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AND

PRAXIS

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ST.ANN'S COLLEGE OF EDUCATION

AUTONOMOUS

S.D.ROAD, SECUNDERABAD

ACCREDITED BY NAAC WITH 'A' GRADE (3rd CYCLE)

SECUNDERABAD-500 003

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CONTENT LIST

PREFACE

Communities world-wide find themselves in turbulent times, as COVID-19 continues to distress and disrupt life across the globe with the educational institutions being adversely affected and the students bearing the brunt disproportionately. However, it is not all gloom and doom, taking advantage the melt down, our academicians have continued to seek newer avenues for classroom instruction, integrating technology with innovative teaching approaches. This endeavour led us to view research topics through the lens of entrepreneurship education.

In this period of uncertainty, the College is pleased to release the 12th edition of its in-house journal Pedagogy and Praxis as a ray of hope. This edition includes a collection of research manuscripts that touch on topics that are relevant to contemporary education and 21st century skills development such as: STEAM education, language skills of employees working for multinational companies, human rights as a predictor of self-efficacy, psychological wellbeing, perceptions of preservice teachers towards online teaching and learning, issues related to online-teaching, effect of vocational education on self-efficacy.

It is hoped that this issue will offer insight into research areas that are looming on the horizon but need to be unearthed to understand their implications to teacher education.

The editing committee wishes to thank all the authors who contributed to this issue. It is hoped that the information will enable readers to not only gain insight to the issues published in this journal but also encourage future research.

- **Chief Editor**
Prof. Dr. Sr. Marry Kutty.P.J
Principal

A Survey on the English Vocabulary Profile of the Corporate Employees

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Prof. Dr. Sr. Marry Kutty.P.J (Guide)

Abstract

The importance of English language is stressed upon in one's schooling for better employment more so for multi-national companies. The present study investigated through the survey method shows the English Vocabulary Profile of the employees from 4 multi-national companies (United Health Group, Deloitte, Synchrony & Blackwater Tech). 34 male and 20 females were randomly selected for the survey study. The tool used is a questionnaire of 40 statements to be responded on a five-point Likert scale. 40 statements are framed to find the vocabulary profile of the corporate employees. The tool consists of 25 positive and 15 negative questions. Quantitative research methods like ANOVA and t-test were used along with Qualitative research methods for gender to analyse the data collected. Although English being the Corporate language its impact on gender, years of experience and the three boards of curriculum was not of much importance of effectuate English language.

Keywords: Vocabulary, Proficiency and communication.

Introduction

English is a West Germanic language spoken in medieval England and later became a global language. It originated from Anglo Frisian dialects which were brought to Britain around the 5th to 7th Century AD by the Anglo-Saxon migrants who mostly belonged to Denmark, Netherlands and Germany. English has become lingua franca and is one today. English has been influenced by several other languages like French, Greek, Germanic, Latin and several other unknown languages and so English was invented. Geoffrey Chaucer is the Father of English Language. He was born in Circa 1340 in London. He was an English author, philosopher, poet and diplomat. He is credited for being the first author to demonstrate a legitimate vernacular English language. English is a universal language. When we meet people from other countries, at home or abroad, we need

English for communication. When we want information on something private or professional interest, we often search for it in English. In addition, English is increasingly used in education and as a working language in many companies. To succeed in a world where English is used for international communication, it is necessary to be able to use the English language and to have knowledge of how it is used in different contexts. (KD, 2006, 2013: 2)

English as a school subject is both a tool and a way of gaining knowledge and personal insight. Development of communicative language skills and cultural insights can promote greater interaction, understanding and respect between persons with different cultural backgrounds. Thus, language and cultural competence promote the general education perspective and strengthen democratic involvement and co-citizenship. (KD, 2006, 2013: 2) Vocabulary as such has cultural roots which also strengthens regionalism.Vocabulary is an important element of any language. Vocabulary is one of the three elements of language, the building material and the basic of language. People acquire and use words within their vocabulary in a variety of ways. The use of a language increases the vocabulary of that language. Vocabulary, usually developed with age, serves as a useful and fundamental tool for communication and acquiring knowledge. The concept of multilingual reality of multinational companies is something to look for. A robust vocabulary improves all areas of communication — listening, speaking, reading and writing. Vocabulary is critical to a child's success for these reasons: Vocabulary growth is directly associated with school and college achievements. The dimensions of a child's vocabulary in kindergarten predicts the power to be told to read. Educators often consider four varieties of vocabulary: listening, speaking, reading, and writing.

Vocabulary represents one amongst the most vital skills necessary for teaching and learning a remote language. It's a premise for the event of all the opposite skills: reading comprehension, listening comprehension, speaking, writing, spelling and pronunciation. Vocabulary is a main tool for students in their try and use English for effectiveness. Vocabulary plays a crucial part in learning to read. It's difficult for a beginning reader to work out words that aren't already a part of their speaking (oral) vocabulary. Vocabulary is vital to reading comprehension. Vocabulary builds over time. It develops with reading and with specific instruction. A good vocabulary helps you to develop your comprehension skills and master a language.

Need and Significance of the Study

This study is an effort to gauge the level of English Language Profile in the corporate employees and identify the lacunae in gaining employment.

Objectives

1. To identify the existing level of vocabulary of corporate employees from different companies.
2. To compare the level of vocabulary of male and female corporate employees.
3. To identify the existing level of vocabulary in the employees with different educational backgrounds.
4. To assess the level of vocabulary based on years of experience of the corporate employees.

Hypotheses of the Study

H1: There is a significant difference in the level of vocabulary of corporate employees from different companies.

H2: There is a significant difference in the level of vocabulary of male and female corporate employees.

H3: There is a significant difference in the level of vocabulary of the corporate employees with different boards of curriculum.

H4: There is a significant difference in the level of vocabulary and the years of experience of corporate employees.

Variables of the Study

Independent Variable: Communication of the corporate employees.Dependent variable: Board of school education, Years of experience and Gender.

Sample

Random sampling technique was used primarily includes the corporate employees of 54 people belonging to four (United Health Group, Deloitte, Synchrony and Blackwater Tech) different companies.

Research Design

The researcher in the present study designed an outline for conducting the research through which the objectives of the research are achieved. The objectives of the study come under the purview of 'Online survey'. This is a study with descriptive nature made on the basis of data gathered through an online questionnaire. It involves collecting data in order to test the hypotheses or to answer the questions concerning the current status of the subject of the study. The current study come under the purview of both Quantitative differential research and Quantitative statistical methods which are used in describing, recording, analysing, interpreting the data collected from the sample (corporate employees) on their English Vocabulary Profile.

Research Tool

The tool used for the study was a questionnaire which was designed by the researcher. The questionnaire contains 40 items based on the level of vocabulary. Reliability and validity are important aspects of questionnaire design. To establish the reliability and validity of the tool a pilot study was conducted on a sample of 10 corporate employees. The validity of the instrument was established by the experts in the field. The reliability of each items was established using correlation as a static measure. The correlation was found for the given responses in the pilot study. The range 0.2 to 0.8 was considered for correlation to establish reliability of each item in the questionnaire.

Scoring

A five-point Likert scale is used. The responses were marked from 1 to 5 Not at all important to extremely important. The employees were asked to fill the questionnaire on a five-point Likert scale, Not at all important, slightly important, moderately important, very important and extremely important. The employees were asked to select the appropriate option according to their choice without any bias.

Data Analysis

Research Hypothesis 1: There is a significant difference in the level of vocabulary of corporate employees from different companies.

Null Hypothesis 1: There is no significant difference in the level of vocabulary of corporate employees from different companies.

Vocabulary _score	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	208.609	3	69.536	0.644	0.590
Within Groups	5397.317	50	107.946		
	5605.926	53			

Table 1: Values showing the significant difference in the level of vocabulary of corporate

The result of the table shows that the obtained F-value 0.644 is less than the table value of 3.1. Hence, it is not significant. Therefore, the null hypothesis is accepted. Therefore, there is no significant difference in the level of vocabulary of corporate employees from different companies.

Figure 1: Bar Graph of level of vocabulary of corporate employees from different companies.

Research Hypothesis 2: There is a significant difference in the level of vocabulary of male and female corporate employees.

Null Hypothesis 2: There is no significant difference in the level of vocabulary of male and female corporate employees.

Gender	N	Mean	Std. Deviation	t-value	Significance level
Male	34	128.41	10.816	0.510	Not significant
Female	20	129.90	9.508		

Table 2: Values of N, Mean, SD & t-value for the level of vocabulary of male and female corporate employees.

The mean value (M= 128.41) the scores obtained for the male employees is lesser than mean value (M=129.90) of female employees. The standard deviation (SD=10.816) of male employees is greater than the female employees' standard deviation (SD=9.508). The obtained t-value (df=52) 0.510 is less than the value 1.98 Therefore, the research hypothesis rejected, and null hypothesis is accepted. Hence there is no significance difference in the level of vocabulary of male and female corporate employees.
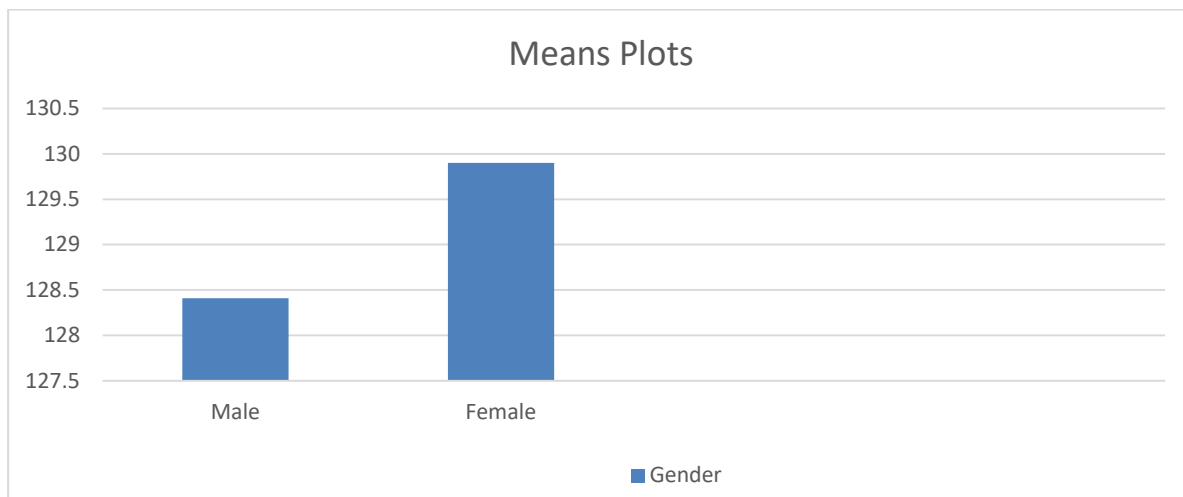
Figure 2: Bar Graph of the level of vocabulary of male and female corporate employees.

Research Hypothesis 3: There is a significant difference in the level of vocabulary of the corporate employees with different boards of curriculum.

Null Hypothesis 3: There is no significant difference in the level of vocabulary of the corporate employees with different boards of curriculum.

	Squares	df	Mean Square	F	Sig
Between Groups	143.137	2	71.568	0.668	0.517
Within Groups	5462.789	51	107.114		
Total	5605.926	53			

Table 3: Values showing the significant difference in the level of vocabulary of the corporate employees with different boards of curriculum.

The result of the table shows that the obtained F-value 0.668 is less than the table value of 3.1. Hence, it is not significant. Therefore, the null hypothesis is accepted. Therefore, there is no significant difference in the level of vocabulary of the corporate employees with different boards of curriculum.
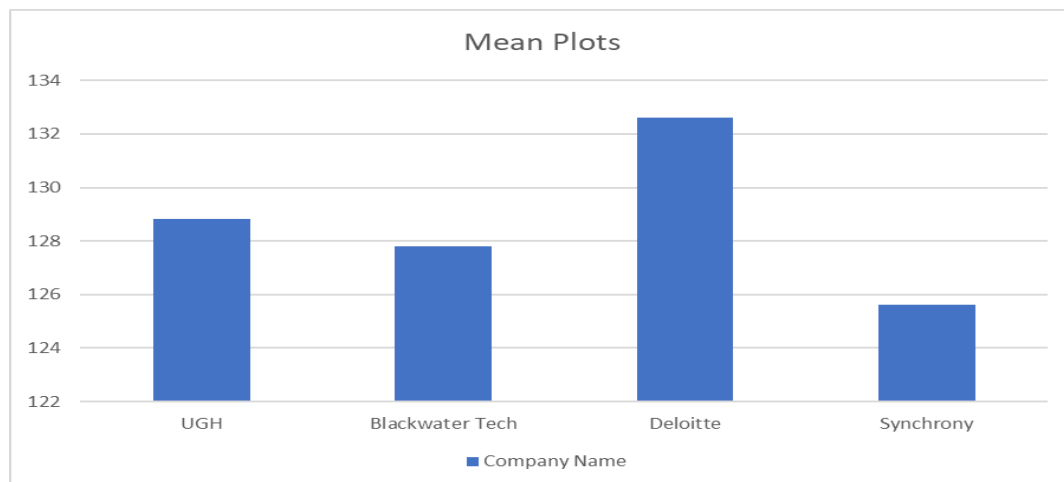

Figure 3: Bar Graph of the level of vocabulary of corporate employees with different boards of curriculum.

Research Hypothesis 4: There is a significant difference in the level of vocabulary and the years of experience of corporate employees.

Null Hypothesis 4: There is no significant difference in the level of vocabulary and the years of experience of corporate employees.

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	260.484	2	130.242	**1.243**	**0.297**
Within Groups	5345.441	51	10.813		
Total	5605.926	53			

Table 4: Values showing the significant difference in the level of vocabulary and the years of experience of corporate employees.

The result of the table shows that the obtained F-value 1.243 is less than the table value of 3.1. Hence, it is not significant. Therefore, the null hypothesis is accepted. Therefore, there is no significant difference in the level of vocabulary and the years of experience of corporate employees.
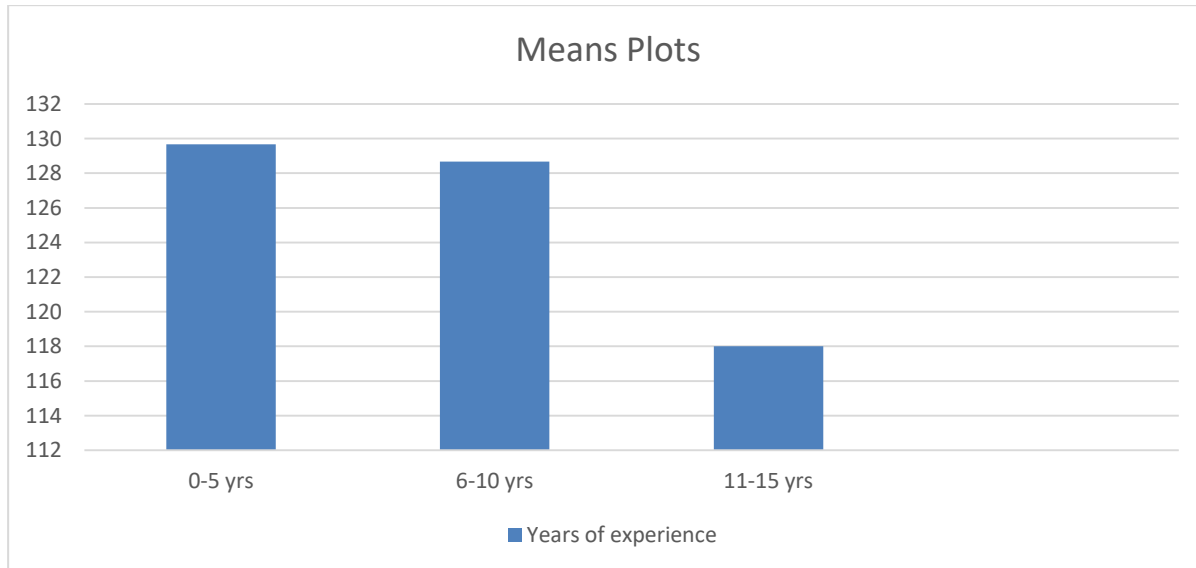
Figure 4: Bar Graph of the level of vocabulary and the years of experience of corporate employees.

Findings of the Study

1. There is no significant difference in the level of vocabulary of corporate employees from different companies.
2. There is no significance difference in the level of vocabulary of male and female corporate employees.
3. Here is no significant difference in the level of vocabulary of the corporate employees with different boards of curriculum.
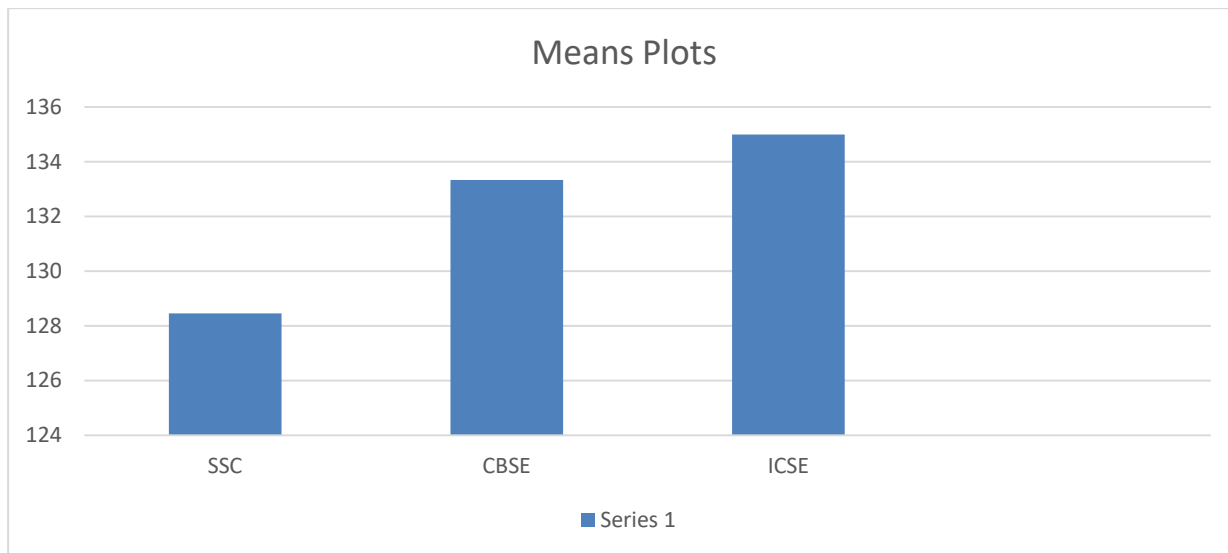4. There is no significant difference in the level of vocabulary and the years of experience of corporate employees.

Educational Implications

1. Vocabulary is an important focus of literacy teaching and refers to the knowledge or words.
2. The benefits of looking up vocabulary words that are not familiar with helps in gaining new knowledge.
3. Vocabulary represents one of the most important skills necessary for teaching and learning a foreign language. It is the basis for the development of all the other skills like Reading comprehension, Listening comprehension, speaking, writing, spelling, and pronunciation.
4. Most people acquire vocabulary incidentally through indirect exposure to words at home and at school—by listening and talking, by listening to books read aloud to them, and by reading widely on their own.
5. A robust vocabulary improves all areas of communication.
6. Vocabulary Matters for occupational success.

Limitations

1. There are not many studies conducted on the corporate employees regarding their vocabulary profile.
2. The existing studies only speak about the English vocabulary of students and not about the working class.
3. These studies are only focussed on the English vocabulary learning since they are non-native speakers.
4. The study has been conducted only on 4 corporate companies and hence the researcher cannot come to a generalization about the vocabulary profile.
5. Due to the pandemic, time and resource constraint the study is limited to only four corporate companies.

Recommendations

The present study has many gaps and accordingly the further research can be done on not on just four companies but also on other corporate companies too. The study can also be conducted on other corporate companies in other states of India. A similar study can be conducted on a larger sample.

Conclusion

In conclusion "A survey on the English vocabulary profile of the Corporate Employees" has shown the importance of English language and its vocabulary. This study is an effort to gauge the level of English Language Profile in the corporate employees and identify the lacunae in gaining employment. Overall, the results obtained show that there is no significant relationship between years of employment, gender and boards of curriculum. Hence, the vocabulary profile and proficiency in English language are minutely important for gaining employment.

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Perceptions of B.Ed. Students towards online teaching and learning: A Pandemic Compulsion

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Dr. T. Diana Jacob (Guide)

Abstract

Educational institutes across the world have closed due to the COVID-19 pandemic jeopardizing the academic calendars. Most educational institutes have shifted to online learning platforms to keep the academic activities going. However, the questions about the preparedness, designing and effectiveness of e-learning is still not clearly understood, particularly for a developing country like India, where the technical constraints like suitability of devices and bandwidth availability poses a serious challenge. In this study, we focus on understanding B.Ed. Student's perception and preference towards the online learning through an online survey. We also explored the student's preferences for various attributes of online classes, which will be helpful to design effective online learning environment. The results indicated that majority of the respondents (70%) are ready to opt for online classes to manage the curriculum during this pandemic. Majority of the students preferred to use smart phone for online learning. The students opined that flexibility and convenience of online classes makes it attractive option, whereas broadband connectivity issues in rural areas makes it a challenge for students to make use of online learning initiatives. However, in agricultural education system where many courses are practical oriented, shifting completely to online mode may not be possible and need to device a hybrid mode, the insights from this article can be helpful in designing the curriculum for the new normal.

