

Career Ability Placement Survey for High School Students

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Abstract

Background: A job is undertaken for a particular period of an individual's life and with chances for progress. The constructive way to know about the individual's inner strength. Career ability for high school students is essential to identify their capabilities in different career choices and choose the appropriate one, which helps in reaching great heights. Career ability placement survey helps in identifying the propensity of the students using seven different potentialities which would help in performing better based on their abilities, which would minimise the failures.

Aim: The present study aimed is to find out career abilities among the high school students and plan for their future.

Methods: Career ability placement survey was developed by Lila Knapp, Robert R Knapp, and Lisa Knapp–Lee. This questionnaire is used to assess the career abilities of individuals using seven different dimensions. The scale was administered to 55 high school students based on stratified random sampling.

Results: No significant difference between the career abilities among males and females.

Conclusion: Both males and females have the expertise in spatial relations were they can visualise in three dimensions and can perform well in jobs related in spatial intelligence, and both have the least capacity in language usage where they cannot deliver well in careers related to oral and written communication.

Keywords: Career ability, high school students, males and females.

Introduction

'Career' was formerly related to paid occupation and referred to a single work. A continuous process of learning and development is seen as Career, a profession undertaken for an essential period of a person's life and with opportunities for progress."

A job is often constituted of the works held, designates earned and work accomplished over a long period, rather than just referring to one position. While workers in some organisation and providence stay with one job during their career, there is a rising trend for employees changing jobs more habitually. For example, an individual's career could have to be a lawyer, though the individual could work for several different firms and in several different areas of law over a lifetime.

Career Ability

The productive way to know about the students inner and indulged career abilities can be better understood by administering the career ability placement survey to the high school students which would be more helpful for their future endeavours and lead them to succeed. A career guidance assessment program is a valuable way to increase self-awareness and professional competence among

students and working adults, the CAPS ability battery are established, reliable, and valid assessments relating interests, abilities and values to occupations and occupational information. The Career Ability Placement Survey (CAPS; Knapp & Knapp, 2015) is a peculiar, standardised measure of potentialities related to diverse work fields. The CAPS offers web-based and paper/pencil versions. It is a comprehensive, multi-dimensional battery designed to measure vocationally relevant abilities (mechanical reasoning, spatial relations, verbal reasoning, numerical ability, language usage, word knowledge, perceptual speed and accuracy,) inside the conditions of the entry needs for a work situation. These jobs consist of 14 career clusters: science, professional or skilled; technology, professional or experienced; business, professional or skilled; arts, professional or skilled; service, professional or skilled; consumer economics; outdoor; clerical; and communication. Percentage rate denotes functional areas most closely correlated to the capacities of the individual. Vocational group facts provide many examples of job headings within each chunk, additional skills needed, and ways to increase similar experience in the area.

The 14 Cop System Interest Clusters

General descriptions of the COP System Clusters are as follows:

SCIENCE, Executive jobs include an obligation for the forethought and regulating of investigation and the hoarding and requisition of organised awareness in related branches of mathematical, medical, life and physical science.

SCIENCE, Accomplished works indulges scrutiny and stratification of information in accommodating in laboratory experimentation and its solicitation in the areas of medicine, and life and physical sciences.

TECHNOLOGY, White collar occupations involve responsibility for engineering and structural design in the manufacture, construction, or transportation of products or utilities.

TECHNOLOGY, Qualified occupations require working with one's hands in a skilled trade concerned with construction, manufacture, installation or repair of products in connected fields of construction, electronics, and mechanics.

CONSUMER ECONOMICS Professional

occupations are concerned with the preparation and packaging of foods and the production, care repair of clothing and textile products.

OUTDOOR Skilled occupations are related with activities performed out-of-doors that involve growth and tending of plants and animals and the cultivation and collection of crops and natural resources in the zone of farming and creation as in forestry, park service, fishing and mining.

BUSINESS, Professional occupations have positions of high responsibility in the organisation, administration and efficient functioning of companies and governmental bureaus regarding finance and accounting, management and business promotion.

