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Perceptions of Secondary School Teachers on Classroom Communication and Integration of ICT (Information and Communication Technologies)

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Abstract

The present study attempts to determine perceptions of secondary school teachers on classroom communication and integration of ICT (Information and Communication Technologies) in secondary school classrooms of Sircilla Rajanna district, Telangana, India. This is descriptive research in which 300 teachers were selected through simple random sampling technique in thirty-six selected secondary schools. The data was collected by administering the perception scale analyzed by using descriptive statistics. The results indicate that secondary school teachers' perception on in terms of integration of ICT in classroom communication process is found to be moderate. The female teachers' perceptions were slightly higher than male teacher's perceptions on classroom communication and integration of ICT. The teachers from different teaching subjects are on the same level of their perceptions on classroom communication and integration of ICT and noticed that there is no difference in their level of perceptions.

Key Words: *Secondary School Teachers, Integration of ICT in Classroom Communication and Perceptions.*

Introduction

In 21 st century it is expected to have perceptions on classroom communication and integration of ICT for teachers to deliver the quality education through classrooms. Today because of the advancement of perceptions in the society there are many ICT tools are readily available for the purpose of teaching in secondary school classrooms like audio-videoconferencing, computer-based teaching, Google classrooms, virtual classroom software for online teaching, podcasts (enhancement, fiction, video, live podcasts and podcast novels), smart boards, wiki grade blogs, interactive whiteboards, digital projectors, mobile phones, social media, and digital content. It has become an essential and indispensable aid for classroom communication. It can provide effective and flexible way for improving secondary school teachers training programs and also promotes professional development among secondary school teachers. In present scenario, ICT facilitates not only used for the delivery of lessons but also to implement and assess the teaching and learning process in the classrooms. Integration of ICT devices include computer-based technologies, digital

imaging, the internet, file servers, data storage devices, network infrastructure, desktops, laptops and broadcasting technologies namely radio, television and telephone, which are used as instructional tools by secondary school teachers in secondary classrooms.

Therefore, there is a growing demand on educational institution to integrate ICT perceptions with classroom communication. In this context, the present paper focused on secondary school teacher's perceptions on classroom communication and integration of ICT. In the present study, the researcher used simple random sampling technique while selected 300 secondary school teachers and equally represented sample from "ICT facilities schools" and "non availability ICT facilities schools", the specific objectives of the study is:

1. To study the perceptions of secondary school teachers towards the integration of ICT in classroom communication with respect to gender, age, teaching experience, educational qualifications and subject of teaching, let us considered the following research question is:

2. Perceptions of secondary school teachers have influenced on practice of teaching learning strategy?

Review of Related Literature

Valentina Arkorful, Kwaku Anhwere Barfi (2021) examined "the integration of information and communication technology in teaching in girls' senior high schools in Ghana". The researcher studied on two objectives. The first objective examined "the extent to which the attitude of teachers influences the integration of ICT in teaching" and the second objective examined "the gender differences in the integration of ICT in senior high schools". A descriptive survey design and quantitative approach were adopted for the study. The findings revealed that teachers' attitude had a significant positive relationship with ICT integration and concluded that there was no significant difference in gender acceptance of ICT integration in teaching.

Mailizar, Mailizar; Fan, Lianghuo (2020) investigated on "Indonesian Teachers' Knowledge of ICT and the Use of ICT in Secondary Mathematics Teaching". The study employed a quantitative method with a cross-sectional survey approach. It was conducted in one of Indonesia's provinces where the data were collected from 341 secondary mathematics teachers through a questionnaire survey. The researcher found that, "to a large extent, Indonesian secondary mathematics teachers have a largely inadequate knowledge of ICT and knowledge of ICT use in teaching".

Abdullah Alenezi (2019) studied on "a teacher's perspective of ICT integration in Saudi Secondary Schools", the researcher found that the experienced teachers have to reconsider their ICT-related efforts in the context of less access to limited ICT tools since it is mandatory for all teaching staff to use ICT tools from time to time. Those schools are not properly funded to satisfy teachers' needs for ICT tools. The collected data have indicated that mandatory uses of ICT impede further development toward widespread ICT integration because

both administrators and teachers rely on further instructions and fail to implement collectively developed initiatives in each school setting.