Keywords: Perception, Online teaching, Pandemic, Compulsion

Introduction

Since the early spring of 2020, colleges and schools world-wide have been experiencing an unprecedented "migration" from traditional in-class face-to-face education to online education. Due to the widespread of Coronavirus disease (COVID-19), following the government's requirements of "nonstop teaching and learning," all educational institutions have started online education. In a short time period, millions of faculty members started to teach in front of a computer screen, and their students have to stay at home and take the courses through the internet. The whole educational system from elementary to tertiary level has collapsed during the lockdown period of the novel coronavirus disease not only across the globe but also in India. However, the questions about the preparedness, designing and effectiveness of e-learning is still not clearly understood, particularly for a developing country like India, where the technical constraints like suitability of devices and bandwidth availability poses a serious challenge. As the schools and colleges are shut for an indefinite period, both educational institutions and students are experimenting with ways to complete their prescribed syllabi in the stipulated time frame in line with the academic calendar. These measures have certainly caused a degree of inconvenience, but they have also prompted new examples of educational innovation using digital interventions. This is a silver lining on a dark cloud considering the sluggish pace of reforms in academic institutions, which continues with millennia-old lecture-based approaches in teaching, ingrained institutional biases and obsolete classrooms. Nevertheless, COVID-19 has been a trigger for educational institutions worldwide to pursue creative approaches in a relatively short notice. This study is a portrayal of online teaching-learning modes adopted for the teaching-learning process and subsequent semester examinations. It looks forward to an intellectually enriched opportunity for future academic decision-making during any adversity. The intended purpose of this paper seeks to address the required essentialities of online teaching-learning in education amid the COVID-19 pandemic and how can existing resources of educational institutions effectively transform formal education into online education with the help of virtual classes and other online tools in this continually shifting educational landscape. This study employs both quantitative and qualitative approach to understand the perceptions of teachers and students on online teaching-learning modes and also highlighted the implementation process of online teaching-learning modes. The value of this paper is to draw a holistic picture of

ongoing online teaching-learning activities during the lockdown period including establishing the linkage between change management process and online teaching-learning process in education system amid the COVID-19 outbreak so as to overcome the persisting academic disturbance and consequently ensure the resumption of educational activities and discourses as a normal course of procedure in the education system.

Online Teaching and Learning

E-learning is defined as learning that makes use of Information and Communication Technologies (ICTs). The incorporation of technological resources and innovative education strategies has transformed the teaching and learning processes. It involves the implementation of advancements in technology to direct, design and deliver the learning content, and to facilitate two-way communication between students and faculty.

E-learning has become the mandatory component of all educational institutions like schools, colleges, and universities in and around the world due to the pandemic crisis of COVID-19. This deadly situation has flipped out the offline teaching process. While some believe that the unplanned and rapid move to online learning – with no training, insufficient bandwidth, and little preparation will result in a poor user experience that is unconducive to sustained growth, others believe that a new hybrid model of education will emerge, with significant benefits.

We have to acknowledge that virtual education is not just about taking a lesson through a video conferencing tool; it involves more than that. It involves a paradigm shift in pedagogy through an understanding of the blended learning model by faculty and students. The balance of online and offline tasks is a critical aspect to consider while designing the timetable and lesson plan. This model helps learning to continue beyond the four walls of the classroom, allows students' choice and flexibility to learn at their pace, creates more opportunities for collaborative tasks along with providing opportunities to rethink the mode of assessments & feedback. Virtual education has opened up possibilities of rethinking the way we are doing teaching and learning. The use of educational technology tools can begin to transform the classroom, and most of it depends on the creative agency of the teacher.

Significance of the Study

The internet has significantly changed how we communicate with one another as well as how we access, share and facilitate information. The issue is no longer one of how to use technology to teach, but one where teachers acknowledge the way the world is already developing and understand the significance of online literacy and the role that collaboration and online engagement plays in student learning and their future workplace environment. Software and technology changes very rapidly, and it can be difficult to keep up with these developments. It is important therefore to focus on understanding effective pedagogical strategies for online teaching rather than the technology itself.

This study will help to find out the student's attitudes towards e-learning during COVID- 19 Pandemic. This study was done for the students who are studying in B.Ed. to gain additional information regarding the contribution of e-learning during this pandemic. It can be a learning paradigm in educational institutions to enhance the student's knowledge and skills through digital technologies. Government and Educational Department has to provide better infrastructure for e-learning for the betterment of students.

Objectives of the Study

The current proposed research is expected to achieve the following objectives:

- To analyse the perceptions of B.Ed. students towards online teaching and learning.

- To identify the challenges faced by B.Ed. students during online classes.

- To discover the different learning opportunities in the conventional and online mode of teaching and learning.

Hypotheses of the Study

- **H1:** There is a significant difference in the perception of Male and Female B.Ed. students towards online teaching and learning.
- **H2:** There is a significant difference in the perception of B.Ed. students of rural and urban areas towards online teaching and learning.
- **H3:** There is a significant difference in the type of learning opportunities provided for B.Ed. students during online teaching and learning.

Variables of the Study

A variable is any property, a characteristic, a number, or a quantity that increases or decreases over time or can take on different values in different situations. When conducting research, experiments often manipulate variables. Variables are classified as independent and dependent variables.

Independent Variables

1. Covid Pandemic
2. Gender: Male and female
3. Location: Urban and rural
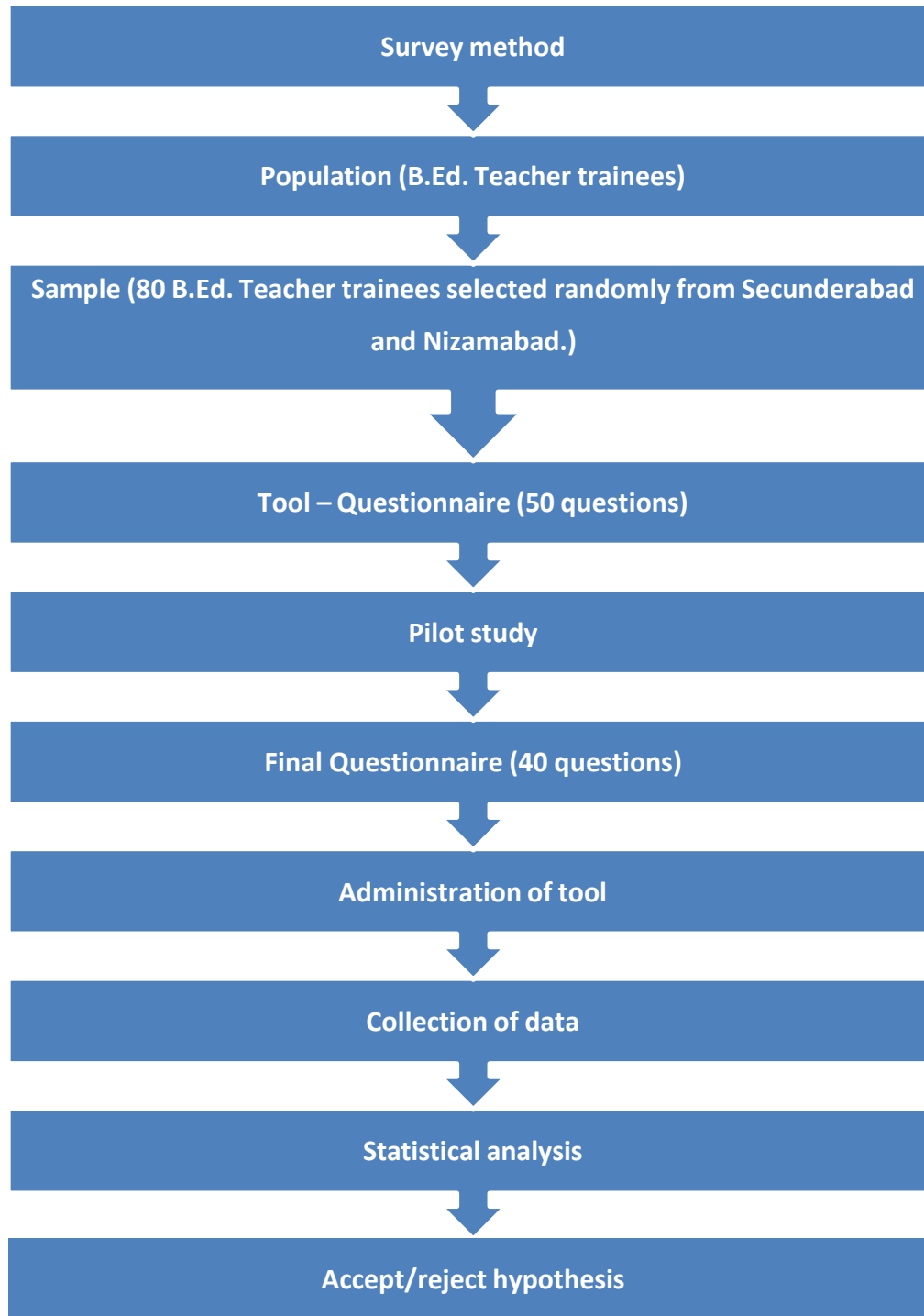
Dependent Variables

1. Perceptions of the students
2. Online teaching and learning

Population and Sample

- The present study population includes 80 B.Ed. teacher trainees selected randomly from Secunderabad and Nizamabad districts.
- 40 female and 40 male students are randomly selected for the study using stratified random sampling technique.

Research Design

A research design in the specialization of method and a procedure to be adopted for acquiring the information required for solving the problem. The preparation of such a design facilitates research to be as efficient as possible yielding maximal information.

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│                      Survey method                          │
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│              Population (B.Ed. Teacher trainees)            │
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│   Sample (80 B.Ed. Teacher trainees selected randomly from  │
│              Secunderabad and Nizamabad.)                   │
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│               Tool – Questionnaire (50 questions)           │
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│                        Pilot study                          │
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│              Final Questionnaire (40 questions)             │
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│                    Administration of tool                   │
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│                  Accept/reject hypothesis                   │
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Tool Used

The tool used in the present study includes a questionnaire of 50 statements to be responded on a five-point Likert scale. 13 statements are framed to find out the perceptions on online teaching, 13 statements on online learning, 11 statements on online assessment and 13 statements on the challenges faced by them. The tool consists of positive and negative questions.

Analysis and Interpretation of Data

HYPOTHESIS-1:

H1 Research Hypothesis: There is a significant difference in the perceptions of Male and Female B.Ed. students towards online teaching and learning.

H0 Null Hypothesis: There is no significant difference in the perceptions of Male and Female B.Ed.students towards online teaching and learning.

Table1: Observation of mean value, SD and t-value of male and female B.Ed. students

Gender	N	Mean	Std. Deviation	t-value	Significance
Male	40	141.78	10.944	4.198	Significant at 0.05 Level
Female	40	125.28	22.318		

df=78   Table value=1.664

Interpretation

The observed mean value (M= 141.78) the scores obtained for the Male B.Ed. students is greater than the mean value (M=125.28) of Female B.Ed. students. The standard deviation (SD= 10.944) of Male B.Ed. students is less than the standard deviation (SD=22.312) of Female B.Ed. students. The obtained t-value (df =78) 4.198 is greater than the t-value 1.664. Therefore, the research hypothesis is accepted and null hypothesis is rejected. Hence, there is significant

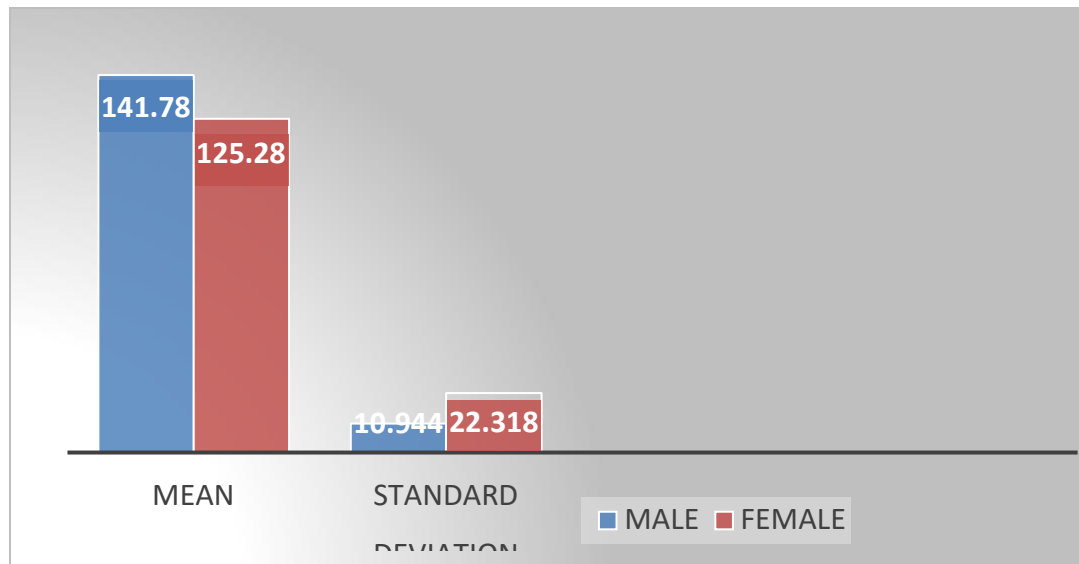difference in the perceptions of Male and Female B.Ed. students towards online teaching andlearning.

Fig. 1: Bar Graph of male and female B.Ed. students and their mean values

HYPOTHESIS-2:

H2 Research Hypothesis: There is a significant difference in the perception of B.Ed. students ofrural and urban areas towards online teaching and learning.

H0 Null Hypothesis: There is no significant difference in the perception of B.Ed. students of ruraland urban areas towards online teaching and learning.

Table 2: Observation of Mean value, SD and t-value of years of experience of teachers.

Location	N	Mean	Std. Deviation	t-value	Significance
Rural	40	136.55	20.752	1.408	Not Significant
Urban	40	130.50	17.551		

df=78   Table value=1.664

Interpretation

The observed mean value (M= 136.55) obtained for the B.Ed. students of rural area is greater than the mean value (M=130.50) of B.Ed. students of urban area. The standard deviation (SD=20.752) of rural B.Ed. students is greater than the standard deviation (SD=17.551) of B.Ed. students of rural area. The obtained t-value (df =78) 1.408 is less than the table t-value 1.664. Therefore, the research hypothesis is rejected and null hypothesis is accepted. Hence, there is no significant difference in the perception of B.Ed. students of rural and urban areas towards online teaching and learning.
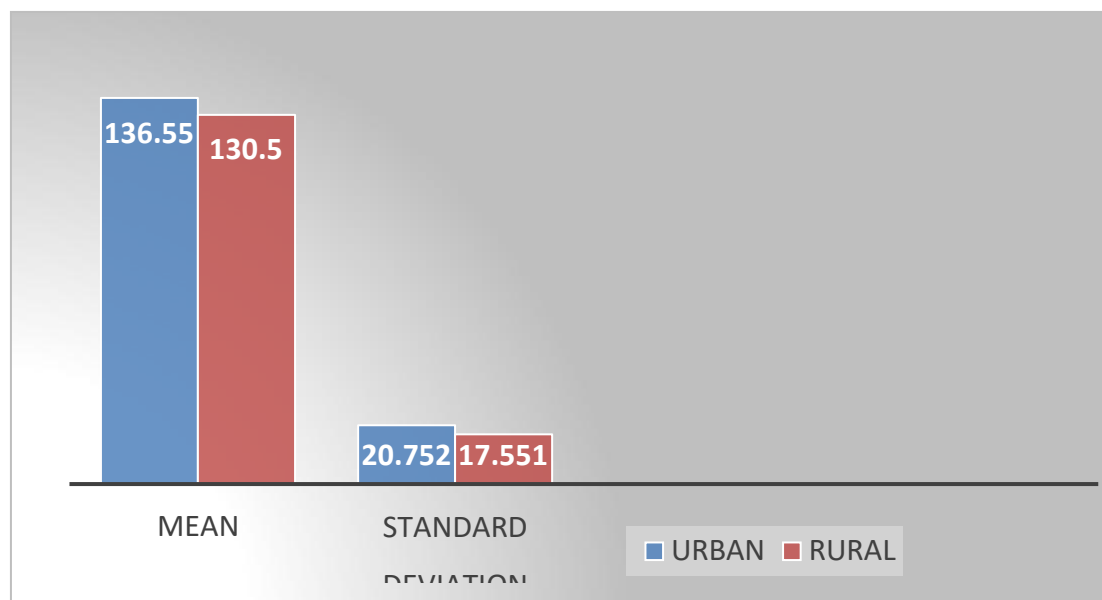

Fig. 2: Bar Graph of years of experience of teachers and their mean and S.D. Values.

HYPOTHESIS-3:

H3 Research Hypothesis: There is a significant difference in the type of learning opportunities provided for B.Ed. students during online teaching and learning.

Null Hypothesis: There is no significant difference in the type of learning opportunities provided for B.Ed. students during online teaching and learning.

Table3: Observation of Mean value, SD and t-value of Male and Female Teachers

Type of Learning opportunities	N	Mean	Std. Deviation	t-value	Significance
Academic support service Work-based learning support	40	141.78	10.944	4.198	Significant at 0.05 Level
	40	125.28	22.318		

df=78   Table value=1.664

Interpretation

The obtained mean value (M=141.78) for academic support services is greater than mean value (M=125.28) for work-based learning support. The standard deviation (SD= 10.944) for academic support service is less than the standard deviation (SD=22.318) for work-based learning support. The obtained t-value (df=78) 4.198 is greater than the table t-value 1.664. Therefore, the research hypothesis is accepted and null hypothesis is rejected. Hence, there is a significant difference in the type of learning opportunities provided for B.Ed. students during online teaching and learning.
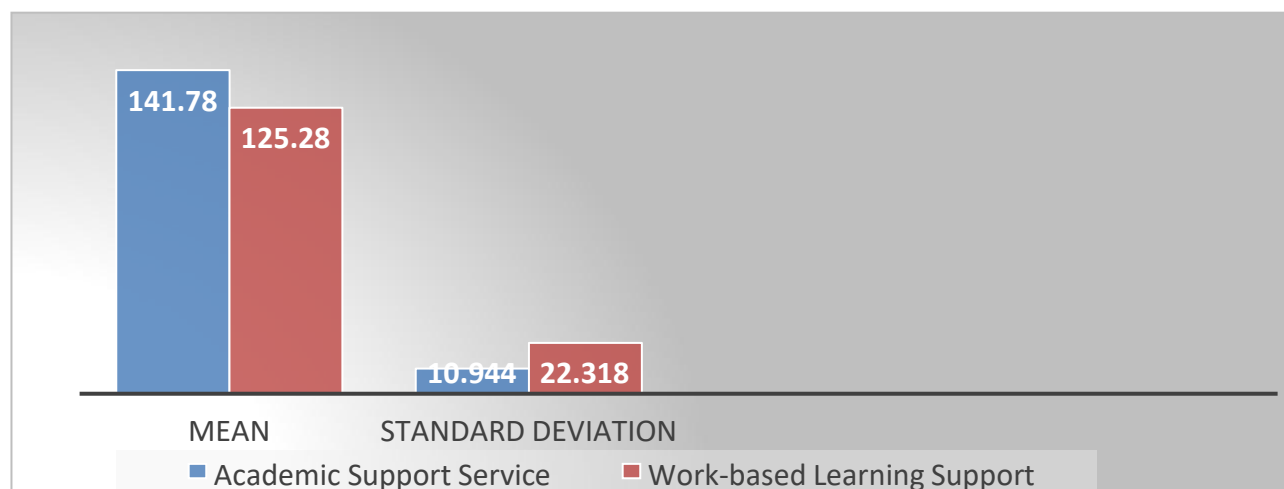

Fig. 3: Bar Graph of male and female teachers and type of learning opportunities provided.

Findings of the Study

H1 Conclusion: There is significant difference in the perceptions of Male and Female B.Ed. students towards online teaching and learning.

H2 Conclusion: There is no significant difference in the perception of B.Ed. students of rural and urban areas towards online teaching and learning.

H3 Conclusion: There is a significant difference in the type of learning opportunities provided for B.Ed. students during online teaching and learning.

Educational Implications of the Study

- Online teaching and learning environments may hold significant potential for increasing educational productivity.
- Online learning can help the students pursue highly individualized learning programmes.
- Online learning platforms can help the students become more independent learners.
- Online learning helps in obtaining certain skills such as self-discipline, self motivation and communication.
- There's often access to very diverse material such as videos, photos, and eBooks online as well, and teachers can also integrate other formats like forums or discussions to improve their lessons. And this extra content is available at any moment from anywhere, which will offer student a more dynamic and tailor-made education.

Suggestions/Recommendations for Further Study

Further studies might identify additional factors related to the pros and cons of online teaching and learning. The recommendation of the study is to further explore factors influencing students' perceptions towards online education. It is also recommended to explore the perceptions of faculties regarding their experience towards online teaching during Covid pandemic.

Conclusion

With efforts to prevent the spread of the novel coronavirus, the contours of education system are changing with online education becoming the primary means of instruction. Institutions have shifted to online platforms to catch up with the curriculum. It may be too early to say how students will cope up with online learning as they figure out the constraints, reorient to address them but the perception and readiness of students is an important consideration which I have tried to document.

