

Competency assessment of High school students: A Comparative Study of Public and Private Schools of Delhi-NCR

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Abstract:

The study aims to assess the competencies of high school students of Delhi-NCR and understand the effect of these competencies on their perceived behavior and performance. The study also intends to compare the impact of these competencies on the high school students of public schools and private schools in Delhi-NCR. The study collected data using a stratified sampling technique by collecting data from the students, parents, and teachers of these schools. Data from 500 students from private schools and Government schools were collected from Delhi, Noida, Ghaziabad, Gurgaon, and Faridabad along with 100 parents and teachers of the respective students. The knowledge skills are the most important of the four abilities that influence the perceived behavior. The findings of the study will give school administrators and policy makers valuable information for identifying the gaps in their pedagogy and creating appropriate strategies to reduce the gap between expected and actual competencies.

Key words: Competency Assessment, Knowledge Skills, Entrepreneurial skill, Life skill, high school students, Delhi – NCR.

1. Introduction

In the era of constant flux, where organisations are struggling to face an unpredictable, dynamic business environment (Sherehiy et al., 2007), the need for an agile workforce is indispensable. This agility in the workforce will confront turbulence and navigate strategically through job-based knowledge, relevant skills, flexibility, resilience, proactiveness, and adaptability. The group of skills required to make an agile workforce. The companies' hunt for hiring and retaining the skilled workforce becomes crucial at this stage, i.e., winning the war for talent. According to McKinsey & Company (2022), organisations can foster agility and bridge critical skills gaps within their existing workforce instead of being trapped and draining resources in competitiveness pressures of 'war for talent'. This approach to talent retention and procurement necessitates a focus on technical as well as essential soft skills. The Forbes (2023) report echoed the significance of technical skills like basic coding, data analysis and statistics, content marketing, social & digital media marketing, blogging, CEO copywriting, foreign language, web development as most required by the employers in the competitive landscape without overshadowing the indispensable soft skills that supports navigating the complexities of work life, personal wellbeing and interpersonal relationships effectively.

Primarily, the understanding of digital technology and competencies to use the digital tools and platforms to solve critical business problems will be in great demand by 2030. Augmented AI, Sustainable green working, critical thinking and analysis, data-driven decision making, virtual collaborations or metaverse, emotional intelligence, life-long learning, and leadership skills would be the top 10 skills required in 2030 (WEF, 2025). The report says that the share of employers surveyed that identify the stated technology trend as likely to drive business transformation in the year 2025-2030, in which the AI and information processing technology is having the maximum impact, with 86%, followed by robots and autonomous systems contributing to 58% of impact. Ideally, employers are looking forward to the business transformation and need a competent, productive workforce that requires minimal investment in developing the core competencies to do the job.

Recognizing the rapidly transforming business & economic landscapes, many countries are strategically prioritising the development of education systems that can produce graduates competent to thrive in the competitive world of technology and innovation. The contemporary educational environment acknowledges the vitality of equipping students with the job-ready skills that would enable them to navigate the complexities of the 21st century, precisely denoted by the term 'Education 4.0'. This novice paradigm seeks to shift the traditional education model by cultivating 21st-century skills and competencies, viz: critical problem-solving, creativity, collaborative teamwork, effective communication, and the capacity for continuous learning (Silva et.al, 2023).

In light of the above discussion, it can be said that there is a dire need to understand the competencies required by high school children so that they can perform optimally in competitive environments, specifically matching the requirements of the industry in the future. Further, it is also important to check the effect of these identified competencies on the perceived behavior and performance of the high school children. Lastly the study also compares the impact of these competencies on the high school students of public schools and private schools. The scope of the study is limited to the students of Delhi NCR for the reason that the respondents consist of children of parents coming from different states of the country that are working in the NCR, representing the country at a large. The further sections discuss the literature review, followed by research methodology and data analysis.

