



# An Empirical Study on Career Awareness Level in Higher Secondary science Schools – An Investigative Analysis on CBSE and State Board Students. A case study in Western Odisha

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## Abstract

This paper is aimed to investigate the process of career management and career awareness level among students of higher secondary science schools in Odisha. A survey was conducted for this empirical study in western Odisha. There were 400 participants from 10 districts of western Odisha. Sample selection was random sampling method. On the basis of various careers, we have used self-structured questionnaire for data collection. The findings suggest that there is a moderate level of career awareness among both male and female students and there was lack of high level of such awareness among students. In addition, class discussions and career counseling are very important in schools to generate awareness among those students. In addition, all secondary schools must appoint counselors regularly.

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## Introduction

Education is the most fundamental and important tool for anyone in the society, not just to achieve individual goals and desires, but also towards the development of overall society. There are three key functions of education – the “differential function” which caters different needs, interests and abilities of people by providing different experiences; the “development function” to enable people to develop their own attitude and abilities; and “integrated function” to specify cultural integration by forming a common core of

shared attitudes, beliefs, and values among people.

Secondary education fills the knowledge gap between secondary and primary education and it is important to complete studies. It is a vital step for any student in the education process as it gets them ready for higher studies and future workplace. The secondary stage is made up of classes IX and X, whereas the higher secondary stage is made up of classes XI and XII. Children in secondary schools are typically 14-16 years old, whereas those in higher secondary schools are 16-18



years old. It opens the door to wealth, economic transformation, and social equality. It introduces youth to the job market and enables them to play their part towards socio-economic growth of the country as responsible citizens. The type of secondary education a child receives can have a significant impact on his or her future. Secondary education is important in molding and directing a child's future, in addition to grounding the child's educational roots. Guidance and counseling services are an important aspect of every secondary school's overall student services department.

Counseling and guidance are two of the most important processes in schools to develop the ability of students to solve their personal problems, understand what they are, and make the right changes around them. Some of the important aspects of guidance are evaluating students, providing information, placement, follow-up and finally counseling. Certain strategies and skills are needed for counseling and guidance to support students. The counseling and guidance programs are vital for the overall education of students as they focus on the interests, needs, and concerns of students and are important for the overall development of students. For students, parents, and teachers, educational and career counseling has become increasingly crucial in recent decades. It plays a vital role in preferences and interests of students and decisions made by them for their career in future. Enabling each and every student to achieve their utmost potential for vocational, academic, emotional and personal growth is one of the goals of providing education.

A lot of youth face problems in professional growth. They don't understand what they actually like and what they are capable of. Hence, they don't have any interest, occupational information and passion. They suffer due to lack of problem-solving skills, inflexibility, indecision, refusal to change, and gender stereotypes later in life. Hence, career counseling is vital to support the youth who are facing common issues in professional growth.

Career coaching can help them understand their needs and career prospects to advance in future. In the early 20<sup>th</sup> century, career counseling and consultation emerged with the rise of industrialization.

Career guidance clarifies future goals of people and helps them determine their needs for career growth at several stages in life to take the right steps to achieve their goals and comprehend the right process of choosing a career. Career guidance includes certain activities and services that can help people to make decisions related to occupation, training, and education in all stages and ages and manage their careers. Career counseling is provided in different settings like universities, schools, employment offices, training institutes, and companies. Group discussions, individual activities, distance education and face-to-face interactions are some of the possibilities.

Career education can supplement career coaching to address various topics like self-awareness along with job exploration, people and work, development of decision-making, and skill and knowledge development. Career counseling is important for both adults and students to make the right decisions related to work and learning by using the skills and knowledge that have been developed and received in specific situations. Counseling interviews, print literature, career management, group interviews, ICT-based evaluation and learning tools, etc. are some of the mediums of career counseling. Both group settings and individual sessions are the mediums of career guidance. Physical interaction is very important to deliver counseling and guidance.

Career of a person plays a very important role in their life. Career awareness must be developed among students when they are pursuing their high school education. Their career choices would be changing during their teenage. Lack of awareness and knowledge leads to youth unemployment as they are unable to decide which career path to choose. They need proper career guidance to improve

their awareness, which is a vital life skill to help them be more self-dependent and deal with constantly changing job markets while keeping healthy personal and work balance. Students can play a vital role in building career awareness and future planning.

