

Career maturity among children from economically disadvantaged families in Korea

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ABSTRACT

The present study aims to explore career maturity and influencing factors among elementary schoolers from poor families in Korea. Data are from 249 welfare recipient children in 10 administrative districts of Incheon. Scores of the work attitudes subdomain was lower than other aspects of career maturity including planning, self-appraisal, and independence in career decision-making. In the full sample, those in the higher academic years showed greater career maturity, planning, and self-appraisal, and those with greater parent attachment showed higher levels of self-appraisal. In separate analyses by gender, parent attachment showed greater influence on girls' career maturity. Finding from the separate analyses on lower vs. higher academic years (i.e. grades) revealed that parent attachment and female were associated with career maturity among lower graders, while academic achievement was associated with career maturity, planning, and self-appraisal among those in higher graders. Findings lend support to parental involvement in career education. Poor children might have limited perceptions of career focused on satisfying economic necessities. Career education should pay attention in helping them expand perceptions of the values of career.

Keywords: career maturity, economically disadvantaged children, work attitudes

I. BACKGROUND

Career maturity refers to the degree of the individual's preparedness to make informed career-related decision and cope with career developmental tasks [1]. From developmental perspectives, individuals' career development is understood as a life-long process that occurs through early childhood, adolescent, adulthood, and old age [2]. Early childhoods has been emphasized as the period in which an individual starts to form the basis of career development, such as learning about concepts of career, career-related plans and decision-makings, and understanding of self in relation with career [3].

Recognizing the significance of career development in childhood, there is a growing body of research on career maturity in children, [3], [4], [5] and the significance of early career education has been also increasing [6]. Despite these interests in childhood career maturity and the development of educational program, very little is known for career development of special populations such as children from economically disadvantaged families. Previous studies have reported that family socioeconomic status is a significant determinant of career development of the child and children from poor families tend to show lower levels of career development than non-poor counterparts [7], [8], [9]. Poverty in childhood has critical longitudinal influences in cognitive

and psychosocial development of the child [10] and negative impacts of poverty would be related with limited opportunity in developing perspectives about career related choices, low aspiration of career, and independence in decision-makings [4], [11]. Despite those potential environmental risk factors that might influence career related development of children from economically disadvantaged families, little research has focused on this population [12], [13].

The present study aims to investigate career maturity among economically disadvantaged children in Korea focusing on the associations with the factors that are known to determine career maturity of the general population of elementary school children. Given the lack of research on this population, the present research will provide empirical information in developing career education for children from poor families.

II. CAREER ATTITUDE MATURITY IN CHILDREN

Existing literature on career development emphasizes that career maturity can be achieved through successive stages across the life span and it should be assessed as a multi-faceted concept. Super, who is a pioneering scholar in the field of career development, defined career development as one's position on successive stages that encompasses exploration to disengagement [14]. Scholars with career developmental perspectives have suggested that childhood is the period for an individual starts forming work attitudes and behaviors and

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learning about adults' world-of-work, as well as the self in occupation [3] and the child can achieve these developmental tasks through identifying him or herself with an significant figure in the family or school.

Crites approached career maturity as the extent of readiness in making career-related decision relative to the members of the same age group [15]. Crites emphasized the attitudinal and capability-related aspects of career maturity which can be assessed with individuals' firmness in perusing one's preferred career orientation, independence in career decision-making, and capabilities in dealing with career related tasks including self-appraisal and problem-solving.

In Korea, Lim and colleagues [16] developed a career maturity scale for Korean adolescents based on career maturity scales developed by Super and Crites. Their expanded scale of career maturity included another dimension of activity of career development in addition to the previously discussed dimensions of attitudes and capabilities by Crites. The activity aspect of career maturity assesses active exploration and preparation for one's preferred career.

Chung and colleagues [6] developed a scale for elementary school children given that the existing measures of career maturity mainly focused on adolescents [14], [15], [16]. Their scale comprised of five subdomains including 'planning' which refers to one's attitudes in actively pondering about orientation and plans for future career, 'work attitudes' which indicates the degree to which one values career, 'self-appraisal' which indicates one's degree of understanding his or her own interests, ability, weaknesses and strengths, and environmental limitations in career choice, and finally, 'independence' is ones attitudes in accepting career-related responsibilities and independence in decision-making.

