A Study of Awareness of National Curriculum Framework (2005) Among Secondary School Teachers of CBSE Board of Ghaziabad district

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Abstract

This study investigates the extent of awareness among CBSE secondary school teachers in Ghaziabad, Uttar Pradesh, regarding the National Curriculum Framework (NCF) 2005. Introduced by NCERT, NCF 2005 represents a shift towards learner-centered and constructivist pedagogy, aiming to cultivate creativity, critical thinking, and inclusivity in the Indian education system. A descriptive and quantitative research design was adopted, utilizing a 45-item multiple-choice questionnaire developed by the researcher to assess awareness in three key areas: aims, basic provisions, and the underlying rationale of the framework. Results indicate that nearly half of the participants (49%) possess a high level of awareness about the aims of NCF 2005. However, understanding of the basic provisions (30%) and rationale (22%) was significantly lower. Further, statistical analysis using t-tests revealed no significant differences in awareness levels across gender (male and female) and teaching stream (science and arts) at both 0.05 and 0.01 significance levels. These findings point to a widespread need for enhanced professional development, regardless of demographic or subject background. The study recommends ongoing teacher training, workshops, and in-school programs to improve familiarity with NCF 2005, especially its conceptual foundation and practical implementation. Strengthening teacher awareness is essential to successfully embedding the principles of NCF 2005 in classrooms, thereby promoting holistic and inclusive education.

Introduction:

Curriculum plays an important role in the Indian Education system. It sets standards, goals, and learning outcomes of the Educational system. It is considered as “Heart” of any learning institution. The Department of Education Queensland (2008) states, "All the planned learning is offered and enacted by a school. And a good Curriculum has each of these elements aligned so that intended learning is what is assessed and what students achieved.” the genesis of curriculum reform in India can be traced back to the post-independence period. The Mudaliar Commission (1952-53) and the Kothari Commission (1964-66) were significant milestones that laid the groundwork for modern educational policies. The Kothari Commission's recommendation for a uniform education structure and its emphasis on national integration and the development of scientific temper were foundational. Various educational frameworks were developed in the subsequent decades, including the National Policy on Education (NPE) in 1968 and 1986, which provided a broad policy outline. The 1986 NPE, followed by the Programme of Action (POA) 1992, aimed at universalizing elementary education and improving its quality.

However, the need for a more detailed and structured curriculum framework led to the formulation of the NCF 2000, the immediate precursor to NCF 2005. The National Curriculum Framework (NCF) 2005, established by the National Council of Educational Research and Training (NCERT), represents a significant reform in the Indian educational system. Its primary focus on a constructivist, child-centered pedagogy marks a departure from traditional rote learning methods, emphasizing critical thinking, creativity, and the holistic development of students. For secondary school teachers, awareness and understanding of NCF 2005 are crucial for several reasons. Firstly, NCF 2005 introduces a learner-centric approach that prioritizes the individual needs and experiences of students. Secondary school teachers, who play a pivotal role in shaping the educational journey of adolescents, must be equipped with the knowledge and skills to implement this approach effectively. Understanding the principles of NCF 2005 enables teachers to create an engaging and inclusive learning environment that connects academic concepts to real-life contexts, thereby enhancing students' comprehension and retention. Secondly, the framework stresses the importance of flexibility in the examination system and the integration of continuous and comprehensive evaluation (CCE). Awareness of these assessment reforms allows teachers to shift from traditional summative evaluations to more formative assessments that provide constructive feedback and support students' ongoing learning processes. This shift not only reduces exam-related stress but also fosters a deeper understanding of subjects among students. Moreover, NCF 2005 highlights the need for inclusivity in education, ensuring that children from diverse socio-economic backgrounds, with varying physical, psychological, and intellectual characteristics, can achieve success. Secondary school teachers must be cognizant of these inclusivity principles to address the unique needs of each student, thereby promoting equity and access to quality education. Additionally, the framework encourages teachers to be continuous learners and adapt to new educational developments and technologies. Awareness of NCF 2005 keeps teachers informed about the latest pedagogical strategies and innovations, enabling them to enhance their teaching practices and effectively meet the evolving needs of students.

