
**MODERATING ROLE OF AGE ON THE RELATIONSHIP BETWEEN CAREER
READINESS AND CAREER INDECISION.**

Quinter MIGUNDE (Corresponding author), Lucas OTHUON and Catherine MBAGAYA
Maseno University, Department of Educational Psychology

ABSTRACT: *The purpose of this study was to determine the moderating role of age in the association between career readiness and career indecision. A sample of 369 secondary school students was surveyed on career indecision and career readiness. Using multiple regression analysis, the predictor variables were able to account for 25.7 % of variance in career indecision. Career indecision was significantly negatively correlated to career readiness. Increase in career readiness was significantly predictive of decrease in career indecision. The interaction term between career readiness and age significantly predicted career indecision. Because the interaction term was significant this implies that age was a significant moderator in the relationship between career readiness and career indecision. The relationship between career maturity and career indecision was found to be stronger at younger ages.*

KEYWORDS: Age, career indecision, career readiness, students

INTRODUCTION

Career decision making is an important aspect of life and is considered one of the most complicated processes (Jedidah & Duffy, 2012) According to Brown and Thompson (2001), understanding this process has perplexed many researchers . Several theories have come up to explain this process. According to Hischi (2010), traditional theories of career development propose a rather circumscribed sequence of stages in adolescents' career development which are largely determined by age. It is important to note that few published studies have addressed the career decision making of Africans.

Career Maturity

The concept of career maturity has its origins in Super's (1990) developmental/ self-concept theory of career behaviour which proposes that the selection of an occupation is a process that spans for a considerable number of years from late childhood to early adulthood. Career maturity therefore denotes the highest place reached on this continuum. (Dhillon & Kaur, 2005).

According to Creed and Patton (2003) career maturity involves the assessment of an individual's level of career progress relevant to his/her developmental task. Each phase through which an individual moves has specific career developmental task that are relevant to the developmental phase. De Bruin and Benard-Phera (2002) proposed that individuals who have greater career maturity will have completed more of the relevant career development tasks successfully than individuals who have lesser degrees of career maturity.

Table 1: Super's Life Career Stages

Stage	Age	Task
Growth	Birth – 14	Development of self concept, attitudes, interest, needs and general understanding of work
Exploration	15 - 24	Development of hobbies, skills and making of making of tentative choices
Establishment	25 - 44	Entry level skill building and stabilization through work experience
Maintenance	45 - 64	Continual adjustment process to improve position
Decline	65 +	Reduced output and prepare for retirement

The Developmental Theory of career behaviour proposed 5 stages of development: growth, exploration, establishment, maintenance and withdrawal. The stages are described in Table 1 and 2. According to the complete model of career maturity proposed by Super, Savickas and Super (1996), when decision making competence is supported by adequate fund of information based on planful exploration then individuals are sufficiently mature to make tentative career choices that are viable and suitable.

Table 2: Super's Vocational Development Tasks for a Life Span

Stage	Age	Task
Crystallization	14 - 18	Developing and planning a tentative goal
Specification	18 - 21	Firming the vocational goal
Implementation	21 - 24	Training and obtaining employment
Stabilization	25 - 35	Working and confirming career choice
Consolidation	35+	Advancing in career

Research on career maturity has investigated various aspects of the construct. Research investigating the correlates of career maturity has focused on several variables and has proven that career maturity is influenced by demographic variables such as age, ethnicity, and locus of control, socioeconomic status, work salience and gender. The complex interaction of these factors subsequently affects an individual's readiness to succeed in mastering the tasks appropriate for the stages of career development (Salami, 2008).

Career Indecision

Career indecision has been defined as the inability to make decisions about the career one wishes to pursue (Guay, Senecal, Gauthier, & Fernet, 2003). It is considered a normal response when young people are required to make career related decisions. It may occur at any moment when individuals are contemplating on their careers but especially during transition points such as when choosing school subjects or university programme (Creed, Patton and Prideaux 2006). It is a reflection of a person's career readiness or maturity. Often, it is also viewed as a developmental process within the greater career maturation process and it results from the lack of information about the self and the world of work (Prideaux and Creed, 2001).

