

Developmental Changes in Children's Goal Orientations Toward Schoolwork: Gender Differences

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Introduction

Research (e.g. Ames & Archer, 1988; Ford, 1992; Locke & Lathem, 1990; Maehr & Midgley, 1991) has indicated that children's goals or goal orientations regulate their motivation and achievement behaviors. Among a number of goal constructs, two contrasting goal orientations have drawn most attention in the motivation literature: mastery and performance goal orientations. Both have been associated with different achievement outcomes. Recently, however, some theorists (e.g., Migley, Maehr, & Urdan, 1993) have made a further distinction among three types of performance goal orientation: extrinsic, relative ability, and effort avoidance. Further, other researchers (e.g., Ford, 1992; Urdan & Maehr, 1996; Wentzel, 1990) have expanded the boundary of goals beyond the mastery-performance goal dichotomy. These researchers suggested various other goals (e.g., social responsibility, adult approval, and belongingness) that children may adopt in and out of the school setting.

Despite the variety of goal orientations outlined by researchers, however, goal theorists have yet to address just when these divergent goals emerge in the minds of children. The key question is, when do children begin to distinguish among those divergent goals while they are engaged in their school work? Further, do boys and girls at different ages define these goals similarly?

In his exceptional study of the development of children's goals, Nicholls (1990) found that both task (or mastery) goal and ego (or performance) goal are evident by as early as second grade. One may wonder, then, if very young children's primitive goal structure becomes increasingly differentiated with age into a more complex structure, as some developmentalists (e.g., Eccles & Wigfield, 1993; Werner, 1957; Wigfield, 1994) might suggest. As a recent review of motivation literature suggests, "[D]evelopmental studies of multiple goals are badly needed" (Eccles, Wigfield, & Schiefele, in press).

The present study is designed to fill the gap in the developmental research by exploring the possibility of differentiation of children's goal orientation toward school work as they mature. This study will also investigate gender difference in the developmental change.

Method

This study is part of a larger 10-year longitudinal research project investigating the school experiences of 865 children attending 10 elementary schools in four suburban school districts in southeastern Michigan. Data on children's reasons for doing their school work were collected from 229 second graders, 255 third graders, and 233 fifth graders of about equal number of boys and girls. Measures (see Table 1 for questionnaire items) were based on 1-7 Likert-type scales.

Preliminary Results and Discussion

Exploratory factor analyses were performed to examine the factor structures of children's goal orientation toward school work, separately for each age group and for each gender. As Table 1 shows, preliminary results suggest some age and gender differences and similarities in children's goal structure. First, consistent with previous research (e.g., Migley, Maehr, & Urdan, 1993), we were able to identify at least three distinct factors for 3rd and 5th grade children, each underlying children's goal orientation toward school work: (1) mastery goal, (2) performance goal - extrinsic (or adult approval), and (3) performance goal - relative ability. Among girls, however, the differentiation within the performance goal (i.e., into relative ability goal and adult approval goal) did not occur until they reached 3rd grade. Our data seem to suggest that, unlike girls, boys were already able to distinguish among all three goals by as early as 2nd grade. The possibility of males' relatively greater sensitivity to environmental cues calling for various performance goals (e.g., competition, social comparison) will be discussed.

Second, a close examination of the factor loadings of each item (see Table 1 for 9 items) reveals that individual items loaded on different factors depending on age and gender. For example, the item, "I feel bad about myself when it doesn't get done," was increasingly related to mastery goal orientation for girls, whereas the same item was consistently linked to performance goal orientation (i.e., relative ability goal or adult approval goal) for boys.

Confirmatory factor analysis (Jöreskog & Sorböm, 1993) will be conducted to systematically test if the initial factor structures of children's goal orientations change with age. To follow Nesselroade's (1983) suggestion, tests of factor invariance and measurement equivalency will be performed to examine potential age and gender differences in the nature of children's goal orientation toward school work.

Implications for motivational practices in educational settings will be discussed.