In conclusion, the awareness of NCF 2005 among secondary school teachers is paramount for the successful implementation of its principles. It empowers teachers to foster a supportive and dynamic learning environment, ensures inclusivity, and promotes continuous professional development. Ultimately, this awareness is essential for nurturing well-rounded individuals equipped with the knowledge, skills, and values necessary for thriving in the modern world.

Objectives:

The Objectives of the Study are:

1. **To find the level of Awareness of NCF 2005 among CBSE secondary school teachers.**
   - 1.1 To find the level of awareness of NCF 2005 related to aims.
   - 1.2 To find the level of awareness of NCF 2005 related to basic provision
   - 1.3 To find the level of awareness of NCF 2005 related to rationale.

2. **To compare the level of awareness of NCF 2005 between male and female teachers of secondary schools of the CBSE Board.**
   - 2.1 To compare the level of awareness of NCF 2005 concerning aims between male and female teachers
   - 2.2 To compare the level of awareness of NCF 2005 concerning basic provisions between male and female teachers
   - 2.3 To compare the level of awareness of NCF 2005 concerning the rationale between male and female teachers

3. **To compare the level of awareness of NCF 2005 between science and arts teachers of secondary schools of the CBSE board.**
   - 3.1 To compare the level of awareness of NCF 2005 concerning aims between SCIENCE and ART stream teachers
   - 3.2 To compare the level of awareness of NCF 2005 concerning basic provisions between SCIENCE and ART stream teachers
   - 3.3 To compare the level of awareness of NCF 2005 concerning the rationale between SCIENCE and ART stream teachers

Hypotheses:

1: There is no significant difference in awareness of NCF 2005 between male and female teachers concerning aims

2: There is no significant difference in awareness of NCF 2005 between male and female teachers concerning basic provisions

3: There is no significant difference in awareness of NCF 2005 between male and female teachers concerning the rationale

4: There is no significant difference in awareness of NCF 2005 between science and art stream teachers concerning aims

5: There is no significant difference in awareness of NCF 2005 between science and art stream teachers concerning basic provisions

6: There is no significant difference in awareness of NCF 2005 between science and art stream teachers concerning the rationale

Method:

Sample:

100 Secondary school teachers of Ghaziabad district, Uttar Pradesh had been selected randomly for the present investigation.

Design:

The present study was descriptive in which Awareness of NCF (2005) was treated as an independent variable and Gender and Stream were considered as Classificatory Dependent variables. The exploratory nature of the study necessitated a quantitative approach to obtain the awareness scores of teachers about NCF 2005.

Tools used:

A questionnaire consisting of 45 multiple-choice questions was constructed by the investigator to check the level of awareness of NCF (2005) of secondary school teachers. The respondents were asked relevant questions about NCF (2005) in very simple and easy-to-understand language. These questions were related to the basic provisions, Aims, and Rationale of NCF (2005). Each question was provided with one correct answer. Each question carries 1 mark. Procedure Prior permission was taken by the school authorities for the data collection for the present study. The researcher explained the purpose of the study and appropriate instructions were given to the respondents. The respondents were assured of the anonymity of their responses. The survey was administered in a very quiet environment and respondents were not talking or sharing answers.

Statistical Techniques used:

After collecting data from 100 secondary school teachers scoring of each paper was done. The data obtained was carefully analyzed with the help of SPSS. Mean, Standard deviation, percentage, and t-tests were employed to treat raw scores and arrive at the result.

Based on the scores of the respondents three levels of awareness were framed as follows in Table No. 1

Table No. 1

Three levels of Awareness based upon raw scores of aim, basic provision and rationale

S.NO.	LEVEL OF AWARENESS OF AIMS, BASIC PROVISIONS, RATIONALE OF NCF 2005	RANGE OF SCORE
1	LOW	1-9
2	MEDIUM	10-13
3	HIGH	14-15

Results of the study

Table No. 2

Awareness level of Teachers with percentage about NCF (2005)

Level of awareness about NCF 2005	Low (1-9)	Medium (10-13)	High (14-15)
Aims	25%	26%	49%
Basic provisions	31%	39%	30%
Rationale	34%	44%	22%