Kibinkiri Eric Len (2018) investigated on "classroom communication techniques: a tool for pupils' participation in the learning process across the curriculum". The researcher's overall analysis of observation and interview on classroom communication techniques and pupils' participation in the learning process results have shown that teachers use a lot of non-verbal communication behaviours' in their classrooms, written communication, and verbal communication respectively.

Methodology

The descriptive survey methodology was adopted in this study and the population for the study consisted of all schools with ICT facilities and non-schools with ICT facilities secondary schools in who are working teachers from Rajanna Sircilla district, Telangan state, whereas the sample was drawn from the thirty-six randomly selected secondary schools with ICT facilities and non-schools with ICT facilities government schools. In this study, the researcher used simple random sampling technique and selected 300 respondents comprising of 150 secondary school teachers from schools with ICT facilities and 150 secondary school teachers from non-schools with ICT facilities teachers.

The research instrument used for collection of data was "perceptions rating scale" on classroom communication and integration of ICT, which have four dimensions, dimension 1 was on productivity ICT tools, which contains 10 items, dimension 2 was on online communication and collaboration, which contains 10 items, dimension 3 was on the usage of ICT applications, which contains 15 items and dimension 4 was on ICT infrastructure, which contains 15 items each generated to answer the research question of the study. The reliability and validity of the study was measured through "Cronbach's alpha" was adopted and the 0.951 was obtained. The data was analyzed by using "descriptive statistics" such as "percentage", "mean", "standard deviation" and "inferential statistics like t-Test and F ratio" was also used to draw the results.

Results

The objective 1, the results on teachers' perceptions on classroom communication and integration of ICT on different demographic variables are addressed.

Table 1: Comparison of Mean Scores of Teachers' Perceptions on Classroom Communication and Integration of ICT (Gender Wise)

Gender	N	Mean	SD	95% Confidence Interval for Mean		
Male	193	172.36	31.785	168.11	To	176.45
Female	107	168.35	31.545	161.43	To	174.49
Total	**300**	**170.93**	**31.706**	**25.77**	**To**	**27.40**

Note: N (No. of Respondents), SD (Standard Deviation)

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Table 1 reveals the scores of male and female teachers' perceptions on classroom communication and integration of ICT. The total sample mean of teachers' perceptions was 170.93 with SD 31.706, which is also within the limits of 95 percent confidence interval. The obtained mean scores of male teachers were 172.36 with SD 31.785 and female teachers were 168.35 with SD 31.545, this shows that the male teachers mean score was slightly higher than the perceptions of female teachers.

Therefore, it can be considered that "the mean scores of male teachers' perceptions were slightly higher (172.36) than female teachers (25.168) perceptions on classroom communication and integration of ICT".

Table 2: Levels of Teachers' Perceptions on Classroom Communication and Integration of ICT (Gender Wise)

Gender	**High**	**Moderate**	**Low**	**Total**
Male	65 (21.7%)	105 (35%)	23 (7.7%)	193 (64.3%)
Female	33 (11%)	61 (35%)	13 (4.3%)	107 (35.7%)
Total	**98 (32.7%)**	**166 (55.3%)**	**36 (12%)**	**300 (100%)**

Table 2 reveals that the perceptions' levels of "male" and "female" teachers' usage on the integration of ICT and classroom communication. It shows that out of 300 teachers the majority (166, 55.3%) of teachers has moderate perceptions on classroom communication and integration of ICT, followed by (98, 32.7%) of teachers having a high level of perception and (36, 12%) teachers have low-level perceptions. It is also indicated in the table that the majority (105, 35%) of male teachers were having moderate level perceptions, followed by (65, 21.7%) male teachers and (23, 7.7%) male teachers were having low-level perceptions usage on the integration of ICT and classroom communication. Whereas (65, 21.7%) male teachers and (33, 11%) female teachers were high-level perceptions usage on the integration of ICT and classroom communication.

So, it may be concluded that the majority of male teachers (105, 35%) were having moderate level perceptions, followed by (65, 21.7%) male teachers were in high-level perceptions and (61, 35%) of female teachers were in moderate level perceptions on classroom communication and integration of ICT.