Making a career decision is an important task for young people. It begins to emerge when children are in primary school. During this time, children develop interests and begin to

understand how their ability relates to the world of work (Hartung, Porfeli & Vondracek, 2005). The ever evolving technology and changes in the job market are some of the primary reasons for complexity in career decision making. The variety of career opportunities available to individuals now are more than those that existed decades ago (Sharf, 2009). This comes as a challenge for most individuals who are in the process of making career decisions. The assessment of career indecision provides information about specific problems that prevent adolescents from making career decisions. Despite its status as a significant career related problem, career indecision has not been a central construct in career development theories (Kelly & Lee, 2002).

Creed et al. (2006) point out that career indecision is a developmental appropriate experience which may fluctuate depending on a variety of situational factors but is likely to be resolved with the assistance of appropriate interventions such as appropriate career related information. There are two main categories of career indecision: Developmental indecision which is a normal developmental phase or stage that is temporary and Chronic indecision which is an ongoing inability to make decisions because of psychological problems (Santos & Ferreira, 2012).

Relationship between Career Maturity and Career Indecision

Career indecision has been closely linked to career maturity (Prideaux & Creed, 2001). Studies on career maturity and career indecision have found career maturity to be a strong predictor of career indecision (Prideaux & Creed, 2006; Creed & Patton, 2003; Patton & Creed, 2006).

Age as a Moderator Variable

Moderation implies that the causal relation between two variables changes as a function of the moderator variable. Moderators and predictors are at the same level with regard to their roles as causal variables in that they function as independent variables (Baron & Kenny, 1986). The moderator hypothesis is supported if the interaction between the predictor and the moderator are significant. There may also be significant main effects for the predictor and moderator but these are not directly relevant conceptually to testing the moderator hypothesis.

Research examining the relationship between age and career maturity have revealed mixed results. For example, Ortlep, Mahlangu, Mtshelma and Greyling (2002) found negative correlations between the two variables. Creed and Patton (2003), Patton and Creed (2002), Kornspan and Etzel (2001) on the other hand reported positive relationship between the two variables. Researchers have also studied the relationship between age and career indecision and found no significant relationship between the two (Lopez & Ann-Yi, 2009; Schmidt et al, 2011).

Current Study

In view of the fact that the relationship between career maturity and career indecision is known, this study seeks to determine whether age moderates the relationship between career maturity and career indecision. The present study hypothesizes that age will moderate the association between career maturity and career indecision.

METHOD

Participants

The study was carried out in secondary schools in Kisumu Municipality Kenya. The sample for the study consisted of 369 secondary school students from year one to year four. The age of participants ranged from 13 to 24 years. The mean age of the participants was 16.5. Year one students represented 25.4%, year two represented 24.3%, year three represented 31.9% and year four students represented 17.0% of the total sample.

Instruments

Demographic Questionnaire. Demographic questionnaire was used to gather basic information about the students such as age, gender, type of school, and year in school.

Career Indecision. The Career Decision Scale (CDS; Osipow et al, 1976) was used to measure career indecision of the students on a 4-point likert scale (1=Not at all like me, 4=Exactly like me). The scale contains 19 items which consists of two subscales. 16 items form the indecision subscale while 2 items measure the degree of certainty felt in having made a career decision. Osipow et al 1996) reported a two week test retest reliability of .90 and .81. Wang et al (2006) reported a Cronbach's alpha of .91. Patton and Creed (2007) reported .89. The reliability coefficient for the current study was .74.

Career Readiness. Career Maturity Inventory – Adaptability form (CMI; Savickas & Porfeli, 2011) was used to measure the career readiness of the students. The readiness subscale which has a total of 18 items measuring concern, curiosity and confidence was measured on a 5-point likert scale (1=Strongly disagree, 5=Strongly agree). Sample items include: 'I am not going to choose a career until I am out of school' and 'I don't know what subjects to take in school'. Savickas and Porfeli (2011) reported a coefficient alpha of .86 measuring readiness which were used in the current study. The reliability coefficient for the current study was .71.