2. Literature review

a. Concept of Competency

The word 'competency' has similarity with a Latin word 'competentia' that means "is authorized to judge" or "has the right to speak" (Caupin et al., 2006) The concept has gained momentum in first half of 20th century among the psychologists and empirical studies from psychological domain were conducted to explore the concept further. (Shippmann et al., 2000). The core of competency remains elusive and lays emphasis on the integration of knowledge, skills, abilities, and attitudes for achieving the goals. The literature emphasizes several prominent definitions of competency and its application in the context of high school students in the 21st century. Boyatziz (1982) focused on observable behaviors and skills required for effective job performance and defined competency as an "underlying characteristic of a person that results in effective performance on the job". Dubois, & Rothwell, (2014), defined competency as criteria referenced for effective a job performance. Rychen & Salganik(2003) in their seminal work broadened the concept and added cognitive and affective dimensions. Recent research established the concept as a homogenous set of behaviours resulting from an individual's knowledge, skills, abilities, and other abilities (KSAO). There has been constant flux with respect to the definition of competency because it differs in the context in which it is applied (Campion et al., 2011; Horng & Lu, 2006; Millar et al., 2008; Kay & Rissette, 2000). Nevertheless, competencies can be 'generally' described as a set of observable and measurable 'attributes' or 'success factors' required for individuals for effective work performance.

b. Competencies required in High school students

When understood in the context of school education, the competency concept takes a crucial role in preparing students for careers, academic pursuits, and responsible citizenship. Research on high school student's competency in the last decade has focused on the skills & attributes necessary for navigating rapidly transforming world categorized as 21st century skills along with academic competencies (Darling-Hammond et al. (2012), Cognitive competencies (Griffin & care (2015), Social and emotional competence (Durlak et al (2011) , Self-directed learning (Deci & Ryan (2000). Furthermore, literature recognizes the transformative capabilities of technology and aims to harness engaging, interactive, and personalized learning experiences that equip students with the skills and knowledge necessary for success in the dynamic world. (Ciolacu, Tehrani, et al., 2017; Maria et al., 2018; Mourtzis, 2018; Himmetoglu et al., 2020; Silva et

al., 2021). Apart from many skills and competencies required, the literature extensively includes Creativity and Innovation, Problem-Solving, Communication, Collaboration, and Learn to learn (Messias et al., 2018) for the school education. Similarly, the P21 Framework for 21st Century Learning was developed by taking inputs from all stakeholders, viz: educators, education experts, and business leaders, to list down the skills, knowledge, expertise, and support systems that are significant for student success in their various aspects of professional and personal life. The model, mastery over subjects like English, reading, language, world language, arts, mathematics, economics, geography, science, history, government and civics are important for student success along with 21st century skills like global awareness, financial, entrepreneurial, business, economic, civil, health, environment literacy into key subjects along with learning & innovation skills (creativity and innovation, critical thinking and problem solving, communication, collaboration), information median and technology skills (Information literacy, media literacy, ICT), life and career skills (flexibility & adaptability, initiative & self-direction, social & cultural skills, productivity & accountability, leadership & responsibility).

In line with P21 framework, the Organization for Economic Cooperation and Development (OECD), Future of Education skills 2030/2040 project, categorised and distinguished three categories of skills in its Learning Compass 2030: Firstly, Cognitive & Meta-cognitive skills, including critical & creative thinking, learning to learn, and self-regulation. Secondly, Social & Emotional skills including empathy, self-efficacy, responsibility & collaboration. Lastly, Practical & Physical skills, emphasising on acquiring and application of new information and communication technology devices. The OECD reports highlight that “students of the 21st century is still being taught by teachers using 20th-century pedagogical practices in 19th-century school organisations” (Schleicher, 2018)

Thus, in order to cater to the changes in the environment and to build a future of choice, the learning compass 2030 advocated 7 elements comprising Core foundations as knowledge, skills, attitudes, and values, which are fundamental for learning across the curriculum. creating new value, reconciling tensions and dilemmas, and taking responsibility were considered as transformative competencies that are required by the students to thrive in the competitive world. 3) Student agency to develop a sense of belongingness and self-identity. 4) knowledge (disciplinary, interdisciplinary, epistemic & procedural). 5) skills (cognitive & metacognitive; social & emotional, practical & physical), 6) Attitudes & values, and lastly Anticipation-Action-Reflection cycle relating to whereby learners continuously learning by the learner to improvise their thinking and responsible actions. (OECD Future of Education and Skills 2030: OECD Learning Compass 2030). Therefore, it provides the broader vision of the competencies required by the students instead of competencies being measured. However, it's a fact that “what gets measured gets treasured”, the framework only caters to what cannot be measured to be treasured.

