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RESEARCH ARTICLE

TEACHERS' PERCEPTION TOWARDS THE CBCS PROGRAM AT THE UNDERGRADUATE LEVEL

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Abstract

Under the 11th five-year plan, the Association of Indian Universities (AIU) and the University Grant Commission (UGC) suggested the Choice Based Credit System as a way to reform India's higher education system (Chaubey, 2015). Teachers and academicians play an important role for the successful implementation of the CBCS. The main purpose of the study is to assess functionality of the CBCS curriculum through study the perception of the teachers (Gender and Discipline) towards it. The researchers randomly chose 314 teachers from undergraduate level (U.G.) colleges under four universities (Calcutta University, Kalyani University, Vidyasagar University and West Bengal State University) in West Bengal and collected data through a self-made standardized questionnaire Perception of Teachers on Choice Based Credit System (PTCBCS). Researchers found no discernible impact of teachers' gender on their perceptions towards CBCS and a noteworthy distinction was found between science and arts teachers with regard to their perceptions on CBCS. In this study most of the teachers have shown low mean scores which implies awareness about the CBCS did not develop properly among them within short time of its implementation and poor infrastructural facilities etc. Hence, to develop proper understanding among the teachers about the CBCS and to increase the efficacy of this newly implemented curricular system, the present study suggests robust infrastructural upgradation of the institutions, more time requirement, sufficient human resources etc.

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Introduction:-

Most of our students' come out from the current educational system's inability to equip international standard education and desirable skills to find better employability. It might be as a result of the traditional educational system which was total lack of connection between education, job, and skill development. The current concerning situation demands that the education system needs to be transformed. This entails not only implementing innovations but also creating a "learner centric approach" throughout the entire education delivery mechanism and internationally recognised assessment system. (Rajkumar et al., 2024). To achieve these aims, the government had established various commissions and initiated several plans and policies for reformation of the existing education system. The 11th Five Year plan of India had proposed numerous measures for academic reforms in higher

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education. Keeping in view the challenges and to make higher education in Indian universities compatible with the universities in developed countries, the University Grant Commission (UGC) (11th plan, March 2009) under the 11th five year plan and later on the Association of Indian Universities (AIU) recommended Choice Based Credit System (Chaubey, 2015).

The CBCS closely fits into the emerging socio-economic environment, and could effectively respond to the educational and occupational aspirations of the forthcoming generations. CBCS has many advantages like it follows an interdisciplinary approach to learning which enables integration of concepts, theories, techniques and perspectives from two or more disciplines. This system cuts down the boundaries of different disciplines for students. CBCS also offers a very flexible and open system for a quality upgradation of higher education. (Deuri, 2015).

The University Grants Commission (UGC) has introduced and adopted the Choice Based Credit System (CBCS) for quality improvement of the higher education sector. But any reformation of the pre-existing educational framework can give rise to various challenges that hinder the achievement of the program's objectives. In order to strengthen skill-based education and improve student learning, the National Education Policy (NEP- 2020) has implemented several important modifications to conventional teaching-learning framework, e.g. freedom to choose subjects and put importance on the diverse education. The government has also chosen to implement the novel idea of the Academic Bank of Credit (ABC) in conjunction with CBCS in order to provide the best educational experience and paving the way for finding suitable job for students in the twenty-first century, (Rajkumar et al., 2024)

For the successful implementation of the CBCS curriculum, the teachers and academicians play a significant role. Assessing the perceptions of teachers is important to understand whether they are reaping the intended benefits and understand this system properly or not. Hence the present researchers focus on studying the teachers' perception towards CBCS to understand the efficacy of this system.

2. Objectives of the study:

1. To study the main effect of gender and discipline of teacher on the perception of CBCS
2. To study the interaction effect of gender and discipline of teachers on the perception of CBCS.

3. Hypotheses:

Hypotheses for objective No. 1

H₀₁-There is no significant main effect of gender on the perception of teachers on CBCS.

H₀₂-There is no significant main effect of discipline on the perception of teachers on CBCS.

Hypotheses for objective No. 2

H₀₃- There is no significant interaction effect of gender and discipline of teachers on perception of CBCS.

4. Methodology:

According to the requirements of the study, the present researchers use the Perception of Teachers on Choice Based Credit System (PTCBCS) self-made standardized tools. This tool was developed by the investigators. This tool is a 5 point rating scale with response categories bearing scores from 5 to 1 respectively i.e. 'strongly agree', 'agree', 'neutral', 'disagree' and 'strongly disagree'. PTCBCS tool has been validated by three experts and the reliability of the tool is that of Cronbach's Alpha value 0.846 which was found good in nature (Griethuijsen et al., 2014). This tool with 38 items was administered to a randomly selected sample of 314 teachers of undergraduate level colleges under four universities (Calcutta University, Kalyaniuniversity, Vidyasagar University and West Bengal State University) in West Bengal. Collected responses converted into scores and the distributions of scores were tested for normality by applying statistical technique.

