

RELATIONSHIP BETWEEN CAREER MATURITY AND SELF-EFFICACY AMONG MALE AND FEMALE SENIOR SECONDARY STUDENTS

Pawan Kumar Singh and R. P. Shukla

This study investigated the relationship between Career Maturity and Self-Efficacy of senior secondary students and studied the comparison of boys' and girls' Career Maturity and Self-Efficacy at the senior secondary stage. The study employed a descriptive research design. The population for the study consisted of all government and private senior secondary students at Muzaffarpur in Bihar. The sample for the study comprised 792 students (370 boys and 422 girls) of standard XII which were selected using the stratified random sampling technique. The study reveals that the career maturity of senior secondary students was positively correlated with the self-efficacy of senior secondary students. A significant difference was found between the mean scores of boys and girls of senior secondary on the various dimensions of career maturity, i.e., self-appraisal, occupational information, goal selection, goal planning, and problem-solving, respectively and lastly overall career maturity. The difference between self-efficacy of boys and girls at the senior secondary level was also found to be significant. Implications for practitioners, counsellors, educators, parents and interventions for career counselling are also presented.

KEYWORDS: Career Maturity, Self-Efficacy, Gender, Senior Secondary Students

INTRODUCTION

Now a days the career problems of young people have been an increasingly important issue. Parents are especially more interested in their children's

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careers and have great enthusiasm for educating their children. Youth, as well as their parents, recognize that career preparation is an important part of life. Adolescence is an important period during which many decisions about one's future are made. The term 'Career Maturity' is used to describe an individual's level of career development. The concept of career maturity is defined as the place reached on the continuum of vocational development from exploration to decline (Super, 1955). Career maturity is central to any developmental approach to understanding career behaviour; it involves an assessment of an individual's level of career progress in relation to his or her career-relevant development tasks (Crites, 1976). Furthermore, it refers, broadly, to the individual's readiness and awareness to make age-appropriate career decisions and cope with career development tasks. Career maturity also refers to the ability to make appropriate career choices both realistic and consistent overtime, as well as, to be well informed of what is required to make a particular career decision (Levinson, Ohler, Caswell, & Kiewra, 1998). Crites' (1976) model of career maturity proposed that it consists of affective and cognitive dimensions. The cognitive dimension is composed of decision-making skills; the affective dimension includes attitudes toward the career decision-making process (Crites, 1976). Career maturity is an indicator of an individual's attitude toward his or her readiness to make career choices appropriate to age or developmental stage and an important variable in the career developmental process (Burkhead & Cope, 1984).

Self-efficacy is the concept delivered from the society education theory of Bandura (1977). It indicates self-confidence in successfully organizing and executing tasks, and determines an individual's capacity to control the motives, recognition, and direction of their actions. Self-efficacy is enhanced by the support of teacher and parents, specifically in childhood and during adolescence, and also indirectly influenced by the individual's level of self-respect. Betz and Hackett (1983) reported that self-efficacy was related to career maturity due to the influences of vocational activities and the insights obtained by people participating in such activities. Such research revealed that self-efficacy is co-related with various aspects of career development and this correlation has been supported by Lent et al. (1984) and Taylor and Pompa (1990).

SIGNIFICANCE OF THE STUDY

Determining what to do upon completing senior secondary school education continues to be a significant task for students. For some, choosing an occupation and finding their first full-time job will be a major challenge. For others, choosing and selecting a particular course of study will constitute the

major decision-making goal at this stage. Clearly no matter which path students choose to follow beyond this stage this is a time for important career decisions to be weighed and implemented. One of the most crucial decisions, a young adolescent must make is the selection of an occupation. A large number of career options are available these days to the students, making it a difficult task for the youngster to make a mature choice. The understanding of vocational world is vital for students as it enables them to review their career decisions in the light of their potentialities. For proper guidance in the selection of courses of studies as well as in occupation, intelligence testing plays an important role. If a person enters an occupation which requires intelligence more than what he has, he will find himself unsuitable for that type of work. The same difficulty will occur with individuals whose intelligence is greater than what their work requires. He/she faces dissatisfaction and lack of competitive spirit in his/her job. The close relationship of intelligence in vocational choice and satisfaction establishes the importance of intelligence in guidance and education. Therefore, for the selection of a particular course of study as well as in occupation, intelligence testing is required. This study would be helpful for parents, the school administrators, policy makers and teachers for designing their teaching methods, patterns, and styles which would help in maximizing students learning and occupational information, to know how they can adjust themselves in today's competitive society.