As discussed above, existing career development scales focused on attitudes toward work, ability in dealing with career developmental tasks, and action in exploring and preparing preferred career [15], [16], [17]. Though these multiple aspects as a whole would be critical in understanding and assessing individuals' career maturity in different developmental stages, scholars have suggested that the attitudinal aspect of career development might be more relevant for elementary school students rather than the ability of career-related problem-solving or involvements in actions for career preparation because preliminary development regarding self and career occurs in childhood [3], [18]. In this context, previous studies that used career maturity in children approached career maturity as career attitude maturity [18], [19] which can be defined as attitude in career decision regards the child's attitude about the process of career decision and career attitude maturity refers to the degree of development in making planned and independent decisions.

1. Correlates of career maturity

Career maturity known to be influenced by a variety of factors including individual, family, and school-related correlates. Gender has been investigated as an important correlate of career maturity [3], [5]. Some previous studies reported that girls show higher levels of career maturity [5], [19], while others observed no gender difference [7], [8], [19]. Scholars have suggested that socialized gender stereo-typing might explain the observed differences in career development and girls tend to have a more concrete career expectation for a restricted range of jobs, and thus girls' high score on career development scales might not necessarily reflect that they are more mature than boys in career related attitudes and

knowledge [3].

Age or students' academic year has been reported as a consistent predictor of higher career attitude maturity in the literature [7], [19], [21]. Older students show more comprehensive cognitive ability in understanding self and accurate knowledge about adults' world-of-work and their preferred occupations, and self-understanding than younger children [16], [20].

Academic achievement also has been frequently assessed predictor of career maturity. Students with higher academic achievement are more likely to show greater overall career maturity [8], [20], [21]. When subdomains of career maturity are considered, students with higher academic achievement may exert stronger influences on planning, attitudes towards work, and independence [20].

In addition to those individual factors of the children, studies have reported the influences of parents [22]-[26]. Positive and close relationships with parents might enhance students' ability of career exploration and independence in career-related decision making. Previous studies also have suggested that attachment to parent might show different influences on career maturity depending on the student's gender. Attachment to both father and mother might be a more significant determinant of decisiveness in career related decision making and planning aspects of career maturity for female students, while its effects on male students' career development is not conclusive [23].

Despite the theoretical proposition that career maturity in childhood would be achieved through identification with significant figures, only a small number of studies examined the association between teacher attachment and career development in adolescents [23], [27]. Stronger teacher attachment might influence career maturity through better adjustment to school [23] which in turn influences enhancement of career maturity [27].

In exploring career maturity of children from economically disadvantaged children, the present study focused on gender, age (academic years), and academic achievement, as well as attachment to parents and teacher. Given that academic achievement and attachment to parents and teacher has greater implications for development for career educations, how these variables might show different associations with career maturity across gender and academic years would provide practical information for career development programs.

III. METHODS

Data used for the present study are from welfare recipient elementary school students in the city of Incheon, Korea. Using the list of welfare recipient children in 10 administrative districts in Incheon, participants were recruited based on grades (1st to 6th academic years). Face-to-face interviews were conducted by trained civic service workers in participants' households. Of those 284 available participants in data, the current analysis included 249 children who reported information in all the variables in the study. As described in Figure 1 the analytic model hypothesizes associations between career maturity and the study variables. We further tested of these associations vary by gender and academic years (low: 1th – 3rd vs. high: 4th – 6th).