3. Data Collection

The data for the study were collected from high school students in Delhi NCR using a stratified purposive sampling technique. The region was divided into five regions, namely Delhi, Ghaziabad, Noida, Faridabad and Gurugram. From all the schools 500 students, 20 parents and same number of teachers were interviewed using a structured questionnaire. Out of the given respondents, 57 percent were male students while the remaining 43 % were female. The faculty respondents consisted of 76% females, and the remaining were males. The parents' respondents were 62 % females and remaining 38 % males. The average age of student respondents was 14.2 years, and that of faculty was 38.7 years. The average age of the parents was 42.6 years.

4. Data Analysis

The Following section shows the demographic profiles of the respondents and a comparative cross tabulation of different competencies of high school students of Delhi-NCR

Demographic Variables	Categories	Frequency	Valid Percent
Students' Gender	Male	285	57
	Female	215	43
Students' Age	Below 15 years	273	54.6
	15- 18 years	227	45.4
Students' Grade	8 th Grade	22	4.4
	9 th Grade	154	30.8
	10 th Grade	122	24.4
	11 th Grade	113	22.6
	12 th Grade	89	17.8
	Private School	237	47.8
Type of school	Public School	263	52.6
	Student	500	71.4
Respondent Type	Teacher	100	14.2
	Parent	100	14.2

Table 1: Demographic Profile of the respondents

The respondent demographic shows a varied and balanced representation throughout important factors. The gender participation in the survey, the sample comprises 57% male and 43% female students, pointing to a somewhat greater share of male responses. Age-wise, most of the students (54.6%) are under 15 years, whereas 45.4% are between 15 and 18 years old, indicating that younger students make up a bigger part of the sample. With the smallest representation from 8th grade (4.4%), 9th graders have the highest representation (30.8%), followed by 10th grade students (24.4%), 11th grade students (22.6%), and 12th grade students (17.8%). Providing a balanced perspective on various educational environments, the sample is nearly split between enrolled in private schools (47.8%) and those in public schools (52.6%). Regarding respondent kind, the majority are students (71.4%), while teachers and parents each make up 14.2% of the sample, suggesting a primary emphasis on student perspectives, supplemented by insights from teachers and parents.

School Infrastructure						
Type of School		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Private	Frequency	20	32	25	83	77
	Percentage	8.44	13.5	10.5	32.02	32.49
Government	Frequency	29	44	30	79	81
	Percentage	11.3	16.73	11.41	30.4	30.80
500	Total	49	76	55	162	158

Table 2: Cross Tabulation of school type and school Infrastructure

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	48.523	10	14.131	18.172	.000
Within Groups	451.677	490	1.237		

Total	500.200	500			
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Table3: Results of ANOVA

Private	N	Mean	Std. Dev	Lower Bound	Upper bound
Strongly Disagree	20	3.19	1.209	2.64	3.74
Disagree	32	2.86	.516	2.67	3.06
Neutral	25	3.22	.778	3.06	3.38
Agree	83	3.53	1.245	3.34	3.72
Strongly Agree	77	4.04	1.169	3.80	4.28
Government					
Strongly Disagree	29	3.32	.541	3.01	3.96
Disagree	44	3.41	.254	3.21	3.81
Neutral	30	2.96	.321	2.70	3.21
Agree	79	2.93	.328	2.70	3.31
Strongly Agree	81	3.01	.784	2.93	3.27

Table 4: Results of ANOVA

The responses regarding school infrastructure in Table 2 above offer meaningful insights into how individuals perceive the quality of facilities in both private and government schools, based on a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." In the case of private schools, perceptions were notably positive. About one-third of respondents (32.02%) agreed, and an almost equal proportion (32.49%) strongly agreed that a good school infrastructure plays important role in the competency development of a student. In contrast, only a small share expressed dissatisfaction—13.5% disagreed, and 8.44% strongly disagreed—while 10.5% of respondents maintained a neutral stance. Government school students also have largely similar thoughts, although the responses were slightly less enthusiastic compared to private institutions. Here, 30.4% of respondents agreed and 30.8% strongly agreed that the infrastructure was important. However, a somewhat higher percentage reported negative views, with 16.73% disagreeing and 11.3% strongly disagreeing. Around 11.41% of participants remained neutral.