BUSINESS, Skilled occupations are related to sales and promotion and the correlated financial and organisational activities businesses.

CLERICAL Professional occupations involve recording, posting and filing of business records requiring great attention to detail, accuracy, neatness, or orderliness and speed in office work and resultant contact with customers regarding the compilation of documents.

COMMUNICATION Skilled occupations involve skill in the use of language in the creation or interpretation of literature or the written and oral communication of knowledge and ideas.

ARTS, Professional occupations involve an individualised expression of creative or musical talent and ability in the fields of fine arts, design, and performing arts.

ARTS, Skilled occupations involve the application of artistic skill in the field of graphic arts and design.

Service and Professional occupations include high responsibility positions including interpersonal relations in caring for the personal health and welfare of others in fields of social service, health and education.

SERVICE, Capable jobs take in presuming facilities to peoples and serve to the desires and welfare of the taste of others in fields of individual service, social and health-related service and protection and transportation.

The career ability placement survey is an assessment tool used by vocational counsellors

as an aid in selection and classification. The CAPS measures abilities that are associated with a variety of occupation and careers. When used in conjunction with measures of interest, the caps can aid in the planning, organisation, and evaluation of an examinees career development. Knapp and Knapp (1981) report good test-retest and alternate reliability coefficients for the CAPS subtests, because of the speeded nature of caps, test-retest and alternative forms are the most appropriate methods for estimating the CAPS stability and internal consistency reliability.

The CAPS consists of seven five-minute ability subtest measuring mechanical reasoning (MR), spatial relations (SR), verbal reasoning (VR), numeric ability (NR), language usage (LU), word knowledge (WK), perceptual speed and accuracy (PSA). The CAPS is a valid measure of these abilities. (Katz, Beers, Geckle, & Goldstein, 1989; Katz, Goldstein, Geckle, & Eichenmuller, 1991; Knapp & Knapp 1981). Which are briefly followed below:

MECHANICAL REASONING (MR) compute in what manner an individual can accept mechanical principles and devices and the laws of physics. This ability is primarily; it is essential in courses in industrial arts and occupations in Technology as well as Science. Mechanical reasoning tests require a person to recognise which mechanical principle is suggested by a test item. The fundamental abstraction considered by this matter includes sounds and heat conduction, velocity, gravity, and force. Automated reasoning examinations are part of the selection process in a broad array of jobs such as aircraft technician, auto mechanic, fire-fighter, military careers and more.

SPATIAL RELATIONS (SR) estimate in what way a human can think in three dimensions and can mentally think and picture the position of objects from a picture or diagram. This capacity is pivotal in progression in arts and industrial arts and jobs in Science, Technology and Arts.

Those who have spatial ability may tend to assimilate visually and may tend to think in pictures. People with good spatial intelligence perform better in photography, graphic designing, interior designing etc.

VERBAL REASONING (VR) quantify by what method a man can reason with words and has been the provision for understanding and using concepts expressed in words. Verbal reasoning tests are a kind of psychometric evaluation and are designed to measure user's crystallised intelligence, which is the capacity to use skills, knowledge, experience and skill. Jobs where verbal reasoning skills are essential for overall performance to include below:

Accountants, Broadcast, Presenters, Editorial Assistants, Human Resources Officers, Lawyers and Solicitors, Marketing Managers, Police Officers, Schoolteachers, Stage Managers, Writers.

NUMERICAL ABILITY (NA) evaluate by what means a person can reason with and use numbers and work with quantitative materials and ideas. Mathematical interpretation queries assess their ability to use numbers logically and rationally. The examination requires a basic level of education to prosperously complete and are, therefore, measuring numerical ability rather than educational achievement. The investigations measure their realisation of such things as number series, digital transformations, the relationships between numbers and your ability to perform a numerical calculation.