OBJECTIVES OF THE STUDY

Following are the objectives of the study:

1. To find out the relationship between career maturity and self-efficacy of senior secondary students.
2. To compare the career maturity of senior secondary students with respect to their Gender.
3. To compare the self-efficacy of senior secondary students with respect to their Gender.

RESEARCH HYPOTHESES

The hypotheses for the study are as under:

- H1: There exist significant relationship between career maturity and self-efficacy of senior secondary students
- H2: There is significant difference between the career maturity of Boys and Girls of senior secondary

H3: There is significant difference between the self-efficacy of Boys and Girls of senior secondary

RESEARCH METHODOLOGY

The present study is descriptive in nature and survey method had been used. All the senior secondary students, those who were studying at standard XII in government and private senior secondary schools of academic session 2013-14 at Muzaffarpur city in Bihar state constituted the population of the study. In this study, stratified random sampling technique has been used to draw appropriate representative sample from the population. At first, schools were selected randomly from all the government and private senior secondary schools, and after this, from the selected schools, students were also selected randomly. Finally, after rejecting 64 incomplete answer sheets the sample consists of 792 students (370 boys & 422 girls) of standard XII.

TOOLS USED

Career Maturity Inventory (CMI)

The CMI was developed and standardized by the researcher, based on career choice competencies. It is based on the cognitive dimension of Crites' model of career maturity, and consists of five components (Self-appraisal, Occupational information, Goal selection, Goal planning, and Problem-solving) of cognition in the process of career decision-making. It contains 25 competence statements, 5 from each dimension on the basis of five point Likert type scale. Coefficient of reliability of the whole scale as well as of each dimension was determined by Cronbach's α (alpha) coefficient, which was 0.71, 0.74, 0.73, 0.78 and 0.69 based on the dimensions, and on total scale the reliability value was 0.81. In order to determine its content validity, the experts in the field of Education and Psychology were consulted.

Self-Efficacy Scale

This scale was developed and standardized by T. Mehta. It consists of 60 items. Test-retest method of reliability and rational equivalence are 0.89 and 0.81. Coefficients of correlation are 0.83 and 0.86 for constructive and concurrent validity at 0.01 level.

FINDINGS OF THE STUDY

The findings of the study, objective wise and as per hypothesis of the study are presented below:

1) Objective 1

Table 1

Pearson Correlation Coefficient (r) between Career Maturity and Self-Efficacy of Senior Secondary Students.

Relationship between	Career Maturity	Self-Efficacy	Degrees of Freedom (N-2)
Career Maturity	1.00	0.73*	790
Self-Efficacy	0.73*	1.00	

*Correlation is significant at the 0.01 level (2-tailed).

It can be observed from Table 1 that the correlation coefficient between career maturity scores and self-efficacy scores of senior secondary students was found to be 0.73, which is significant at 0.01 level of significance. Cohen and Holliday (1982) suggest that correlation coefficient value between 0.70 and 0.89 may be considered as high positive correlation. This shows that career maturity of senior secondary students is highly correlated with the self-efficacy of senior secondary students. Consequently, the coefficient of determination (r^2) was 0.5402, which shows that 54.02% variation in career maturity can be attributable to the self-efficacy of senior secondary students. This value of r^2 also suggests that 45.98% of variation in the career maturity of senior secondary students is due to some other variables. This shows that a positive relationship exists between career maturity and self-efficacy of senior secondary students. It also means that more the self-efficiency of senior secondary students the more the career maturity of senior secondary students. Therefore, the hypothesis (H1) that the career maturity of senior secondary students has significant relationship with the self-efficacy of the students is accepted.

It means that the career maturity of senior secondary students have significant relationship with the self-efficacy of the students. Betz and Hackett (1983) reported that self-efficacy was related to career maturity due to the influences of vocational activities and the insights obtained by people participating in such activities. Such research revealed that self-efficacy is correlated with various aspects of career development and this correlation has been supported by Lent et al. (1984) and Taylor and Pompa (1990). Hackett and Betz (1981) first tried to apply Bandura's (1977) propositions about self-efficacy