Respondents from both school types generally viewed their infrastructure positively. Nonetheless, private schools had a marginally higher proportion of strong agreement, suggesting a slightly more favourable role of infrastructure in competency development in private settings compared to their government counterparts. Results of ANOVA test also indicated similar results.

Teaching Pedagogy/methods of teaching						
Type of School		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Private	Frequency	5	27	12	90	103
	Percentage	2.11	11.39	5.06	37.97	43.46
Government	Frequency	18	32	29	74	110
	Percentage	6.84	12.17	11.03	28.14	41.83
	Total	23	59	41	164	213

Table 5: Cross Tabulation of school type and Teaching Pedagogy/methods of teaching

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	23.514	10	16.131	5.132	.001
Within Groups	476.69	490	2.197		
Total	500.204	500			

Table 6: Results of ANOVA

Private	N	Mean	Std. Dev	Lower Bound	Upper bound
Strongly Disagree	5	3.11	1.209	2.61	3.78
Disagree	27	2.81	.516	2.62	3.16
Neutral	12	3.27	.778	3.11	3.78
Agree	90	3.51	1.245	3.31	3.22
Strongly Agree	103	4.14	1.169	3.50	4.38
Government					
Strongly Disagree	18	3.21	.542	2.98	3.25
Disagree	32	2.98	.254	2.41	3.11
Neutral	29	2.72	.124	2.54	3.09
Agree	74	2.99	.621	2.70	3.21
Strongly Agree	110	2.95	.213	2.41	3.14

Table 7: Results of ANOVA

The survey responses reveal a strong role of teaching methods in school in competency development among students from private schools as seen in table 5 above. A significant majority—37.97% agreed and 43.46% strongly agreed—that the pedagogy employed in their schools was effective. In contrast, only a small segment of respondents expressed disagreement, with 11.39% disagreeing and just 2.11% strongly disagreeing. A modest 5.06% remained neutral, underscoring the overall positive reception of teaching practices in private institutions.

Government school respondents also expressed generally favourable views, though the distribution of responses showed slightly more divergence. While 28.14% agreed and 41.83% strongly agreed with the effectiveness of teaching methods, a higher percentage reported mixed or negative sentiments. Specifically, 11.03% were neutral, 12.17% disagreed, and 6.84% strongly disagreed with the statement.

In essence, both groups demonstrated a favourable outlook toward their respective teaching methodologies. However, private schools received a higher share of strong agreement and fewer expressions of dissatisfaction or ambivalence, indicating that teaching practices in private institutions are perceived somewhat more positively than those in government schools for developing the required competency among the students. The results of ANOVA also confirmed the similar results.

The next analysis was done on the requirement of Entrepreneurial Environment among the students. The results are following:

Entrepreneurial Environment						
Type of School		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Private	Frequency	8	19	18	91	101
	Percentage	3.38	8.02	7.59	38.40	42.62
Government	Frequency	7	24	25	110	97
	Percentage	2.66	9.13	9.51	41.83	36.88
500	Total	15	43	43	201	198

Table 8: Cross Tabulation of school type and Entrepreneurial Environment

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	32.123	10	13.144	8.132	.000
Within Groups	470.287	490	1.292		
Total	502.41	500			

Table 9: Results of ANOVA

Private	N	Mean	Std. Dev	Lower Bound	Upper bound
Strongly Disagree	8	3.91	0.219	2.63	3.77
Disagree	19	2.68	1.516	2.62	3.60
Neutral	18	3.24	0.718	3.56	3.83
Agree	91	3.35	1.645	3.31	3.27
Strongly Agree	101	4.40	1.569	3.60	4.82
Government					
Strongly Disagree	7	2.90	.546	2.70	3.10
Disagree	24	2.78	.231	2.19	3.18
Neutral	25	3.10	.214	2.47	4.19
Agree	110	3.56	.147	3.02	4.29
Strongly Agree	97	4.01	.364	3.91	4.21