The findings of this study indicated that majority of the students evinced a positive attitude towards online classes in the wake of corona. The online learning was found to be advantageous as it provided flexibility and convenience for the students. However, most students also reported that online classes could be more challenging than traditional classroom because of the technological constraints and delayed feedback. Therefore, all these factors should be considered while developing an online course to make it more effective and productive for the learner. It's possible that once the COVID-19 pandemic settles down, we may see a continued increase in education systems using online platforms for study aids, albeit in a hybrid mode in combination with regular classes. Hence this study will prove useful for re-imagining and re-designing the higher education with components involving online mode.

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Perceptions of Secondary School Students on Online Learning Environment in Relation to Academic Achievement

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Abstract

Online learning has become a necessity as the covid bring a big paradigm shift in education system. It has both pros and cons at its place. This study investigated perception of secondary school students on online learning environment in relation to academic achievement. The sample consists of 100 students from both private and government schools It includes both male and female students. The mixed research design consisting questionnaire in the study. The study revealed that there is no significant difference in perception of secondary school students with respect to gender. There is no significant difference in perception of students with respect to school administration There is no significant relationship between online learning environment and academic achievements of the students.

Introduction

The COVID-19 situation has resulted in schools shut all across the world. Globally, over 1.2 billion children are out of the classroom. As a result, education has changed dramatically, with the distinctive rise of e-learning, whereby teaching is undertaken remotely on digital platforms. Research suggests that online learning has shown to increase retention of information, and takes less time.Corona virus might be here to stay. While countries are at different points in their COVID-19 infection rates, worldwide there are currently more than 1.2 billion children in 186 countries affected by school closures due to the pandemic.

Online education has gained immense popularity among working professionals and students pursuing higher education in the recent years. These categories of online learners find immense benefit in the autonomy and flexibility that these courses offer. Online courses can be planned around their schedule which may include full-time employment, internships and caring for family. Online learning can also help them take out some quiet time to study.

Distance learning has been around for a long time, even before technology made it extremely accessible. Traditional schooling is now seeing an increased proliferation of virtual training materials and online courses. The question of effectiveness to create online learning environment is of a great challenge. This preliminary study will help to understand the students' perception regarding the different aspects of online learning environment.

Need and Significance of Study

The need to conduct the study is to know how the shift from offline to online mode of education affected students learning during the Covid 19. The pandemic has initiated the online learning where the students are given such an environment where they learn virtually. This study will show how much influence online learning environment have on students success. Further, this study is to understand the online learning environment and how it effects the academic achievement of the students. To help online students, instructors should establish a safe,

supportive, interactive, flexible and engaging online learning environment and make sure that environmental factors are taken into consideration within each stage of instructional design. The study helped to understand how the students gain the knowledge virtually and find its impact on their achievement.

Variables of the Study

Independent variables: Gender, School Administration type

Dependent variable: Online learning environment

Academic Achievement

Research Questions

1. Does the perception of students' change with regard to online learning environment with respect to gender and administration?
2. What is the relationship between students' perception of online learning environment and their academic achievement at secondary school level?
3. Does online learning environment influence academic achievement?

Objectives

1. To study perceptions of students online learning environment with respect to gender and school administration.
2. To analyse perceptions students' online learning environment in relation to their academic achievement.
3. To analyse the perceptions of students' online learning environment component wise (perceived learning, satisfaction, faculty interaction, peer interaction) in relation to their academic achievement.

Hypotheses

1. 1.There is a significant difference in perceptions of students' online learning environment with respect to gender.
2. 2.There is a significant difference in perceptions of students' online learning environment with respect to type of school administration.
3. There is a significant relationship between online learning environment and academic achievements of the students.
4. There is a significant relationship between students' perceived learning, satisfaction, faculty interaction, peer interaction in relation to their academic achievement in an online learning environment.

Research Methodology

The hypotheses of study comes under the purview of mixed method. It is both quantitative and qualitative study. This research required the participants or specifically called respondents, the students to report directly on their own thoughts, feelings, and perceptions through a questionnaire on learning environment.Depending on the problem of the statement and gaps

from the review literature, objectives, hypotheses, and research questions of the study were framed. Based on the hypotheses survey method is used for the research. The statement of the problem, variables, research questions, objectives, hypothesis and gaps from the review literature, a set of questionnaires was designed by the researchers to collect information and data. After referring to several standardised the questionnaire is self-made tool which includes thirty questions with both open and closed ended statements. The scale used is five-point Likert scale. To improve the reliability and validity of the questionnaire, it was pre-tested through the pilot test. The results obtained helped to design the questionnaire to suit the expected purpose of the study. Out of the total twenty-eight statements were selected Sample is selected randomly from both the government and private school. Hundred students are selected from ninth class of both government and private school. The sample represented the population of adolescent students. One hundred students both male and female have been taken from ninth class from government and private schools. Fifty students from government schools, fifty students from private schools totally one hundred students have been taken. Of which twenty-five male students and twenty-five female students, totally fifty students from government school, twenty-five female and twenty-five male students totally fifty students from private school. The tool is administered and the data is collected by giving them the copies of the statement sheets from ninth class students of Government High School at Jahanuma to collect the responses of the government school students and the tool is administered and the data is collected through the same printed sheets from the private school students. The collected data is analysed statistically using Pearson's Correlation and t-test through Statistical Package for the Social Sciences (SPSS). After the data is statistically analyzed then the data is interpreted. The findings and conclusions are written based on the interpreted data

Tools of the Study

A questionnaire was used by the researcher for the study. A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. A set of printed or written questions with a choice of answers, devised for the purposes of a survey or statistical study. The questionnaire consists of both close ended and open ended questions

Analysis of the Data

Both quantitative and qualitative analysis has been done. Statistical analysis included Pearson's correlation, and t-test. Open ended questions was qualitatively analyzed by content analysis. Statistical analysis mean, standard deviation and t-Test. Independent sample t-test was used to compare the means of two groups it is used in hypotheses testing to determine whether there exists a difference between the groups with respect to gender and administration. The coefficient of correlation was used to test the relational hypotheses.
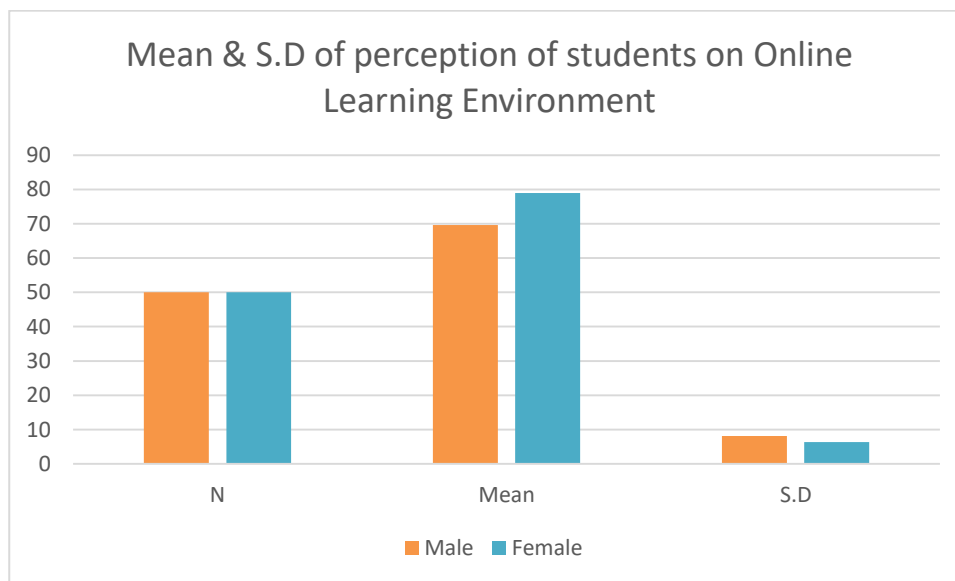
Data Analysis

Hypothesis-I

Research Hypotheses: There is significant difference in perceptions of students' online learning environment with respect to gender.

Null Hypotheses: There is no significant difference in perceptions of students' online learning environment with respect to gender.

Table 1: Showing Mean and S.D of perception of students on online learning environment with respect to gender

| Group	N	Mean	S.D	t-value	Level of Significance
Male	50	69.58	8.10	6.43	Significant at .05 level
Female	50	78.94	6.32		

Df= 98 t-value=1.984

Interpretation:

The table1 shows, the mean value (M= 69.58) the scores obtained for male students is less than the mean value (M=78.94) for female students. The standard deviation (SD=8.10) of malestudents is greater than the female students standard deviation (SD=6.32). The obtained t-value at df=98 is 6.43 greater than the t table value 1.984. Therefore, the research hypothesis is accepted and null hypothesis is rejected. Hence there is a significant difference in perception of students online learning environment of students with respect to gender.

Table 2 Component wise analysis of perceptions of students towards online learning environment

Components	Gender	Mean	S.D	T-value	Level of significance
1.Perceived learning	Male	17.00	3.05	7.12	Significant at .05 level
	Female	21.10	2.68		
2.Student satisfaction	Male	16.4	3.63	3.19	Significant at .05 level
	Female	14.2	3.30		
3.Faculty interaction	Male	20.42	3.26	5.54	Significant at .05 level
	Female	23.98	2.51		
4.Peer interaction	Male	15.72	3.26	4.45	Significant at .05 level
	Female	18.40	2.73		

df = 98   t-value=1.984
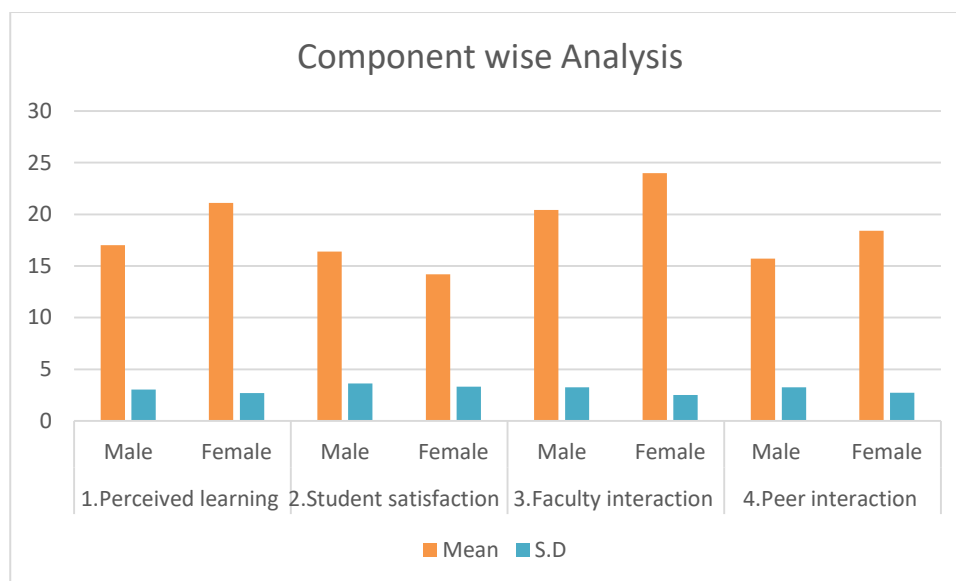
Interpretations: Table 2 clearly indicate that there is a significant difference in all the four components under the purview of the study such as perceived learning, student satisfaction, faculty interaction and peer interaction with respect to gender. In all the four components the female students showed higher mean than male students, thus showing that female students have a better perception about online learning environments. Probably female students take online with greater efficiency.

Hypothesis 2:

Research Hypotheses: There is a significant difference in perceptions of students' online learning environment with respect to type of school administration.

Null Hypotheses: There is no significant difference in perceptions of students' online learning environment with respect to type of school administration.

Table 3: Showing Mean and S.D of Perception of students online learning environment with respect to school administration

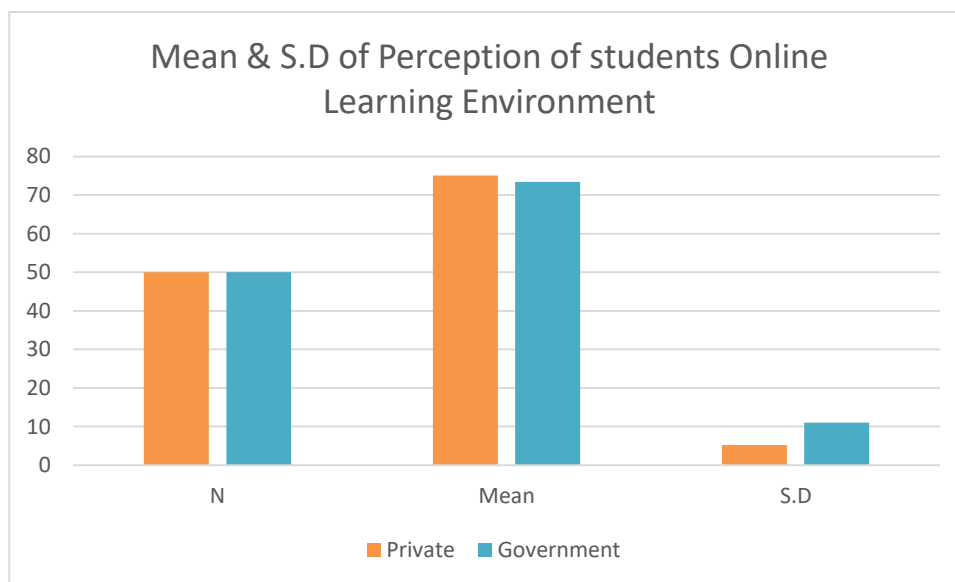| Administration	N	Mean	S.D	t-value	Level of Significance
Private	50	75.08	5.23	0.95	Not Significant at .05 level
Government	50	73.44	11.02		

df = 98   t-value=1.984

Fig 3: Mean and S.D of perception of students online learning environment with respect to school administration
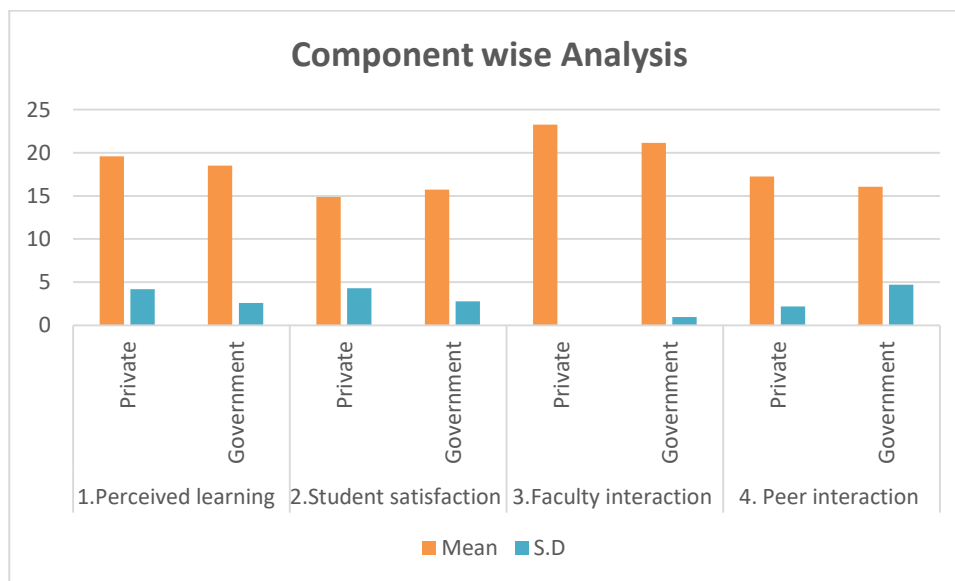
Interpretations:

Table 3 indicates the mean value (*M=75.08*) the scores obtained for private school is greater than the mean value (*M=73.44*) of government school students. The standard deviation *(SD=5.23)* of private school students is less than the government school students standard deviation (*SD=11.02*).The obtained t-value at df=98 is (0.95) less than the t table value 1.984. Therefore, the research hypothesis is rejected and null hypothesis is accepted. Hence, there is no significant difference in perceptions secondary school learning environment of students with respect to type of school administration.

Component Wise analysis

Table 4: Showing component wise perceptions of students towards online learning environment with respect to type of administration

Components	Administration	Mean	S.D	t- value	Level of significance
1.Perceived learning	Private	19.60	4.21	1.51	Not Significant at. 05 level
	Government	18.50	2.58		
2.Student satisfaction	Private	14.88	4.31	1.18	Not Significant at. 05 level
	Government	15.74	2.77		
3.Faculty interaction	Private	23.25	.04	2.94	Significant at. 05 level
	Government	21.16	.95		
4. Peer interaction	Private	17.24	2.19	0.54	Not Significant at. 05 level
	Government	16.08	4.70		

Interpretations: Table 4 indicates the perception of students towards online learning environment with respect to school administration. The mean value indicated higher perceived learning, faculty interaction and peer interaction among students in private schools as compared to students in Government schools. The student satisfaction was greater among government school students as compared to private. The obtained t-Value in three of the components perceived learning, student satisfaction and peer interaction showed no significant difference. A significant difference was observed in faculty interaction.

Hypothesis 5:

Research Hypotheses: -There is significant relationship between online learning environment and academic achievements of the students.

Null Hypotheses: -There is no significant relationship between online learning environment and academic achievements of the students.

Table 5 showing relationship between online learning environment and academic achievements

	N	Mean	S.D	Coefficient of correlation	
Learning Environment	100	74.26	8.62	-0.32	Negative correlation
Academic Achievement	100	68.75	17.41		

Interpretations

Table 5 indicates the mean value (M= 74.26) the scores obtained for the learning environment is greater than the mean value (M=68.75) of academic achievement. The standard deviation (SD=8.62) of learning environment is less than the academic achievement (SD=17.41). The obtained coefficient of correlation (-0.32) is less than the Pearson's correlation coefficient range (0.3-0.8). Therefore, the research hypothesis rejected and null hypothesis is accepted.

Hypothesis 6.

Research Hypotheses: There is a significant relationship in perceived learning, satisfaction, faculty interaction, peer interaction in relation to academic achievement in an online learning environment.

Null Hypotheses: There is no significant relationship in perceived learning, satisfaction, faculty interaction, peer interaction in relation to academic achievement in an online learning environment.

Component wise Correlation:

Table 6: Showing relationship in perceived learning in relation to academic achievement

Online Learning Environment		Mean	S.D	Coefficient of correlation
1.Perceived learning	Academic Achievement	12.00	3.52	- 0.042 Negative low correlation
2.Student satisfaction	Academic Achievement	15.3	3 63	-0.142 Negative low correlation
3.Faculty interaction	Academic Achievement	22.20	3.63	.068 Positive low correlation
4.Peer interaction	Academic Achievement	17.06	3.29	.027 Positive low correlation

Interpretation: Table 6 indicates a negative low correlation in the areas selected perceived learning and student satisfaction A positive but low correlation was observed in faculty interaction and peer interaction.

Findings and Discussions of the Study

1. There is a significant difference in perception of students' online learning environment with respect to gender.There is significant difference in perceived learning, student satisfaction, faculty interaction, peer interaction of students in online learning environment with respect to gender. Online learning is only source to transfer education to students here we find that there is difference in the perceptions of students among male and female students it may be due to their way of understanding how they take and also it depends upon their interest and how they acquire it. Male students have different perception about online learning than female students from the sample.

2. There is no significant difference in perception of students online learning environment with respect to type of school administration .There is no significant difference in perceived learning, student satisfaction, faculty interaction and peer interaction of students in online learning environment with respect to type of school administration Online learning or offline learning both of it take place to benefit the students here we find that there is no significant difference in perceptions of students with respect to type of school, all schools are providing

online classes for the students the teachers from both private and government schools are working harder for the success of students hence no significant difference in found in perceptions of students for online learning environment with respect to school administration

3. There is no significant relationship between online learning environment and academic achievement of the student. There is no significant relationship in perceived learning, student satisfaction, faculty interaction and peer interaction in relation to academic achievement in an online learning environment We find no such relationship in between the online learning environment with respect to academic achievement of the students because when the teacher use different methods and different ways of teaching through mode also the students can achieve high hence online learning environment does not have any relationship to academic achievement of the students. When the students are provided with such environment where they can learn comfortably feel supportive there will be no effect on their academic achievement either it is through online or offline mode. When the component wise analysis is done in relation to academic achievement of the students to such relationship is found there is no effect on academic achievement with respect to components like perceived learning, student satisfaction, faculty interaction and peer interaction. When the teacher and the learners (students) both act as active and pay full attention and concentration in the online learning as like in offline mode.

Educational Implications

For Administration

1. Administrators are expected to be more flexible in managing school resources to keep up with frequently changing guidelines and circumstances.
2. Leadership and management have always been the main responsibilities of school heads
3. Schools foster nurturing learning environments that help children grow and develop.
4. School administration should take active role in planning and managing online programs which help students to learn better.
5. School administration should provide such environment that would academically qualify students leading eventually to proper progress of students.