to career behaviour. They demonstrated that career decisions, attainments and adjustment behaviours were subject to the influence of self-efficacy beliefs in both men and women. Lent et al. (1994) developed Social Cognitive Career Theory (SCCT) based on Bandura's (1982, 1986, 1989) social-cognitive theory and Hackett and Betz's (1981) career self-efficacy theory. SCCT hypothesizes that personal, contextual, and social cognitive factors affect the development of career interests, selection of career goals, and career behaviors. Educational and vocational aspirations have indicated that, compared to lower aspirations, students with higher aspirations are more likely to have higher self-concept and an internal Locus of Control (Mau, 1995). The self-efficacy construct has proven to be an important individual difference variable in vocational psychology (Bandura, 1986; Betz, Harmon, & Borgen, 1996). Lent et al., (1994, 2000) was introduced to explain the career development of adolescents and young adults from a socio-cognitive behavioral framework. Self-efficacy is the measure of one's competences to complete tasks and reach goals (Ormrod, 2006). It also refers to beliefs about one's capabilities to learn or perform behaviors at designated levels (Bandura, 1986, 1997). Many research studies shows that self-efficacy influences academic motivation, learning and achievement (Schunk, 1994; Pajares, 1996). Researchers have created strong support for the effect of self-efficacy on the career decision-making process of individuals since the distinctive study by Betz and Hackett (1981), which tried to explain the notion of career-related self-efficacy (Brown et al., 1999; Multon et al., 1991). A critique of this subject is that the researches carried out have included correlational designs with students enrolled in introductory university courses. The correlates of career decision-making self-efficacy (CDMSE) that have been examined include mathematics self-efficacy, generalized self-efficacy and global self-esteem (Betz & Klein, 1996). Many others have suggested that the students' perceptions of barriers and their career self-efficacy may be important forces in their career development and career maturity (Conyers, Enright, & Strauser, 1998; Fichten, 1988; Fichten, Bourdon, Amsel & Fox, 1987; Hackett & Lent, 1992; Lent, Brown, & Hackett, 1996; Luzzo, 1995a; Luzzo & Funk, 1996; Luzzo, Hitchings, Retish, & Shoemaker, 1999). If students perceive that barriers are insurmountable, then their self-efficacy will be low. On the other hand, if they perceive few barriers, their self-efficacy is likely to be high and their resulting career development is purported to also be high (Conyers, Enright, & Strauser, 1998; Fichten, 1988; Fichten, Bourdon, Amsel & Fox, 1987; Luzzo, 1995b; Luzzo & Funk, 1996; Luzzo, Hitchings, Retish, & Shoemaker, 1999).

2) Objective 2

Table 2

Mean, SD and 't' Value of Senior Secondary Students on Dimensions of Career Maturity with Respect to their Gender.

Dimensions of Career Maturity	Gender	N	Mean	Std. Deviation	't'	Significance
Self-Appraisal	Boys	370	11.56	3.39	7.91	Sig
	Girls	422	9.81	2.81		
Occupational Information	Boys	370	11.43	3.43	8.04	Sig
	Girls	422	9.61	2.93		
Goal Selection	Boys	370	10.36	3.46	6.88	Sig
	Girls	422	8.86	2.66		
Goal Planning	Boys	370	11.28	3.75	7.36	Sig
	Girls	422	9.51	3.00		
Problem Solving	Boys	370	11.87	3.64	8.35	Sig
	Girls	422	9.77	3.43		
Overall CM	Boys	370	56.52	14.95	9.40	Sig
	Girls	422	47.57	11.78		

Degree of Freedom = 790, Tested at 0.01 level of significance, Table value of t-test = 2.58

Table 2 reveals that 't' value (7.91, 8.04, 6.88, 7.36, 8.35 & 9.40) for difference between the mean scores of boys and girls of senior secondary on dimensions of career maturity that are self-appraisal, occupational information, goal selection, goal planning, and problem solving, respectively and lastly overall career maturity was significant at 0.01 level of significance. It shows that there is significant difference between the mean scores of boys and girls of senior secondary on all the five dimensions and overall career maturity. When results were compared in the context of the mean scores, it was found that mean scores of boys of senior secondary were higher than mean scores of girls of senior secondary on all the five dimensions and overall career maturity. Hence, the hypothesis (H2) that there is significant difference between the career maturity of boys and girls of senior secondary is accepted.

It means that the boys of senior secondary are more mature in terms of their career choices than girls of senior secondary in all the five dimensions of career maturity. This may perhaps be due to the fact that in Indian culture it is boys or males who are more encouraged, facilitated and cared well for choosing a right path of their career from the beginning, thus resulting with higher career maturity in them. Higher career maturity perceived by boys of senior secondary may be due to the reason that differential environment provided by parents to boys and girls which also reflects in their behavioural pattern.