Further to examine whether there are any significant differences in teachers' perceptions among male and female teachers. The data were subjected to the "Independent Sample t-Test".

Table 3: Independent Sample T-Test

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Teachers' Perceptions on Classroom Communication and Integration of ICT (Gender Wise)

Source of Variation	**Levene's Test for Equality of Variances**		**t-Test for Equality of Means**		
	F	Sig	t	df	Sig. (2-tailed)
Equal Variances Assumed	.530	.467*	1.050	298	.294
Equal variances not assumed			1.053	220.368	.294

*Not significant at 0.05 levels

The result of the "Independent Samples Test" in Table 3 declares that there is no significant differences between male and female teachers' perceptions on classroom communication and integration of ICT at 0.05 levels (t=.1.050, p>0.05). It means male and female teachers do not differ significantly in terms of their perceptions on classroom communication and integration of ICT; entire male and female teachers who are participated in the study seem to have the same level of perceptions usage on the integration of ICT and classroom communication.

Therefore, it can be concluded that gender has no significant influence on teachers' perceptions of classroom communication and integration of ICT. These findings confirm the research question of the study, which states those male and female teachers' perceptions, will influence the practice of teaching-learning strategies on the integration of ICT and classroom communication.

Table 4: Comparison of Mean Scores of Teachers' Perceptions on Classroom Communication and Integration of ICT Working in Schools with ICT Facilities and Non-ICT Facilities (Age Wise)

Age Group	**N**	**Mean**	**SD**	**95% Confidence Interval for Mean**
22-30 Years	2	184	9.899	95.05 To 272.94
31-40 Years	57	178.63	28.198	171.14 To 186.11
41-50 Years	133	171.02	30.635	165.76 To 176.22
51-58 Years	108	166.52	34.349	159.97 To 173.08
Total	**300**	**170.93**	**31.706**	**167.33 To 174.53**

Note: N (No. of Respondents), SD (Standard Deviation)

Table 4 reveals that the comparison of mean scores of teachers' perceptions belonging to different age groups. It shows that the total mean score of secondary school teachers' perceptions is 170.93 with SD 31.706, which is also within the 95 percent confidence interval. The mean score (184 with SD 9.899) of 22-30 age group was slightly higher when compared to other age categories in the study, the mean score of 31-40 age group was 178.63 with SD 28.198 and mean scores of 41-50 age groups were 171.02 with SD 30.635. Whereas the mean score of teachers' perceptions of 51-58 years age group was found slightly lower 166.52 with SD 34.39 when compared to other age groups.

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On the whole, it was found that the mean scores of the teachers' perceptions between the age of 22-30 years have slightly more than the other age groups because the perceptions of teachers mean score of this group more elevated (184) than the rest of other age categories, i.e.31-40 years, 41-50 years and 51-58 years (Mean: 178.63.00, 171.02, and 166.52) respectively.

Table 5: Level of Teachers' Perceptions on Classroom Communication and integration of ICT (Age Wise)

Age Group	**High**	**Moderate**	**Low**	**Total**
22-30 Years	1(0.3%)	1(0.3%)	00	2(0.7%)
31-40 Years	21 (7%)	33(11%)	3(1%)	57(19%)
41-50 Years	40 (13.3%)	77 (25.7%)	16(5.3%)	133(44.3%)
51-58 Years	36 (12%)	55(18.3%)	17(5.7%)	108(36%)
Total	**98(32.7%)**	**166(55.3%)**	**36(12%)**	**300 (100%)**

Table 5 reveals the perceptions levels of teachers on classroom communication and integration of ICT from different age groups. It shows that out of 300 teachers the majority (166, 55.3%) of teachers have moderate level perceptions on classroom communication and integration of ICT, followed by (98, 32.7%) of teachers having the high perceptions and (36, 12%) teachers have low perceptions. It is also indicated in the table that the majority of teachers (77, 25.7%) from 41-50 years age group were having moderate level perceptions, followed by (40, 13.3%) from 41-50 years age group teachers were high-level perceptions and (17, 5.7%) from same age group teachers were low-level perceptions.