RESULTS

Descriptive Analysis

Age was not significantly correlated to both career readiness and career indecision. Career indecision was significantly negatively correlated to career readiness. Similar results have also been reported by Prideaux and Creed (2006), Creed and Patton (2003) and Creed (2006). Whoa also found negative correlations between career indecision and measures of career maturity. Career readiness involves making age appropriate career decisions, exploring the world of work, seeking information about occupation and their requirements and having faith in one's ability to make realistic career decisions. As an individual's involve themselves in these activities, their level of career indecision also decreases. Bivariate correlations among the variables are presented in Table 3.

Table 3: Person Product Moment Correlation for career indecision, career readiness and age

	Variable	1	2	3
1	Career Indecision	1		
2	Career Readiness	-.49**	1	
3	Age	-.01	-.00	1

Key: **p < .01.

Moderation Analysis

Moderation analysis was done using multiple regression analysis to assess whether age can interact with career readiness to predict career indecision. The moderator variables functions as independent variables as presented on Fig 1

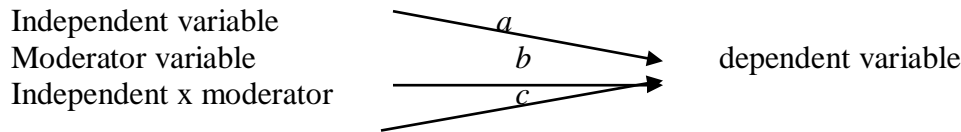


Fig 1: Moderator Model

—————> Represents direction of prediction

The moderator hypothesis is supported if the interaction term (path c) is significant. There may also be significant main effects for the predictor and the moderator variables (paths a and b) but these are not directly relevant to testing the moderator hypothesis. Prior to forming an interaction between age and career readiness scores on both variables were centered by subtracting the sample mean. The regression included career readiness, age and readiness X age interaction term as predictors of career indecision.

The overall regression was statistically significant $R = .507$, $R^2 = .257$, $F = 41.03$, $p < .001$ there was a significant career readiness x age interaction $t = 2.84$, $p < .05$. There was also a significant effect for career readiness $t = -10.82$ $p < .001$. There was however a non significant effect for age $t = -.29$, $p > .05$. The results are presented in Table 4.

Table 4: Regression Analysis for Career Maturity, Age and the interaction between Career Maturity and Age Predicting Career Indecision

Variable	B	SE B	β
Career Readiness	-.37	.03	-.48**
Age	-.06	.21	-.01
Career Readiness X Age	.93	.33	.13**

Key: **p < .01.

Age was not significantly predictive of career indecision. Increase in career readiness was significantly predictive of decrease in career indecision. The interaction term between career

readiness and age was however significant. Because the interaction term was significant this implies that age moderates the association between career readiness and career indecision.

To generate regression lines, three age groups were created to represent the ages in the sample. The participants' ages were grouped as follows:-Group 1 = 13 -15, Group 2 = 16 -18 and Group 3 = 19-24. Within the 13 -15 age group, the career readiness variable was statistically significant as a predictor of career indecision $t=-6.44, p<.01$. Within ages 16-18 the career readiness variable was a statistically significant predictor of career indecision $t=-9.07, p<.01$. Within age group 19 – 24, career readiness was not significantly predictive of career indecision $t= -.43, p>.05$. The results are presented in Table 5.

Table 5: Regression Analysis for Career Maturity Predicting Career Indecision for Different Age Groups

Age Group	R	R ²	B	SE B	β
(13 - 15)	.56	.31	-.43	.07	-.56**
(16 - 18)	.51	.26	-.38	.04	-.51**
(19 - 24)	.09	.01	-.05	.12	-.09

Key: **p < .01.

A graphical representation for each of the three groups is presented in Figure 2. The line graph shows the nature of the significant interaction between age and career maturity as significant predictors of career indecision.