### Rationale of the Study

Career is the backbone of anyone's life. Higher Secondary school is considered as a stage to start career preparation for students. Hence, proper career counseling is important for everyone to develop awareness to make the right professional choices. A lot of studies have been conducted across the world regarding the value of a career. This section explores the same –

**Olando et al. (2014)** observed a positive correlation between promotion of positive self-concept during teenage and effective counseling and guidance. In a study by **Owino & Odera (2014)**, 70% teachers who participated in the study used group counseling and guidance, 76% preferred referrals, 78% used personal counseling and guidance, and 58% were unsure about the information.

According to **Nkala (2014)**, a lot of students were ignorant of availability of counseling and guidance services which could be the key reason behind absence, misbehavior, teenage pregnancies, and drug and alcohol abuse.

**Alemu (2013)** observed poor awareness in the school community regarding the availability of counseling and guidance services at their campuses. The use of those services was very high among boys as compared to girls.

According to **Gauta (2012)**, counseling services had a very high impact on emotional and social changes among students in secondary schools. There was a very high impact observed in rural schools of counseling and guidance services where girls found higher levels of emotional and social awareness.

According to **Khattak and Ain (2012)**, all the respondents in their study preferred the beginning of counseling and guidance services

in their schools. In addition, they also showed the need of well-educated and trained teaching staff for providing guidance and career counseling services in schools.

According to a study conducted by **Mikaye (2012)**, 82.4% of principals of schools marked counseling and guidance as important services for students but they were lagging behind in literature and study material support. It is possible to achieve character formation with intense informal and formal counseling and guidance programs.

**Lazarus et al. (2011)** found that vocational rehabilitation can be helpful for specially abled people along with career development to deal with their personal issues related to disabilities. In addition, vocational guidance has been found very important as it influenced vocational aspirations among students significantly (**Akeredolu, 2011**).

**Bozgyeyikli and Hamurcu (2009)** found a significant correlation between career maturity and self-efficacy in decision making with socioeconomic status. **Eyo et al. (2009)** found the attitude of students for counseling and guidance very positive. In addition, location of school and gender of the students highly influenced their attitude for guidance. The study further indicated a significant difference between girls and boys' attitude in urban and rural schools for counseling and guidance.

**Samoei (2008)** observed that counseling and guidance were used rarely in managing discipline among students in secondary schools. Some of the most common disciplinary and punishment methods used by the school administration included corporal punishment, physical punishment, calling parents and suspension.

According to **Njeri (2007)**, students knew the importance and role of career counseling in schools and found poor academic performance due to lack of those services. In addition, they found a positive impact of counseling and guidance services on their grades. According to **Kesici (2007)**, introductory information on different professions should be

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provided to students as part of counseling and school guidance.

According to **Mbwale (2004)**, career counseling should no longer be perceived as a privilege for the youth and should be deemed important for students' growth. Students, schools, private and public sectors, government, and parents should understand the value of education and career guidance.

### Statement of the Problem

Given the above studies, it is observed that decision making, career counseling, and guidance are very vital for students in higher secondary schools. Students realize the importance of a bright future at this stage. But the problem arises when teachers and other staff have no idea when and how to make students think of their career. A lot of studies have been conducted in the past about involvement of parents, career maturity, and school environment. However, researchers have found the need for awareness among students from the beginning of their higher education about their career options based on their interest, potential, and capabilities.

### Objectives

1. To investigate the level of "career awareness" among students in higher secondary science schools
2. To evaluate the level of "career awareness" among those students related to variables like gender, education qualification of parents, and type of schools

3. To figure out how much school pays attention to deliver career guidance to their children

### Methodology

This study was conducted using the survey approach. The study's participants are all higher secondary science school students in the western Odisha . As a sample, the investigator chose both state government schools associated with the Council of Higher Secondary Education board and schools affiliated with the CBSE. The researcher employed a questionnaire to determine the students' level of career awareness. The questions were created by looking over several career fields such as defense, medical, banking, engineering, and so on in order to gauge their knowledge of various fields. The acquired data was examined using percentages, and conclusions were drawn appropriately.

### Results

#### Data Analysis

Given the above research objectives, we have interpreted and analyzed the survey data with percentage and frequency methods.

#### Level of Career Awareness

First of all, gender was considered as a reference to determine the level of career awareness among students in secondary schools. Investigator has used a questionnaire to collect students' data and presented the same percentage and frequency.