For Teachers

1. Online training programmes help teachers/educators advance their skills in curriculum implementation, policy, education systems and leadership, both independently and with the support of their institutions.
2. It lets them collaborate with their peers and learn new instructional skills that are relevant to their career.
3. These programmes can help them develop new skills and capabilities in their students with the help of technology and interdisciplinary approaches.
4. Teachers can make use of many online teaching platforms for effective teaching

Delimitations of the Study

1. The study is limited to collection of data in Hyderabad district
2. The study is confined to perceptions of students in learning, satisfaction, faculty interaction and peer interaction
3. The study is taken up at school level only
4. The study is taken up for students of 9 class students

Conclusion

Online learning environment has both pros and cons at its own place .The study concluded that there is significant difference in perceptions of students on online learning environment with respect to gender but found no significant difference in perception of students online learning environment with respect to type of school there is no significant relationship in learning environment with academic achievement of students and no relationship in component of study of online learning environment .Students achievement depends upon their own interest the way learners learn .The qualitative analysis reveals that 90% students prefer physical classes to be more beneficial for them.

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Teachers Perception and Practices of STEAM Education in Telangana

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Abstract

For schools to include quality STEAM education, it is important to understand teachers' beliefs and perceptions related to STEAM talent development. Teachers, as important persons within a student's talent development, hold prior views and experiences that will influence their STEAM instruction. This study attempts to understand what is known about teachers' perceptions of STEAM education by examining existing literature. Findings indicate that while teachers value STEAM education, they reported barriers such as pedagogical challenges, curriculum challenges, structural challenges, concerns about students, concerns about assessments, and lack of teacher support. Teachers felt supports that would improve their effort to implement STEM education included collaboration with peers, quality curriculum, support system, prior experiences, and effective professional development.

Key words: STEAM Education, Perception of teachers, challenges, policy implication

Introduction

With the development of science and technology, society has changed dramatically. As a result of these developments, the amount of knowledge has increased greatly and the boundaries between the academic, the social, and the national are rapidly fading. However, as the side effects of development, problems such as the poverty gap, starvation, and global warming are steadily emerging. These are complex problems that cannot be solved by a single discipline. Therefore, the ability to converge various disciplines in order to solve these problems through the creative integration of their knowledge is being globally recognized as a necessity.

STEAM Education is an approach to learning that uses Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student inquiry, dialogue, and critical thinking. Using STEAM education results in students who take thoughtful risks, engage in experiential learning, persist in problem-solving, embrace collaboration, and work through the

creative process. These are the innovators, educators, leaders, and learners of the 21st century. Given the importance of creativity and innovation for the future, it's important to ensure that the arts provide students opportunities to use their knowledge and skills in ways that are practical and applicable to the real world, at all ages. Every child isn't inclined to grow up to become a scientist, engineer, or designer, but it's important every child grows up knowing how to think like one. With STEAM education, schools need to make sure students are ready for many of the challenges they will face, and to create an environment where "Every Student Succeeds" is not just an aspiration.

Research Questions

The purpose of the study is to examine the teachers' perceptions of developing STEAM Education. This study attempts to understand what is known about teacher beliefs related to STEAM Education.

1. What is the perception of teachers on STEAM education?

2. Is there any difference in teacher's perception on STEAM between different subjects?

3. Why do teachers differ in their opinion regarding STEAM education?

4. How does one find out STEAM education reality in Indian classroom?

5. What kind of challenges do the teachers face when implementing STEAM education?

6. Do the teacher's qualifications /background (i.e., school level, gender, teaching experiences) relate to their perception of STEAM education?

Objectives

The objective of the present study is –

1. To study teachers perception and practices of STEAM education in Telangana.
2. To study the perception of teachers regarding STEAM education
3. To compare perception of CBSE & ICSE Private teachers on STEAM education.
4. To compare the perception of teachers based on length of service towards use of STEAM education.
5. To see a qualification has any role to play in perception of teachers towards STEAM education.
6. To compare the perception of male & female teachers on STEAM education

Hypotheses

- There is a significant difference in the perception of CBSE & ICSE private school teachers on STEAM education.
- There is a significant difference in the perception of teachers who are having more than 10 years and less than 10 years while providing STEAM education.
- There is a significant difference in the perception of post graduate and graduate teachers towards STEAM education
- There is a significant difference in the perception of trained and untrained teachers towards STEAM education.

Variables of the Study

Independent variables

- Type of school
- Gender
- Qualification of teacher
- Experience of teacher

Dependent variable

Perception of teachers towards STEAM Education

Methodology

The present study has employed a survey method. Here the researcher has prepared a self constructed questionnaire consisting 50 questions (standardised through Pilot test) as a tool to gather the appropriate information from the desired population.

Sample: 80 teachers from CBSE & ICSE private schools have been selected as the sample of the study.

Tool: A questionnaire consisting of fifty questions related to experience of teachers, qualifications, training, quality of teaching practices on STEAM education. closed ended questions to access the quality of viewing and possible use for teaching learning process, potential for positive impact was prepared for the study

Statistical Techniques: As per the requirement of the study suitable statistical techniques are applied which include, t-test, Standard deviation, Mean etc by using SPSS packages on excel. After the data is statistically analyzed then the data is interpreted. The findings and conclusions are written based on the interpreted data.

Analysis of the Data

Both quantitative and qualitative analysis will be required. Statistical analysis will include Pearson's correlation and t-test. Closed ended questions will be qualitatively analyzed.

Hypothesis1: There is a significant difference in the perception of CBSE & ICSE Private school teachers on STEAM education.
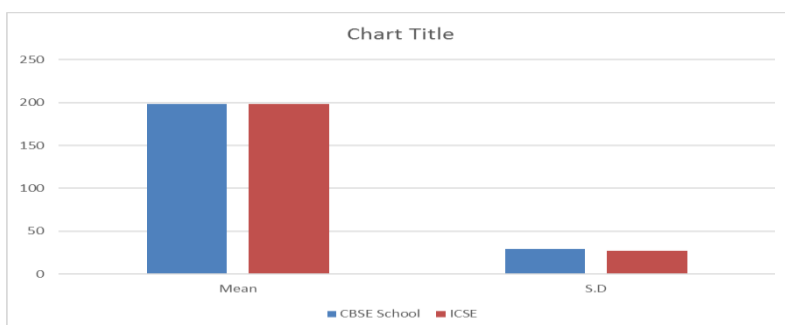
Table-1: Difference between Mean, Standard deviation, t-test significance difference between perception of CBSE & ICSE Private school teachers on STEAM education.

Description	N	Mean	SD	t - value	Significance Level
CBSE40	198.632		9.126	0.048	0.05
ICSE40	198.33		27.322		

df =78, t- table value= 1.99

The obtained t value is t(78) = 0.048. The table t value at df =78 is 1.99(0.05) level of significance. Since the obtained t-value is lesser than the table value, the research hypothesis is rejected. Therefore, there is no significant difference in the perception of CBSE school teachers and ICSE school teachers towards STEAM Education.

Fig 1: Graphical representation showing difference between mean and standard deviation of CBSE & ICSE Private school teachers on STEAM education.

HYPOTHESIS 2:

Hypothesis 2: There is a significant difference in the perception of teachers who are having more than 10 years and less than 10 years while providing STEAM education.
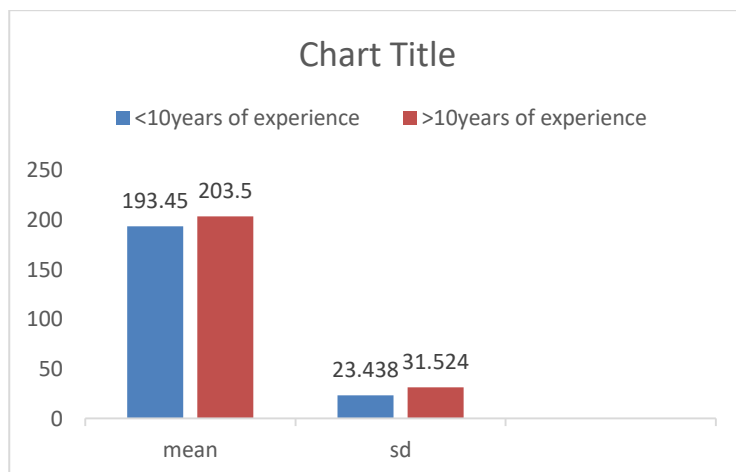
Table-2 Difference between Mean, Standard deviation, t-test in the perception of teachers who are having more than 10 years and less than 10 years while providing STEAM education

Description	N	Mean	SD	t - value	Significance Level
<10 years	40	193.45	23.438	1.618	0.05
>10 years	40	203.5	31.524		

df =78, t- table value= 1.99

The obtained t value is t(78) = 1.618. The table t value at df =78 is 1.99(0.05) level of significance. Since the obtained t-value is lesser than the table value, the research hypothesis is rejected. Hence, there is no significant difference in the perception of teachers who are having more than 10 years and less than 10 years while providing STEAM education.

Fig 2: Graphical representation showing difference between mean and standard deviation of the perception of teachers who are having more than 10 years and less than 10 years of experience while providing STEAM education.

HYPOTHESIS 3:

Hypothesis3:There is a significant difference in the perception of post graduate and graduate teachers towards STEAM education
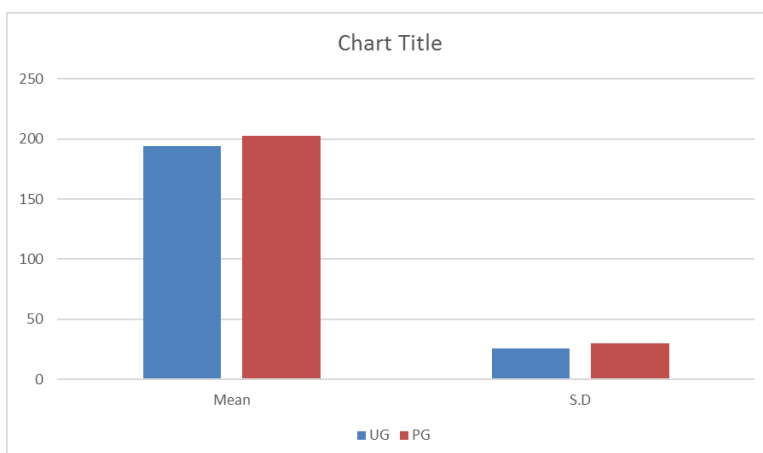
Table-3 Difference between Mean, Standard deviation, t-test in the perception of Post graduate and graduate teachers towards STEAM education

Description	N	Mean	SD	t - value	Level of sig Significance
P.G	40	198.632	9.126	0.048	0.05
Graduate40		198.33	27.322		

df =78, t- table value= 1.99

The obtained t value is t(78) = 0.048. The table t value at df =78 is 1.99(0.05) level of significance. Since the obtained t-value is lesser than the table value, the research hypothesis is rejected. There is no significant difference in the perception of post graduate and graduate teachers towards STEAM education.

Fig 3: Graphical representation showing difference between mean and standard deviation of the perception of post graduate and graduate teachers towards STEAM education.

HYPOTHESIS 4:

Hypothesis 4:There is a significant difference in the perception of trained and untrained teachers towards STEAM education.
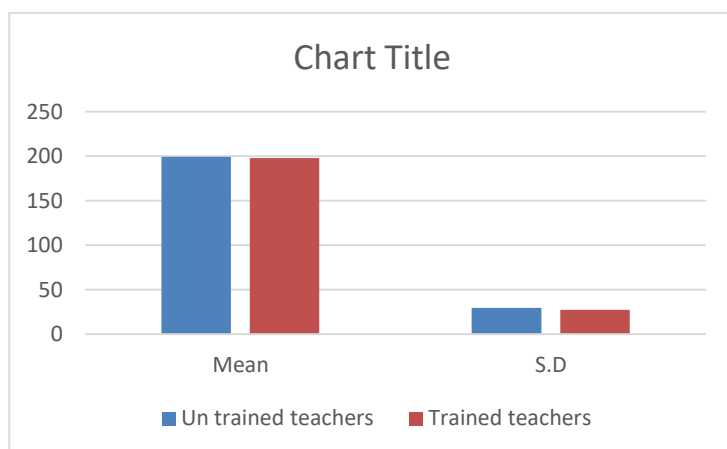
Table-4 Difference between Mean, Standard deviation, t-test in the perception of trained and untrained teachers towards STEAM education.

Description	N	Mean	SD	t - value	Level of sig Significance
Untrained	40	199.152	9.366	0.214	0.05
Trained	40	197.802	7.947		

df =78, t- table value= 1.99

The obtained t value is t(78) = 0.214. The table t value at df =78 is 1.99(0.05) level of significance. Since the obtained t-value is lesser than the table value, the research hypothesis is rejected. Therefore there is no significant difference in the perception of trained teachers and untrained teachers towards STEAM education.

Fig 4: Graphical representation showing difference between mean and standard deviation of the perception of trained teachers and untrained teachers towards STEAM education.

Findings of the Study

- There is a significant difference in the perception of CBSE & ICSE Private school teachers on STEAM education.
- There is a significant difference in the perception of teachers who are having more than 10 years and less than 10 years while providing STEAM education.
- There is a significant difference in the perception of post graduate and graduate teachers towards STEAM education
- There is a significant difference in the perception of trained and untrained teachers towards STEAM education

Discussion

In order to support teachers and STEAM programs as they seek to develop STEAM talent, necessary provisions must be provided so they can act as a facilitating catalyst in the student's development. Teachers need quality curriculum that aligns with state guidelines and includes formative assessment techniques teachers can use to assess their students' conceptual understandings. Professional development that is attended by the team of teachers that will be utilizing the curriculum and allows teachers to gain experience with STEAM concepts and the pedagogy in a meaningful way is also necessary. Teachers have to become comfortable allowing their students to "take the wheel" and drive instruction. They have to learn how to play the role of facilitator of knowledge and how to encourage students to take academic risks. All of this can be practiced and reinforced in professional development before implementation in classrooms. As teachers move from teaching single subjects to teaching cross-curricular units, they will need time to work together. Teachers need to be encouraged to work together to create innovative ways to successfully integrate this multidisciplinary way of thinking and learning.

Educational Implications

Students:

- Implementing STEAM principles from an early age into education allows for more understanding, innovation, and a cohesive education in the classroom.
- Integrating critical thinking, problem-solving, enquiry-based hands-on experimentation, and experiential learning opportunities, students will have both hands on the wheel as they open the doors to the real world and get ready to navigate life with confidence.

- Students are required to use a range of different STEAM skills at once. It may include small-scale collaborative building projects or finding ways to include artistic or creative components in lessons that would not usually be related to the arts.

Teachers:

- Teachers have to become comfortable allowing their students to "take the wheel" and drive instruction. They have to learn how to play the role of facilitator of knowledge and how to encourage students to take academic risks. All of this can be practiced and reinforced in professional development before implementation in classrooms.

Management:

- The STEAM facility will house undergraduate teaching laboratories; project laboratories; and breakout space that will support gateway courses for biological sciences, chemistry, computer science, physics and engineering in a central campus location.
- Technology is made available while it is also easily stowed for hands-on learning opportunities.
- Student stations are modular, allowing for the project-based, multimodal learning outcomes that STEAM requires. Student spaces can be grouped or spread out in the event of a large-scale demonstration. It is possible for students to also work independently if the task allows.
- The days of the flat library cart are over. Movable, flexible demonstration carts not only give options to the upper grade teacher, but they also make new hands-on opportunities available to the elementary science instructor, as well as those who need to move from room to room due to budgetary constraints.
- STEAM lab needs to significantly consider infrastructure needs. Is there enough power available? Can devices be stowed to protect them from the more creative aspects of a STEAM lesson?

Limitations of the Study

The limitations of the present study include the following

1. The study is applicable only for the elementary and secondary school teachers who are practicing STEAM education in school.
2. The study is limited to CBSE schools and ICSE schools in Hyderabad.

3. The study is limited to 80 teachers from Hyderabad only.

4. Time constraint is a barrier to this study.

5. Influence of peer or home environment is not taken into consideration.

Recommendations for Future Research:

- A study examining differences in STEM perception among gifted and non-gifted educators would be interesting in light of the pedagogical similarities between STEM and gifted education.

- Further study of effective implementation should be conducted in classrooms in various school settings (urban, rural, and suburban). There may be specific pedagogical needs within different settings that can be addressed with teacher in-service instruction.

- Research into effective formative assessment strategies during STEM education needs to be conducted. Teachers felt this was a missing component of STEM programs.

Conclusion:

STEAM aims to strengthen the foundation of STEM by helping students enhance their critical thinking skills and recognize the intersection of art, science, technology, engineering, and math. It gives students tools and methods to explore new and creative ways of problem-solving, displaying data, innovating, and linking multiple fields. The arts and STEM subjects naturally complement and inform each other, so implementing STEAM principles into education allows for more understanding, innovation and a cohesive education in the classroom.

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The Role of Coping Skills on the Psychological Well-being of Teacher Trainees

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Abstract

Psychological well-being is a very broad term related to positive functioning, happiness, personal growth, flourishing one's own self etc. When teachers function well, are mentally healthy and feel motivated to teach, they tend to become more effective in their teaching and promote motivation and achievement among their students. Coping skills on the other hand acts as a support in maintaining a balanced life. In the current study various Coping Skills and psychological well-being of teacher trainees is being observed. The purpose of this study is to discuss the role of Coping skills on psychological well-being among teacher's trainees. Keeping this purpose, the various coping skills necessary for maintaining psychological well-being is observed. The current study falls under the purview of Descriptive Survey research. The sample considered under the study is a set of 100 teacher trainees, 50 female and 50 male student teachers enrolled in three teacher training Colleges in Hyderabad. The data is collected using a self-made questionnaire which consists of 42 questions. Coping skills help to reduce psychological distress among students. Teachers need to prepare themselves with coping skills in order to maintain their own psychological well-being which in turn is an important aspect in providing quality services in teaching profession. Hence, the present study is conducted to find out the Role of Coping skills on the psychological well-being of teacher trainees. The Study is expected to provide empirical evidence regarding the role of coping skills on the psychological well-being of Teacher trainees.

Key words: Coping skills, Psychological well-being, Teacher trainees

Introduction

Stress is the way human beings react both physically and mentally to changes, events, and situations in their lives. People experience stress in different ways and for different reasons. The reaction is based on perception of an event or situation. Teachers are the architect of prosperous communities, well-mannered society and peaceful nations. For this teacher have to be well-

prepared in the teaching learning process and they should have good mental health so that they can help in the academic achievement of students. The mental health of the teacher plays an important role in shaping a student's overall development and coping skills play an important role in maintaining a positive psychological well-being. The teacher trainees while studying face a number of stress related factors like the role to be played in the institution, interpersonal relationship with peer-groups, teachers and other staff, journey from home to the institution, coping with the physical environment of the school etc. Coping means to invest one's own conscious effort, to solve personal and interpersonal problems, in order to try to master, minimize or tolerate stress and conflict. Coping with stress is the process by which a person consciously attempts to master, minimize, or tolerate stressors and problems in life. Coping skills are strategies that help people deal with mental health challenges in order to achieve positive mental health and psychological wellbeing. Psychological well-being can be related with the effective functioning of an individual and development of one's potential and control of one's life with a purpose. It is important for teachers to be happy, peaceful and possess a body that is stress free. Therefore, a teacher trainee's psychological well-being will lead to effective performance which in turn will benefit the students.

Significance of the Study

The significance of this study is to understand the importance of coping skills on the psychological well-being of teacher trainees. It is important to know how coping skills can develop strong psychological well-being of teacher trainees which will help them in Understanding themselves and others. Assuming that coping strategies are important for people's well-being, the present study has focused on studying whether some coping mechanisms are more adaptive than others. The result of the findings will help teacher trainees to master positive attitude and psychological well-being with the help of different coping skills they possess.

Objectives of the Study

1. To understand the coping skills of teacher trainees.

2. To understand the psychological well-being of teacher trainees.

3. To find out the role of problem-focused coping, emotion-focused coping, meaning-focused coping and social coping on the psychological well-being of teacher trainees.

4. To find out the effect of gender on the coping skills and psychological well-being of teacher trainees.

5. To analyze the relationship between Coping Skills and Psychological well-being of teacher trainees.

Hypotheses of the Study

- H1: There is a significant difference in the coping skills of male and female teacher trainees.

- H2: There is a significant difference in the Psychological well-being of male and female teacher trainees.

- H3: There is a significant difference in the domains of Coping Skills with respect to the Psychological well-being of teacher trainees.

- H4: There is a significant relationship between the Coping Skills and Psychological well-being of teacher trainees.

Variables

The independent variables of the present study are:

- Gender (male and female)
- Coping Skills.

The dependent variables of this study are:

- Psychological Well-being.

Sample

For this study the methodology of sampling adopted was random sampling. The sample for the present study chosen is given below:

The sample taken was the Male and Female Teacher trainees of B.Ed Colleges in and around Hyderabad. Sample of the present study consist of 50 Male teacher trainees and 50 female teacher trainees.

Designing and Administration of Tool

The tool used for the current study was a questionnaire which was designed by the investigator. The questionnaire contains of 42 items which were divided component wise to serve the above stated purpose.

Components

The components related to coping skills include Problem focused coping, Emotion focused coping, Meaning focused Coping and social coping. The Components related to psychological well-being include Self-acceptance, Environmental mastery, Personal growth, Purpose in life, Positive relations and Autonomy.