It was found that the mean score of perception of U.G. level college teachers' towards Choice Based Credit System (CBCS) (N=314) is 114.42, Std. Deviation is 14.618. It was also found that the skewness is 0.006 and Kurtosis is -0.157. Applying the rule of thumb for checking normality of data, it gives values of $Z_{sk} = 0.043$ and $Z_{ku} = -0.572$ which lies within +3. It indicates that the departure from normality is not too extreme (Tabachnick&Fidell, 2007, Garson, 2012). Hence parametric test was applied to analyzed data.

Analysis of objective no. 1

Testing of Hypothesis $H_01 - H_03$ **Table 1.1:-** Estimated marginal means and standard deviation of teachers' perception towards CBCS in respect of Gender and Discipline

Dependent Variable	Gender	Discipline	Mean	Std. Deviation	N
Perception Towards CBCS	Female	Arts	115.71	14.737	86
		Commerce	123.18	13.022	11
		Science	117.12	13.536	17
		Total	116.64	14.463	114
	Male	Arts	110.54	12.617	117
		Commerce	115.14	12.187	21
		Science	117.44	17.609	62
		Total	113.16	14.592	200
	Total	Arts	112.73	13.761	203
		Commerce	117.91	12.867	32
		Science	117.37	16.736	79
		Total	114.42	14.618	314

Table no. 1.1 shows the overall (group mean and standard deviation) scores for each independent variable (Gender and Discipline) in order. It is understandable from the above table that there are slight differences exists in the mean scores and standard deviation scores of gender and discipline of teachers on the perception of CBCS (Female M= 116.64, SD=14.463, N= 114 & Male M= 113.16, SD=14.592, N= 200) and Discipline (Arts M= 112.73, SD=13.761, N= 203, Commerce M= 117.91, SD=12.867, N= 32 and Science M= 117.37, SD=16.736, N= 79). Hence, it is decided to find out whether this difference is significant or not. For this purpose Lavene's test for equality of variance and independent sample "t" test are employed for equality of means. The result is presented in the following table.

Table No. 1.2:- Lavene's Test of Equality of Error variances.

Levene's Test of Equality of Error Variances			
Dependent Variable: Perception Towards CBCS			
F	df1	df2	Sig.
2.086	5	308	.067

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.^a

a. Design: Intercept + GENDER + DISCIPLINE + GENDER * DISCIPLINE

The analysis of table no. 1.2 shows that, in the case of Lavene's Test for Equality of error Variance the f value is 2.086 corresponding p value is 0.067 ($p > .05$) which is not significant at 0.05 level. Hence the equal error variance can be assumed for parametric data analysis.

Table. 1.3:- Test of between subject effects.

Dependent Variable: PERCEPTION TOWARDS CBCS							
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power ^b
Gender	711.315	1	711.315	3.454	.064	.011	.457
Discipline	1414.193	2	707.097	3.433	.034	.022	.642
Gender* Discipline	421.971	2	210.985	1.024	.360	.007	.228
Error	63438.024	308	205.968				

In the table 1.3; the third set of values in a row labeled with

Gender and Discipline as independent values we found the dependent variable listed, with their associated univariate F, df and Sig. values. In case of the main effect of gender of teachers (Female M= 116.64, SD=14.463, N= 114 & Male M= 113.16, SD=14.592, N= 200) on CBCS perception, the computed value of F (1,308) is 3.454, and p value is 0.064 which is higher than 0.05 ($p>0.05$). Hence, F is not significant at .05 level of significance test. Hence the null hypothesis H_01 is not rejected or accepted and it is determined that there is no significant main effects of gender of teachers on CBCS perception. It's also found that there is a very small effect size of 0.011 which means only 1.0% effects of gender of teachers lies on the CBCS perception. The calculated statistical power or observed power is 0.457 represents 55% chance of accepting null hypothesis.

In case of the main effect of discipline of teachers (Arts M= 112.73, SD=13.761, N= 203, Commerce M= 117.91, SD=12.867, N= 32 and Science M= 117.37, SD=16.736, N= 79) on CBCS perception, the computed value of F(2,308) is 3.433 and p value is 0.034 which lower than 0.05 ($p<0.05$). Hence, it should be taken as significant at .05 level of significance test. Hence the null hypothesis H_02 is rejected and it is determined that there is significant main effect of discipline of teachers on CBCS perception. It's also found from further study that there is a small effect size of 0.022 which means only 2.0% effects of discipline of teachers lies on CBCS perception. The calculated statistical power or observed power is 0.642 represents 64% chance of rejecting null hypothesis. Further post-hoc analysis has been done to recognise where the actual significant difference lies and the result and subsequent interpretation has been presented in Table no. 1.4.

