998). Of the various goal orientations, mastery goals are thought to be vital for students' desirable academic outcomes (e.g., McInerney et al., 2001; Wentzel, 1998). Traditional thinking dictates that mastery goal orientations have stronger impacts on educational outcomes.

Self-concept. Numerous studies have shown good relations of academic self-concept to academic achievement and academic behavior (e.g., Chapman & Tunmer, 1997; Eccles & Wigfield, 1995; Marsh & Yeung, 1997a, 1997b; Yeung & Lee, 1999). Whether a student finds himself or herself competent in academic work tends to impact on academic achievement.

Creativity. Many educators argue for the importance of creativity in the curriculum (e.g., Hughes, 2001). However, the implementation of a curriculum with an emphasis on creativity is difficulty because basic education tends to strictly follow highly structured contents and teaching methods that inevitably inhibit possibilities of creativity (Tan & Law, 2000). This could be even more difficult in Hong Kong, given the highly competitive, segregated, and outcome driven features of the Hong Kong schooling (e.g., Tsang, 1992). Furthermore, creativity may be threatened by the increased emphasis on the objective criteria of assessment in all aspects of learning (Runco, 2001) together with the generally lack of time and opportunity of students to exhibit their creative abilities (de Alencar, 2001). The literature on creativity has identified various factors that may contribute to student creativity (e.g., Giorgis & Johnson, 2001; Goertz, 2000; Kusa, 1999; Runco, 2001). Among these factors are two important constructs that are the focus of the present study. They include:

Originality: Being able to initiate original ideas, and
Imagination: Thinking in a non-traditional way.

The present study examines the self-concept, motivation, and creativity of 6th grade students in a primary school of Hong Kong who are disruptive in class.

Method

The Sample

The participants were 99 students from the 6th grade classes of a primary schools in Hong Kong (age ranging from 11 to 16). They responded to a survey administered in class. Based on comments and ratings obtained from the teachers of the 6th grade classes, 20 students were chosen to represent the most disruptive of the 6th grade students. The subsample of disruptive students was compared against the other 6th grade students (n=79). About 75% of the disaffected group was over-aged (age > the normal age of 12), and 80% were new immigrants from China.

Material

Apart from items for collecting demographic data, there were a total of 16 items forming four constructs. They were Academic Self-concept, Effort (i.e., an important mastery goal orientation), Originality, and Imagination. The students responded on a Likert-type scale from 1 = absolutely disagree to 5 = absolutely agree. The items of the four constructs are presented

in Appendix. The responses were coded such that higher scores reflected more favorable perceptions.

<u>Statistical Analyses</u>

<u>Preliminary analysis</u>.   We first examined the alpha reliability of each of the four constructs. Then we conducted a principal components analysis to test the ability of the 16 items to form 4 distinct factors. Based on the constructs established in the preliminary analysis, the scale mean of each construct was computed by taking the average of the items pertaining to each construct.

<u>Comparisons Between Groups of Students</u>. The critical concern of the present study was whether students perceived by teachers as disruptive differed in their academic self-concept, effort goal orientation, originality and imagination from the other students of the same level of schooling.   A oneway analysis of variance (ANOVA) was then conducted for each of the four variables. The analysis was conducted with SPSS (Norusis, 1994a, 1994b).

Results

<u>Preliminary Analysis</u>

The alpha reliability estimates for the four constructs were good (alphas = .69, .73, .73, and .66 respectively for Self-concept, Effort, Originality, and Imagination). Principal components analysis of the 16 items with varimax rotation (Nie, 1994) revealed four distinct factors with eigen values of 4.46, 1.76, 1.43, and 1.26 respectively explaining 56% of the total variance. As expected, the 16 items formed four distinct a priori constructs. The factor loadings were .78, .72, .60, and .60 for Self-concept, .68, .75, .75 and .57 for Effort, .62, .81, .52, and .69 for Originality, and .70, .70, .79, and .50 for Imagination. The items of each of the four constructs were averaged to form a scale score for subsequent analysis. The correlations among the four scale scores were examined. The correlations were small to moderate (<u>r</u>s ranging from .28 to .47), providing support for the discriminant validity of the four constructs.

<u>Table 1</u>. Means and Standard Deviations and Analysis of Variance Results

		Groups		Univariate F	MSE
		Disruptive	Control	(1,97 <u>df</u>)	
	<u>N</u>	20	79		
Self-concept	<u>M</u>	**3.33**	**3.41**	0.13	0.93
	<u>SD</u>	(1.08)	(0.93)		
Effort	<u>M</u>	**4.43**	**3.98**	3.84	0.84
	<u>SD</u>	(0.91)	(0.92)		
Originality	<u>M</u>	**4.04**	**3.46**	5.40*	0.99
	<u>SD</u>	(1.06)	(0.98)		
Imagination	<u>M</u>	**4.79**	**3.92**	12.63**	0.94
	<u>SD</u>	(0.84)	(1.00)		

Note: * <u>p</u> < .05. ** <u>p</u> < .001. <u>N</u> = 99. Students responded to the items on a 5-point scale with higher ratings reflecting more favorable responses.