A trial study carried out before a research design is finalized to assist in defining the research question or to test the feasibility, reliability and validity of the proposed research design. A Pilot study is a small study designed to gather information prior to a larger scale, in order to improve the quality of final study. The reliability of each item was established using correlation as a statistic measure. The Questionnaire recorded 11 responses. The item to total correlation and Component to total correlation was calculated. The range 0.3 to 0.8 was considered for correlation to establish reliability of each item in the questionnaire.

Scoring

A five – point rating scale is used with a maximum score of five and a minimum score of one. The statements were to be rated on a five-point Likert scale with options strongly agree (SA), Agree (A), Neutral (N), Disagree (D) and strongly disagree (SD). The positive statement of the tool is given the scoring order as 5, 4, 3, 2, 1 and a reverse scoring order 1, 2, 3, 4, 5 is followed for negative statements.

Data analysis

Research Hypothesis 1: There is a significant difference in the coping skills of male and female teacher trainees.

Null Hypothesis 1: There is no significant difference in the coping skills of male and female teacher trainees.

Table 1: Showing difference in the Mean, Standard deviation and t-value of Coping Skills between Male and Female Teacher Trainees.

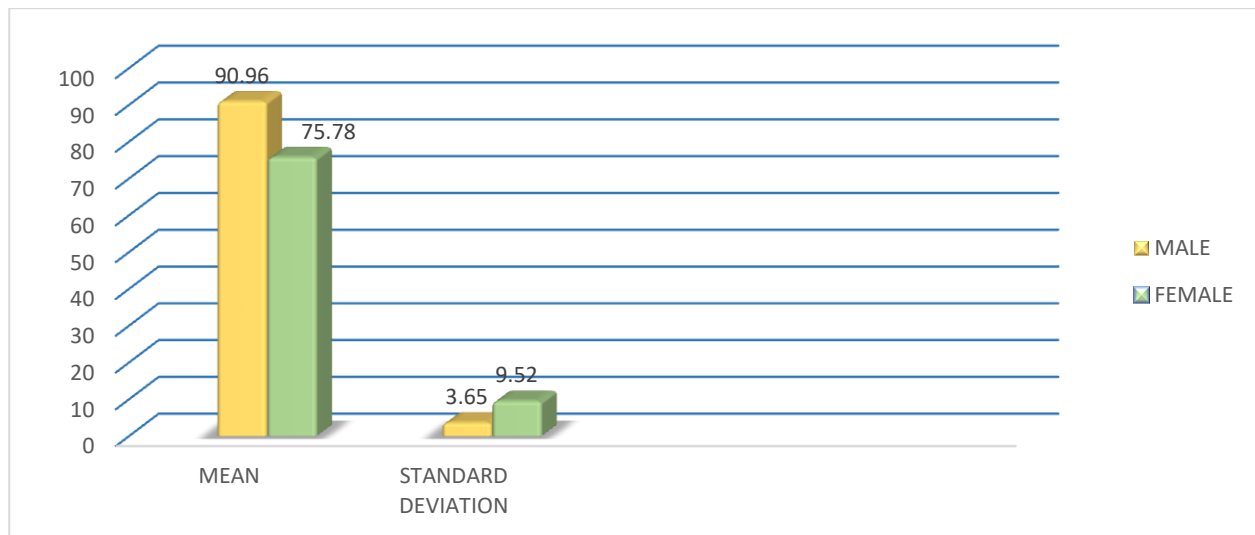| Description	Size	Mean	Standard Deviation	t-value
Male	50	90.96	3.65	10.521
Female	50	75.78	9.52	

Significance level is 0.05.

Degree of freedom (df) = $N_{1} + N_{2} - 2$

$$50 + 50 - 2 = 98$$

At 98 the degree of freedom (df), table value is 1.980 at 0.05. level of significance. The calculated t-value is 10.521 greater than the table value 1.980, The Research hypothesis is accepted and null hypothesis is rejected. Therefore, there is significant difference in the coping skills of male and female teacher trainees.

Graph 1 showing significant difference in the mean and standard deviation of coping skills between male and female teacher trainees.

Research Hypothesis 2: There is a significant difference in the psychological well-being of male and female teacher trainees.

Null Hypothesis 2: There is no significant difference in the psychological well-being of male and female teacher trainees.

Table 2: showing difference in the Mean, Standard deviation and t-value of Psychological Well-being between Male and Female Teacher Trainees.

| Description	Size	Mean	Standard Deviation	t-value
Male	50	91.38	3.77	8.113
Female	50	80.62	8.58	

Significance level is 0.05.

Degree of freedom (df) = $N_1 + N_2 - 2$

$$50 + 50 - 2 = 98$$

At 98 the degree of freedom (df), table value is 1.980 at 0.05. level of significance. The calculated t-value is 8.113 greater than the table value 1.980, The Research hypothesis is accepted and null hypothesis is rejected. Therefore, there is a significant difference in the psychological well-being of male and female teacher trainees.

Graph 2 showing significant difference in the mean and standard deviation of psychological well-being of male and female teacher trainees.
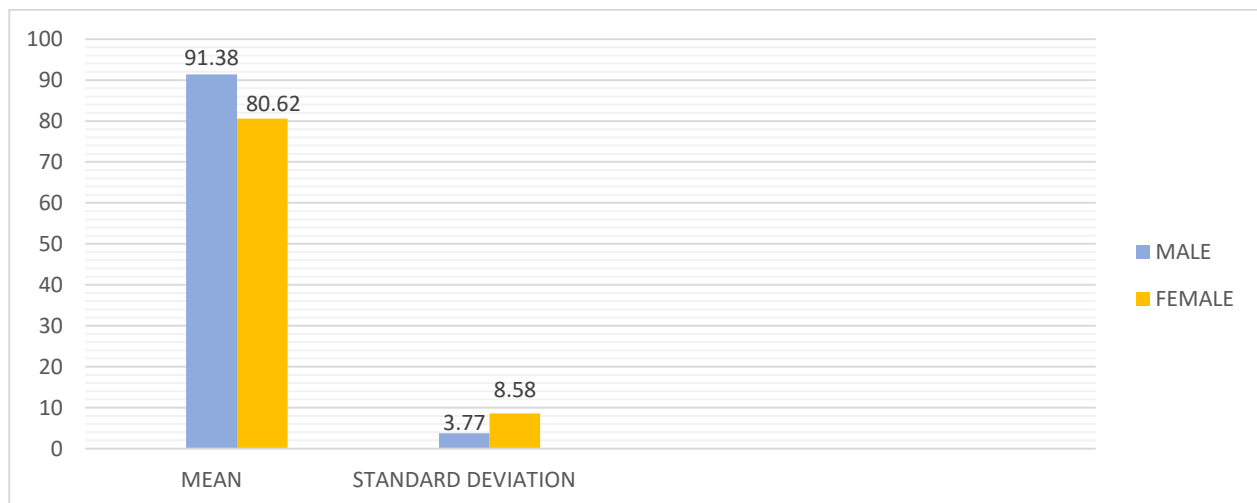
Research Hypothesis 3: There is a significant difference in the domains of Coping Skills with respect to the Psychological well-being of teacher trainees.

Null hypothesis 3: There is no significant difference in the domains of Coping Skills with respect to the Psychological well-being of teacher trainees.

Table 3: showing difference in the domains of Coping Skills with respect to the Psychological well-being of teacher trainees.

<div align="center">ANNOVA</div>

Domains/Groups	Sum of squares	df	Mean squares	F
Problem focused coping: Between groups within groups Total	319.423 214.017 533.440	30 69 99	10.647 3.102	3.433
Emotion focused coping: Between groups Within groups Total	605.770 548.070 1153.840	30 69 99	20.192 7.943	2.542
Meaning focused coping: Between groups within groups Total	828.288 691.872 1520.160	30 69 99	27.610 10.027	2.753
Social coping: Between groups within groups Total	307.643 586.087 893.710	30 69 99	10.255 8.494	1.487

Table 3 indicates that there is a significant difference in the domains of coping skills such as problem focused coping, emotion focused coping, meaning focused coping and social coping with respect to the psychological well-being of teacher trainees.

The f value obtained for Problem focused coping (3.433), Emotion focused coping (2.542), Meaning focused coping (2.753) and social coping (1.487) at df (30,69) is greater than the table value 1.4755 at 0.01 level of significance. Therefore, there is a significant difference in the domains of coping skills with respect to the psychological well-being of teacher trainees.

Graph 3 showing significant difference in the domains of coping skills with respect to the psychological well-being of teacher trainees.
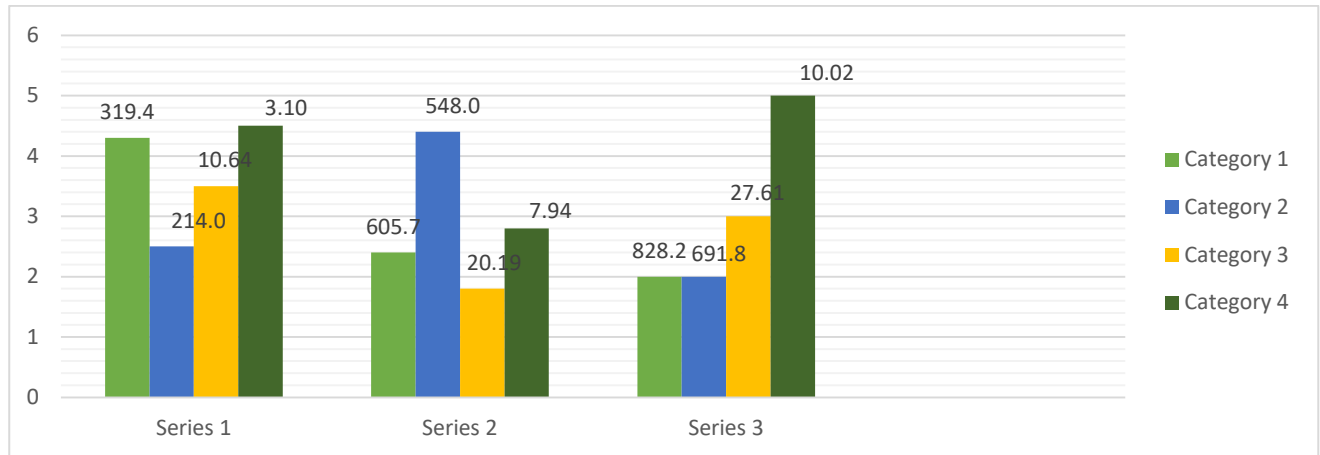
Hypothesis 4: Research hypothesis: There is a significant relationship between coping skills and psychological well-being of teacher trainees.

H0: Null hypothesis: There is no significant relationship between coping skills and psychological well-being of teacher trainees.

Table 4: showing coefficient of correlation between coping skills and psychological well-being of teacher trainees.

Description	Size	Mean	Standard Deviation	*r* – value
Coping skills	100	83.37	10.47	+0.667
Psychological well-being	100	86.00	8.53	

The coefficient of correlation row value is 0.667 which denotes that there exists a moderate positive correlation between coping skills and psychological well-being of teacher trainees with respect to the sample of the study. Therefore, the research hypothesis is accepted and null hypothesis is rejected. As the *r* – value is + 0.667, it clearly indicates a moderate positive correlation between coping skills and psychological well-being of teacher trainees. Therefore, there is significant relationship between coping skills and psychological well-being of teacher trainees.

Graph 4 showing significant relationship between coping skills and psychological well-being of teacher trainees.
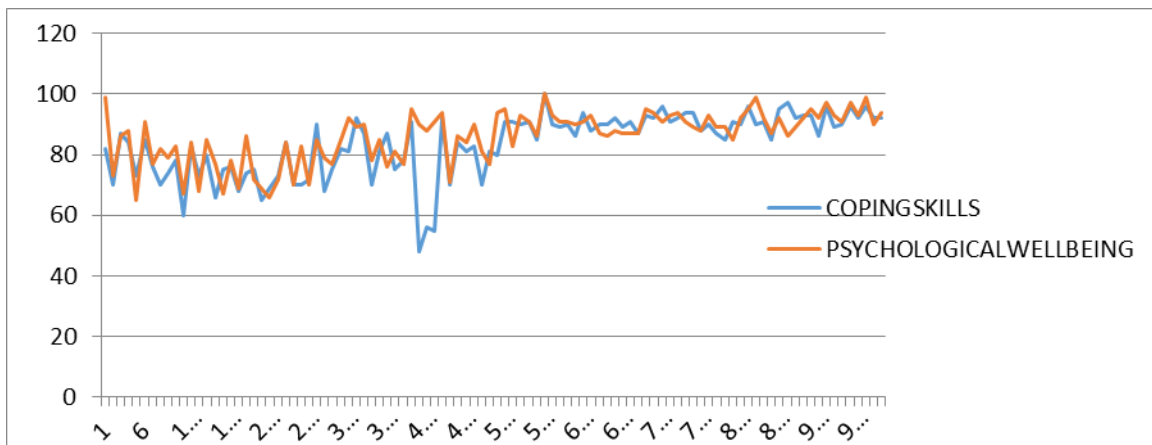
Findings of the Study

The purpose of the study is to investigate the role of coping skills on the psychological well-being of teacher trainees.

- There is a significant difference in the coping skills of male and female teacher trainees with male teacher trainees coping skills scores found to be more in comparison with that of the female teacher trainees.

- There is a significant difference in the psychological well-being of male and female teacher trainees with male teacher trainee's psychological well-being scores found to be a more in comparison with that of the female teacher trainees.

- There is a significant difference in the domains of Coping Skills with respect to the Psychological well-being of teacher trainees, with meaning focussed coping showing higher Mean value followed by emotion focussed, problem focussed and social focussed coping skills scores.

- A positively significant moderate correlation is found between the coping skills and psychological well-being of teacher trainees.

Discussion

The present study states that there is a significant difference in the coping skills of male and female teacher trainees with the mean scores obtained for male teacher trainees found to be more than that of female teacher trainees. While looking at the coping skills, the various domains such as Problem focused coping, emotion focused coping, meaning focused coping and social coping were taken into consideration. The greater scores obtained for male teacher trainees can be

attributed to the fact that male teacher trainees reveal greater ability to detach themselves from the emotions of a situation, whereas on the other hand female teacher trainees are more inclined to exhibit 'bottling up' of emotions thereby having lesser coping skills.

In the present study a significant difference in the psychological well-being of male and female teacher trainees was found. The various components of psychological well-being were taken up to test the psychological well-being of teacher trainees. The components include Self-acceptance, autonomy, personal growth, Environmental mastery, purpose in life and positive relations. The mean value obtained for male teacher trainees is greater than that obtained for the female teacher trainees. It may be due to the fact and also in conformance to supporting results found in various studies that the female teachers have a higher incidence of burnout than male teachers which in turn may affect their psychological well-being.

The difference in the level of psychological well-being with reference to various domains of coping skills was analysed. The results indicated a significant difference in the level of psychological well-being with respect to all the domains of coping skills with meaning focussed coping skills showing higher Mean value followed by emotion focussed, problem focussed and social focussed coping skills scores.

Meaning-focused coping skills which had a higher Mean value in the present study is in its essence, appraisal-based coping in which the person draws on his or her beliefs (e.g., religious, spiritual, or beliefs about justice), values, and existential goals (e.g., purpose in life or guiding principles) to motivate and sustain coping and well-being during a difficult time. So it can be concluded that it's the intrinsic meaning focused coping skills which helps a teacher trainee to have higher level of psychological wellbeing.

Emotion-focused coping is a type of stress management that attempts to reduce negative emotional responses that occur due to exposure to stressors. Negative emotions such as fear, anxiety, aggression, depression, humiliation are reduced or removed by the individual by various methods of coping

Problem-focused coping targets the causes of stress in practical ways which tackles the problem or stressful situation that is causing stress, consequently directly reducing the stress. Problem focused coping strategies aim to remove or reduce the cause of the stressor.

Social coping recognizes seeking social support from others which in the present study is found to be used least by the teacher trainees when compared to the other domains of coping skills.

It is noted that there is a significant relationship between coping skills and psychological well-being of teacher trainees. For teacher trainees, the content of the class work, school management, school climate and interpersonal relationships are among the most cited factors that can positively influence the psychological well-being. Psychological well-being is related to being free from stress, tension, anxiety, boredom, frustration all of which can be easily achieved when one uses optimum coping skills. The moderate positive correlation indicate that coping strategies play a crucial role in people's psychological wellbeing.

Educational Implications of the Study

Every scientific study bears some educational implications. The following are the educational implication of the present study.

- The present study will help teacher trainees to deal effectively and cope with their emotions as well as the emotions of other students.
- Helps to develop strong coping skills among teacher trainees which in turn develops positive psychological well-being.
- Helps to develop positive psychological well-being among teacher trainees which creates positive school climate.
- Higher level of commitment, empathy, mindfulness, ability to deal with difficult situations can be developed when teacher trainees possess strong coping skills.
- Develops critical thinking and creative thinking among teacher trainees.
- Helps to create positive relations with others inside and outside the classroom which is a positive psychological trait.

Recommendations

In the present study the various components of coping skills include problem focused coping, meaning focused coping, emotion focused coping and social coping are taken up for the study. Apart from this there are other coping skills which can be taken up for further study. The study can further analyse the role of various components of psychological well-being on the male and female teacher trainees individually. Further studies might be conducted on comparing psychological wellbeing of university teachers involving other variables such as work stress and conflicts so that findings can be shared with policymakers to help them make valid decisions related to teachers' wellbeing as well as quality of their life.

Limitations of the Study

The limitations of the present study include the following:

- Due to the constraints of time and resources a sample of only one hundred prospective teachers were taken up for the study.
- The data was delimited to Hyderabad and Ranga Reddy district.
- Present study was conducted only in one state and more empirical evidence will be required from more states before ample generalization may be made. In light of this, it is suggested that a similar but more elaborate study may be conducted using a larger sample and covering more states in India.
- The time allotted for the research study is limited.

Conclusion

Psychological well-being is compromised when negative emotions interfere with a person's ability to function effectively in their daily life. Psychological well-being can be related with the effective functioning of an individual and development of one's potential and control of one's life with a purpose. It is important for teachers to be happy, peaceful and possess a body that is stress free. Therefore, a teacher trainee's psychological well-being will lead to effective performance which in turn will benefit the students. The findings of the current study showed that there is a relation between coping skills and psychological well-being which reflects on the importance of various domains of coping skills that contribute in attaining psychological well-being.

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Influence of Vocational Education on Self-Efficacy of High School Children

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Abstract

Modern society demands that education must be work-oriented and production oriented in order to contribute to the growth of national income to foster national development and a better standard of living. The introduction of systematic, well planned and vigorously implemented programmes of vocational education is crucial in the proposed educational reorganization. Recognizing the greater need and importance of understanding vocational education in the present education system, this study is taken up. The purpose of this quantitative research is to carry out a survey focusing on the Influence of vocational education on self-efficacy of high school children. A stratified random sampling of sixty students from Telangana was used. The tool used was the personality scale of the Big five personality theory which is a standardized tool used in the guidance of the mentor. A descriptive survey method was employed to collect the data of about twenty statements administered to sixty students of four schools in Secunderabad. The results were analyzed using the IBM SPSS package for independent t-test, the statistical significance was found by t-test with respect to the type of management, gender, and socio-economic status. Based on these results we can conclude that there is no significant difference in the self-efficacy of the secondary school students with respect to the type of management and gender. Therefore, vocational education needs to be developed and understood by teachers for further support, improving their excellence, sharpening their nature of attitude, and being more effective in their noble profession.

Keywords: Vocational education, self-efficacy of the secondary school students, type of management, and gender background

Introduction

Vocational education allows students to apply their knowledge of basic skills through the projects assigned. Vocational education provides students with hands-on training. Vocational education provides them with opportunities to learn about various careers as well as gain the skills they need. This allows the students to make choices about which career or education path

they may need to follow. Emulating the strategies of the vocational education classroom, courses in the academic curriculum should provide students with related career education. Also students should be exposed to more hands-on/application learning. Levesque, et al. (2000), viewed vocational education as evolving into a multipurpose enterprise that sought to include occupational skills for as well as academics skills believed to provide students with better preparation for both careers and post-secondary education. Originally, vocational classes were developed for those who did not plan on attending college. However, today's high-skill job market requires all graduates to have advanced academic knowledge and workplace skills.

Vocational education maintains the purpose of preparing students for the world of work. However, preparing some students for subordinate roles has changed. Vocational education has become increasingly technical, placing greater demands upon students. Successful vocational students recognize the subject content as relevant and applicable to real-life experiences and therefore are more motivated to learn. This study shows that overview regarding influence of vocational education on self efficacy of high school children with respect to factors like type of management, gender, socio –economic status.

Need and Significance of the Study

The purpose of this study is to determine the influence of vocational education on a student's ultimate academic achievement. The research consists of experiences of students with some degree of vocational education. It is generally observed that all the students may not have same interests. That means some students show interest in learning core subjects like Mathematics, General Science, some students show interest in vocational courses like Craft Work, Painting, Stitching, etc., the strategies of the vocational education classroom courses in the academic curriculum provides opportunities to students with related career education. Also, students can be exposed to more hands-on/application learning, promote positive attitudes toward vocational education for this not only student and teacher but also administration and society must take an active part in providing resources and arranging workshop, seminars which will lead to quality education. Through vocational education, the individual's physical and mental capacities as well as dexterity and innate powers achieve fulfillment**.** Hence, we can say that the present study is appropriate enough for educational theory, delimitation, implications, and recommendations sighted will have had undue influence on the outcomes, and looking at other factors that

vocational education get the impact or influenced, implementing different design further insights to help teacher, administrator, and society to inculcate interest in students.