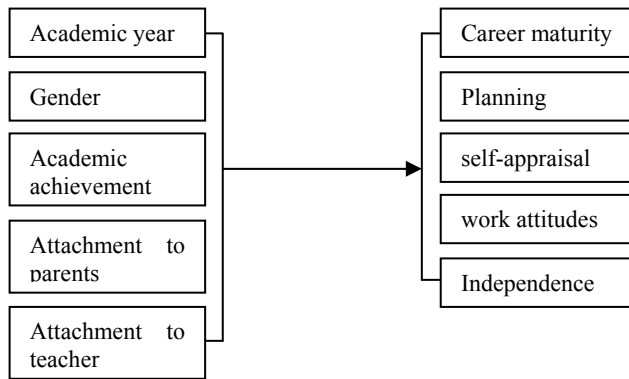


Fig. 1. Conceptual model of the study

1. Variables and the Analyses

Career maturity, the dependent variable in the present study, employed the scale developed by Chung and colleagues [6], which is specifically created for elementary school students. A total of 24 questions assessed four subdomains of career maturity including planning (7 items), self-appraisal (6 items), work attitudes (5 items), and independence in career-related decision makings (6 items). Example questions of these subdomains are: "I frequently think about things I need to do now in order to achieve my dream (planning)," "I know my strengths (self-appraisal)," "Having an occupation is not necessary if I have enough money (work attitudes)," "I will make career-related decisions by myself (independence)." An aggregate measure of career maturity has been created by calculating the mean of the 24 items and a higher score indicated greater level of career maturity. The responses ranged from 1 to 4.

For the exploratory purpose of our study, a set of correlates known to be related with career maturity also used in the analysis, including perceived academic achievement, academic year, attachment to parents, and attachment to teacher. We further tested if the hypothesized influences of these variables are moderated by students' gender. Perceived academic achievement was assessed by calculating the mean of the responses from six questions each of which asked participant's perception about his or her achievement in subjects including Korean, Math, English, Science, and Sociology. The responses ranged from 1 to 10 and a higher score indicated greater level of perceived academic achievement.

Attachment with parents was assessed with a 6-item-scale. Items asked the extent to which the participant agrees on statements about relationships with parents including "I share my emotions and thoughts with mother (father)," "I enjoy the times with my mother (father)." Response ranged from "not at all (1)" to "most of the time (4)."

Attachment to teacher was measured with four questions. Specific examples of the question included "my teacher pays special attention to me," "I can ask for help to my teacher when I deal with difficulties." Response categories ranged from "not at all (1)" to "most of the time (4)." Gender (girls=1) and academic years (1st-3rd year=0 vs. 4th-6th year=1) were coded as dichotomized variables and perceived academic achievement, attachment to parents, attachment to teacher, and career maturity were measured as continuous variables. Number of items used, ranges, and reliability scores assessed by the Cronbach's alpha are reported in Table 1.

Table 1. No. of items, ranges, and reliability of career maturity and the subdomains in the study

Career maturity scale	No. of items	Range	Cronbach's alpha
Career maturity	24	1 - 4	0.87
Sub-domains			
Planning	7	1 - 4	0.83
Self-appraisal	6	1 - 4	0.60
Work attitude	5	1 - 4	0.76
Independence	6	1 - 4	0.60

In order to address the research aims, the analytic steps included first, demographic characteristics of the sample was examined by means and frequencies, then relative influences of the study variables on total career maturity and the subdomains were investigated through multiple regressions in the full sample. Finally, the regression models tested on the full sample was examined by gender (boys vs. girls) and academic years (1st - 3rd year vs. 4th - 6th year).

VI. RESULTS

Table 2 displays descriptive statistics by means and frequencies of the variables in the study. There were about the same number of boys and girls in the sample and about 60% was in 4th to 6th grades (i.e., 10-12 years old). The participants tend to perceive their academic achievement relatively high and the mean score of the perceived academic achievement was seven in a 10-point-scale. Mean scores for attachment to parents and attachment to teacher were 2.77 and 2.88, respectively. The mean of the total career maturity scale was 2.56 which indicate a degree approximates greater than neutral. In terms of subdomains of career maturity, participants showed relatively higher levels of planning (mean=2.56), while the level of work attitudes (mean=1.79) appeared to be lower than other areas.