Table10: Results of ANOVA

The significance of Entrepreneurial Environment in competency development can be seen in table 8 above. Most students from private schools felt that their institutions actively encourage entrepreneurship. A notable 42.62% strongly agreed, and 38.40% agreed that their school fosters an environment supportive of entrepreneurial thinking. Only a small share—8.02% disagreed and 3.38% strongly disagreed—felt otherwise, while 7.59% remained undecided. Overall, the feedback reflects a strong sense of encouragement for innovation and initiative within private school settings. Government school respondents also offered largely favourable views, though the sentiment was a bit more varied. About 41.83% agreed and 36.88% strongly agreed that their school promotes entrepreneurial activities. Neutral responses were slightly more common at 9.51%, with 9.13% disagreeing and 2.66% strongly disagreeing. Both school types were seen as generally supportive of entrepreneurship. While private schools recorded a higher percentage of strong approval, government schools showed a larger proportion of moderate agreement but also a wider spread of opinions. This points to a broadly encouraging atmosphere in both environments, with private institutions enjoying a slightly higher perceptual advantage. Similar to the cross tabulation the results of the ANOVA analysis also depicted parallel results.

Further the role of knowledge skills was analysed and the results are following:

Knowledge Skills						
Type of School		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Private	Frequency	0	10	10	100	117
	Percentage	0	4.22	4.22	42.19	49.37
Government	Frequency	5	17	13	93	135
	Percentage	1.90	6.46	4.94	35.36	51.33
500	Total	5	27	23	193	252

Table 11: Cross Tabulation of school type and Knowledge Skills

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	42.514	10	26.221	10.132	.003
Within Groups	489.686	490	3.427		
Total	532.200	500			

Table12: Results of ANOVA

Private	N	Mean	Std. Dev	Lower Bound	Upper bound
Strongly Disagree	0	3.84	0.215	2.61	3.74
Disagree	10	2.68	0.416	2.27	3.06
Neutral	10	3.78	0.748	3.36	3.98
Agree	100	3.14	0.245	3.07	3.32
Strongly Agree	117	2.64	0.169	2.32	3.00
Government					
Strongly Disagree	5	3.14	.240	3.32	3.54
Disagree	17	2.95	.214	2.12	3.21
Neutral	13	3.14	.647	2.36	3.36
Agree	93	3.65	.421	3.14	3.98
Strongly Agree	135	3.54	.274	3.44	3.68

Table13: Results of ANOVA

In the table 11 above the significance of knowledge skills in competency development is described. The results clearly show that in private schools, the sentiment are strong. Nearly half of the respondents (49.37%) strongly agreed that their school effectively nurtures students' knowledge and skills, with another 42.19% agreeing. Only a small minority expressed reservations 4.22% disagreed and none strongly disagreed, while another 4.22% stayed neutral.

Government school students shared a similarly favourable outlook. About 51.33% strongly agreed and 35.36% agreed that their schools provide solid support for developing knowledge and skills. Still, a few voiced dissatisfactions, 6.46% disagreed and 1.90% strongly disagreed, with 4.94% neither agreeing nor disagreeing. Taken together, these results suggest that both private and government schools are widely recognized for their effectiveness in this area. While private schools show a slightly higher share of agreement, government schools' edge ahead in strong agreement. Overall, confidence in knowledge and skill development runs high across the board.

Inclusivity and diversity are the next point of interest of the researcher that was explored among the students as an important parameter of competency. The results are displayed in the following table:

Inclusivity and diversity						
Type of School		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Private	Frequency	14	20	14	80	109
	Percentage	5.91	8.44	5.91	33.76	45.99
Government	Frequency	9	30	23	87	114
	Percentage	3.42	11.41	8.75	33.08	43.35
500	Total	23	50	37	167	213

Table 14: Cross Tabulation of school type and Inclusivity and diversity

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	28.823	10	15.531	13.832	.011
Within Groups	503.377	490	3.097		
Total	532.200	500			