LANGUAGE USAGE (LU) determine through what medium a human being can recognise and use correct grammar, punctuation and capitalisation. This capacity is particularly essential in jobs involving written or oral communication in Clerical employment and Professional level occupations in Science, and all levels of Business and Service, Language-based career, For these jobs, the people typically need a language degree and professional qualifications from an accredited body

PERCEPTUAL SPEED AND ACCURACY (PSA) judge by what a personage can perceive small details accurately and rapidly within a mass of letters, numbers and symbols. This potentiality is crucial in Clerical office work, and other career requiring fine visual inequity. The strength to quickly and correctly compare resemblance and contrast among sets of letters, numbers, objects, pictures, or patterns. The possessions to be related may be presented at the same time or one after the other. This resourcefulness also includes comparing a displayed object with a remembered object. Occupations that require

perceptual speed are airline pilots, co-pilots, flight engineers, air traffic controllers, fire inspectors.

Methodology

Aim

The present study aimed is to find out career abilities among the high school students and plan for their future.

Objectives

1. To know the awareness about career abilities.
2. To emphasise the role of a school psychologist in the school students career abilities.

Hypotheses

1. There is a significant difference between a male and female in their ability for mechanical reasoning,
2. There is a substantial difference between a male and female in their spatial ability.
3. There is no significant difference between a male and female in their ability for verbal reasoning.
4. There is a significant difference between a male and female in their numerical ability.
5. There is a significant difference between a male and female in their ability for language usage.
6. There is a significant difference between a male and female in their ability for word knowledge.
7. There is a significant difference between a male and female in their ability for perceptual speed

Significance

As the students are more concerned about their academic performance and mark based criteria CAPS would be helpful to know their indulged skills. Considering the outcome of CAPS, they may choose the career related to their ability. To do CAPS now is very important because most of the high school students are not aware of their skills and the school psychologists are much considered about their academic and emotional problems whereas this would be much helpful to know the students choice of interest and ability. Administration of CAPS for high school children of different school settings would help to understand their knowledge of their career capabilities clearly.

Sample

55 high school (male 28, female 27) students were selected based on stratified randomly across different schools; examples were selected based on age group 15- 18. Data collected from the high school students using simple random sampling method. Other inclusions and exclusion criteria are as follows.

Inclusion Criteria

1. Students from 10th grade to 12th grade
2. Students from Matriculation and Central board.
3. Those who are willing to sign the informed consent form
4. Voluntary Participation
5. Comprehend in communicable language.

Exclusion Criteria

1. Those who are not interested in participating in the study.
2. Students below 9th grade.

Tools

Career Ability Placement Survey

Career ability placement survey was developed by Lila Knapp, Robert R Knapp, and Lisa Knapp – Lee. This questionnaire is used to assess the career abilities of individuals using different dimensions. The test-retest reliability ranges from 0.90-0.98. the validity range from 0.92-0.99. The internal consistency is 0.94.

Procedure

The informed consent form was given to the participants. The subjects were asked to provide information on specific socio-demographic details followed by the administration of the Career ability placement survey (CAPS). The instructions about how to respond to the tests were explained in particular to the participants in their convenient language (English or in Tamil). The entire administration took up to 45 to 60 minutes.

Ethical Considerations

1. Written informed consent was sought from each participant.
2. The participants are given the option to leave the study at any point in time if they wish to.

3. Confidentiality and anonymity of the participants were assured and maintained.

Statistical Analysis

The data was coded for SPSS.20 analysis. Descriptive statistics like mean, standard deviation and t-test were performed.

Results and Discussions

The present chapter focused on results and discussion to test the study hypothesis. Descriptive statistics like mean, standard deviation and t-test were performed for seven variables. The results are as follows.

Table 1: Shows the Mean Standard Deviation and t-test Value for Mechanical Reasoning in Males and Females

Gender	Mean	S.d.	t value	Significance
Male (n=28)	3.68	1.611	0.981	No significant difference
Female (n=27)	3.63	1.548		

NS-Not significant $p > *0.05$

As shown in Table 1 Male have scored a mean of 3.68 and females have scored a way of 3.63, which shows that both do not have any significant difference though males are high in mechanical reasoning. In terms of standard deviation, males have scored 1.611 and females have scored 1.548, which shows they do not have a significant difference, but male score slightly deviates from the female score. The derived value is higher than the table value that is 0.981; hence, there is no significant difference between males and females. Therefore, hypotheses one is rejected.