Table 2. Characteristics of the welfare recipient elementary school students in the study (n=249)

Variables	Mean (SD.) or Frequency (%)
Gender	
Boys	125 (50.20%)
Girls	124 (49.80%)
Academic years	
Low (1 st - 3 rd year)	103 (41.37)
High (4 th - 6 th year)	146 (58.63)
Academic achievement	6.90 (1.72) N=249
Attachment to parents	2.77 (0.69) N=249
Attachment to teacher	2.88 (0.82) N=249
Total career maturity score	2.56 (0.50) N=249
Subdomains	
Planning	2.56 (0.68) N=249
Self-appraisal	2.32 (0.50) N=249
Work attitudes	1.79 (0.60) N=249
Independence	2.23 (0.52) N=249

Table 3 reports relative influences of the study variables on career maturity and its subdomains in the full sample examined through multiple regression analyses. Those with higher academic years (i.e., 4th to 6th years) showed increased levels of career attitude maturity (b=.12, β=.13, p=0.042) than their lower achievement counterparts. In terms of the subdomains of career maturity, the study variables appeared to exert varying influences depending on the specific aspects of career maturity. Being in higher academic years was found to be a significant determinant of planning (b=.22, β=.16, p=.011) and self-appraisal (b=.15, β=.15, p=.017). Further, girls (b=.23, β=.17, p=.006) and who have greater parents attachment (b=.13, β=.13, p=.038) showed increased levels of planning.

Separate sets of regression analyses were performed to

examine the associations between the study variables and career maturity, as well as the subdomains among boys and girls for boys (Table 4), those in an academic year between 4th to 6th showed increased levels of total career maturity (b=.17, β=.18, p=.033) and planning (b=.28, β=.20, p=.028) than those in lower grades. On the other hand, those boys with higher academic achievement (b=-.06, β=-.18, p=.033) and who reported closer relationship with teacher (b=-.16, β=-.20, p=.024) appeared to show lower levels of work attitudes.

For girls (Table 5), being in a higher grade was associated with greater self-appraisal (b=.20, β=.20, p=0.02). Stronger attachment to parents was found to be positively associated with the career maturity (b=.19, β=.30, p=0.01), planning (b=.28, β=.29, p=0.02), and self-appraisal (b=.13, β=.18, p=0.49).

Table 3. Multiple regression results on factors affecting career maturity in the full sample (n=249)

Variables	Career maturity	Planning	Self- appraisal	Work attitudes	Independence
	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta
Gender	.10(.06)	.23(.08)	.05(.06)	.02(0.08)	.05(.07)
(girls)	.11	.17**	.04	.02	.05
Academic years	.12(.06)	.22(.09)	.15(.06)	.05(.08)	-.03(.07)
(4 th – 6 th years)	.13*	.16*	.15*	.03	-.03
Academic achievement	.01(.02)	.04(.02)	.01(.02)	-.02(.02)	.02(.02)
	.05	.09	.03	-.07	.08
Attachment to parents	.07(.04)	.13(.05)	.05(.05)	-.04(.06)	.05(.05)
	.11	.13*	.07	-.04	.07
Attachment to teacher	-.01(.03)	.06(.05)	.00(0.04)	-.09(.05)	-.02(.04)
	-.01	.07	.00	-.13	-.02

*p<0.5, **p<0.01, ***p<0.001

Table 4. Multiple regression results on factors affecting career maturity among boys (n=125)

Variables	Career maturity	Planning	Self- appraisal	Work attitudes	Independence
	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta
Academic years	.17(.08)	.28(.13)	.15(.10)	.13(.11)	.09(.09)
(4 th – 6 th years)	.18*	.20*	.14	.11	.09
Academic achievement	-.01(.00)	.03(.03)	-.02(.02)	-.06(.02)	.01(.02)
	-.02	.08	-.06	-.18*	.04
Attachment to parents	-.01(.00)	.00(.09)	-.02(.06)	-.14(.07)	-.02(.06)
	-.02	.00	-.02	-.17	-.03
Attachment to teacher	-.04(.06)	.28(.13)	.15(.10)	.13(.11)	.09(.09)
	-.06	.20*	.14	.11	.09

*p<0.5, **p<0.01, ***p<0.001

Table 5. Associations between grades, academic achievement, attachment to parents, attachment to teacher and career maturity among girls (n=124)