Society expects differently from both sexes about their career and studies, and for that different stimulating environment is provided which markedly affects the achievement of both groups. The male subjects whose primary goal is to choose a suitable career for them and whose total view about themselves are high and who know to tap their real abilities, potentialities and capacities, involved themselves in career exploration, sought career related information and developed proper attitude about their career. Consequently they displayed significant variance upon career maturity. The male children are being given better academic and financial support by their parents in traditional Indian societies. The basic notion behind such treatment is that male child would earn for their parents and family whereas female children would go in other family after marriages. In general, boys are restricted to academic and future careers only but girls are more conscious about their look, marriages, increasing dreams and aspirations regarding their independence and future life, which according to them might be directly associated with their mate selection and successful married life with partners, etc. Besides these, today's girls are getting involved in the frenzy of competitions and careers. This result is supported by the findings of many studies conducted in India and abroad, Super & Bohn (1970), remarked that there are sex differences in occupational maturity of high school boys and girls. Boys are more vocationally mature than girls. While the high school boys become more involved in making career decision, girls are drawn towards marriage. Parlikar (1973), sex differences were observed between vocational maturity of 75 boys and 75 girls each of VIII, IX, X and XI standard of Gujarati medium schools of Baroda city. Lawrence & Brown (1976), Pound (1978) found sex as a factor associated with career maturity operates differentially in different cultures. Some studies like study of Naidoo et. al (1998), Dhillon & Kaur (2005), has reported significant influence of gender on career maturity. Hasan (2006), it may be concluded that gender is important factor that can influence career maturity of class X students. Mona & Kaur (2009) were observed significant differences between boys and girls on attitudes and competence scale of career maturity. Some studies have reported that males scored higher than females, including Achebe (1982) in Nigeria, and Gupta (1987) in India. Onyejiaku (1985), Asimugo & Ejiogu (1991), Onivehu (1991) who reported that male students in their sample had higher career maturity scores than the female students. Lokan, Boss & Patsula (1982), Gati, Osipow & Givon (1995), Brown & Lent (2000), Bozgeyikli, Eroglu, & Hamurcu, (2009) found that male adolescents assessed themselves more efficient than female adolescents in all sub dimensions of career maturity. Inferences of these studies indicate that significant gender differences exist on career maturity of senior secondary

students, and boys had got more scores on career maturity than girls. Contradictory results have been also reported in several studies conducted by Babarovic & Sverko (1960), studied vocational maturity of primary school students in Croatia, result obtained that girls systematically achieved higher scores than boys in vocational maturity. Some studies like study of Shenoy (1989), Singg (2005), Salami (2008), has denied any significant effect of gender on career maturity. Majority of studies have found that females of a number of age groups have higher scores on career maturity measures than that of males, Herr & Enderlein (1976), Alvi & Khan (1983), Westbrook (1984), King (1989), Taylor & Pompa (1990), Luzzo (1995), Rojewski, Wicklein, & Schell (1995), Betz et al. (1996), Patton & Creed (2001), Kornspan & Etzel (2001). In other study Fouad (1988) found females were higher only on some subscales of career maturity. Some studies have failed to find out any significant gender difference in career maturity Thompson & Lindeman (1984), Watson & Aarde (1986), Kelly & Colangelo (1990), Watson, Stead, & De Jager (1995).

3) Objective 3

Table 3

Mean, SD and 't' value of Senior Secondary Students' Self-efficacy with Respect to their Gender.

Gender	N	Mean	Std. Deviation	't'	Significance
Boys	370	36.41	8.96	8.46	Sig
Girls	422	31.31	8.00		

Degree of Freedom = 790, Tested at 0.01 level of significance, Table value of t-test = 2.58

Table 3 reveals that 't' value (8.46) for difference between the mean scores of the self-efficacy of boys and girls of senior secondary was significant at 0.01 level of significance. It shows that there is significant difference between the mean scores of the self-efficacy of boys and girls of senior secondary. When results were compared in the context of the mean scores, it can be seen that mean score on self-efficacy of senior secondary boys' (Mean=36.41) is higher than the mean score of senior secondary girls (Mean=31.31). Hence, the hypothesis (H3) that there is significant difference between the self-efficacy of Boys and Girls of senior secondary is accepted.