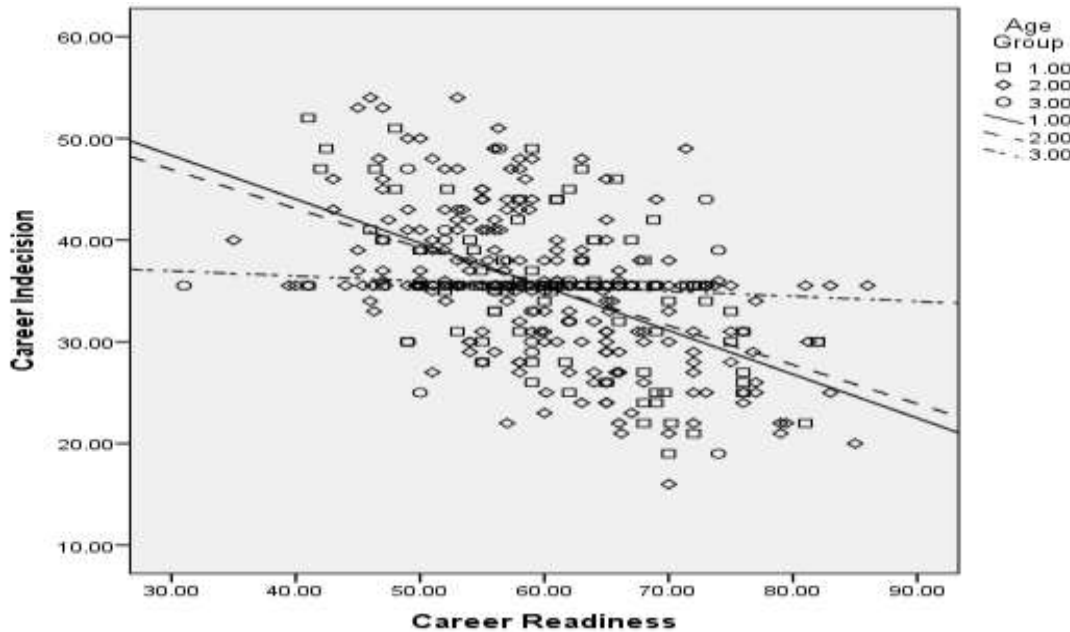


Figure 2: A graphical Presentation for Career Maturity Predicting Career Indecision by Age

The oldest age group showed a very small decrease in career indecision as career readiness increases. The youngest age group showed a larger decrease in career indecision as career

readiness increases. The statistically significant interaction suggests that this relationship between career indecision and career readiness was stronger at younger ages.

CONCLUSION

Increase in career readiness was significantly predictive of decrease in career indecision. The statically significant interaction between career readiness and age indicate that age was a significant moderator in the relationship between career maturity and career indecision. The relationship between career maturity and career indecision is stronger at younger ages.

REFERENCES

- Creed PA & Patton W 2003. Difference in career attitudes and career knowledge for high school students with and without paid work experience. *International Journal for Educational and Vocational Guidance*, 3:31 – 33.
- Creed PA. Patton W & Watson MB 2002. Cross cultural equivalence of the career decision making self efficacy scale- short form: Australian and south African comparison. *Journal of Career Assessment*, 10: 327-342.
- Creed PA Patton W & Bartrum D 2004. Internal and external barriers, cognitive style and the career development variables of focus and indecision. *Journal of Career Development*, 30: 277-294.
- Creed P & Patton WA 2007. The relationship between career variables and occupational aspirations for Australian high school adolescents. *Journal of Career Development*, 34: 127-148.
- Creed P Patton W & Prideaux L 2006. Causal relationship between career indecision and career decision making self-efficacy. *Journal of Career Development*, 33:47-65.
- De Bruin P G & Benard-Phera J M 2002. Confirmatory factor analysis of the career development questionnaire and the career decision self efficacy scale for South African high school students. *Journal of Industrial Psychology*, 28:1-6.
- Dhillon U & Kaur R 2005. Career maturity of school children. *Journal of the Indian Academy of Applied Psychology*, 31:71-76.
- Germeij V & De Boeck P 2002. A measurement scale for indecisiveness and its relationship to career indecision and other types of indecision. *European Journal of Psychological Assessment*, 18:113-122.
- Guay F Ratelle CF Senecal C Larose S & Deschenes A 2006. Distinguishing developmental from chronic career indecision: Self-efficacy, autonomy and social support. *Journal of Career Assessment*, 14:235-251.
- Guay F Senecal C Gauthier L & Fernet C 2003. Predicting career indecision: A self determination theory perspective. Doi: 10.1037/0022-0167.50.2.165.
- Hartung PJ Porfeli EJ & Vondracek FW 2005. Child vocational development: A review and reconsideration. *Journal of Vocational behaviour*, 66:385-419.
- Kelly KR & Lee WC 2002. Mapping the domain of career decision problems. *Journal of Vocational Behavior*, 61:302-326.