Variables	Career maturity	Planning	Self-appraisal	Work attitudes	Independence
	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta
Academic years	.08(.08)	.17(.12)	.20(.09)	.00(.11)	-.10(.10)
(4 th – 6 th years)	.09	.13	.20*	.00	-.09
Academic achievement	.03(.02)	.04(.03)	.04(.02)	.01(.03)	.04(.03)
	.12	.10	.14	.04	.10
Attachment to parents	.19(.06)	.28(.09)	.13(.07)	.09(.08)	.15(.08)
	.30**	.29**	.18*	.10	.17
Attachment to teacher	.01(.05)	.08(.06)	.01(.05)	-.07(.07)	.04(.06)
	.03	.10	.01	-.10	.06

*p<0.5, **p<0.01, ***p<0.001

Next set of analyses investigated the relative influences of the study variables on total career maturity score and the

subdomains by participants' academic years. For those participants in 1st to 3rd grades (Table 6), girls were found to show higher levels of the career maturity score ($b=.20$, $\beta=.10$, $p=.049$) and increased level of career related planning ($b=.37$, $\beta=.25$, $p=.014$). Those with greater attachment to parents were appeared to have increased levels of career maturity ($b=.19$, $\beta=.24$, $p=.035$) and self-appraisal ($b=.29$, $\beta=.30$, $p=.025$).

For those students in the 4th to 6th years (Table 7) academic achievement was found to be the only significant determinant of career maturity. Those with greater academic achievement reported higher levels of overall career maturity ($b=.04$, $\beta=.17$, $p=.042$), planning ($b=.07$, $\beta=.20$, $p=.013$), and self-appraisal ($b=.05$, $\beta=.19$, $p=.022$).

Table 6. Associations between gender, academic achievement, attachment to parents, attachment to teacher and career maturity among 1st to 3rd grades (n=103)

Variables	Career maturity	Planning	Self-appraisal	Work attitudes	Independence
	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta
Gender (girls)	.20(.10) .20*	.37(.15) .25*	.08(.12) .07	.15(.12) .13	.21(.12) .18
Academic achievement	-.02(.02) -.08	-.02(.04) -.05	-.04(.03) -.12	-.03(.03) -.08	-.00(.03) -.01
Attachment to parents	.19(.08) .24*	.20(.11) .18	.29(.10) .30*	.04(.09) .05	.14(.09) .15
Attachment to teacher	-.04(.06) -.06	.04(.09) .04	-0.02(.07) -.03	-.14(.07) -.20	-.05(.08) -.07

* $p<0.5$, ** $p<0.01$, *** $p<0.001$

Table 7. Associations between gender, academic achievement, attachment to parents, attachment to teacher and career maturity among 4th to 6th grades (n=149)

Variables	Career maturity	Planning	Self-appraisal	Work attitudes	Independence
	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta	b (s.e.) beta
Gender (girls)	.05(.07) .06	.17(.11) .13	.05(.07) .07	-.04(.10) -.04	-.04(.07) -.04
Academic achievement	.04(.02) .17*	.07(.02) .20*	.05(.02) .19*	.02(.03) -.07	.04(.02) .16
Attachment to parents	.01(.05) .01	.09(.07) .10	-.04(.05) -.07	-.07(.06) -.09	.10(.08) .11
Attachment to teacher	.01(.04) .02	.08(.06) .10	.02(.04) .04	-.07(.06) -.10	-.01(.04) -.01

* $p<0.5$, ** $p<0.01$, *** $p<0.001$

V. DISCUSSION

The present study aimed to explore career maturity of children from economically disadvantaged families. Analysis focused on examining the influences of gender, academic years, academic achievement, and attachment to parent and teacher on the total career maturity score, as well as the subdomains. Findings of our study appeared largely consistent with existing literature on non-poor children, but a few findings warrant discussion.