Research Questions

1. Is there an influence of vocational education on children's self- efficacy?
2. Is there any relation between self-efficacy of students of vocational education with respect to their type of school management?
3. Is there any difference in the self- efficacy of students from Government school and Private school towards Vocational Education?
4. Is there any difference in the self -efficacy between girls and boys towards Vocational Education?
5. Is there any difference in the self- efficacy of high school children with respect to socio economic status?

Objectives

1. To compare the self- efficacy of students of Vocational education with respect to their type of school management.
2. To compare the self- efficacy of girls students and boy students of High school towards Vocational education.
3. To determine the influence of vocational education on high school children self -efficacy with respect to socio- economic status.

Hypotheses

H1: There is a significant difference in the self- efficacy of Government and Private high school students of vocational education.

H2: There is a significant difference in the self- efficacy level of boys and girls of high school students of vocational education.

H3: There is a significant difference in the self- efficacy of high school students of vocational education with respect to socio-economic status.

Variables

Independent variable- Type of management (Government & private schools)

   - Gender (Boys and girls),

  - Socio – Economic status

Dependent variable- self-efficacy of high school children

Sample

For this study, the methodology of sampling adopted was stratified random sampling. The sample for the present study chosen is given below:

Government school		Private school		Total
Boys	Girls	Boys	Girls	
15	15	15	15	60

Research Design

The objectives of this study come under the preview of the survey method through a questionnaire.

Development of Tool

In the present study, the researcher has used a questionnaire for data collection which consists of 20 Questions on a 5-point rating scale. The questionnaire was checked by a pilot study, getting authentic information and suggestions advised by teacher and peer group.

Data Analysis

In the present study, the analysis of the data is reported under section descriptive analysis.

Descriptive Analysis of the Data: In this section the investigation has been reported as follows:

1. Mean, standard deviation, independent t-test of self-efficacy of secondary school students with respect to the type of management of the school

2. Mean, standard deviation, independent t-test of self-efficacy of secondary school students with respect to their gender background.

3. Mean, standard deviation, independent t-test of self-efficacy of secondary school students with respect to with respect to their socio–economic status

4. The data pertaining to the criterion variables of secondary school students have been examined by independent t-test for each variable, to check the significant difference between mean scores of gender, type of school management, and socio–economic status by using IBM SPSS. In all the cases 0.05 and 0.01 level of significance was fixed to test the hypothesis.

H1 Research hypothesis: There is a significant difference in the self-efficacy of Government and Private high school students of vocational education.

H0: There is no significant difference in the self-efficacy of Government and Private high school students of vocational education.

Table 1 shows the variation in self-efficacy with respect to the type of school management

Table1: Comparison of Government and Private Schools on Self-Efficacy of High School Children

Variable	N	MEAN	SD	t-value	df	Level of significance
Government	30	123.20	17.038	.654	58	** Not significant
Private	30	120.40	16.558			

**Not Significant at 0.05 level of significance   Table value df (58) = 1.67

The Mean value obtained for self-efficacy of a Government school (M=123.20) is greater than the Mean Value obtained for the self-efficacy of a Private school (M=120.40). The Standard Deviation value (S.D=17.038) of Government school students is greater than the Private school students Standard Deviation (S.D=16.558). The obtained t-value is 0.654 at 58 degrees of freedom, Which is less than the table value t(58)=1.67; at 0.05 levels of significance. Therefore, the Research Hypothesis is rejected and the Null Hypothesis is accepted. Hence there is no significant difference in the level of self-efficacy of high school students with respect to the type of school management of Government and Private schools.

Graph 1 Indicating the significant level of student' on the basis of type of management
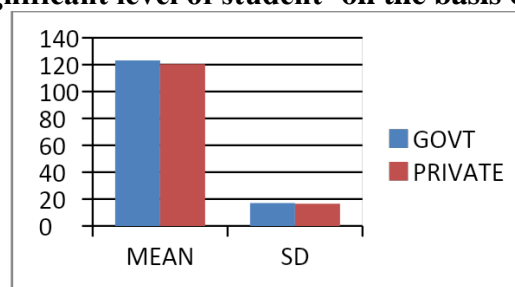
H2 Research hypothesis: There is a significant difference in the self-efficacy level of boys and girls of high school students of vocational education.

H0: there is no significant difference in the self-efficacy level of boys and girls of high school students of vocational education.

**Table 2 shows the variation with respect to gender background**

Variable	N	MEAN	SD	t-value	df	Level of significance
Boys	30	115.53	16.615	-3.110	58	**Significant level
Girls	30	128.07	14.534			

**Significant at 0.05 level of significance   Table value df (58) =1.67

The Mean value obtained for self-efficacy of girls (M=128.07) is greater than the Mean Value obtained for the self-efficacy of boys (M =115.53) . The Standard Deviation value of boys (S.D=16.615) is greater than the girls Standard Deviation (S.D=14.534). The obtained t-value is 3.110 at 58 degrees of freedom, which is greater than the table value 1.67 at (df=58); at 0.05 levels of significance. Therefore the Research Hypothesis is accepted and the Null Hypothesis is rejected. Hence there is a significant difference in the level of self-efficacy of high school children with respect to their gender background.

Graph 2. Indicating the significant level of student' on the basis of boys and girls
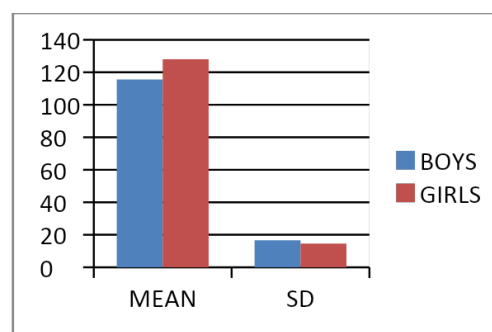
H3:   Research hypothesis: There is a significant difference in the self-efficacy of high school students of vocational education with respect to socio-economic status.

H0: Null Hypothesis: There is no significant difference in the level of self-efficacy of high school students of vocational education with respect to socioeconomic status

The following statistical analysis of ANOVA was conducted to detect a significant difference in the level of self-efficacy of high school students based on the socio–economic status.

Table 3. Representing Difference in the Level of Self-Efficacy of High School Children with respect to the Socio–Economic Status using ANOVA calculation.

Self-efficacy	Groups	Sum of square	Df	Mean Square	F	Sig
High	Between groups	214.822	2	107.411	.376	.688
Avg	Within Groups	16272.778	57	285.487		
Low	Total	16487.600	59			

Critical value F at df (2, 57) = 3.150

The above table 4.3.3 indicates the socio-economic status between groups (sum square=214.822, M.Sq=107.411) and within groups (sum square=16272.778, M.Sq=285.487). The obtained f-value is .376 at df (2, 57) is less than the critical value of 3.150 at P<0.05 level of significance. Therefore, the Research Hypothesis is rejected and the Null Hypothesis is accepted. Hence, there is no significant difference in the self-efficacy of high school students of vocational education with respect to socio-economic status.

Graph 4.3.3 Showing the significant difference in the self-efficacy of high school children with respect to the socio–economic status
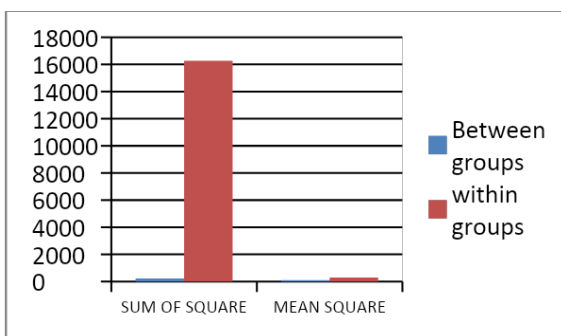
Findings of the Study

The first finding of the study is there is no significant difference in the self-efficacy of high school children with respect to type of management of school. From this we can interpret that the government school students have higher levels of self-efficacy compared to that of the private school students. Findings are supported by the study of santisi.et al (2004), which states that learning in educational contexts related to self- efficacy in a good predictor of wellness and may have possible relations with various dimensions of a future organizational context that may be perceived as being of quality. This may be because of the same type of administration in schools irrespective of type of management and also same approach by teachers towards the students in providing education and training.

The second finding of the study is there is a significant difference in the level of self-efficacy of high school children with respect to their gender background. From this we can interpret that the girl's students have higher levels of self -efficacy than the boy's students. This may be because of factors like geographical area, stage of education, curriculum area, area of attitude and supported by study of Arslan, 2012, as long as they are provided with the opportunity and training to have high self- efficacy beliefs, they can be enabled to grow up to self-efficient individuals and to overcome the problems they face in an educational stage or in their future life. From this we can interpret that both boys and girls have different levels of self-efficacy. Influence of vocational education on self-efficacy of high school children is significantly different. This may be because both boys and girls may have different levels of confidence which determined their different self-efficacy levels. This finding is substantiated the study of Govind and Whiteside, T. (2000), which states that majority of students in vocational education preferred to go for higher education in later period irrespective of gender background.

The third finding of the study is there is no significant difference in the self- efficacy of high school students based on the socio-economic status. From this we can interpret that the socio-economic statuses have significantly similar influence on levels of self-efficacy of high school children. There may be several reasons behind this point of view, which is further a limitation of the study pertaining to some of the factors like student's socio economic background, interest of the student towards vocational education, skill and comprehension of subject. This finding is substantiated by the study of Govind and Whiteside, T. (2000), who conducted a study on "Vocational Higher Secondary Education Graduates in the state of Gujarat" with special

objectives of making comparison of the socio-economic background of vocational education students with ex-students (pass outs). Its findings were: (i) Participation in vocational secondary education was linked to the students' socio-economic status, caste background and parental educational level.

Educational Implications

Today's student is a citizen of tomorrow. Future society depends on all-round development of students. The purpose of the study is to support the administrators and policymakers in becoming aware of the importance of vocational education in the current curriculum to raise the value of vocational education. The government can conduct seminars, workshops sessions to cater the importance of vocational education to develop interest. More focus should be given to the demographics (i.e. gender, ethnic code, poverty level, Exceptional Student Support Services classification, etc.) of the students and how this impacts their decisions and achievements based on their vocational status.

Vocational education helps students understand the scientific and technological aspects of contemporary civilization. Educational institutions should conduct guidance and counseling sessions about vocational education and its importance in order to develop life skills, so that they can lead an independent, responsible life.

Limitations

The sample was restricted only to ninth and tenth standard students. The study is limited only to the sample collected by the investigator. Only three variables as factors were examined; other variables such as socio-economic status, father's occupation, student's interest, and others were not considered.

Suggestions for Further Study

This study indicates the need for conducting further research on the following lines for a complete understanding of the problem in this area. Studies may be conducted covering more districts in the state.

Research may be done to evolve a more effective program for vocational education at the secondary level. Experimental research may be conducted to identify the relative effectiveness

of vocational education in different stages of different types of management. A comparative study could be conducted to evaluate the effectiveness of vocational education in different stages in India. Research may be done to identify the effectiveness of vocational education in urban areas. Research may be taken up among the students of vocational education. To estimate the problems of vocational education a large-scale study could be conducted. Comparative Studies could be conducted in different trades of vocational education at the secondary level. Research may be done to identify the factors responsible for pass-out vocational education at the Secondary level in Telangana.

Conclusion

This study gives an overview regarding influence of vocational education on self-efficacy of high school children with respect to variables like type of management, gender, socio –economic status which influence it. The result of the present study shows that there is no significant difference in the self- efficacy of high school students with respect to their type of school management and socio-economic status. There is a significant difference in the self- efficacy of high school students of vocational education with respect to gender background. Vocational education provides them with opportunities to learn about various careers as well as gain the skills they need. This allows the students to make choices about which career or education path they may need to follow irrespective of gender background .The strategies of the vocational education classroom, courses in the academic curriculum should provide students with related career education. Also students should be exposed to more hands- on/application learning.

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Secondary School Teacher's Stress Towards Online Teaching

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Abstract

The study investigated "Secondary school Teacher's Stress towards online teaching**".** The sample consisted of 50 Secondary school teacher's from various schools. The descriptive research design consists of a questionnaire which was used in carrying out the study. A topic was selected for the study and the researcher developed a questionnaire to measure the levels of Secondary school teacher's stress towards online teaching. The data generated were analysed using mean and standard deviation. T- test was used to test the hypotheses at 0.05 level of significance. The result showed that there is no significance difference in the secondary school teacher's stress towards online teaching.

Introduction

Stress is simply the body's non-specific response to any demand made on it. Stress is not by definition synonymous with nervous tension or anxiety, Stress provides the means to express talents and pursue happiness. It can also cause exhaustion and illness, either physical or psychological, heart attack or accidents. The important thing to remember about stress it that certain forms are normal and essential. The result of continuing stress may become disruption in one or more of the following areas of health, physical, emotional, spiritual and social.

A teacher's role is fundamental for the success of every educational process. Stress may affect teacher's productivity, attitudes and interactions with workmates and especially students. Stress is the body's reaction to a change that requires a physical, mental or emotional adjustment or response. Stress can arise from any situation or thought that makes you feel frustrated, angry, nervous or anxious Curtis & Detert, 1981). Stress factors are the conditions in which stress distribution has high localized stresses, usually induced by an abrupt change in the shape of a member, maximum stress is several times greater than where there is no geometrical discontinuity Hammond & Onikama. 1997). It is important to identify what are the greatest factors that can trigger the negative stress level experienced by the school teachers so that they can overcome it.

Today education covers two phases on the International Standard Classification of Education scale, Level 2 or lower secondary education (less common junior secondary education) is considered the second and final phase of basic education, and level 3 (upper) secondary education is the stage before tertiary education. Every country aims to provide basic education, but the systems and terminology remain unique to them. Secondary education typically takes place after six years of primary education and is followed by higher education, vocational education or employment. In most countries secondary education is compulsory, at least until the age of 16. Children typically enter the lower secondary phase around age 11. Compulsory education sometimes extends to age 19. Since 1989, education has been seen as a basic human right for a child; Article 28, of the Convention on the Rights of the Child states that primary education should be free and compulsory while different forms of secondary education, including general and vocational education, should be available and accessible to every child. The terminology has proved difficult and there was no universal definition before ISCED divided the period between primary education and university into junior secondary education and upper secondary education. In classical and medieval times secondary education was provided by the church for the sons of nobility and to boys preparing for universities and the priesthood. As trade required navigational and scientific skills the church reluctantly expanded the curriculum and widened the intake. With the Reformation the state wrestled the control of learning from the church and with Comenius and John Locke education changed from being repetition of Latin text to building up knowledge in the child Education was for the few. Up to the middle of the 19th century, secondary schools were organized to satisfy the needs of different social classes with the labouring classes getting 4 years, the merchant class 5 years and the elite getting 7 years, the rights to a secondary education were codified after 1945, and countries are still working to achieve of mandatory and free secondary education for all youth under 19

Need and Significance of the Study

When the 2019-20 school year started in September, no teacher could have predicted that they would be working from home for weeks to months in the spring. Onset of the COVID-19 pandemic across the U.S. has forced thousands of schools and school districts to close indefinitely. The very sudden shift to distance learning has placed an unprecedented type of stress for teachers to quickly adapt their curricula to an online format that is accessible for all students.

Using these new technology platforms to simulate a normal school day poses many challenges, some out of the control of a teacher. From Zoom and Google Classroom to Canvas and Microsoft Teams, the variety of online teaching tools is extremely abundant. However, many teachers have never used these tools before and don't know which are most effective and appropriate for their instruction style, class content, and student abilities. It's a steeper learning curve than many parents, students, and teachers themselves realize.

In the present pandemic situations, it is very difficult for Teachers and students to attend traditional classes. So the teachers are taking online classes. In this study I am going to research about the teachers stress during online classes at secondary level.

Objectives of the Study

1. To find out the trained and untrained teacher's stress during online classes at secondary level.
2. To find out the male and female teacher's stress during online classes at secondary level.
3. To find out the private and government teacher's stress during online classes at secondary level.

Hypotheses of the Study

H1: There is a significant difference between trained and untrained teacher's stress during online classes at secondary level

H2: There is a significant difference between male and female teacher's stress during online classes at secondary level.

H3: There is a significant difference between government and private teacher's stress during online classes at secondary level.

Variables

Independent variables: Trained and untrained, gender (male and female) and private and government schools.

Dependent variable: Teacher's stress

Research Design: Descriptive Survey method.

Sample: In the present study all the Secondary teachers from various schools of Hyderabad and Ranga Reddy districts. In the present study "Stratified random sampling" technique has been used by the researcher. The total sample of study is 50 secondary teachers. The sample includes a set of 25 female and 25 male Secondary teachers.

Tool Design for the Study

A self made questionnaire was used for collecting the data in the present study. The tool designed by the researcher consisted of 40 items. The statements were to be rated on a five point Likert scale with options strongly agree (SA), Agree (A), undecided (ND), Disagree (D) and Strongly Disagree(SD). The respondents are expected to put a tick against each statement based on their agreement or disagreement to a particular statement

As a part of the pilot study, the tool was administered on 10 experts in the field to check its reliability and validity of the test items in the questionnaire. The content validity of the tool was established in due consultation with subject experts. To establish reliability of the tool, coefficient of correlation of the scores obtained for the statements was computed and those statements with a correlation value less than 0.3 and more than 0.8 out of 40 items, 21items with a correlation coefficient value less than 0.3 and greater than 0.8 were deleted.

For the final data collection 34 items were retained in the final tool in which Among the 34 statements 40 statements 27 were positive and 13 were negative statements. The positive statement of the tool is given the scoring as 5,4,3,2,1 and a reverse scoring order as 1,2,3,4,5 is followed for negative statements.

Data Analysis

H1: Research hypothesis: There is a significant difference between trained and untrained teacher's stress during online classes at secondary level.
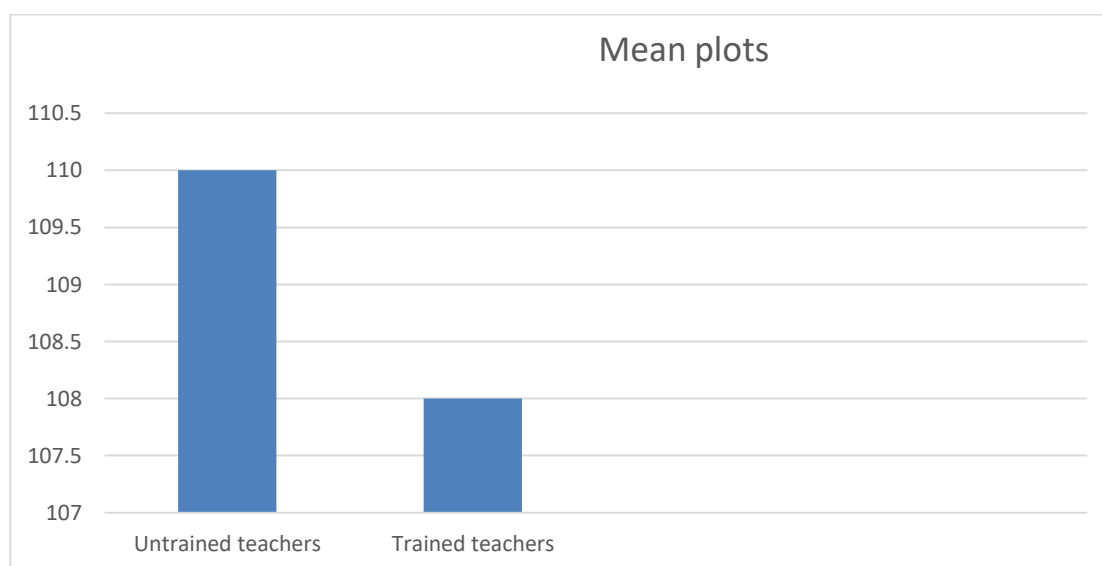
Null hypothesis: There is no significant difference between trained and untrained teacher's stress during online classes at secondary level.

Table 1: Difference in the mean, standard deviation and t-value between trained and untrained teachers

Teaching Training	N	Mean	Std. Deviation	t-value	Significance level
Trained Teachers	25	108.00	8.114	0.703	Not significant
Untrained Teachers	25	110.00	11.694		

df=98, table value=1.98   not significant at 0.05 level

Graph1: Graph showing difference in the mean, standard deviation and t-value between trained and untrained teachers.

The obtained t-value (df=48) 0.703 is less than the value 1.98. Therefore, the research hypothesis rejected and null hypothesis is accepted. Hence, there is no significant difference between trained and untrained teacher stress during online classes at secondary level.