Table 2: Mean, Standard Deviation and t-test Value for Spatial Relations in Males and Females

Gender	Mean	S.D.	t value	Significance
Male (n=28)	4.14	1.580	0.493	No significant difference
Female (N=27)	4.19	1.111		

NS-Not significant $p > *0.05$

As shown in Table- 2 Males have scored a mean of 4.14 and females have scored a way of 4.19, which shows that both do not have any significant difference though females are high in spatial relations. In terms of standard deviation, males have scored 1.580 and

females have scored 1.111, which shows they do not have a significant difference, but male score deviates from the female score. The derived value is higher than the table value that is 0.493; hence, there is no significant difference between males and females; therefore, hypotheses two is rejected.

Table 3: Mean, Standard Deviation and t-test for Verbal Reasoning in Males and Females

Gender	Mean	S.D.	t value	Significance
Male (n=28)	2.93	1.359	0.983	No significant difference
Female (n=27)	3.30	1.353		

NS-Not significant $p > *0.05$

As shown in Table- 3 Males have scored a mean of 2.93 and females have scored a way of 3.30, which shows that both do not have any significant difference though females are high in verbal reasoning. In terms of standard deviation, males have scored 1.359 and females have scored 1.353, which shows their scores are moreover, but male score slightly deviates from the female score. The derived value is higher than the table value that is 0.983; hence, there is no significant difference between males and females; therefore, hypotheses three is accepted.

Table 4: Mean, Standard Deviation and for Numerical Ability in Males and Females

Gender	Mean	S.D.	t value	Significance
Male (n=28)	3.21	1.449	0.921	No significant difference
Female (n=27)	3.56	3.68		

NS-Not significant $p > *0.05$

As shown in Table- 4 Males have scored a mean of 3.21 and females have scored a way of 3.56, which shows that both do not have any significant difference though females are high in numerical ability. In terms of standard deviation, males have scored 1.449 and females have scored 3.68, which show that female scores highly deviate from the male score. The derived value is higher than the table value that is 0.921; hence, there is no significant difference between males and females; therefore, hypotheses four is rejected.

Table 5: Mean, Standard Deviation and t-test for Language usage in Males and Females

Gender	Mean	S.D.	t value	Sig.
Male (n=28)	1.11	0.315	0.927	No Sig. difference
Female (n=27)	1.11	0.320		

NS-Not significant $p > *0.05$

As shown in Table- 5 Males have scored a mean of 1.11 and females have scored a way of 1.11 which shows that both have the same level of knowledge in numerical ability and both are good in language usage. In terms of standard deviation, males have scored 0.315 and females have scored 0.320, which shows that female scores slightly deviate from the male score. The derived value is higher than the table value that is 0.927; hence, there is no significant difference between males and females; therefore, hypotheses five is rejected.

Table 6: Mean, Standard Deviation and t-test for Word Knowledge in Males and Females

Gender	Mean	S.D.	t value	Significance
Male(n=28)	2.11	1.343	0.882	No significant difference
Female (n=27)	2.00	1.330		

NS-not significant $p > *0.05$

As shown in Table- 6 Males have scored a mean of 2.11 and females have scored a way of 2.00, which shows that both do not have any significant difference though males have scored high in word knowledge. In terms of standard deviation males have scored 1.343 and females have scored 0.320 which shows that female scores slightly deviate from the male score. The derived value is higher than the table value that is 0.882 hence there is no significant difference between males and females, therefore, hypotheses six is rejected.