Table 15: Results of ANOVA

Private	N	Mean	Std. Dev	Lower Bound	Upper bound
Strongly Disagree	14	3.26	.214	3.18	3.33
Disagree	20	3.64	.654	3.23	3.95
Neutral	14	3.21	.741	2.99	3.33
Agree	80	2.99	.854	2.67	3.26
Strongly Agree	109	3.21	.312	2.90	3.32
Government					
Strongly Disagree	9	3.22	.124	2.98	3.65
Disagree	30	3.14	.254	3.01	3.47
Neutral	23	2.94	.148	3.33	3.14
Agree	87	2.31	.144	3.95	3.56
Strongly Agree	114	2.36	.152	2.12	3.15

Table 16: Results of ANOVA

Looking at the results of the role of Inclusivity and diversity aspect in competency development in table 14 above, most students in private schools expressed positive views about their school's inclusivity and diversity, with 45.99% strongly agreeing and 33.76% agreeing that their school cultivates such an environment. A smaller group, however, disagreed—8.44% somewhat and 5.91% strongly—with 5.91% feeling neutral. Government school respondents showed a similar trend. About 43.35% strongly agreed and 33.08% agreed that their schools promote inclusivity and diversity. The proportion of those who disagreed was a bit higher here, with 11.41% disagreeing and 3.42% strongly disagreeing, while 8.75% took a neutral stance. Private and government schools are generally seen as supportive of inclusivity and diversity. Private schools had a slightly higher share of strong agreement, while government schools showed more varied opinions, including a few more neutral and dissenting responses. This suggests a broadly positive perception overall, with a touch more variability in government school settings.

In this section the views of the parents and teachers on perceived changed behaviour are considered in the study. The results of the study are displayed in the table below:

Perceived Changed Behaviour						
Type of School		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
Private	Frequency	9	10	11	43	20
	Percentage	9.68	10.75	11.83	46.24	21.51
Government	Frequency	9	12	14	39	33
	Percentage	8.41	11.21	13.08	36.45	30.84
	Total	18	22	25	82	53

Table 17: Cross Tabulation of school type and Perceived Changed Behaviour

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	40.113	10	14.631	11.932	.000
Within Groups	492.134	190	5.397		
Total	532.247	200			

Table 18: Results of ANOVA

Private	N	Mean	Std. Dev	Lower Bound	Upper bound
Strongly Disagree	9	2.97	.214	2.14	3.06
Disagree	10	3.10	.564	2.97	3.33
Neutral	11	3.21	1.25	3.01	3.41
Agree	43	2.98	.214	2.21	3.01
Strongly Agree	20	4.01	.784	3.64	4.24
Government					

Strongly Disagree	9	3.65	.214	3.01	3.78
Disagree	12	3.47	.124	3.24	3.77
Neutral	14	3.12	.012	2.97	3.41
Agree	39	3.54	.0147	3.21	3.78
Strongly Agree	33	3.24	.0149	3.00	3.48

Table19: Results of ANOVA

The table no 17 above highlights the views of the parents and teachers about change in the perceived behaviour of the students on enhancing the competency skill of the students.

In private schools, nearly half of the parents and teachers (46.24%) felt they had experienced positive changes in the behavior of the students, while another 21.51% strongly agreed with this observation. However, some were less certain—10.75% disagreed, 9.68% strongly disagreed, and 11.83% remained neutral. Responses from government schools showed a comparable pattern but with slight differences. About 36.45% agreed that the behavior of students had improved, and a larger portion, 30.84%, strongly agreed. At the same time, disagreement was a bit more common, with 11.21% disagreeing, 8.41% strongly disagreeing, and 13.08% remaining neutral. Overall, most students from both private and government schools showed positive behavioural changes as per the response of the teachers and students. Interestingly, government school students tended to express stronger agreement.

Perceived Performance						
Type of School		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5	
Private	Frequency	5	27	12	20	27
	Percentage	5.49	29.67	13.19	21.98	29.67
Government	Frequency	18	32	9	34	16
	Percentage	16.51	29.36	8.26	31.19	14.68
200	Total	23	59	21	54	43

Table 20: Cross Tabulation of school type and Perceived Performance

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	32.523	10	12.131	10.132	.020
Within Groups	479.949	190	1.197		
Total	512.472	200			