In case of interaction effect of gender (Female: M= 116.64, SD=14.463, N= 114 & Male: M= 113.16, SD=14.592, N= 200) and discipline of teachers (Arts M= 112.73, SD=13.761, N= 203, Commerce M= 117.91, SD=12.867, N= 32 and Science M= 117.37, SD=16.736, N= 79) on CBCS perception, the computed value of F(2,308) = 1.024 and $p = 0.360$ which is higher than .05 ($p>0.05$). Hence, it should be taken as not significant at .05 level of significance. Hence the null hypothesis H_03 is not rejected and it is concluded that there is no significant interaction effect of gender (male and female) and discipline (arts, commerce and science) of teachers lies on the perception of CBCS.

Table 1.4:- Post Hoc Analysis.

Multiple Comparisons					95%	Confidence
Dependent Variable: Perception Towards CBCS					Interval	
LSD	(J) Discipline	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Arts	Commerce	-5.18	2.730	.059	-10.55	.19
	Science	-4.64*	1.903	.015	-8.38	-.89
Commerce	Arts	5.18	2.730	.059	-.19	10.55
	Science	.54	3.007	.858	-5.38	6.46
Science	Arts	4.64*	1.903	.015	.89	8.38
	Commerce	-.54	3.007	.858	-6.46	5.38

From Table 1.4, further LSD/Post Hoc test shows that the mean difference between arts and science discipline is 4.64. The p value is 0.015 ($p<0.05$), which is significant at 0.05 level. So it is concluded that the significant difference lies between the teachers of arts and science discipline in their perception towards CBCS whereas no significant difference in perception of teachers towards CBCS between following disciplines: Arts and Commerce, Commerce and Science.

5. Findings:

- Findings of objective 1:

- No significant main effect of Gender of teachers is found on the perception towards CBCS.

2. Significant main effect found between teachers of science discipline and teachers of arts discipline in respect to their perception towards CBCS. There is no significant effect found among teachers of other disciplines in respect to their perception of CBCS.

- Findings of objective No. 2

3. No significant interaction effects between gender (male and female) and discipline of teachers (viz. Arts, Commerce & Science) found on their perception towards CBCS.

6. Discussion and Conclusion

The researchers found from the present study that most of the male and female teachers expressed nearly the same view on the different aspects of CBCS curriculum (i.e. nature of curriculum, Academic activities, infrastructural issues, Assessment and evaluation and scope of CBCS). Due to this the result shows that no significant main effect of gender of teachers present on CBCS perception. This result was supported by Karan & Mondal (2024) and also supported by Katoch (2017) in her study. Present researchers also found from the study that in case of discipline, significant difference in perception towards CBCS has been found between the teachers of arts discipline and teachers of science discipline. It happens because teachers of science disciplines are comparatively more aware about the CBCS curriculum than teachers of arts disciplines. But, this result contradicted the study of Mahakur et al. (2019) where no differences were found in the perception of teachers towards implementation of the CBCS curriculum across the arts, science and commerce discipline.

It has been seen from this study that all the four universities took all kinds of effort to implement the UGC recommended CBCS system effectively and the teachers tried to adopt and maintain the dynamicity of this system. But, in the present study, most of the teachers have shown low mean scores which signifies that awareness about the CBCS has not been developed properly among them due to complexities in the curriculum, short time, poor infrastructural facilities, lack of training and workshop programs etc. in spite of having several shortcomings of the CBCS curriculum, It can be said that the implementation of CBCS system was a significant reformation towards broadening the boundaries of qualitative advancement in the Indian higher education system. In 2022, UGC reformed the existing CBCS curriculum (2015-16) and implemented revised Choice Based Credit System (CBCS) curriculum framework for UG level with different options under NEP 2020. Hence, CBCS curriculum can also be considered as a foundation stone of the new revised curriculum framework under NEP. The Government of West Bengal reframed the State Education Policy in 2023 through incorporating the CBCS and NEP 2020 curriculum system and implemented from the session 2023-2024 for the UG level courses in all higher education institutes (HEIs). But to adapt and run smoothly any new curriculum, many challenges for its stakeholders at initial stages may arrive. In case of the CBCS curriculum the scenario is not much differ. From the present study, it has been understood that most of the teachers provided their response in supporting of the need to make the curriculum structure more flexible and easy, need to put more importance on workshop and seminar on CBCS, need to manage time for managing workload, required more infrastructural development through inclusion of advanced technology and ICT, evaluation system become more reliable due to inclusion of credit and grading system, and also they belief that the this curriculum system enables to develop desirable skills and confidence among the students which will assist them to find better employability. In these ways, it can be possible to increase the efficacy of this curriculum system which is also equally effective for the development of the present curriculum system under the comprehensive and uniform regulations of NEP 2020. Last but not the least it can be said that the CBCS made a significant reform aimed at broadening the opportunities for qualitative improvement in the higher education landscape of India.

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