So, it may be concluded that the majority of teachers (77, 25.7%) from 41-50 years age group were having moderate level perceptions, followed by (40, 13.3%) high-level perceptions and (17, 5.7%) from the same age group were having low-level perceptions on classroom communication and integration of ICT when compare to other three age group teachers .i.e.22-30. 31-40, 51-58 years.

Furthermore, to investigate whichever here is any significant difference among teachers coming from different age group perceptions, the data were constrained to "One-way Analysis of Variance (ANOVA)".

Table 6: Analysis Of Variance

Teachers' Perceptions on Classroom Communication and Integration of ICT (Age Wise)

Source of Variation	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	5816.685	3	1938.895	1.947	.122*
Within Groups	294763.112	296	995.821		
Total	**300579.797**	**299**			

*Not significant at 0.05 levels

The findings of ANOVA in Table 6 reveal that the F value (1.947) is found to be insignificant at 0.05 levels ($F=1.947$, $p > 0.05$); this clarifies that there is no significant difference among unequal age groups. Teachers

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from different age group of teachers do not differ significantly in the opinion of their perceptions on classroom communication and integration of ICT; all the teachers seem to have the same level of perceptions.

Therefore, it can be concluded that "the age has no significant influence on teachers' perceptions on classroom communication and integration of ICT". The result of this study confirms the research question of the study, which states that teachers from different age groups will not differ on their perceptions on the practice of teaching-learning strategies on classroom communication and integration of ICT.

Table 7: Comparison of Mean Scores of Teachers' Perceptions on Classroom Communication and Integration of ICT Working in Schools with ICT Facilities and Non-ICT Facilities (Teaching Experience Wise)

Years of Teaching Experience	**N**	**Mean**	**SD**	**95% Confidence Interval for Mean**
Up to 10 Yrs	21	172.23	30.925	158.16 To 186.31
11-20 Yrs	141	172.03	31.169	166.84 To 177.22
21-30 Yrs	128	169.64	32.598	163.94 To 175.35
31-35 Yrs	10	169.20	33.379	145.32 To 193.07
Total	**300**	**170.93**	**31.70**	**167.33 To 174.53**

Table 7 reveals that the comparison of mean scores of perceptions of teachers having experience in varied. It indicates that the exhaustive mean scores of perceptions of teachers 170.93 with SD 31.70 which is also within the 95 confidence intervals. The mean scores (172.23 with SD 30.925) of teachers having experience up to 10 years were above when compared to other experience teachers, followed by teaching experience i.e., 11-20 and teachers' perceptions score having 21-30 was 172.03 with SD 31.169, 169.64 with SD 32.598 respectively, whereas the mean scores of 31-35 years of teaching experience teachers were found lower 169.20 with SD 33.379 when compared with other experience group respondents in the study.

On the whole, it was found that the mean score of the teachers of up to 10 years of teaching experience was higher (172.23 and SD 30.925) when compared among the four group teachers i.e., 11-20 years, 21-30 years, and 31-35 years (172.03, 169.64, 169.20) respectively.

Table 8: Level of Teachers' Perceptions on Classroom Communication and Integration of ICT (Teaching Experience Wise)

Teaching Experience	**High**	**Moderate**	**Low**	**Total**
Upto 10 Years	6 (2%)	13 (4.3%)	2 (.7%)	21 (7%)
11-20 Years	48 (16%)	78 (26%)	15 (5%)	141 (47%)
21-30 Years	39 (13%)	71 (23.7%)	18 (6%)	128 (42.7%)
31-35 Years	5 (1.7%)	4 (1.3%)	1 (.3%)	10 (3.3%)
Total	**98 (32.7%)**	**166 (55.3%)**	**36 (12%)**	**300 (100%)**

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Table 8 reveals the perception level of teachers on classroom communication and integration of ICT from different years of teaching experience. It shows that out of 300 teachers the majority (166, 55.3%) of teachers has a moderate level of perception on classroom communication and integration of ICT, followed by (98, 32.7%) of teachers having the high-level perception and (36, 12%) teachers have low-level perception. It is also shown in the table that the majority of teachers (78, 26%) from teaching experience i.e., 11-20 years were having a moderate level of perceptions, followed by (48, 16%) teachers from the same years of teaching experience were high level of perception and (18, 6%) majority of the teachers from 21-30 years of teaching experience were having low-level of perception about the integration of ICT in classroom communication.