<u>Between-Group Differences</u>

   To test whether students with disruptive behaviors differed from the other students in their self-concept, effort, originality and imagination, an ANOVA was conducted for each variable. The means and standard deviations of the scores for the two groups of students are presented in Table 1. The oneway ANOVA found that the two groups of students did not differ in their academic self-concept, $\underline{F}(1,97) = 0.13$, $\underline{MSE} = 0.93$, and in their effort goal orientation, $\underline{F}(1,97) = 3.84$, $\underline{MSE} = 0.84$, $\underline{p} > .05$. However, the group differences were statistically significant for Originality, $\underline{F}(1,97) = 5.40$, $\underline{MSE} = 0.99$, $\underline{p} < .05$ and for Imagination, $\underline{F}(1,97) = 12.63$, $\underline{MSE} = 0.94$, $\underline{p} < .001$ (Table 2). Thus the students who were perceived to be disruptive showed higher levels of originality and imagination.

Discussion

   The results reflect that disaffected students perceived themselves as no different from their 6th grade schoolmates in self-concept and effort goal orientation. Both groups had scores above 3 on a 5-point scale. Interestingly, however, those disaffected students scored significantly higher in originality and imagination. It seems that the disaffected students had a high creative capability.

   This finding not only casts doubt on the assumption of the weaknesses of those disaffected students, but also queries on the ability of the school in making a difference on students' learning outcomes (Coleman et al., 1966; Rutter et al., 1979; Mortimore et al., 1988). The finding also challenges the adequacy of the school curriculum, the teaching approaches, the assessments, and the relevant policies on teaching and learning.

   Apparently, the findings match with earlier research on underachieved students (e.g., Torrance, 1965; Wallace, 1983; Whitmore, 1980). The high originality and imagination in those disaffected students but lower academic performance seems to imply that:
- The current provisions of the schools might not suit the needs of all students;
- Some of the disaffected students may be able underachievers (Torrance, 1965) who are unable to demonstrate their abilities in tests and exams;
- They might have a poor relationship with their teachers. Thus their output, despite being creative, may not be recognized by their teachers;
- Their disruptive behavior and misconduct could be a means of attention-seeking, revenge for being unrecognized, and for those immigrants, a gesture of accusing the inequality and inequity of schooling;
- To some students, in order to remain affiliated to their peer group, they might avoid being outstanding, so they tended to perform as badly as their peers. This could be perceived as meeting their safety needs.

   As supported by the literature (e.g., Erikson, 1963, 1968; Gardner, 1993; Wallace, 1983; Whitmore, 1980), we have reasons to believe that the disaffected students in the experimental group could be the unfortunate able underachievers to whom special attention has not been given. They not only demonstrated the characteristics of underachievers (Torrance, 1965), but they also had poor self-image, high absence rates, and poor relationship with teachers and peers.

   In sum, this study reveals a new area of concern to those disaffected but talented students. The able underachievers do not seem to have received the necessary educational support, their creativity has not been respected, and their potentials are not being tapped to their fullest extent. Curriculum designers, teachers, educators and policy makers should consider ways to provide them with adequate learning opportunities by creating the necessary conditions in school (Gardner, 2000; Renzulli & Reis, 1997) that may fully nurture the disaffected students' creativity components to help them become useful citizens in future.

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Appendix

<u>Response Items and Alpha Reliabilities of Factors</u>

Factor   Items   Alpha

<u>Self-concept</u>   .69
1. I am good at most school subjects.
2. Most school subjects are easy to me.
3. I learn quickly in most school subjects.
4. I have always done well in most school subjects.

<u>Effort</u>   .73
1. I work hard to try to understand something new at school.
2. I am always trying to do better in my schoolwork.
3. I try hard to solve problems.
4. The harder the problem the harder I try.

<u>Originality</u>   .73
1. I sometimes solve problems in a way nobody else has tried before.
2. I can think of many new ideas.
3. I sometimes see things quite differently from other people.
4. I have many innovative ideas.

<u>Imagination</u>   .66
1. I like to imagine things I like to do.
2. I like to think that I will be a person very different from others.
3. When I read a story or watch a movie, I like to think I am the person in the story.
4. When I grow up, I wish to do something people have never thought about.