Results indicated that the total career maturity score of the participants appeared to be generally similar to children who are not poor in previous studies [8], while the work attitude was found to be relatively lower than other subdomains. The lower work attitudes score is not consistent with the previous findings that the levels of subdomains of career maturity are generally similar among poor and non-poor children [16]. The finding would suggest the possibilities that children from economically disadvantaged families have limited conceptualization of career which is focused on satisfying the economic necessities. Given that early childhood is the period in which children start to develop basic ideas of career and career aspiration, this finding suggests career development programs for economically disadvantaged children should pay attention in educating poor

children that occupation should emphasize the value of self-fulfillment.

Gender difference in the total career attitude and across the subdomains was not found in the analysis for the full sample. Given that previous findings on gender difference in career maturity is not consonant, no gender difference in the present study might be plausible. On the other hand, gender differences in subdomains of career maturity do exist in our study and these findings are consistent with the existing literature [20]. Our finding suggests that girls showed greater maturity in the planning aspect which indicated that they are more likely to ponder about more specific requirement to achieve their preferred career. This can be considered consonant with the idea that girls do not have greater career maturity per se, while gendered socialization might restrict girls' perceived scope choice on occupations, which in turn might have encouraged them to have more specific plans about career decisions at earlier ages than boys. Further, separate regressions on boys and girls suggest that the study variables might exert varying influences on subdomains of career maturity. For girls, attachment to parents was found to be significant determinant of overall career maturity, planning, self-appraisal in career. These results support findings from the previous studies reporting that attachment to parents might influence the

planning aspect of career maturity [24].

On the other hand, the finding regarding the negative associations between academic achievement and work attitudes and the teacher attachment and work attitudes among boys should be interpreted carefully. Possible reasons for such a finding could be attributed to the measurement of teacher attachment. The items used to create the measure focused on how much attention the teacher pays to the participant and those students who do not require special attention from the teacher could be those who are more mature students generally. Future studies should aim to examine different aspects of teacher relationship might have influences on specific subdomains of child career development. The measurement of academic achievement in the present study is based on the student own perception rather than objective measures like test scores. Thus, our measure might not capture students' cognitive ability that the academic achievement variable in the literature intends to assess.

Positive association between academic year and career maturity is largely consistent with previous research [7], [19], [21]. In the full sample, those children in 4th to 6th academic years showed greater overall career maturity, planning, and self-appraisal. Being consistent with the existing research on non-poor children, older children from poor families might be more likely to have increased knowledge about their interests in relation with preferred career and have more specific plans in order to achieve their career goals. Existing studies have suggested that, although increased age largely predicts greater career maturity, the degree of change might be different depending on specific years [18]. Future studies should examine the magnitude of change across academic years which might allow identifying effective timing and goals of career education programs.

When lower grade children and higher grade children are examined separately the associations between the study variables and career maturity appeared different between older and younger children groups. For younger children, being female and attachment to parents were found to be associated with overall career maturity and planning. These results suggest that having closer relationship with parents might be a more important determinant of career maturity especially for younger children. Educational programs need to recognize the significant influence of parents and incorporate parents as an integral part of the training.

For those in higher academic years, academic achievement was found to be positively associated with career maturity, planning, and self-appraisal. Despite the limitation of the measure, as noted above, the results support the significance of academic achievement in career development in children. This finding thus suggest that career education program needs to pay a closer attention to those children from poor families and who are with low academic achievement.

Limitations of the current study should be noted. First, the cross-sectional study design does not allow the researchers to examine longitudinal change in career development of the sample. From a developmental perspective, child's career related attitudes, ability to make independence decision, and knowledge about his or herself in career are expected to be continuously changing. Thus, longitudinal investigation which examines trajectories of career maturity and influencing factors is needed in order to produce empirical knowledge to develop effective career education programs.

Secondly, the present study did not include all the variables known to influence career maturity of in childhood. Several psychological and environmental correlates, for instance self-efficacy and parenting styles have been reported as an

important determinant of career maturity of children and adolescents. Though data used in the present analysis do not contain information on this psychosocial construct, future studies should aim at investigating complex correlations among individual factors and environmental factors including school and family in order to gain a more comprehensive understanding of the child's career development.

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