**Table 1 – Level of Career Awareness among students on the basis of Gender**

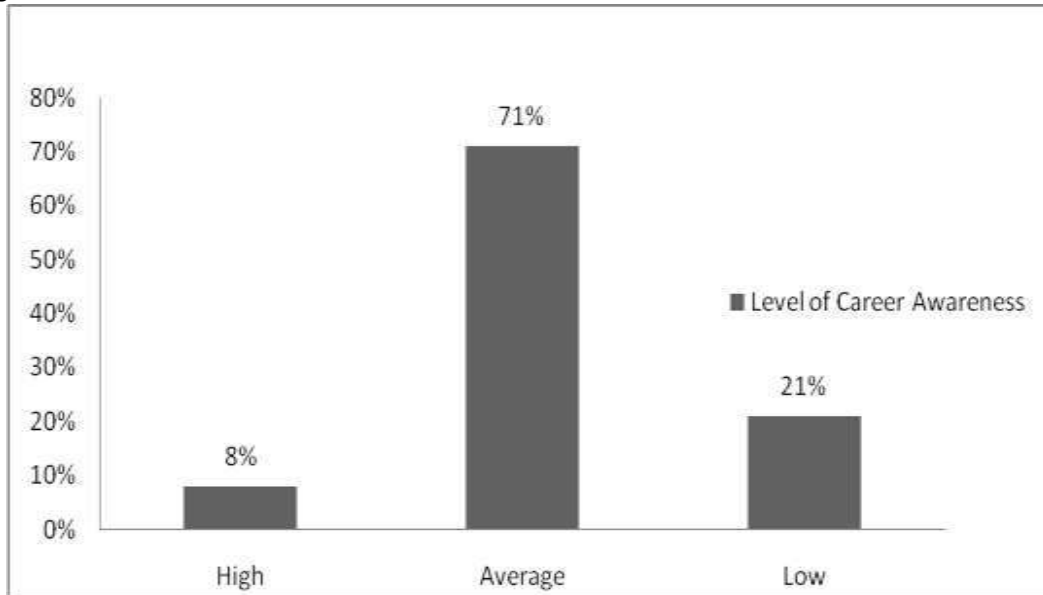
Level of Career Awareness	Boys (N & %)	Girls (N & %)	Total (N & %)
High	16 (8)	16(8)	32(8)
Average	150(75)	134(67)	284(71)
Low	34(17)	50(25)	84(21)
Total	200	200	400

In Table 1, it is observed that a high level of career awareness was found only in 8% of students, average awareness was found in 71%

of students, and low awareness was found in 21% of students. In addition, the high career awareness was found the same among both

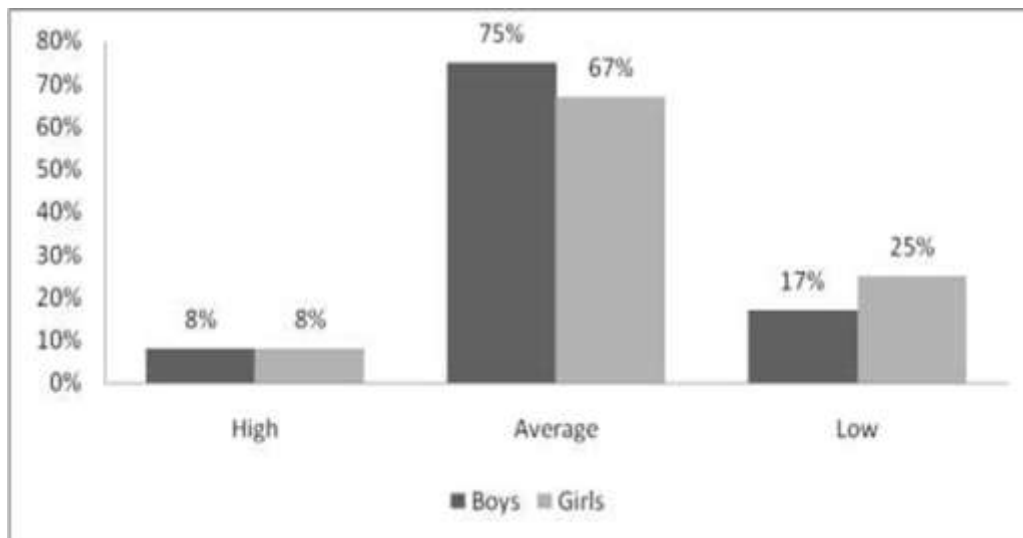
male and female students, despite being low. In addition, 75% boys and 67% girls had moderate levels of career awareness and 17% of boys and 25% of girls had low levels of career awareness.