So, it may be concluded that the majority of teachers (76, 28%) from 11-20 years of teaching experience were having a moderate level of perception, followed by (48, 16%) of teachers from the same years of teaching experience teachers were high level of perceptions and (18, 6%) from 21-30 years of teaching experience were having low levels of perceptions on the integration of ICT in classroom communication.

Further to probe whether there is any significant difference in perceptions of teachers having various years of teaching experience among them, the data were subjected to "One-way Analysis of Variance (ANOVA)".

Table 9: Analysis of Variance

Teachers' Perception Scores on Classroom Communication and Integration of ICT (Teaching Experience Wise)

Source of Variation	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	448.385	3	149.462	0.147	0.931*
Within Groups	300131.412	296	1013.957		
Total	**300578.797**	**299**			

*Not significant at 0.05 levels

The result of ANOVA classifies that the F value (0.147) was found to be insignificant at 0.05 levels (F=.147, p>0.05); this confirms that there is no significant difference among teaching experience of the teachers perceptions on integration of ICT in classroom communication. Having various teaching experience teachers have do not differ significantly in terms of their perceptions on the integration of ICT in classroom communication; entire, the teachers seem to have the same level of perceptions towards the ICT integration into classroom communication.

Therefore, it can be concluded that teaching experience having teachers have not significant influence on perception of teacher on integration of ICT in classroom communication. The result of this study confirms the research question of the study, which states that teachers having different years of teaching experience will not differ on their perception towards integration of ICT in classroom communication.

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Table 10: Comparison of Mean Scores of Teachers' Perceptions on Classroom Communication and Integration of ICT Working in Schools with ICT Facilities and Non-ICT Facilities (Educational Qualification Wise)

Educational Qualifications	**N**	**Mean**	**SD**	**95% Confidence Interval for Mean**
Graduation with B. Ed	66	162.71	30.617	155.18 To 170.23
PG with B. Ed	212	172.43	32.37	168.05 To 176.82
PG with M. Ed	22	181.13	23.13	170.87 To 191.39
Total	**300**	**170.93**	**31.70**	**167.33 To 174.53**

Note: N (No. of Respondents), SD (Standard Deviation)

Table 10 presents the mean scores of teachers' perceptions on classroom communication and integration of ICT having different educational qualifications. The total sample mean of teachers' perception is 170.93 with SD 31.70 which is also within the 95% confidence intervals. The obtained mean scores among teachers having PG with M. Ed educational qualification were higher (181.13 and SD 23.13) when compared to other educational qualification categories of teachers in the study. Followed by PG with B. Ed educational qualification teachers mean score is 172.43 with SD 32.37 and the mean score of teachers' educational qualification having Graduation with B. Ed is 162.71 with SD 30.617. Whereas the mean score of teachers' perceptions on educational qualification Graduation with B. Ed teachers was found lower 162.71 with SD 30.617 when compared to other educational qualification categories teachers.

On the whole, it was found that the mean scores of the teachers having PG with M. Ed educational qualification were higher (181.13 and SD 23.13) when compared among different educational qualification categories of teachers i.e., Graduation with B. Ed and PG with B. Ed educational qualification (Mean 162.71 with SD 30.617, 172.43 with SD 32.37) respectively.

Table 11: Level of Teachers' Perceptions on Classroom Communication and Integration of ICT (Educational Qualification Wise)

Educational Qualification	**High**	**Moderate**	**Low**	**Total**
Graduation with B. Ed	12 (4%)	44 (14.7%)	10 (3.3%)	66 (22%)
PG with B. Ed	73 (24.3%)	114 (38%)	25 (8.3%)	212 (70.7%)
PG with M. Ed	13(4.3%)	8 (2.7%)	1 (0.3%)	22 (7.3%)
Total	**98 (32.7%)**	**166 (55.3%)**	**36 (12%)**	**300 (100%)**