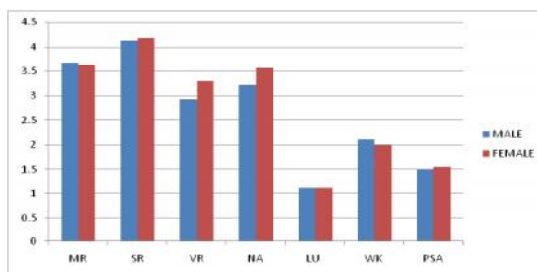
Table 7: Mean, Standard Deviation and t-test for Word Knowledge in Males and Females

Gender	Mean	S.D.	t value	Significance
Male (n=28)	1.50	1.072	0.982	No Significant difference
Female (n=27)	1.56	0.974		

NS-not significant $p > *0.05$

As shown in Table- 7 Males have scored a mean of 1.50 and females have scored a way of 1.56 which shows that both do not have any significant difference though females have scored high in perceptual speed and accuracy. In terms of standard deviation, males have scored 1.072 and females have scored 0.974, which shows that male scores slightly deviate from the female score. The derived value is higher than the table value 0.982; hence, there is no significant difference between males and females; therefore, hypotheses seven is rejected.

Graph: Shows the Career Abilities of Males and Female



As shown in the above Graph, both males and females have the ability in spatial relations as their best-suited career ability among the seven different career abilities. Both males and females can perform well in the jobs related to spatial relationships as they can be visualised or think in three dimensions and can mentally picture the position of objects from a diagram or picture. They can perform well in tasks that require visual mapping, imagination and spatial awareness are ideal. The finest occupation with excellent visual and spatial skills motivate the person to use his or her abilities. Both males and females can do well as a graphic designer, photographer, physicists and astronomers as these jobs require excellent visual and spatial skills. Individuals with robust visual and spatial abilities may also have other talents that can influence the best career choices. For example, spatial intelligence maybe paired with interpersonal intelligence. A career in counselling, therapy or teaching may be good choices for this combination. Both males and females have scored least in the dimension of language usage were both of them are not suited for jobs related to language usage that are the individuals find hard in recognising and using correct grammar, punctuation and capitalisation. This capability is particularly crucial

in situations involving verbal or oral communication and in clerical jobs and professional level occupations in Science, and all levels of Business and Service, Language-based career. This shows that individuals cannot perform well in those strategies. The result obtained is contradictory to Feingold, Alan, an American Psychologist, 1988, this study specifies that females scored more than males on scales of grammar, spelling, and perceptual speed. Whereas males had more considerable manner on the extent of abstraction visualisation, high school arithmetic, and mechanical aptitude; and no average gender variations were found on tests of verbal reasoning, arithmetic, and symbolic reasoning whereas in the present study there is no significant difference among the career abilities

Research Findings

The findings of the study are:

- It is also found that both males and females have the ability in spatial relations.
- It is also found that both males and females have the least ability in language usage when compared to other dimensions.
- It is found there is no significant difference in the career abilities for males and females.

Conclusion

The present study derived several findings such as there is no significant relationship between the gender and the seven dimensions such as mechanical reasoning, spatial relations, verbal reasoning, numerical ability, language usage, word knowledge, perceptual speed and accuracy. Thus, we can conclude that both males and females have the expertise in spatial relations were they can visualise in three dimensions and can perform well in jobs related in spatial intelligence and both have the least ability in language usage where they cannot perform well in careers related to oral and written communication.

Suggestions

The present study focused only on the gender difference as data was collected from the same age group from the grade 10 in one school as the demographic area was similar where future studies

can be expanded by including other such variables like age, socio-economic details, etc. which would give a detailed description about the career ability that is innate in nature and thereby shows the difference of career ability of students from different socio-economic status and demographic details which would widen the scope of research.

Implications

The present study implies that it is necessary to know the individual's inner potentialities towards a career where he can perform much better when he has the inner strength to do so. This study gives an overall view about the career abilities among male students and female students, where they can put efforts and contributions without any difficulties. This study would help to get an idea about the career abilities among the students regarding what type of potentiality they might possess and choose their career path based on this.

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