It means that the boys of senior secondary are more self-efficient than girls of senior secondary. This result has been found to be supported by the findings of Hacket and Betz (1983), who suggested that there are gender differences in socialization and differential access to opportunities, internal and external barriers to students' career adjustment. External barriers are the socially construct delimitations which faced female especially, resulting in the internal

barrier of low self-efficacy. It was found that male adolescents assessed themselves more efficient than female adolescents in all sub dimensions of CDMSE. Female faced a lack of strong self-efficacy as a result of being socialized to have lower expectation and failure to recognize talents and capabilities. Female tended to perceive more barriers (child rearing and balancing work and home responsibilities) than men both in past and future. People's belief about themselves and the world of work influence their approach to learning new skills and ultimately affect their aspirations and actions. Therefore all of these factors determine an individual's sense of efficacy, resulting in influencing their career choice. Differences among genders are obviously apparent in self-efficacy for traditionally male and female occupations (Betz & Hackett, 1981; Post-Kammer & Smith, 1985). Women choose a more traditionally female career because of the perceived difficulty in combining a non-traditionally female career with the surmounting responsibilities of home and family (Stickel & Bonett, 1991). Bright (1996) also included gender as a potentially influential variable on the CDMSE of undergraduate students. Female undergraduates were reported lower mathematics self-efficacy than do males. The mathematics self-efficacy of college undergraduates is more predictive of their mathematics interest and choice of math-related courses and majors than either their prior math achievement or math outcome expectations (Hackett, 1985; Hackett & Betz, 1989, Lent et al., 1991, 1993; Parajes & Miller, 1995). Self-efficacy beliefs influence task choice, efforts persistence, resilience and achievement (Schunk, 1995; Bandura, 1997). Contradictory results have been also reported in several studies, conducted by Betz et al. (1996), Betz & Voyten (1997), Luzzo (1993), Taylor & Pompa (1990), which reported that there was no significant difference between CDMSE and gender. The surprising part of this situation is that there was no significant difference between genders in CM factor while they perceive themselves as efficient. In fact this finding is seen consistent according to theoretical fundamentals of self-efficacy. According to Bandura (1977), individual's assessing him/herself as efficient is constituted of four ways, which interact with themselves. First of them is the information which is gained by individuals after successful or unsuccessful activities. The second one is the information, which is gained by individuals by observing others. The third one is encouragements, recommendations and pieces of advice from others. And the last one is emotional responses during the performance. When the different attitudes in nurturing boys and girls are considered it can easily be seen that boys have access to environments where their efficacy perception is influenced and where they are nurtured liberally than that of girls. On the other hand the oral encouragement for boys can be counted as a reason in having higher efficiency perception.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of the above findings, it may be concluded that career maturity of senior secondary students was positively correlated with the self-efficacy of senior secondary students. Significant differences were found on dimension wise career maturity of senior secondary students with respect to their gender. Boys were more mature in their career choice than girls. It was also found that the self-efficacy of senior secondary students differs significantly with respect to their gender. Boys were more self-efficient than girls. Based on the findings and conclusions of the study, these results have important implications for practitioners, counsellors, educators, and parents; who seek to understand how to help students, it would be appropriate to design interventions to increase the career maturity and self-efficacy of those students who are low in their career maturity and in low self-efficiency group, especially for girls of senior secondary who are backward than their counterparts. It is important to increase exposure to numerous career options and to broaden the students' sense of high self-efficiency. For an individual to be successful, he or she needs to experience success. Parents and educators can play a role in assuring that students experience success both in and out of the educational environment. Verbal praise or encouragement, as well as rewarding task accomplishments can all serve to enhance the students' sense of career maturity and self-efficacy. As success is experienced the student develop the desire and confidence that task accomplishment and success is possible. We must consider the educational environment of the student. We must assist students who have career decision problems and have not attained a firm level of commitment, are dependent mainly on their parents for decisions and are unable to arrive at any satisfying career choice. Because of the important role of parents in students' career decision making in the Indian society, the counsellors should organise workshops where the students and their parents could interact on matters regarding their career decision difficulties and their influence on their different life stage tasks. The self-efficacy is a very useful construct for furthering career development across various populations and environmental contexts. However, the applicability of self-efficacy to career counselling could be enhanced through further exploration of the use of other computer-assisted career guidance systems, Internet career resources, and online career counselling. Low self-efficient groups were found to be poor in career maturity, poor level of information, skills and strength on career related activities. They are unable to grasp information and skills, due to lack of understanding ability. Hence, School should play a vital role in developing good vocational skills and attitude for students with low self-efficiency.

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