Table21: Results of ANOVA

Private	N	Mean	Std. Dev	Lower Bound	Upper bound
Strongly Disagree	5	3.21	.547	3.11	3.35
Disagree	27	3.54	.412	3.21	3.78
Neutral	12	3.64	.014	3.27	3.87
Agree	20	2.97	.0167	2.61	3.21
Strongly Agree	27	3.12	.4157	2.97	3.64
Government					
Strongly Disagree	18	3.33	.0124	3.01	3.78
Disagree	32	3.54	.078	3.21	3.64
Neutral	9	3.27	.049	3.01	3.34
Agree	34	3.74	.147	3.37	3.98
Strongly Agree	16	3.47	.478	3.14	3.87

Table 22: Results of ANOVA

In the table 20 above it can be seen that the private school parents and teachers generally hold a positive view of their kid's performance on emphasis of the competency skills in teaching, with 51.65% agreeing or strongly agreeing it was satisfactory, though about 35% expressed some level of disagreement. Around 13% were neutral. In government schools, disagreement was notably higher—over 45% disagreed or strongly disagreed—while only 45.87% agreed or strongly agreed. Neutral responses were lower, at just over 8%. Parents and teachers in private schools tend to view their performance of their kids more favourably, whereas government school teachers and parents showed greater scepticism and more mixed opinions.

5. Discussion

Based on the above analysis, some very stark observations can be drawn. The first and the most important one is that in most of the parameters defining behaviour and performance, the private school scores above the public schools. Specifically, from the perspective of infrastructure, teaching pedagogy, entrepreneurial environment, etc. Among the various relationships tested in the study, the teaching pedagogy was found to have the strongest impact on Knowledge skills, followed by school infrastructure. Talking about literacy skills, the teaching pedagogy had a stronger effect as compared to peer-to-peer learning. Among the various skills that impact the Perceived Changed Behaviour, the knowledge skills are the most significant ones, while the life skill holds the second order of significance. This is followed by literacy skills, which shows that the students and even their parents place more significance on the knowledge skills rather than literacy skills. All the above results are also verified by the results of ANOVA analysis. The important implications for policymakers and school authorities are discussed in the section below.

6. Implications of the study

The study offers some very important theoretical as well as practical implications. There had been various studies that were descriptive or qualitative, none explaining the quantitative relationship. This study will motivate other researchers in the area to further dive into the other aspects of the study to further fill the research gap in the domain.

Besides theoretical contributions, the study offers very important clues for school management /authorities and policy makers. For school management/authorities, study is an important input to update and maintain

the school infrastructure. Most of the school authorities are also doing it. The Government schools in Delhi have also accepted the fact and worked upon the same, but still, there are several private and almost all public schools in semi-urban parts of Delhi-NCR where the schools are lacking basic amenities. Another important aspect of the knowledge skills is teaching pedagogy. The school administration of private schools and the government, in the case of public schools, should take the training of teachers from time to time very seriously. In case teachers used age age-old teaching of chalkboard method. The schools need to develop an entrepreneurial and innovative culture by organizing hackathons and Pitch deck competitions so that the risk-taking capacities of the students rise and they transform themselves from job seekers to job creators. The government needs to support both private and government schools with funds on a loan basis. A model should be worked out where there should be mentors from the government to monitor the progress of the school, along with the school management.

7. Conclusion

This study was undertaken to understand the competencies of the high school students of Delhi NCR . The study also intended to compare the impact of these competencies on the high school students of public schools and private schools in Delhi-NCR. The objective of the study was achieved by collecting data using a stratified purposive sampling technique from students, parents as well and their teachers. Among the four skills that impact the Perceived Changed Behaviour, the knowledge skills are the most significant. The outcome of the research will provide some important insights for the school authorities and policymakers in understanding the gaps in their teaching pedagogy and developing suitable methods to reduce the gap between expected competencies and actual ones. Specifically, making the students industry-ready to meet the challenges of the industry. There are few limitations of the study as well. The study could be conducted in other parts of the country to get a better idea of the situation. The study can also be conducted in light of the National Education Policy (NEP) launched by the Government of India.