Figure 1 presents graphical representation of students' career awareness and Figure 2 represents the same on the basis of gender.



**Figure 1.** Level of Career Awareness among Higher Secondary science Students

Given the above findings, it is worth noting that there was a steep lack of high career awareness level among students, even though the average level of career awareness is higher. Figure 2 shows the comparison of the same among boys and girls. The investigator has also conducted a test to do the same (Table 2).



**Figure 2 -** Level of Career Awareness among Male and Female students

**Table 2 –** Level of Career awareness among male and female students (t-test)

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Group	N	Mean	SD	df	t	Sig.
Boys	200	19.36	4.213	198	1.439	0.152
Girls	200	18.50	4.235			

The total number of male and female students is given in table 2 along with the Mean value of girls is 18.50 and male students is 19.36. Degree of freedom (df) for both male and female students was 198 and Standard Deviation (SD) of female students was 4.235 and male students was 4.213. The t value estimated was 1.439 with confidence level of 0.05. It is found that there was no statistically significant difference among career awareness of boys and

girls ( $p < 0.05$ ). Simply put, career awareness was similar among both male and female students.

### Level of Career Awareness on the basis of “Type of Board”

In order to fulfill the second objective, investigators have compared the level of career awareness among students studying in state board and CBSE schools.

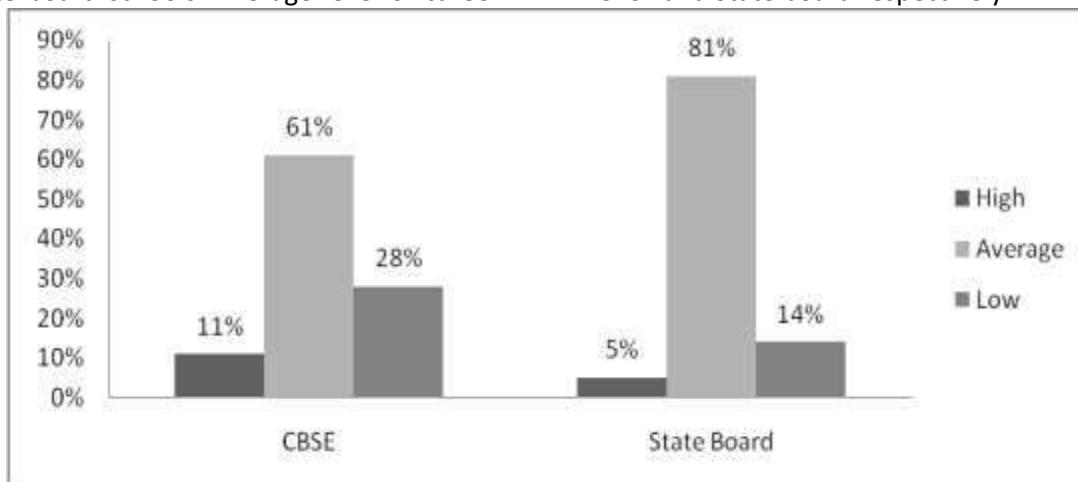
**Table 3** – Frequency and Percentage of Level of Career Awareness as per Type of School

School	High (N & %)	Average (N & %)	Low (N & %)
CBSE	22 (11)	122 (61)	56 (28)
State Board	10 (5)	162 (81)	28 (14)
Total	32(8)	284 (71)	84 (21)

In table 3, it is found that a high level of “career awareness” was found only in 11% of CBSE school students and 10% of students studying in state board schools. Average level of career

awareness was found in 61% of CBSE and 81% of state board students, and low awareness level was found in 28% and 14% students of CBSE and State board respectively.

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**Figure 3** – Level of Career Awareness as per Type of School

### Level of Career Awareness as per Parents’ Occupation

Next up, the researcher analyzed the level of career awareness among students on the basis

of occupation of their parents. They used questionnaires to collect the relevant data from students and presented the same as percentage and frequency (Table 4).