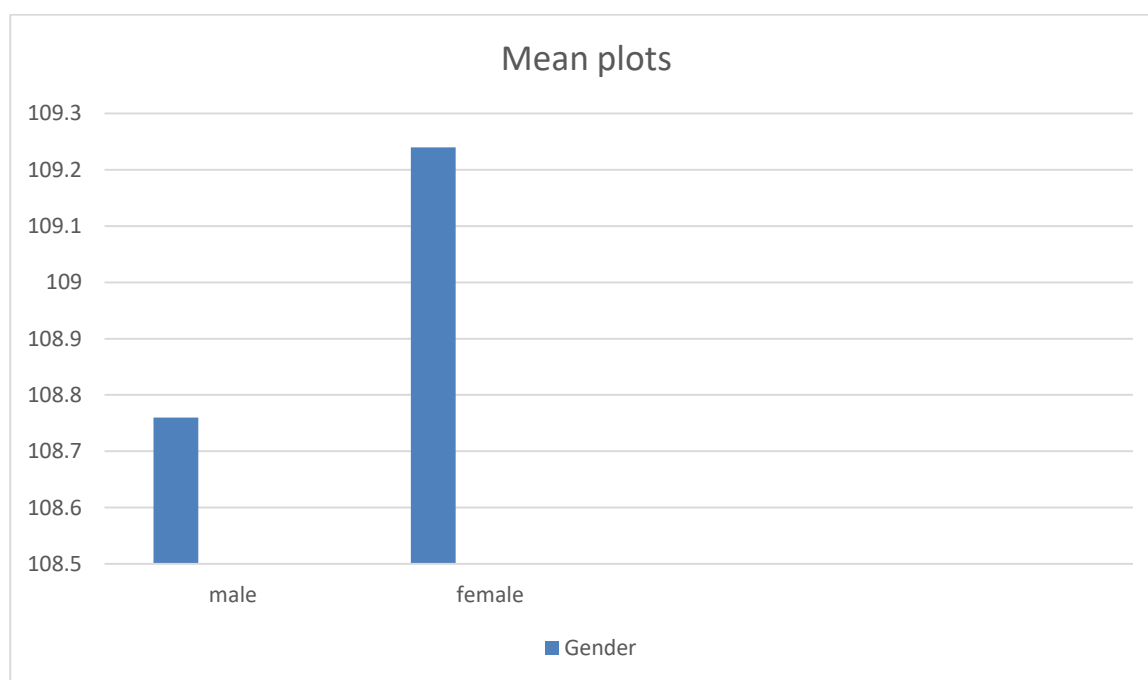**Table 2: Difference in the mean, standard deviation and t-value between male and female teachers**

H2: Research hypothesis: There is a significant difference between male and female teacher's stress during online classes at secondary level.

Null hypothesis: There is no significant difference between male and female teacher's stress during online classes at secondary level

Gender	N	Mean	Std. Deviation	t-value	Significance level
Male	25	108.76	10.771	0.168	Not significant
Female	25	109.24	9.409		

df=98, table value=1.98   not significant at 0.05 level

Graph 2: Graph showing difference in the mean, standard deviation and t-value between male and female teachers.
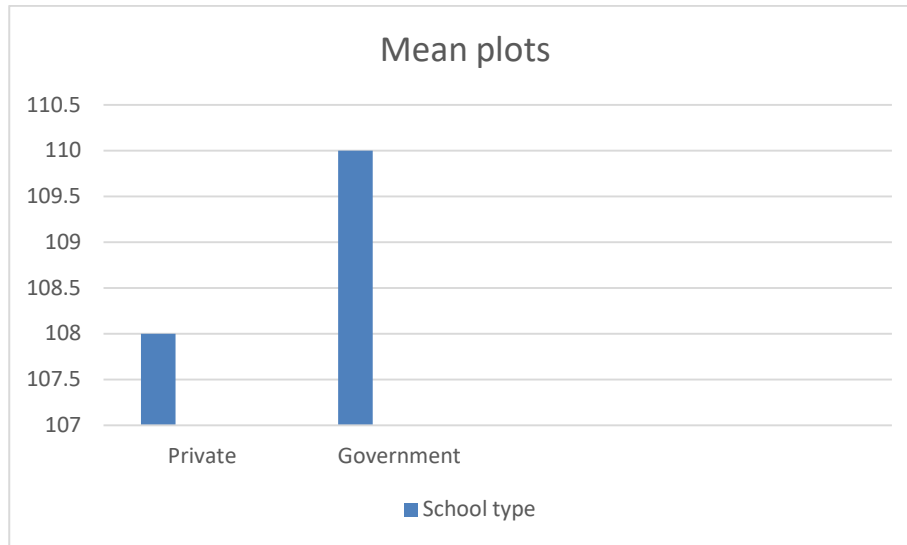

The obtained t-value (df=48) 0.168 is less than the value 1.98. Therefore, the research hypothesis rejected and null hypothesis is accepted. Hence, there is no significant difference between male and female teacher's stress during online classes at secondary level.

Table 3: Difference in the Mean. Standard Deviation, and t-Value between Private and Government Teachers Stress Towards Online Classes

School Type	N	Mean	Std. Deviation	t-value	Significance level
Private	25	108.00	8.114	0.703	Not significant
Government	25	110.00	11.694		

df=98, table value=1.98   not significant at 0.05 level

Graph 3: Graph showing difference in the mean, standard deviation and t-value between private teacher's and government teachers.

The obtained t-value (df=48) 0.703 is less than the value 1.98. Therefore, the research hypothesis rejected and null hypothesis is accepted. Hence, there is no significance difference between government and private teacher's stress during online classes at secondary level.

Finding of the Study

- There is no significant difference in the stress of trained and untrained teacher's towards online teaching.
- There is no significance difference in the stress of male and female teacher's towards online teaching.
- There is no significance difference in the stress of private and government teacher's towards online teaching.

Limitations

- Due to the constraints of time and resources a sample of only one hundred secondary teachers were taken for the study which restricted scope of the generalization.
- The data was delimited to Hyderabad and Ranga Reddy district.
- The present study was conducted only in one state more empirical evidence will be required from more states before ample generalization may be made. In light of this, it is suggested

that a similar but more elaborate study may be conducted using a larger sample and covering more states in India.

- The time allotted for the research study is limited.

Educational Implications

- Secondary school teachers should use proven teaching methods to teach students content that is necessary for passing required states tests. They must also create a positive environment in the classroom that is both disciplined and relaxed.
- Online education can also be designed to accommodate a variety of learning styles among teachers. As educators it is likely that we will have to put in additional efforts to incorporate online learning programmes into the curriculum in the most suitable manner.

Conclusion

Although the findings were non-conclusive, the need to ascertain the level of teacher stress towards online teaching is more apparent than before to inform the national education system's preparedness for a hybrid model of teaching integration offline and online teaching as well finding the training needs to mitigate stress levels elicited due to the challenges and complexities of online teaching. It is recommended that this study be repeated with a larger sample at all levels of school.

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A Study on the Perception of Human Rights as a Predictor of Self-Efficacy

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Abstract

This paper attempts to ascertain if perception of human rights is a good predictor of a student self-efficacy. Self-efficacy as expounded by Bandura as part of his social cognitive theory is said to be a useful hypothetical construct for predicting behaviour. High levels of self-efficacy empower individuals to attain success in all domains (psycho-social and mental wellbeing, career growth, forging strong and meaningful relationships, rational decision making etc). A strong sense of justice and self-dependency flows from knowing what one's human rights are. A self-developed questionnaire was administered online to 80 junior college students to gauge their perceptions of human rights. The scores were collated and data extrapolated into SPSS. An independent sample 't' was utilized to analyse the score. Findings of the study revealed that there was no significant difference between government and private junior college students in their perception of human rights and their level of self-efficacy. However, there was a significant difference between male and female students in their perceptions of human rights and their level of self-efficacy. Human rights education should be interwoven throughout educational curriculum for it to impact students' self-efficacy towards empowerment. The results will inform institutions of education, higher education and other concerned stake holders on ways to increase individuals' self-efficacy by developing and embedding human rights education into the regular curriculum for increased awareness,

Key Words: Perception, human rights awareness, self-efficacy, junior college students

Introduction

Although the concept of human rights existed right from inception of mankind. It is based on the assumption that all human being are born equal, both in dignity and rights. These rights are inalienable and inherent in all human individuals by virtue of existence alone. These rights are necessary to ensure the dignity of every person so that all individuals are able to live a

meaningful and fulfilling existence by developing and using their abilities and talents, irrespective of their nationality, religion, language, sex or any other factor.

The attention and need to protect and codify human rights came under the lens after the brutality and massive destruction of human life during the two world wars. It became apparent that this was needed sooner for maintaining world peace and progress.

The evolvement of human rights can be contextualized in terms of three generation of rights (Alam, 2015):

First Generation Rights: These rights were mainly concerned primarily with the civil and political rights of the individuals. They were meant to impose a negative obligation on the government to deter them from interfering with the liberties of individual.

The Second Generation Rights: These rights provide social, economic and cultural security. These are positive rights and impose an obligation on the governments to ensure that these rights are realized.

The first and second generation rights are reflected in the Universal Declaration of Human Rights (UDHR, 1948). India is a signatory to the six core human rights covenants, and also the two Optional Protocols to the Convention of the Rights of the Child. The first set of rights are enunciated in Articles 2 to 21 of the Declaration and incorporated under the Fundamental Rights - Articles 12 to 35 of the Constitution.

The Third Generation Rights: These rights are relatively new in response to concerns that have emerged in societies in recent years. They include environmental, cultural and developmental rights pertaining to groups and communities rather than individuals such as the right to self-determination and the right to development.

Promoting and creating awareness about human rights have become a concern for all individuals for peaceful coexistence. Merely creating awareness about human rights does not translate to defending and protecting these rights, for that individuals must be armed with the tool of self-efficacy. Perceptions of human rights fuel the fire of self-efficacy.

Bandura (1997) defined self-efficacy as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives".

The definition of self-efficacy dissected translates to beliefs that determine how individuals feel, think and motivate themselves and behave leading to greater self-control.

In present times the greatest challenges faced in human society is the rampant violation of human rights in all aspects of human life and in order to promote and protect human rights, education needs to plays an important role to make all individuals aware of their human rights by developing positive attitude and disseminating knowledge, values and skills about human rights to all sections of people especially the younger generation who holds the key position in promoting world peace. Hence, every educational institution needs to plays a vital role in promoting and creating awareness about human rights and this can be ensured by providing a democratic environment in all educational institutions, which enables the students to enjoy their rights as well as learn to respect the rights of other fellow human. This study attempts to highlight the fact that college students with increased knowledge and awareness of human rights will also exhibit higher levels of self-efficacy and therefore will be more inclined to champion the cause of promoting and protecting human rights. It is expected that the findings will form the basis for curriculum review and evaluation by curriculum planners and policy makers so that human rights related content and activities are incorporated into the curriculum of junior college programme to educate the students about human rights.

Need and Significance of the Study

Not all students are aware of their human rights and the ensuing constitutional remedies. Therefore, this study identifies the lacunae in the college curriculum at both the theoretical and application levels to inform College curriculum and policy directed towards raising student self-efficacy. High levels of self-efficacy will empower students to not only fight for their rights but also seek affirmative action to defend the rights of the vulnerable.

Research Questions

This study attempts to answer the following research questions:

1. Do positive perceptions of human rights have an impact on self-efficacy?
2. Do students with higher perceptions of human rights have increased levels of self-efficacy?
3. Does gender influence the perception of human rights and self-efficacy?
4. Does management play a role in influencing the perceptions of human rights thus resulting in increased self-efficacy?

Objectives of the Study

The paper purports to:

1. study the effect of increased human rights awareness on self-efficacy.
2. ascertain the gender differences in perception of human rights and self-efficacy.
3. investigate the differences in the perceptions of human right and the level of self-efficacy based on type of college management.

Hypotheses of the Study

H1. There is a significant difference between government and private junior college students in their perception of human rights and their level of self-efficacy.

H2: There is a significant difference between male and female junior college students in their perception of human rights and their level of self-efficacy.

Variables of the Study

The independent variables include: (1) Human rights perception of the students; types of colleges (government and private) and gender(male/female). Self-efficacy would be examined as a dependent variable.

Methodology

The present study employed a survey method. Here the researcher has prepared a self-constructed questionnaire consisting of consisting of 30 questions (standardized through a pilot study) as a tool to gather the appropriate information from the desired population.

Sample

A sample of 80 students was constituted as follows:

- students (20 girls and 20 boys) of St. Mary's Junior College (Private);
- 40 Students (20 male students from Government Junior College for Boys, and 20 female students from Government Junior College for Girls).

Research Tool

The researcher developed a self-developed questionnaire consisting of 30 statements to inform if perception of human rights could predict levels of self-efficacy to test the hypotheses. The tool used a five-point Likert Scale to rate the extent to which a participant agreed or disagreed with the statement using anchors such as 5=Strongly Agree, 4=Agree, 3=Neither agree

nor Disagree, 3=Strongly Disagree and 2=Disagree). The validated tool was administered to the participants online using Google Form.

Data Collection

The raw data consist of scores that relate to the measure of self-efficacy. The scores were automatically scored by Google Form and collated into an excel sheet. The excel sheet was download and prepped for exporting to SPSS.

Data Analysis

The raw data was analysed using both descriptive statistics (mean and standard deviation) and the statistical technique of independent sample t-test. The raw data consist of scores that relate to the measure of self-efficacy.

Hypothesis – 1: There is a significant difference between government and private junior college students in their perceptions of human rights and their level of self-efficacy.

Table-1. Table Showing the Mean and Standard Deviation and *t* - values of Government and Private Junior College students in their Perception of Human Rights and their Level of Self-Efficacy.

Description	Size (n)	Mean(m)	Standard deviation	*t*-value	Significance value
Government	40	66.23	28.817	1.422	Not Significant at 0.05 level
Private	40	74.65	23.943		

df = 78, t table value = 1.9908

A graphic representation of the table is presented in Fig. 1.
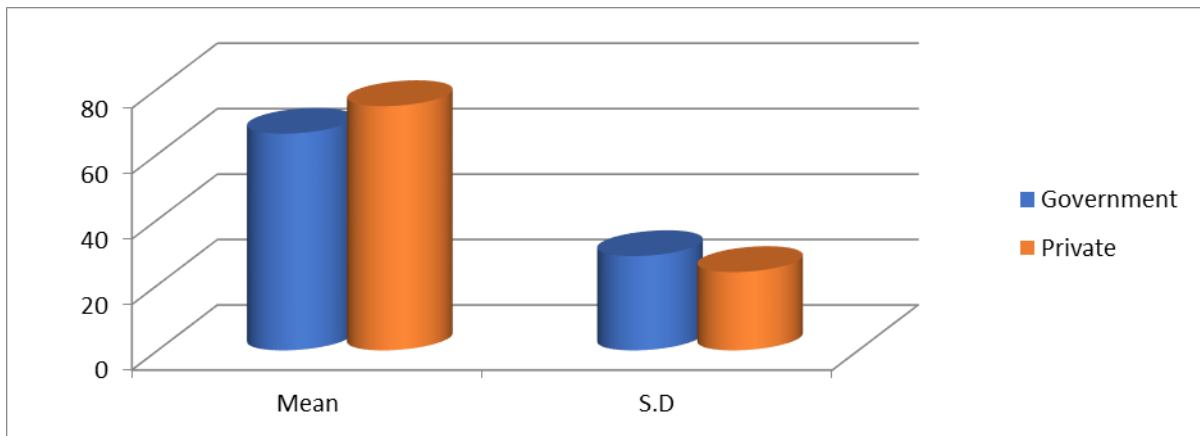

Fig.1. Government and private junior college students in their perception of human rights and their level of self-efficacy.

Interpretation

An independent t-test was conducted to compare government and private junior college students in their perception of human rights and their level of self-efficacy. It was noted that there was a slight difference in the scores of government (M=66.23, SD=28.817) and private (M=74.65, SD=23.943); $t(78) = 1.422$, $p = 0.05$ junior college students. As the calculated 't' value (1.422) is less than the table value (*1.990*) at significance level 0.05 the research hypothesis is rejected and null hypothesis is accepted which implies that there is no significant difference between government and private junior college students in their perception of human rights and their levels of self-efficacy.

Hypothesis – 2: There is a significant difference between male and female students in their perceptions of human rights and their level of self-efficacy.

Table 2. Differences in Mean, Standard Deviation and *t*-Value between Male and Female Junior College Students in their Perceptions of Human Rights and Level of Self-Efficacy.

Description	Size(n)	Mean(m)	Standard deviation	*t*-value	Significance level
Female	40	84.30	14.706	5.422	Significant at 0.05 level
Male	40	56.58	28.803		

df = 78, t table value = 1.9908

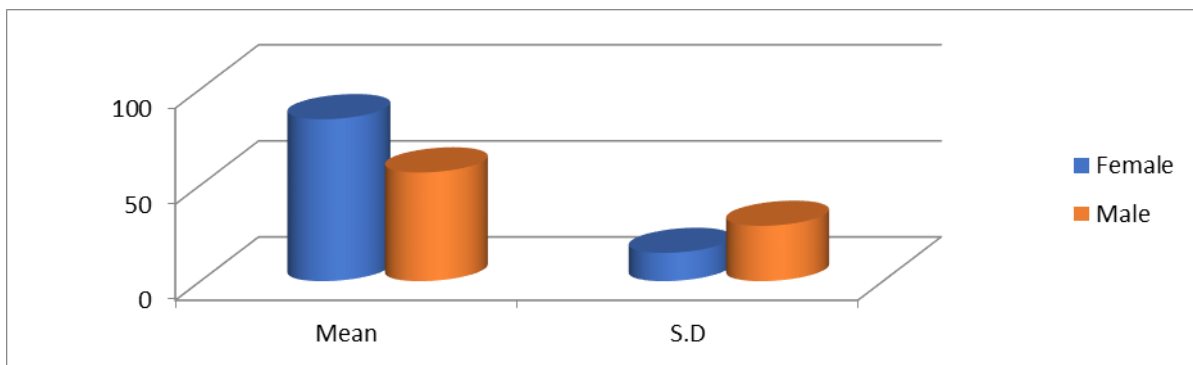A graphic representation of the table is presented in Fig. 2

Fig. 2. Male and female junior college students in their perceptions of human rights and level of self-efficacy.

Interpretation

An independent sample *t*-test was conducted to compare male and female students in their perceptions of human rights and self-efficacy. It was noted that there was a difference in the scores for male junior college students (M=56.58, SD=28.803) and female junior college students (M=84.30, SD=14.706); t (78) = *5.422*, p = 0.05. As the calculated '*t*' value (5.422) is greater than the table value (*1.990*) at significance level 0.05, the research hypothesis is accepted and null hypothesis is rejected revealing that there is a significant difference between male and female students in their perceptions of human rights and their level of self-efficacy.

Findings of the Study

1. There is no significant difference between government and private junior college students in their perception of human rights and level of self-efficacy.

2. There is a significant difference between male and female junior college students in their perception of human rights and their level of self-efficacy.

Discussion

All human rights are universal, indivisible, interdependent and interrelated. Nations must treat human rights globally in a fair and equal manner. While the significance of national and regional particularities and various historical, cultural and religious backgrounds must be borne in mind, it is the duty of States regardless of their political, economic and cultural systems to promote and protect all human rights. Human rights in Indian is an issue complicated by its

large population, widespread poverty, lack of proper education and its diverse culture. The Human Rights Watch states that despite constitutional provisions for the protection of human rights India has some serious human rights concerns. Human rights can be protected and preserved through education.

If individuals are made aware of their rights through education, then their self-efficacy will not only develop but it will attain a level wherein they will be empowered to take affirmative action to ensure their rights are not encroached on. Not only that, they will be more inclined to oppose and fight against abuse of human rights. As teachers are at the helm of transferring knowledge and as the culture of inclusivity expands, it is expected institutions of higher education would include an in-depth study of human rights as enshrined in the Human Rights Act in their teacher curriculum.

The study revealed that there is no significant difference between government and private junior college students in their perception of human rights and their level of self-efficacy. It appears that students of government junior colleges do not lag behind the students studying in private junior colleges in their perceptions of human rights. Further their level of self-efficacy was almost similar. It is submitted that government junior college curriculum is in par with the private junior colleges. What was observed was their awareness of international and national instruments on human rights and state directives on human rights was superficial leading to average levels of self-efficacy. In order to drive the change in attitude toward human rights and empower students an in-depth engagement with activities related to human rights during B.Ed and M.Ed course work will be necessary. Raising levels of self-efficacy can realize the values of equality and equity, dignity of mankind as envisioned in the human rights directives.

The study also informed that there was a significant difference between male and female students in their perceptions of human rights and levels of self-efficacy with the female students faring better than their male counterparts with respect to awareness of human rights. They appeared to have higher levels of self-efficacy than the male students. There could be several reasons, perhaps it is because of the subject exposure. Majority of the female students come from social sciences background. Human rights forms the core of many topics taught in social sciences. Women human rights are more likely to be encroached on by male dominated society, thanks to the media and internet, the NGOs, more voices are coming out in support of the atrocities carried out against women, women are being educated on their rights and where to go for help without fear of repercussions, colleges have orientation for female students on their

rights as students of the college and the protection afforded to them in college, perhaps that is why female students were better informed on human rights and appeared to have higher levels of self-efficacy than their male counterparts. More female than male junior college students strongly agreed to the following statements:

I will speak up for the rights of my close friends and family if their human rights are not being respected.
I am able to provide information to victims of human rights abuse on which organizations to approach for protection.
I am confident enough to oppose any encroachment of my human rights
I always consult the Indian Constitution when in doubt about human rights issue.
I follow human rights abuse reports and the global reactions to the reports in the news closely.