Table 11 reveals the perceptions of teachers having different educational qualifications on classroom communication and integration of ICT. Of the 300 teachers, the majority (1666, 55.3%) of teachers have moderate perceptions, followed by (98, 32.7%) of teachers having high perceptions and (36, 12.7%) teachers having low perceptions. The majority of teachers (114, 38%) from PG with B. Ed educational qualification were having moderate perceptions followed by (72, 24.3%) teachers from same educational qualification were

high perceptions and (25, 8.3%) also the same educational qualifications were having high perceptions. Few of the teachers (1, 0.3%) having PG with M. Ed educational qualification were low perceptions, and the teachers (8, 2.7%) having PG with M. Ed educational qualification were having moderate perceptions.

So, it may be concluded that the majority of teachers (114, 38%) from PG with B. Ed educational qualification were having moderate perceptions, followed by (72, 24.3%) teachers from same educational qualification were high perceptions and (25, 8.3%) also the same educational qualification were having low perceptions on classroom communication and integration of ICT when compare to other two categories i.e. graduation with B. Ed and PG with M. Ed educational qualification.

Further to examine whether there is any significant difference among teachers having different educational qualifications in perceptions, the data were subjected to "One-way Analysis of Variance (ANOVA)".

Table 12: Analysis of Variance

Teachers' Perceptions Scores on Classroom Communication and Integration of ICT (Educational Qualifications)

Source of Variation	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	7231.473	2	3615.736	3.661	.027*
Within Groups	293348.324	297	987.705		
Total	**300579.797**	**299**			

*Not significance at 0.05 levels

The result of ANOVA in Table 12 reveals that the F value (3.661) is found to be insignificant at 0.05 levels ($F=3.661$, $p>0.05$); this data indicates that there is no significant difference among other educational qualifications having perceptions of teachers. It means teachers having different educational qualifications do not influence significantly in terms of their perceptions on the integration of ICT in classroom communication; all the teachers who involved in the study seem to have the same level of perceptions on the practice of teaching-learning strategies.

Therefore, it can be concluded that educational qualification has no significant influence on teachers' perceptions on classroom communication and integration of ICT. The result of this study confirms the research question of the study, which states that teachers having different educational qualifications will not affect their perceptions on ICT integration in classroom communication.

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Table 13: Comparison of Mean Scores of Teachers' Perceptions on Classroom Communication and Integration of ICT Working in Schools with ICT Facilities and Non-ICT Facilities (Teaching Subject Wise)

Teaching Subject	N	Mean	SD	95% Confidence Interval for Mean
Mathematics	64	172.73	31.319	164.91 To 180.55
Physical Science	36	176.80	27.076	167.64 To 185.96
Biological Science	48	163.66	31.200	154.60 To 172.72
Social Studies	40	176.60	26.880	168 To 185.19
English	40	176.97	37.323	165.03 To 188.91
Telugu	42	167.28	32.817	157.05 To 177.51
Hindi	30	161.20	32.470	149.07 To 173. 32
Total	**300**	**170.93**	**31.706**	**167.33 To 174.53**

Note: N (No. of Respondents), SD (Standard Deviation)

Table 13 presents the mean scores of teachers' perceptions of having different subject teachers. It indicates that the total sample mean scores of teachers' perception are 170.93 with SD 31.706 which is also within the 95 percent confidence intervals. The obtained mean scores of English teachers were higher (176.97 with SD 37.323) when compared to other subject teachers in the study, followed by mean scores of Hindi teachers were lower (161.20 with SD 32.470) when compared to other subject teachers. Whereas the mean score of Hindi teachers was found lower 161.20 with SD 32.470 when compared to other teaching subject teachers.

On the whole, it was found that the English teaching subject teachers mean scores were higher (176.97 with SD 37.323) when compared among different teaching subject teachers i.e., Physical Science, Social Studies, Mathematics, Telugu, Biological Science and Hindi teachers (Mean176.80 with SD 26.880, 176.60 with SD 26.880, 172.73 with SD 31.319, 167.28 with SD 32.817, 163.66 with SD 31.200 and 161.20 with SD 32.470) respectively.