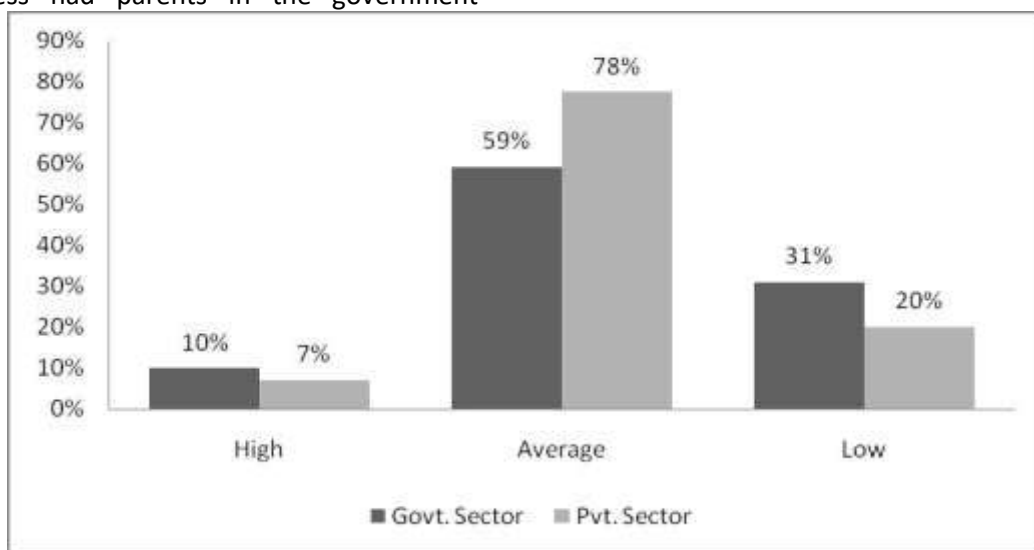
**Table 4** – Level of Career Awareness among students on the basis of occupation of their parents



Level of Awareness	Govt. sector (N & %)	Pvt. Sector (N & %)	Total (N & %)
High	14 (9.85)	18 (6.97)	32 (8)
Average	84 (59.15)	200 (77.51)	284 (71)
Low	44 (30.98)	52 (20.15)	84 (21)
Total	142	270	400

In Table 4, it is clearly indicated that only 8% of children of both private and government sector parents had a high level of awareness. Moderate level of awareness was found in 71% of students with parents working in private and government sectors. Finally, a low level of awareness was found in 21% of children with parents working in both sectors. To elaborate further, it is found that 6.97% of children with high awareness had parents working in the private sector and 14% of them with high awareness had parents in the government

sector. In addition, 77.51% of children had parents in the private sector with an average level of awareness and 59.15% of children had parents working in the government sector who had moderate levels of awareness. Finally, 20.15% children had a low level of awareness whose parents were working in the private sector and 30.98% children with a low level of awareness who had parents working in the government sector. Figure 4 graphically illustrates the same.



**Figure 4** – Level of Career Awareness among children on the basis of parents' working in government and private sectors

#### Level of Career Awareness on the basis of Father's Qualification

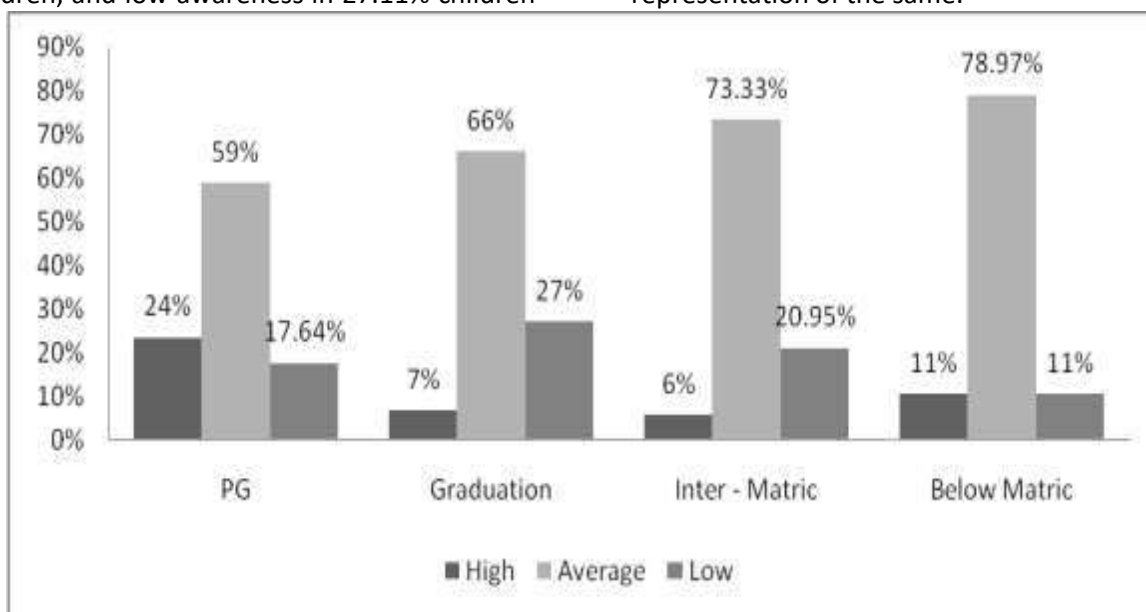
The researcher collected the data on awareness level of students on the basis of education qualification of their fathers. The data was gathered with a questionnaire and interpreted as percentage and frequency.