It appeared that female student self-efficacy could be strengthened or increased through awareness of human rights. Influencing the way people think, believe and behave can only through education. Educating individuals on their rights can heightened their self-efficacy and empower them to take a stand for themselves in a society that promotes harmful practices such as caste system, dowry demands, early marriage, keeping the girls home for domestic chores etc.

This research sought to study if perceptions of human rights could predict levels of self-efficacy in junior college students. The objective was to find out if promoting human rights awareness could increase self-efficacy among students. It would help students to understand the reasons for their inability to make sound decisions and motivate them to increase awareness of their human rights.

Educational Implications of the Study

The researcher is of the view that this study could help inform teacher education curricula, in-service teacher training, policy and awareness campaigns.

Junior Colleges Students: Through the course work and related activities students would be able to reflect on their perceptions of human rights and work towards building their self-efficacy. They would be well informed of their rights and who to approach in the event of human rights abuse and encroachment. Students could become informed leaders of change by opposing any

government or private initiatives and practices that are in breach of the basic human rights of its citizens.

Junior Colleges: Participating colleges and other similar colleges will be able to use the results to develop better method of imparting human rights awareness and contribute towards student personal and professional success. Junior colleges will have a cohort of students who are able to take both academic and non-academic tasks, perform civic duties with confidence if the college would include an orientation on human rights awareness before focusing on the rights of the students accorded under the College.

Government: The study would inform policy and be able to identify and bridge the gap in theory and application in the present teacher education curricula. Human rights studies along with how it develops self-efficacy could be integrated into methodology instructions. The study would expose the gaps between the existing perceptions of human rights and levels of self-efficacy providing a trajectory for the government to include human right awareness measures into junior college curriculum. Graduating students with high levels of self-efficacy will ensure effective citizens and mature societies.

Recommendations

The study could be revisited as an experimental study which would then highlight the gaps in human rights instructions to inform national teacher education curricula. One of the delimitations of this study is that only two colleges were included in the study and the sample size was purposive and small. The study could be repeated to include more colleges with participants selected randomly. Results of these studies if conducted could be then generalized to all junior colleges of the State of Telangana.

Students with high perception of human rights have higher level of self-efficacy. Higher levels of self-efficacy would enable the student to be in control of their physical and mental well-being. Thus they would be empowered to make sound decisions. Students with lower perceptions of human rights would need support to improve perceptions of human rights allowing their self-efficacy to develop.

Limitations of the Study

Due to the constraints of time and resources a sample of only 80 junior college students were taken for the study which restricted the scope for generalization. Further, colleges selected were concentrated to the Hyderabad and Ranga Reddy districts only. Present study was conducted

only in one state and more empirical evidence will be required from more states before ample generalization may be made. In light of this, it is suggested that a similar but more elaborate study may be conducted using a larger sample and covering more states in India.

Conclusion

Students with high perception of human rights have higher level of self-efficacy. Higher levels of self-efficacy would enable the student to be in control of their physical and mental well-being. Thus, they would be empowered to make sound decisions. Students with lower perceptions of human rights would need support to improve perceptions of human rights allowing their self-efficacy to develop. The aim of the study was to ascertain if perceptions of human rights could predict levels of self-efficacy among junior college students so that the students could meet the challenges ahead of them to complete task successfully and protect themselves in the face of threat both physical and psychological. It is submitted that perceptions of human rights can be a predictor of levels of self-efficacy.

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Perceptions of Pre-Service Teachers Towards E- Content

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Abstract

Introduction

E-content includes all kinds of content created and delivered through various electronic media. e-content is the digital text and images designed to display on the webpage. This approach of teaching has become an answer to the complicated modern, social, economic condition and an exploding population. e-content lesson is generally designed to guide students through information or to help them perform specific tasks. Information technology and the internet are the major drives of research, innovation, growth and social change. e-content requires huge amount of creativity. Another important feature of e-content is, it is learner centric; it is useful in self-instructional model.

The goal of this scheme is to encourage individual and group of pre-service teachers in colleges and universities to develop education content in electronic format, suitable for use in various teaching and learning programs.

Pre-service teacher's perception occurs in five stages: stimulation, organization, interpretation-evaluation, memory and recall.

Perception is the need to solve a particular problem, and arises simply from intellectual curiosity about themselves and the world. The principles of e-content development were determined by considering the principles of web-based education, which were determined by Serac (2011). The use e-content in the teaching and learning process produces positive outcomes.

Pre-service teachers are expected to treat individual learners with dignity and respect, maintain standards. The primary purpose was to improve pre-service teacher education by using technology to help pre-service teachers bridge the gap between academic preparation and practice. The secondary, but still important objective was to familiarize preservice teachers in the use of technology to support their future pedagogical activities

Significance of The Study

Information and communication technology (ICT) are now revolutionizing teaching and learning process. e-content is the process to supply to work forces with an-up-date and   cost-effective program. Digitalized printed text, graphics etc. may be defined as digital content it is

also known as e-content which can be transmitted over a computer network e.g., Internet. It can be carried out through C.D. ROMs, DVDs and Pen-drives. Using e-content the time and finance involved in the teaching process can be minimized. e-content is facilitating individualized instruction. e-content is an upcoming method of technology to assist the pre-service student. This paper analyses the pre-service teacher's perception towards e-content

Objectives:

1. To find out the perceptions of pre-service teachers of autonomous and private colleges about e-content
2. To find out the perceptions of preservice science and social science teacher about e-content.
3. To find out the perceptions of English and Telugu medium pre-service teacher about e-content.

Variables:

Dependent variable: Perceptions of pre-service teachers

Independent Variable: Type of college, subject, medium of instruction

Hypotheses

H1: There is a significant difference in the perception of pre-service teachers of private and autonomous colleges towards e-content.

H2: There is a significant difference in the perception of pre-service science and social science teachers towards e-content.

H3: There is a significant difference in the perception of English and Telugu medium pre-service teachers towards e-content.

Sample

Sample of 60 students.

- 30-science and 30- social science of B.Ed. pre-service teacher trainees
- 30-English and 30-Telugu medium of B.Ed. pre-service teacher trainees

Designing and Administration of the Tool

A self –made questionnaire was used for collecting the data in the present study. The tool consists of 40 items with the combination of positive and negative items. Out of 40 questions, 30 items are positive and 10 are negative. The tool has statements to be scored on a five-point Likert's Scale with options ranging from Strongly Agree (S.A), Agree (A), Neutral (N), Disagree (D), Strongly Agree (SD).For the purpose of this study a pilot study was carried out on a sample of 10 pre-service teacher trainees. The teachers were expected to put a tick mark against each question that best reflects their degree of agreement or disagreement with the statement. The positive statements of the scale are given the scoring order as 1,2,3,4,5 and a reverse scoring order 5,4,3,2,1 is followed for negative items Content validity of the tool was established with due consultation with the subject experts and reliability of the items was computed and those items with coefficient of correlation values ranging between 0.3 and 0.8 were retained for the final tool. Out of the total 40 statements, only 30 items were retained for the final tool.

Statistical Techniques Applied to Analyse the Data

The Statistical techniques is used for the analysis of the data in the present study include Mean, SD, and independent t-test.

Data Analysis

Research Hypothesis

There is a significant difference in the perception of preservice teachers towards e-content with respect to type of college
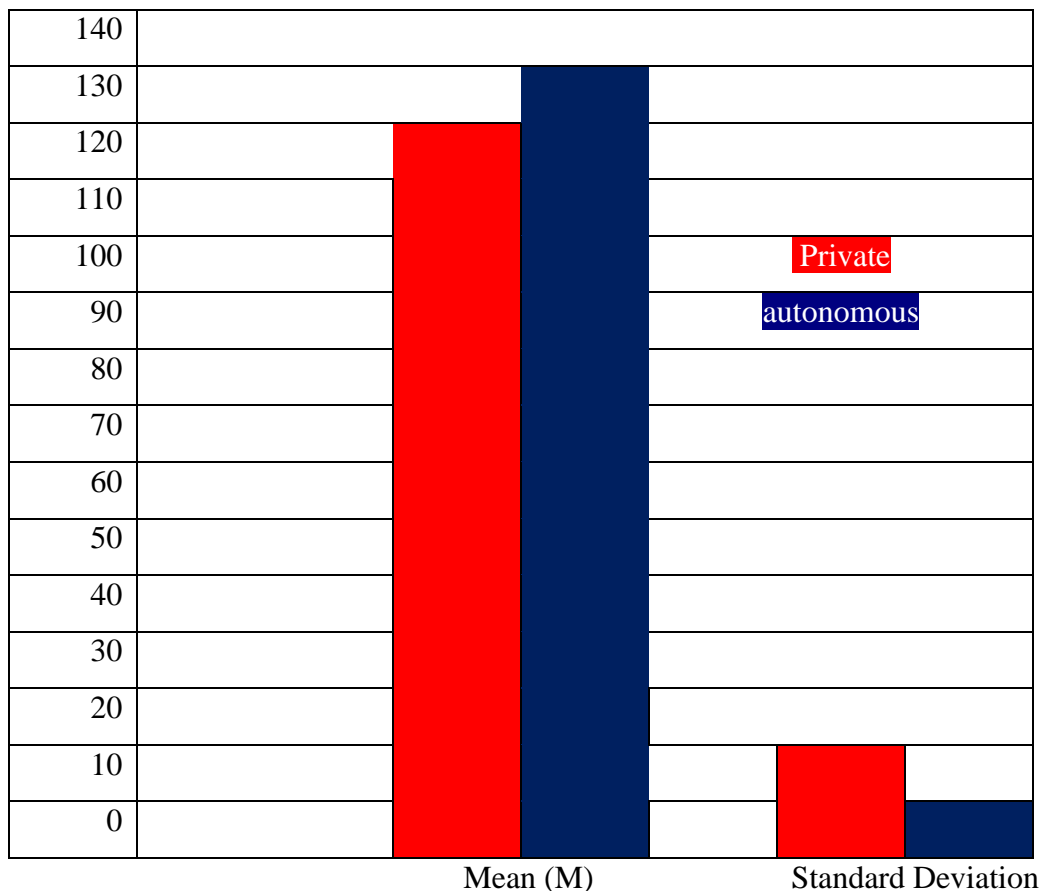
Null Hypothesis

There is no significant difference in the perception of preservice teacher towards e-content with respect to the type of college

Table.1. Differences in Mean, Standard Deviation and *t*-Value for the Perception of Preservice Teacher Perception towards e-Content with respect to the Type of College

Description	SAMPLE Size(n)	Mean	Standard Deviation	t-Value	Significance Level
Private	30	123	14.983	2.23	not significant
autonomous	30	135.63	9.050		level

df=58, t table value = 2.00

Graph 1. Differences in mean and standard deviation for the perception of preservice teachers towards e-content with respect to type of college.

From graph 1 the mean value scores (M=123) obtained for the "perception of preservice teachers of autonomous towards e-content is lesser than the mean value (M=135.63) of the private preservice teachers. The autonomous college of standard deviation (S.D=14.98) is greater than the private standard deviation (S.D=9.050) .The obtained t-value (df=58) is 2.23 is more than the table value $t(58)=2.00$; $p < 0.05$

Therefore, the research hypothesis is accepted and the null hypothesis is rejected

Hence there is a significant difference in the perception of preservice teachers towards e-content with respect to type of college

The above score implies that there is a significant difference in the perception of preservice teacher perception towards e-content with respect to type of college.

H2: Research Hypothesis

There is a significant difference in the perception of pre-service teacher towards e-content with respect to teaching methodology
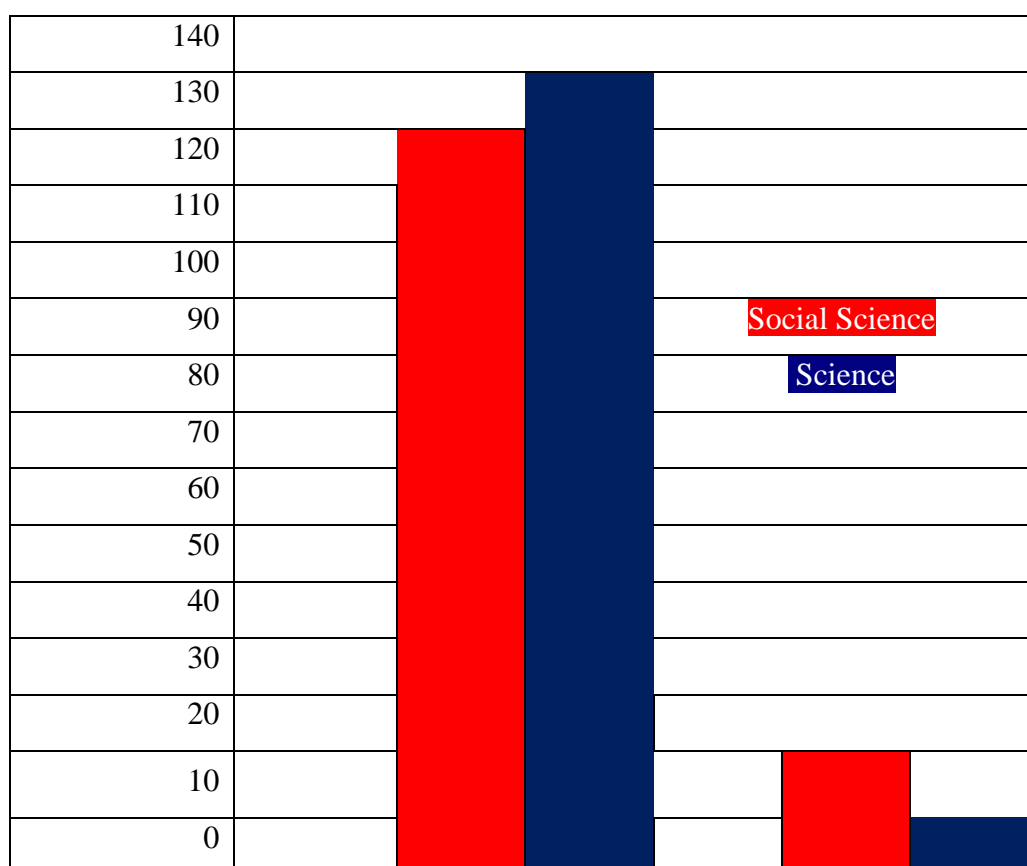
Null Hypothesis

There is no significant difference in the perception of preservice teachers towards e-content with respect to teaching methodology.

Table 2. Differences in Mean, Standard Deviation and *t*-Value for the Perception of Pre-service Teachers towards E-content with Respect to Type of Methodology

Perception Score	N	Mean	Standard Deviation	t-value	Significant level
Social Science	30	125.4	14.933	2.270	Not Significant at 0.05 level
Science	30	133.23	11.584		

df= (58), t table value=2.00

Graph 2. Differences in mean and standard deviation for the perception of preservice teachers towards e-content with respect to type of methodology.

From Graph 2 the mean value scores (m=125.4) obtained for the perception of preservice teachers towards e-content is lesser than the mean value (m=133.23) of the type of methodology. The social science preservice teacher's standard deviation (SD =14.93) is greater t-value (df=58) 2.270 is greater than the standard deviation (S.D=11.58). The obtained t-value (df=58) 2.270 is greater than the table value t (58) =2.00; P>0.05. Therefore, the Research Hypothesis is accepted and the null hypothesis is rejected. Hence there is a significant difference in the perception of preservice teachers towards e-content with respect to type of methodology.

The above score implies that there is a significant difference in the perception of preservice teachers towards e-content with respect to type of methodology.

H3: Research Hypothesis
There is a significant difference in the perception of preservice teacher towards e-content with respect to type of medium
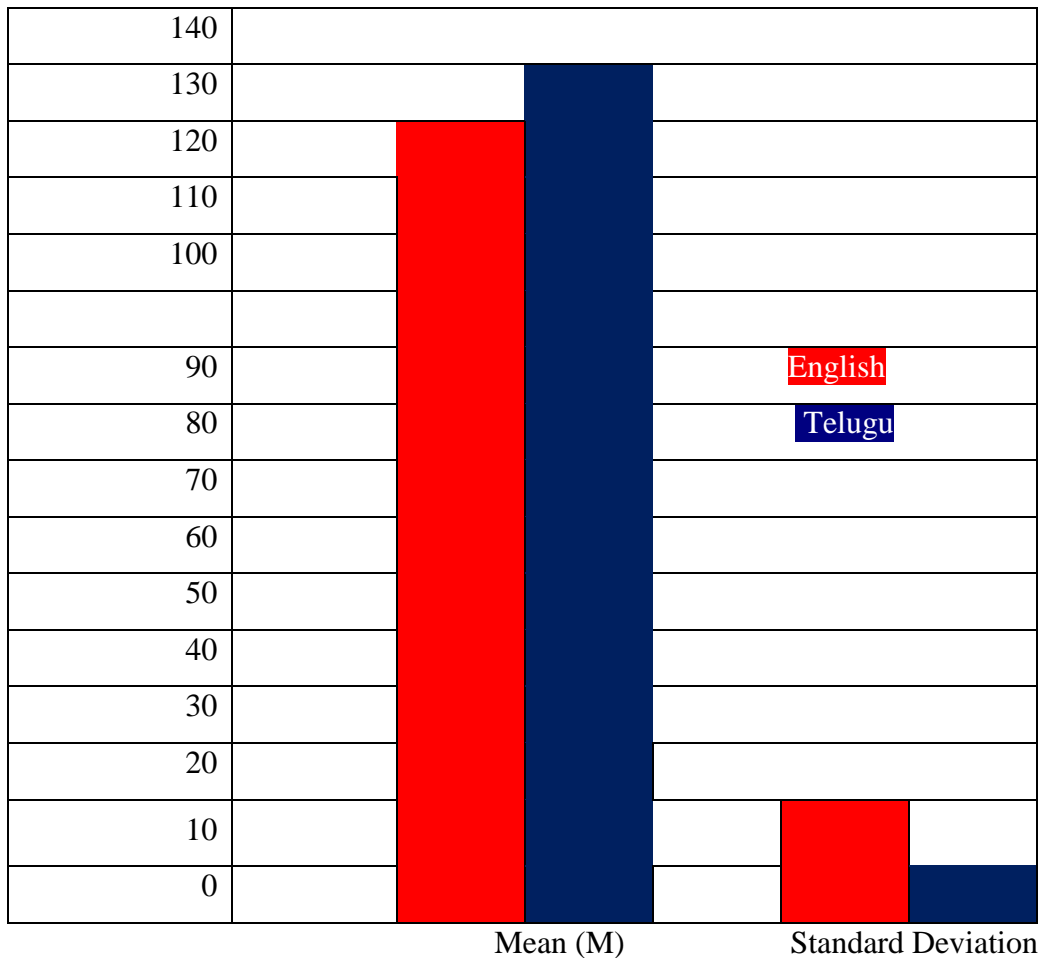
Null Hypothesis
There is no significant difference in the perception of preservice teachers towards e-content with respect to the type of medium

Table 3. Differences in Mean, Standard Deviation and *t*-Value for the Perception of Preservice Teachers towards E-content with Respect to the Type of Medium.

Group Statistics

Teacher Methodology		N	Mean	SD	t-value	Significant level
Perception Score						Not Significant at 0.05 Level
	English	38	124.95	14.182	3.513	
	Telugu	22	136.66	09.408		

df =58, table value=2.00

Graph 3. Differences in mean and standard deviation for the perception of pre-service teacher towards e-content with respect to type of medium.

From graph 3 above, the mean value scores (M=124.95) obtained for the perception of preservice teachers towards e-content with respect towards the type of medium is lesser than that of the Mean value (M=136.66). Standard Deviation for the perception of preservice teacher towards e-content with respect to the type of medium (S. D=14.182) is greater than that of type of medium. The obtained t-value (df=58) 3.513 is more than the table value t (58) =2.00; P>0.05. Therefore, the Research Hypothesis is accepted and the Null Hypothesis is rejected. Hence there is a significant difference in the perception of preservice teacher perception towards e-content with respect to the type of medium. The above score implies that there is a significant difference in the perception of pre-service teachers towards e-content with respect to the type of medium used.

Findings of the Study
- There is a significant difference in the perception of preservice teachers towards social science and science methodology
- There is a significant difference in the perception of preservice teacher's perception towards autonomous and private college
- There is a significant difference in the perception of preservice teacher towards telugu and English medium

Limitations

1. Sample size is small
2. Time is limited
3. It is limited to only Hyderabad district
4. It is limited to only social and science subject teacher's trainees
5. It is limited to a sample of 60 pre-service teacher trainees

Educational Implications

For Teacher: e-content is a very powerful tools of education. It is valuable to the learners and also helpful to teachers of all individual instruction system. It is the latest method of instruction that has attracted more attention to gather with the concept of models with e-content, teachers can generate their own material, incorporate more creativity in classroom teaching.

For Students: Teaching the relevant content can help students develop into engaged, motivated and self-regulated learners. e-content provides time flexibility to the students and it motivates students to their own work without others help. Students can get useful material for their subject content material and they feel comfortable.

Conclusions

E-content is the heart of teaching and learning process, although e-content plays a key role in E-learning, it is undoubtedly not an easy process. It requires expert knowledge in the subject, patience in creating the necessary topics that make up a quality and a high sense of creativity in structuring and expecting the topics to make a complete whole. Pre-service teachers who support and believe in the concept of this e-content can provide information and education students with confidence and a comfortable learning. Hence, the present study is taken to understand the perception of the pre-service towards e-content.

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