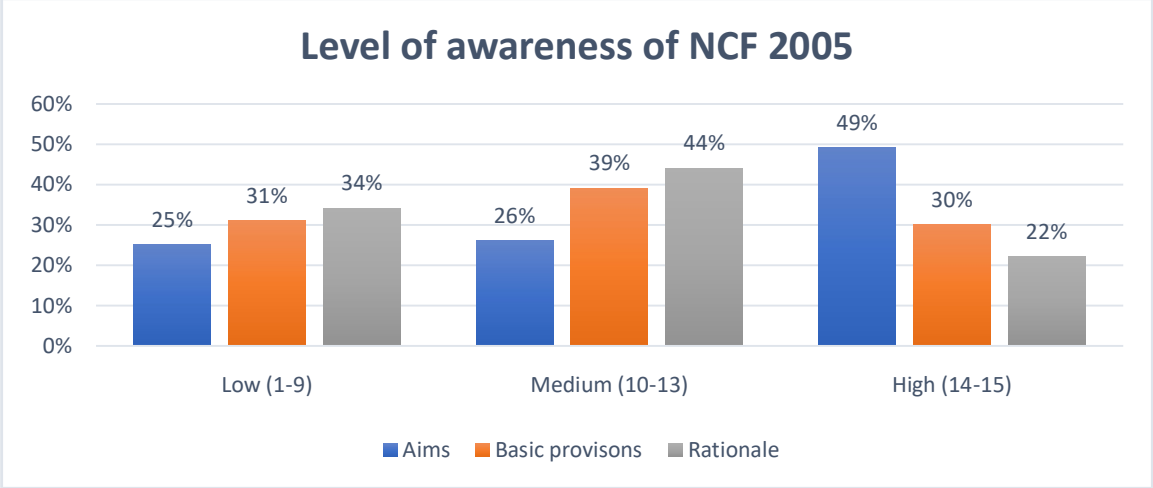


Figure 1: Graph showing the percentage of Awareness of NCF (2005)

The data indicates in Table **2** that nearly half (49%) of the teachers have a high level of awareness regarding the aims of NCF 2005. This suggests that a significant portion of educators understand the overarching goals of the framework, such as fostering critical thinking, creativity, and holistic development. Awareness of the basic provisions of NCF 2005 is more evenly distributed. About 30% of teachers exhibit a high level of awareness, while the majority have a medium (39%) or low (31%) understanding. This indicates that there is a need for increased focus on familiarizing teachers with the specific provisions and guidelines outlined in NCF 2005. The rationale behind NCF 2005, which includes the philosophical and theoretical foundations of the framework, appears to be the least understood aspect among teachers. Only 22% demonstrate a high level of awareness, while 44% have a medium understanding and 34% have a low understanding. This highlights a critical area where professional development and training could be enhanced to ensure teachers fully grasp the underlying principles of NCF 2005.

Testing the Hypotheses:

In the present study, the researcher used the application Microsoft Excel for calculating descriptive statistics (MEAN, STANDARD DEVIATION) and for comparing t-tests has been used. The detailed description is elaborated by the researcher by using tables and their result.

Hypothesis 1: There is no significant difference in awareness of NCF 2005 between male and female teachers concerning aims.

Table No. 3

Mean, SD, and 't' value of awareness of aim scores of Male and female School teachers

Variable	N	Mean	S.D.	T-value
Male	49	7	4.56	0.03
female	51	12.24	3.78	

Based on the data of Table 3 t-test conducted to examine the awareness of NCF 2005 aims between male and female teachers, it was found that there is no significant difference between the two groups at either the 0.05 or the more stringent 0.01 significance levels. The critical t-values for these levels were determined to be 1.98 and 2.62, respectively, with the calculated t-value for the comparison being 0.036. At the 0.05 significance level, where the critical t-value was 1.98, the calculated t-value of 0.036 fell well below this threshold, indicating that the observed difference in awareness between male (mean = 7) and female (mean = 12.24) teachers regarding NCF 2005 aims was not statistically significant. Similarly, at the 0.01 significance level, with a critical t-value of 2.62, the calculated t-value remained below this threshold, reinforcing the conclusion that gender does not influence the awareness of NCF 2005 aims among the teachers in this study.