**Table 5** – Awareness Level on the basis of father's qualification

Category	High awareness (N & %)	Average awareness (N & %)	Low awareness (N & %)
Students with father's qualification (PG)	8 (23.52)	20 (58.82)	6 (17.64)
Students with father's qualification (Graduation)	8 (6.77)	78 (66.10)	32 (27.11)
Students with father's qualification (Inter -Matric)	12 (5.71)	154 (73.33)	44 (20.95)
Students with father's qualification (Below Matric)	4 (10.52)	30 (78.97)	4 (10.52)
Total	32 (8)	282 (70.5)	86 (21.5)

Table 5 shows the level of “career awareness” among students on the basis of the educational qualifications of their fathers. It is found that high level of awareness was found in only 23.52% children, moderate level of awareness was found in 58.82% children and low level of awareness was found in 17.64% children of fathers who have done post-graduation. In addition, high awareness was found in only 6.77% children, moderate awareness in 66.10% children, and low awareness in 27.11% children

whose parents have completed graduation. High awareness was found only in 5.71% children, moderate awareness in 73.33% children, and low awareness in 20.95% children whose parents have passed inter-matric. Finally, high awareness was found in only 10.52% children, moderate awareness in 78.97% children, and low awareness in 10.52% children whose parents hadn't completed their matric exam. Figure 5 presents a graphical representation of the same.



**Figure 5 – Awareness Level on the basis of Father's Education**

The researcher further compares the awareness level of students on the basis of their father's education with t test (Table 6).



**Table 6 – Awareness Level on the basis of Father’s Education (t-test)**

Total	Sum of Square	Df	Mean Square	t	Sig
Between Group	133.890	6	44.630	2.545	0.57
Within Group	3437.130	392	17.536		

In Table 6, the “sum of squares” is 133.890 between the group with Mean square of 44.630 and degree of freedom 6. In addition, the “sum of square” for “within group” is 3437.130 with degree of freedom of 392 and Mean Square of 17.536. The t value estimated for both groups was 2.545 and 0.57 was the value of significance, i.e. above 0.05 level.

**Level of Awareness on the basis of mother’s education**

The researcher examined the level of “career awareness” among students on the basis of education qualification of their mothers. The data was gathered with questionnaires from students and interpreted as percentage and frequency.

