Impact Of Modern Collaborative Libraries On Student Engagement And Learning In Rural Areas.

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Abstract:
The increased usage of ICT, artificial smart intelligence, modern tools and techniques, huge data base of digital learning resources necessitates for modern collaborative libraries both in urban and rural areas to provide for equal opportunity for learning and growth. These Gen-Z libraries become very important for meeting the growing need of customised hassle-free environment for young learners in rural areas. This research paper aims to analyse the impact of modern collaborative libraries on rural students′ engagement and learning outcomes. The responses of 512 rural students pursuing higher education in rural regions have been considered for the analysis. The results obtained show the transformative impact of rural libraries and underscores the need for infrastructural support and financial aid for capacity building of rural communities.

Key words: Modern collaborative libraries, learning, engagement, outcome, students, environment.

Introduction:

Modern collaborative libraries offer access to cost-effective digital resources to all the learners irrespective of gender, caste and economic status. Quiet space for reading, room for discussion, skill enhancement and capacity building through availability of e-learning platforms world-wide has made the creation and presence of modern collaborative libraries even more important in rural areas for ensuring the inclusion of rural youth in academic and career advancements.

Modern digital libraries have helped in preserving the rich literature of the world. Gaming-literate Gen Z is more inclined to gamification, electronic gadgets, tools and platforms offering almost everything at fingertips. Modern libraries provide for more opportunities for learning and collaborating with new groups and the same group in a different manner.

There is a significant change in the setup of libraries which resulted in positive impact in the learning and engagement of learners. In rural areas where students want to learn new skills, acquire knowledge, it becomes imperative that rural libraries must be reformed in a manner to suit the changing needs of rural people who are gradually shifting to digital world.

Meaning of modern rural library:

Modern rural libraries are not just repositories of knowledge and information but these libraries are also an important source of community engagement and socialization. Rural youth is advancing and adapting to the changing needs, so are the modern collaborative libraries in the rural areas.

Modern rural libraries act as a centre for preserving and promotion of cultural values through active community engagement. They serve as change agent for bringing good socio-cultural improvements, (Yustratova, 2022). Limited availability of funds for technological upgradation, limited access of internet and non-availability of infrastructure are the major constraints for modernizing rural libraries, (Real & Rose, 2017).

Besides the challenges, learners must get free and open access to all digital resources for the purpose of research and enhancement of knowledge. They should be given proper training for the efficient and apt use of these e-resources so that user understands the value of available free content. All the facilities which have been made available for the benefit of learners must be assessed in terms of the impact it may likely to have upon the learners′ academic performance which may be defined in terms of CGPA and outcome.

Students′ perception and positive attitude towards the modern collaborative libraries also affect the creation of such spaces through public private partnership especially in rural areas.
Tech-savvy students whether living in urban or rural areas need infrastructure and support to deploy new technologies and access to both digital and physical assets for making best use of their talent.

Review of Literature:

The enhanced access to educational resources and immense data base through digital libraries have supported in creating a better learning environment, Kumar & Patel (2018). Collaborated efforts of public libraries and universities aid in addressing the specific challenges of rural students by making provision of essential support and resources, (Power et al., 2019).
The paper exhibits new intersections for student engagement in modern libraries by providing access to multimedia and thus promoting peer support among learners, (Katherine et al., 2008).
The paper focuses on enhancing student engagement and academic achievement in rural areas through the collaborative learning communities. The skills of problem-solving and critical thinking are developed through setting modern libraries in rural areas, (Dr. Ashish S. et al).

In the digital-plus era, usage of digital assistants like Apple′s Siri and search boxes provide for the quickest access to the information which is sought for through the libraries or e-braries ensuring sustained, free, equitable access to the public, (John Palfrey, 2016).
The paper highlights that academic libraries in universities and private educational institutions have been renovated to provide maximum sitting and surfing space eliminating the stack space and thus providing room for interaction and collaboration for life-long learning society, (Ksenia Cheinman, 2014)

Methods, Results & Discussions:

Data has been collected with the help of questionnaire which included data of footfall, access to e-resources/database, collaborative workspaces and students Grade Point Average for academic performance. Likert five-point scale has been used to measure the satisfaction level of students. Regression analysis has been used to find out the correlation between library collaboration and academic performance.

GPA (Grade Point Average) is an indicator of students′ academic performance in numeric terms. Students and academic institutions consider GPA as an important measure as it is used for tracking the progress of the student and academic institutions. It is considered as the most important criterion for admissions, for providing scholarship and even for providing good opportunities for internships and employment.

Analysis Table

Dependent Variable	Grade Point Average
No. of Observations	512
Df Residuals	508
Df Model	3
R-squared	0.71
Adj. R-squared	0.709
F- statistic	415.2

Constant	2.4992	0.044	57.389	0	2.414	2.585
Hours spent in library	0.0521	0.003	16.481	0	0.046	0.058
Group study/discussions	0.0758	0.005	15.852	0	0.066	0.085
Digital Resources Accessed	0.0197	0.001	26.994	0	0.018	0.021

Regression Equation: $Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\epsilon$

where:

- Y = Student GPA (Dependent Variable)
- X_1 = Hours spent in collaborative library spaces
- X_2 = Frequency of group study sessions
- X_3 = Number of digital resources accessed
- $\beta_0, \beta_1, \beta_2, \beta_{3=}$ Regression coefficients
- ϵ = Error term

Interpretation of results:

1. R-squared: 0.710 which means 71% of the variance in GPA with the used model.
2. Statistical Significance:
   - All three variables have p-values < 0.001, indicating a strong relationship with GPA.
3. Regression Coefficients:
   - Library Hours: 0.0521 indicates that a 1-hour increase in library use is associated with a 0.052 increase in GPA.
   - Group Study Sessions: 0.0758 indicating each additional session adds 0.076 to GPA.
   - Digital Resources Accessed: 0.0197 indicating a smaller improvement in the GPA with more resources accessed.

From the above analysis, we can say that time spent in the library for learning and group study have helped students in increasing the GPA to some extent. Modern collaborative libraries have great impact on the engagement and learning of students in rural areas.

Conclusion:

The modern collaborative libraries play a crucial role in students' engagement and learning in rural regions and bridging the gaps by promoting digital inclusion. The access to these libraries will result in empowerment of rural youth and bringing them to the main stream of development. Government must consider strategies for increasing investment in digital library infrastructure and collaborations with private partners and NGO for providing fully equipped modern libraries in rural regions of India.

The future of library in this digital era is dependent upon redesigning the modern libraries for providing space for collaboration and community engagement and making provision for quickest and unlimited access to the desired information. Both privately and publicly funded libraries need reform from the technology upgradation, infrastructure upkeep to provide space for accommodating more users with unlimited access to internet, open resources and services.

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