Hypothesis 2: There is no significant difference in awareness of NCF 2005 between male and female teachers concerning basic provisions

Table No. 4

Mean, SD, and t- t-value of awareness of basic provision scores of Male and female School teachers

Variable	N	Mean	S.D.	T-value
Male	49	6.6	4.82	0.07
female	51	11.84	3.90	

Based on the data of Table 4 of the t-test conducted to examine the awareness of the basic provisions of NCF 2005 between male and female teachers, it was found that there is no significant difference between the two groups at both the 0.05 and 0.01 significance levels. At the 0.05 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 1.98, while the calculated t-value is 0.07. Since the calculated t-value (0.07) is less than the critical t-value (1.98), we fail to reject the null hypothesis at the 0.05 significance level. This indicates that there is no significant difference in the awareness of NCF 2005 basic provisions between male and female teachers at this level of significance. Similarly, at the 0.01 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 2.62. The calculated t-value remains 0.07, which is less than the critical t-value (2.62). Therefore, we again fail to reject the null hypothesis at the 0.01 significance level, indicating no significant difference in the awareness of NCF 2005 basic provisions between male and female teachers at this more stringent level of significance.

Hypothesis 3: There is no significant difference in awareness of NCF 2005 between male and female teachers concerning the rationale

Table No. 5

Mean, SD, and t-value of awareness of rationale scores of Male and female School teachers

Variable	N	Mean	S.D.	T-value
Male	49	4.2	4.02	0.01
female	51	11.4	3.91	

Based on the data of table 5 the t-test examining the awareness of the rationale behind NCF 2005 between male and female teachers, it was found that there is no significant difference between the two groups at both the 0.05 and 0.01 significance levels. At the 0.05 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 1.98, while the calculated t-value is 0.011. Since the calculated t-value (0.011) is less than the critical t-value (1.98), we fail to reject the null hypothesis at the 0.05 significance level. This indicates that there is no significant difference in the awareness of NCF 2005 rationale between male and female teachers at this level of significance.

Similarly, at the 0.01 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 2.62. The calculated t-value remains 0.011, which is considerably less than the critical t-value (2.62). Therefore, we again fail to reject the null hypothesis at the 0.01 significance level, confirming that there is no significant difference in the awareness of NCF 2005 rationale between male and female teachers at this more stringent level of significance.

Hypothesis 4: There is no significant difference in awareness of NCF 2005 between science and art stream teachers concerning aims

Table No. 6

Mean, SD, and t-value of awareness of aims scores of science and arts stream School teachers

Variable	N	Mean	S.D.	T-value
science	56	10.12	5.17	0.048
art	44	13.21	2.72	

Based on the data of table 6 the t-test examining the awareness of the aims of NCF 2005 between science and art stream teachers, it was found that there is no significant difference between the two groups at both the 0.05 and 0.01 significance levels. At the 0.05 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 1.98, while the calculated t-value is 0.048. Since the calculated t-value (0.048) is less than the critical t-value (1.98), we fail to reject the null hypothesis at the 0.05 significance level. This indicates that there is no significant difference in the awareness of NCF 2005 aims between science and art stream teachers at this level of significance. Similarly, at the 0.01 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 2.62. The calculated t-value remains 0.048, which is considerably less than the critical t-value (2.62). Therefore, we again fail to reject the null hypothesis at the 0.01 significance level, confirming that there is no significant difference in the awareness of NCF 2005 aims between science and art stream teachers at this more stringent level of significance.