- Kornspan A S & Etzel EF 2001. The relationship of demographic and sociological variables to career maturity of junior college student-athletes. *Journal of College Students Development*, 42:122-132.
- Lopez FG & Ann-Yi S 2006. Predictors of career indecision among three racial groups of college women. *Journal of Career Development*, 33:29-46.
- Ortlep K Mahlangu S Mtshelma S & Greyling M 2002. Career maturity, career decision self efficacy and career aspirations of black learners of different school settings in South Africa. *Journal of Psychology in Africa*, 12:40-54.
- Osipow SH Carney CG Winer JL Yanico BJ & Koschier M (ed.)1976. *The Career Decision Scale*. Columbus, OH: Marathon Consulting & Press.
- Oztemel K 2013. An investigation of career indecision level of high school students: relationship with personal indecisiveness and anxiety. *The Online Journal of Counseling*
- Patton W & Creed PA 2002) The relationship and work commitment on a sample of Australian high school students. *Journal of career development* 29:69-84
- Patton W & Creed PA 2001. Development issues in career maturity and career decision status. *The Career Development Quarterly*, 49:336 -351.
- Patton W Creed PA & Muller J 2002. Career maturity and well-being as determinants of occupational status of recent school leavers: a brief report on an Australian study. *Journal of Adolescents Research*, 17:425-435.
- Patton W Creed P & Watson M 2003. Perceived work related and non-work related barriers in the career development of South African adolescents. *Australian Journal of Psychology*, 55:74-82.
- Perry JC Liu X & Griffin GC 2011. The career locus of control scale for adolescents: Further evidence of validity in the United States. *Journal of Career Development*, 38:167-185.
- Prideaux L Creed P Muller J & Patton W 2000. A review of career interventions: Have investigations shed any light? *Swiss Journal of Psychology*, 59:227-239.
- Prideaux L A & Creed P A 2001. Career maturity, career decision making self efficacy and career indecision: A review of the accrued evidence. *Australian Journal of Career Development*, 10: 7-12.
- Salami SO 2008. Gender, identity status and career maturity of adolescents in Southwest Nigeria. *Journal of Social Sciences*, 16:35-49.
- Santos PJ & Ferreira AJ 2012. Career decision status among Portuguese secondary school students: A cluster analytic approach. *Journal of Career Assessment*, 20:166-181.
- Savickas ML & Porfeli EJ 2011. Revision of the career maturity inventory: The adaptability form. *Journal of Career Assessment*, 19:355-374.
- Schmidt CK Miles J R & Welsh AC 2011. Perceived discrimination and social support: the influence of career development and college adjustment of LGBT college students. *Journal of Career Development*, 38:293-309.
- Sharf R 2009. *Applying career development theory to counseling* (ed). Brooks Cole publishing company.
- Super DE 1990. A life span life space approach to careers. In Brown, D., Brooks, L., & Associates (eds). *Career Choice and Development*. San Francisco: Jossey – Bass.
- Super DE Savickas ML & Super CM 1996. The life span, life space approach to careers. In Brown, D., Brooks, L., associates (eds). *Career Choice and Development: Applying Contemporary Theories to Practice*. San Francisco: Jossey Bass.

Wang N Jome LM Haase RF & Bruch M A 2006. The role of personality and career decision-making self-efficacy in the career choice commitment of college students. *Journal of Career Assessment*, 14:312-332.

Jedidian A Duffy RD 2012. Work volition, career decision making self efficacy and academic satisfaction: An examination of mediators and moderators. *Journal of Career Assessment*, 20: 154-165.