Table 14: Level of Teachers' Perceptions on Classroom Communication and integration of ICT (Teaching Subject Wise)

Teaching Subject	High	Moderate	Low	Total
Mathematics	26(8.7%)	31(10.3%)	7 (2.3%)	64 (21.3%)
Physical Science	13 4.3%)	20 (6.7%)	3(1%)	36 (12%)
Biological Science	13(4.3%)	26 (8.7%)	9 (3%)	48 (16%)
Social Studies	15 (5%)	23 (7.7%)	2 (0.7%)	40 (13.3%)
English	16 (5.3%)	20 (6.7%)	4 (1.3%)	40 (13.3%)
Telugu	8 (2.7%)	29 (9.7%)	5 (1.7%)	42 (14%)
Hindi	7 (2.3%)	17 (5.7%)	6 (2%)	30 (10%)
Total	**98 (32.7%)**	**166 (55.3%)**	**36 (12%)**	**300 (100%)**

Table 14 reveals the perceptions of teachers having different teaching subjects on classroom communication and integration of ICT. Of the 300 teachers, the majority (166, 55.3%) of teachers have moderate perceptions, followed by (98, 32.7%) of teachers having the high and (36, 12%) of teachers having low. The majority of mathematics teaching subject teachers (31, 10.3%) were having moderate, followed by (26, 8.7%)

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Mathematics teaching subject teachers were high and (3, 1%) Physical Science teaching subject teachers were having low perceptions on classroom communication and integration of ICT.

So, it may be concluded that the majority of teachers (31, 10.3%) from Mathematics teaching subject teachers were having moderate perceptions followed by (26, 8.7%) teachers from Mathematics were high perceptions and (3, 1%) Physical Science teaching subject teachers were having low perceptions on classroom communication and integration of ICT when compared to other teaching subject teachers i.e. graduation with B. Ed and PG with M. Ed educational qualification.

Further to examine whether there is any significant difference among teachers having different teaching subject teachers in perceptions, the data were subjected to "One-way Analysis of Variance (ANOVA)".

Table 15: Analysis of Variance

Teachers' Perceptions Scores on Classroom Communication and Integration of ICT (Teaching Subject)

Source of Variation	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	10129.060	6	1688.177	1.703	.120*
Within Groups	290450.736	293	991.299		
Total	**300579.797**	**299**			

*Not significant at 0.05 levels

The result of ANOVA in Table 15 reveals that the F value (1.703) is found to be insignificant at 0.05 levels (F=1.703, p>.120; this survey indicates that there is no significant difference among teachers in perceptions on classroom communication and integration of ICT on different teaching subject teachers. It means different subjects teaching teachers do not influence significantly in terms of their perceptions on classroom communication and integration of ICT; all the teaching subject teachers who participated in the study seem to have the same level of perceptions.

Therefore, it can be concluded that different teaching subject teachers have no significant influence on teachers' perceptions of classroom communication and integration of ICT. The result of this study confirms the research question of the study, which states that teachers having different teaching subject teachers will not influence their perceptions on the practice of teaching-learning strategies of integration of ICT in classroom communication.

Conclusion

The teachers' perceptions mean scores was slightly higher (172.36) than female teachers (168.35) perceptions on classroom communication and ICT integration in secondary classrooms. The majority of male teachers (35%) were having a moderate level of perceptions. The observed differences in perceptions means scores of male and female teachers were found statistically insignificant. Male and female teachers have do not differ

significantly in terms of their perceptions. In this study gender has no significant influence on teachers' perceptions; both “male” and “female” teachers who participated in the study seem to have the same level of perceptions. The results of this study confirm the research question of the study, which states that perceptions of male and female teachers have influenced the practice of teaching-learning strategies on classroom communication and integration of ICT. Understudy, supported with (Ahiatrogh & Adane, 2011) male and younger teachers were more curious and interested in the usage and application of ICT in teaching and learning on other hand, the female and older teachers showed less interest in the usage and application of ICT in education.