**Table 7 – Awareness Level on the basis of mother’s qualification**

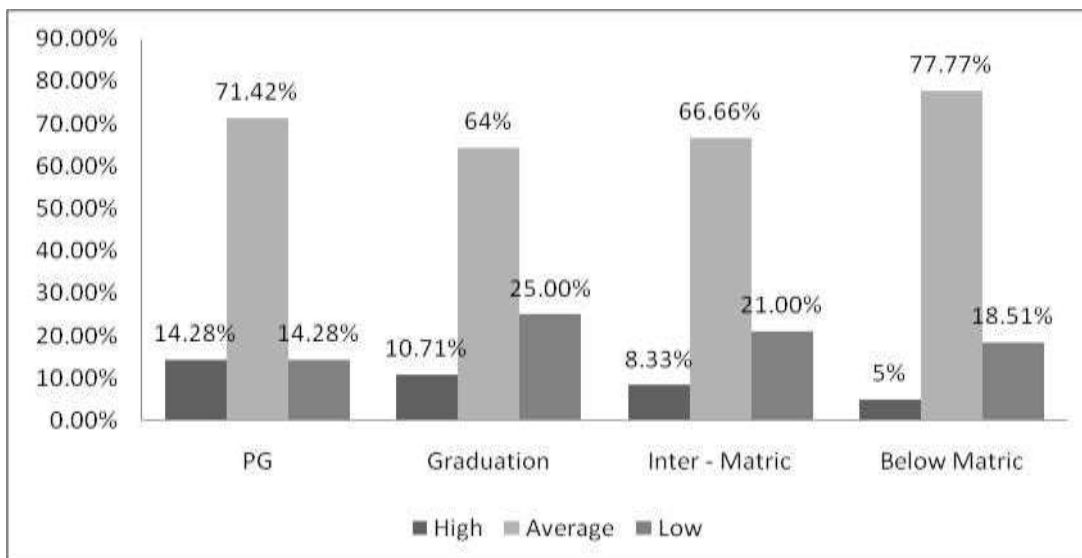
Category	High Awareness	Average Awareness	Low Awareness
Students with Mother’s Qualification (PG)	2 (14.28)	10 (71.42)	2 (14.28)
Students with Mothers Qualification (Graduation)	6 (10.71)	36 (64.28)	14 (25)
Students with Mothers Qualification (Inter-Matric)	14 (8.33)	112 (66.66)	42 (25)
Students with Mothers Qualification (Below matric)	8 (4.93)	126 (77.77)	30 (18.51)
Total	30 (7.5)	288 (72)	88 (22)

Table 7 shows the level of awareness among students on the basis of education qualification of their mothers. High career awareness was found in 14.28% students, moderate awareness in 71.42% students and low awareness in 14.28% students whose mothers have completed post-graduation. High career awareness was found in 10.71% students, moderate awareness in 64.28% students, and low awareness among 25% students whose mothers have completed graduation. High

career awareness was found in 8.33% students, moderate awareness in 66.66% students, and low awareness in 21% students whose mothers’ qualification is “inter-matric”. Finally, high career awareness was found among 4.93% students, moderate awareness among 77.77% students, and low among 18.51% students whose qualification is “below matric”. Figure 6 gives graphical representation of the same.

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**Figure 6 – Level of Career Awareness as per Mother's Qualification**

The investigator further evaluates the level of awareness as per mother's education with t-test (Table 8).

**Table 8 – Level of Career Awareness on the basis of Mother's education (t-test)**

Total	Sum of Square	Df	Mean Square	F	Sig
Between Group	13.498	6	4.499	0.248	0.863
Within Group	3557.522	392	18.151		

In table 8, the "sum of square" is 13.498 between the group with Mean Square of 4.499 and degree of freedom is 6. In addition, the "sum of squares" is 3557.522 with Mean square of 18.151 and degree of freedom 392 within the group. The F value calculated was 2.248 and 0.863 as the value of significance. Again, it is not significant at the confidence level of 0.05.

### Key Findings

1. High career awareness was found in only 8% students among 400 higher secondary school students. In addition, 21% of students were low and 71% of students had moderate levels of career awareness.
2. The level of awareness among boys is 17% low, 75% moderate and only 8% high. On the other hand, 8% of girls had high career awareness, 25% had low awareness, and 67% had moderate level of awareness.
3. On the basis of type of school, 11% of CBSE students had a high level of career awareness, 28% had low awareness and

61% had moderate awareness level. In addition, 5% of state board students had high career awareness, 14% had low awareness, and 81% had average awareness.

4. High career awareness was found in 9.85% students whose fathers were working in the government sector and 6.97% students whose fathers were working in the private sector. Career awareness is also influenced by a mother's qualifications. High career awareness was found in 14.28% students with post-graduate fathers and 10.71% students with graduate fathers.

### Educational Implications

According to the findings, boys and girls in higher secondary science school have a low degree of overall career knowledge. Hence, it becomes important to train students from higher secondary schools on a timely basis to make informed choices about their careers in future. Career talks on various vocations should



be organized by school authorities to improve career awareness among students, particularly in classes X and XII, as they will be leaving school and making future career decisions. Teachers and career counselors are the best people to give students career advice. It is also important to prepare all teachers in secondary schools to provide career information to students from time to time. Furthermore, every school must assign a student counselor on a regular basis. Parents must assist pupils in obtaining career-related information from various sources.

### Conclusion

This research reveals the truth that we must make a determined all-around effort to prepare our children to play a significant part in nation building by choosing the correct professional path. The myths that our school kids do not have any difficulties, that competent teaching is all that is required to put things right, and counseling and guidance have become a welcome addition to education in higher secondary schools these days.

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