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Table 1.
Factor Structure (Pattern Matrix) of Children's Goal Orientations toward School Work by Age and Gender

	2nd grade			3rd grade			5th grade			
	Mastery	Performance	(Undifferentiated)	Mastery	Performance	Relative ability	Mastery	Performance	Relative ability	
					approval	ability	approval	approval	ability	
<i>Girls</i>										
I do my school work because:										
I want to earn new things	.85	-.13		.82	-.11	.00	.89	-.11	.06	.06
It is fun or interesting	.86	-.01		.76	-.01	-.06	.86	-.20	.02	.02
I think I should	.57	.38		.85	.02	-.02	.81	.13	-.13	-.13
I feel bad about myself when it doesn't get done	.11	.34		.32	.12	.16	.69	.13	.03	.03
Teacher says we have to	.02	.61		-.19	.88	-.03	-.06	.88	-.06	-.06
Parent(s) told me I have to	-.08	.77		-.01	.76	.14	-.13	.86	.05	.05
It makes my parent(s) happy	.29	.61		.34	.69	-.04	.26	.74	.13	.13
To get better grades than other kids	-.12	.78		-.04	-.09	.94	.02	-.03	.88	.88
So other people will think I'm smart	-.12	.80		.02	.10	.84	-.05	.07	.88	.88
<i>Boys</i>										
I do my school work because:										
I want to earn new things	.71	-.01		.84	-.10	-.03	.83	-.13	-.14	-.14
It is fun or interesting	.70	-.02		.78	.06	.02	.87	-.18	-.06	-.06
I think I should	.69	.05		.85	.10	.04	.63	.26	.06	.06
I feel bad about myself when it doesn't get done	.29	.06		.20	-.17	-.51	.37	.59	.17	.17
Teacher says we have to	.12	.80		-.08	.87	.07	-.25	.81	.04	.04
Parent(s) told me I have to	-.22	.87		.07	.83	-.02	-.06	.71	-.19	-.19
It makes my parent(s) happy	.33	.53		.21	.57	-.28	.06	.66	-.29	-.29
To get better grades than other kids	-.18	.05		-.20	.11	-.87	.09	.00	-.87	-.87
So other people will think I'm smart	.08	-.08		.00	.12	-.79	.00	.11	-.84	-.84

Table 2.
Changes in Means and SDs of Children's Goal Orientations toward School Work by Grade and Gender: F-statistics

Variables	Girls ^a			Boys ^a			Grade ^b		Gender ^b		Grade x Gender ^b	
	2nd	3rd	5th	2nd	3rd	5th	F	p	F	p	F	p
I want to learn new things	6.17 (1.56)	6.02 (1.56)	5.01 (1.69)	6.12 (1.54)	5.63 (2.02)	5.04 (1.90)	37.41 ***	(2, 934)	1.49	(1, 934)	1.24	(2, 934)
It is fun or interesting	5.43 (2.08)	5.03 (2.17)	4.09 (1.89)	5.08 (2.29)	4.27 (2.47)	3.97 (2.18)	25.87 ***	(2, 934)	8.22 **	(1, 934)	1.78	(2, 934)
I think I should	6.33 (1.38)	6.35 (1.47)	5.89 (1.47)	6.04 (1.76)	5.45 (2.18)	5.43 (1.86)	7.67 ***	(2, 933)	23.86 ***	(1, 933)	2.42	(2, 933)
I feel bad about myself when it doesn't get done	5.11 (2.27)	5.85 (1.72)	4.99 (1.74)	5.32 (2.10)	4.61 (2.42)	4.81 (1.97)	2.89	(2, 935)	9.02 **	(1, 935)	9.66 ***	(2, 935)
Teacher says we have to	5.85 (1.87)	5.64 (2.03)	4.91 (1.95)	5.59 (2.17)	4.99 (2.44)	5.01 (2.08)	10.63 ***	(2, 932)	3.76	(1, 932)	2.56	(2, 932)
Parent(s) told me I have to	5.02 (2.21)	4.63 (2.24)	4.53 (1.88)	5.10 (2.26)	4.60 (2.42)	4.38 (2.09)	6.37 **	(2, 936)	.04	(1, 936)	.23	(2, 936)
It makes my parent(s) happy	6.05 (1.61)	5.70 (1.86)	4.98 (1.88)	6.08 (1.76)	5.55 (2.02)	5.08 (1.79)	26.55 ***	(2, 934)	.00	(1, 934)	.38	(2, 934)
To get better grades than other kids	5.08 (2.35)	5.16 (2.31)	4.31 (1.95)	5.56 (2.15)	5.17 (2.31)	4.96 (2.01)	9.38 ***	(2, 937)	6.99 **	(1, 937)	1.83	(2, 937)
So other people will think I'm smart	4.83 (2.50)	5.01 (2.15)	4.06 (2.00)	5.59 (1.99)	5.07 (2.28)	4.65 (2.18)	14.89 ***	(2, 937)	10.73 **	(1, 937)	1.96	(2, 937)

Notes:

^a Standard Deviations (SD s) in parentheses.

^b Degrees of freedom (df) in parentheses.

* $p < .05$, ** $p < .01$, *** $p < .001$