The perceptions mean score of teachers between the age of i.e., 22-30 has slightly higher than the other age groups because of the perceptions mean score of this group of teachers was slightly higher (184) than the rest of the other age categories. The majority of teachers (23.3%) from 41-50 years age group were having moderate perceptions about classroom communication and integration of ICT when compared to other age group teachers. Although, the observed differences in perceptions mean scores of teachers who participated in the study from otherwise age groups were found statistically insignificant; teachers from various age groups do not differ significantly in because of the fact that their perceptions on classroom communication. Age has no significant influence on teachers' perceptions towards integration of ICT and classroom communication; all the selected teachers in the study seem to have the same level of perceptions on practice of teaching learning strategies. The result of this study confirms the research question of the study, which states that teachers from different age groups will not differ on their perceptions towards the integration of ICT in classroom communication.

The perceptions mean score of the teachers are having experience up to 10 years were higher (172.23) when contrary to other teaching experience teachers in the current study. The majority of teachers (76, 28%) teaching experience i.e., 11-20 years were having a moderate level of perceptions in practice of integration of ICT and classroom communication. On the other hand, the perceptions mean score of the teachers having experience is up to 10 years were higher than the other teaching experience teachers in the study. More specifically Fanai and Chhangate (2016) search out those teachers who have more experience in teaching their attitude is positive Msila (2015) identified that “the younger teachers were more tolerant of the changes than their older counterparts who found the introduction of ICT daunting, the study's conclusions illustrate that the success of digital technology in classrooms will depend more on teacher competence as well as positive attitudes towards ICT”. Yet, the observed differences in perceptions means scores of teachers who participated in the study from various teaching experiences of teachers were found statistically insignificant, teachers from different teaching experiences of teachers do not differ significantly in terms of their perceptions influenced towards practice of modern teaching learning strategies into classroom communication. The different teaching

experiences of teachers do not significantly influenced of teachers' perceptions; all the selected teachers in the study seem to have the same level of perceptions on practice of teaching learning strategies. The result of this study confirms the research question of the study, which states that teachers from different teaching experiences of teachers will not differ on their perceptions towards practicing modern teaching learning strategies.

The perceptions mean scores having PG with M. Ed educational qualification teachers were higher (181.13 and SD 23.13) when compared to other educational qualification categories of teachers in the study. The majority of teachers (114, 38%) having moderate level perceptions towards teaching learning strategies. From another point of view, the perceptions mean scores of teachers having educational qualifications (PG with M. Ed) were higher than the other educational qualifications having teachers in the study.

Yet, the observed differences in perceptions means scores of teachers who participated in the study from different educational qualifications of teachers were found statistically insignificant, teachers from i.e., different educational qualifications having teachers do not differ significantly in terms of their perceptions on classroom communication and integration of ICT. Different educational qualifications having teachers are not significant influence on perceptions of teachers towards practicing modern teaching learning strategies; completely selected samples in the study seem to have the same level of perceptions on classroom communication and integration of ICT. The result of this study confirms the research question of the study, which states that teachers having from different educational qualifications of teachers will not differ on their perceptions towards integration of ICT in classroom communication.

The English teaching subject teachers perceptions mean scores were higher (176.77) when compared to other teaching subject teachers in this study. The mean scores of English teaching subject teachers were higher (176.97) than other teaching subject teachers' perceptions on classroom communication and integration of ICT in secondary school classrooms. Although, the observed differences in perceptions of teachers' mean scores in the study from different teaching subject teachers found statistically insignificant, samples from different teaching subject teachers do not differ significantly in terms of their perceptions on classroom communication and integration of ICT at secondary teaching learning process. Various teaching subject teachers have no significant influence on teachers' perceptions towards classroom communication and integration of ICT; all the selected teachers in the study seem to have the same level of perceptions on classroom communication and integration of ICT. The result of this study confirms the research question of the study, which states that teachers from different teaching subjects will not differ on their perceptions towards integration of ICT in classroom communication.

Teachers' perceptions on classroom communication and integration of ICT; both male and female teachers who participated in the study seem to have the same level of perceptions. The study infers that teachers from

different age groups do not have influence on their perceptions towards the integration of ICT in classroom communication. The teachers working in schools with ICT facilities are having better perceptions on classroom communication and integration of ICT irrespective of their teaching subject teachers are slightly better perceptions when compared to other subject's teaching teachers.

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