References

- Bustillo V. E & Patrinos. A.Harry. (2023, February 14). Why is education more important today than ever? *Innovation*. <https://blogs.worldbank.org/en/education/why-education-more-important-today-ever-innovation>.
- Campion, M. A., Fink, A. A., Ruggeberg, B. J., Carr, L., Phillips, G. M., & Odman, R. B. (2011). Doing competencies well: Best practices in competency modeling. *Personnel psychology*, 64(1), 225-262.
- Care, E., Talreja, V., Ravindranath, S., & Sahin, A. G. (2020). Development of student and teacher measures of Happiness Curriculum factors. *Development*.
- Ciolacu, M., Tehrani, A. F., Beer, R., & Popp, H. (2017, October). Education 4.0—Fostering student's performance with machine learning methods. In 2017 IEEE 23rd international symposium for design and technology in electronic packaging (SIITME) (pp. 438-443). IEEE.
- Ewell, P. (2012). Making the grade: How boards can ensure academic quality. Association of Governing Boards of Universities and Colleges. 1133 20th Street NW Suite 300, Washington, DC 20036.
- Fernández-Castillo, A. (2020). Early Childhood Social Competence Scale (EC-SCS): Factor Structure and Psychometric Properties. *Sustainability*, 12(15), 6262.
- Hımmetoglu, B., Aydug, D., & Bayrak, C. (2020). Education 4.0: Defining the teacher, the student, and the school manager aspects of the revolution. *Turkish Online Journal of Distance Education*, 21(Special Issue-IODL), 12-28.

- Jacobs, J. M., Wright, P. M., & Richards, K. A. R. (2022). Students' perceptions of learning life skills through the teaching personal and social responsibility model: An exploratory study. *Frontiers in Sports and Active Living*, 4, 898738.
- Jeou-Shyan, H., & Lu, H. Y. (2006). Needs assessment of professional competencies of F&B/hospitality management students at college and university level. *Journal of Teaching in Travel & Tourism*, 6(3), 1-26.
- Kay, C., & Russette, J. (2000). Hospitality-management competencies: Identifying managers' essential skills. *Cornell hotel and restaurant administration quarterly*, 41(2), 52-63.
- Maria, M., Shahbodin, F., & Pee, N. C. (2018, September). Malaysian higher education system towards industry 4.0—current trends overview. In *AIP Conference Proceedings* (Vol. 2016, No. 1). AIP Publishing.
- Medeiros, H. C. P., Soares, A. B., & Monteiro, M. C. (2021). Adolescent social skills, perception of social support and motivation to learn: The impact on school performance. *Psico-usf*, 26(3), 533-543.
- Messias, G., Rodrigues, U., Braga, L., Nakamura, W., Ferreira, B., Paiva, A., & Valentim, N. (2018, October). Education 4.0 and 21st century skills: A case study with robotics activities in classroom. In *Brazilian symposium on computers in education (simpósio brasileiro de informática na educação-sbie)* (Vol. 29, No. 1, p. 715).
- Millar, M., Mao, Z., & Moreo, P. (2010). Hospitality & tourism educators vs. the industry: A competency assessment. *Journal of Hospitality & Tourism Education*, 22(2), 38-50.
- Mourtzis, D. (2018). Development of skills and competences in manufacturing towards education 4.0: A teaching factory approach. In *International Conference on the Industry 4.0 model for Advanced Manufacturing* (pp. 194-210). Cham: Springer International Publishing.
- Sherehiy, B., Karwowski, W., & Layer, J. K. (2007). A review of enterprise agility: Concepts, frameworks, and attributes. *International Journal of industrial ergonomics*, 37(5), 445-460.
- Silva, D. E., Lopes, T., Sobrinho, M. C., & Valentim, N. M. C. (2021). Investigating initiatives to promote the advancement of education 4.0: A systematic mapping study. *CSEDU* (1), 458-466.
- Stigmar, M. (2016). Peer-to-peer teaching in higher education: A critical literature review. *Mentoring & Tutoring: partnership in learning*, 24(2), 124-136.
- Strollys, V. (2019). Creating a learning environment via an entrepreneurial process: The case of Arcada's "Creating work life skills in an entrepreneurial environment" course.
- Suminar, T., Prihatin, T., & Syarif, M. I. (2016). Model of learning development on program life skills education for rural communities. *International Journal of Information and Education Technology*, 6(6), 496.
- Yangambi, M. (2023). Impact of school infrastructures on students learning and performance: Case of three public schools in a developing country. *Creative Education*, 14(4), 788-809.