Hypothesis 5**:** There is no significant difference in awareness of NCF 2005 between science and art stream teachers concerning basic provisions

Table No. 7

Mean, SD, and t-value of awareness of basic provisions scores of science and arts stream School teachers

Variable	N	Mean	S.D.	T-value
science	56	10.62	4.97	0.48
art	44	11.78	3.94	

Based on the data of table 7 the t-test examining the awareness of the basic provisions of NCF 2005 between science and art stream teachers, it was found that there is no significant difference between the two groups at both the 0.05 and 0.01 significance levels. At the 0.05 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 1.98, while the calculated t-value is 0.48. Since the calculated t-value (0.48) is less than the critical t-value (1.98), we fail to reject the null hypothesis at the 0.05 significance level. This indicates that there is no significant difference in the awareness of NCF 2005 basic provisions between science and art stream teachers at this level of significance. Similarly, at the 0.01 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 2.62. The calculated t-value remains 0.48, which is considerably less than the critical t-value (2.62). Therefore, we again fail to reject the null hypothesis at the 0.01 significance level, confirming that there is no significant difference in the awareness of NCF 2005 basic provisions between science and art stream teachers at this more stringent level of significance.

HYPOTHESIS 6: There is no significant difference in awareness of NCF 2005 between SCIENCE and ART stream teachers concerning the RATIONALE

Table No. 8

Mean, SD, and t-value of awareness of rationale scores of science and arts stream School teachers

variable	N	Mean	S.D.	T-value
science	56	9.37	5.07	0.32
art	44	11.07	4.23	

Based on the data of table 8 the t-test examining the awareness of the rationale behind NCF 2005 between science and art stream teachers, it was found that there is no significant difference between the two groups at both the 0.05 and 0.01 significance levels. At the 0.05 significance level, the critical t-value for a two-tailed test with 98 degrees of freedom is 1.98, while the calculated t-value is 0.326652. Since the calculated t-value (0.326652) is less than the critical t-value (1.98), we fail to reject the null hypothesis at the 0.05 significance level. This indicates that there is no significant difference in the awareness of the NCF 2005 rationale between science and art stream teachers at this level of significance. Similarly, at the 0.01 significance level, the

critical t-value for a two-tailed test with 98 degrees of freedom is 2.62. The calculated t-value remains 0.326652, which is considerably less than the critical t-value (2.62). Therefore, we again fail to reject the null hypothesis at the 0.01 significance level, confirming that there is no significant difference in the awareness of the NCF 2005 rationale between science and art stream teachers at this more stringent level of significance.

Implications:

The data presented has several significant implications for the awareness and understanding of NCF 2005 among teachers. Firstly, while nearly half (49%) of teachers have a high level of awareness regarding the aims of NCF 2005, indicating a good understanding of the framework's overarching goals, a substantial proportion still fall within medium and low awareness categories. This highlights the need for targeted professional development initiatives to ensure a broader and deeper understanding among all teachers. For basic provisions, awareness is more evenly distributed, with only 30% of teachers demonstrating high awareness. This suggests a pressing need to improve teachers' familiarity with the specific provisions and guidelines outlined in NCF 2005 through comprehensive training and support programs. The relatively lower awareness of the rationale behind NCF 2005 is particularly concerning, as only 22% of teachers show high awareness. This indicates that many educators may not fully grasp the philosophical and theoretical foundations of the curriculum, which are crucial for effective implementation. Enhanced focus on professional development in this area is critical. The t-test results further reinforce these findings. No significant difference in awareness was found between male and female teachers or between science and art stream teachers concerning the aims, basic provisions, and rationale of NCF 2005 at both the 0.05 and 0.01 significance levels. This uniformity suggests that the issue of low awareness is pervasive across different demographics and teaching disciplines, underscoring the need for a systemic approach to professional development.

Conclusion:

In conclusion, the effective implementation of NCF 2005 requires a concerted effort to improve teacher awareness and understanding. By investing in comprehensive and continuous professional development, we can ensure that all educators are well-equipped to deliver quality education, ultimately benefiting students and the nation as a whole

To address these gaps, various strategies should be implemented. Seminars, training programs, and workshops should be regularly organized for in-service teachers to enhance their understanding of NCF 2005. Distributing informative booklets and conducting subject-wise guidance programs within schools can facilitate knowledge sharing and healthy discussions among teachers. Additionally, incorporating themes such as peace education, value education, and health education into training programs can broaden teachers' perspectives and understanding of the curriculum's holistic approach.

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