

Analysis of Figurative Language Comprehension in School Going Adolescents

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Introduction

‘To read between the lines’ is the ability to understand the inner or underlying meaning of a sentence apart from the literal meaning. Figurative language, as the name implies provides a possibility to imagine and come up with a new meaning for the statement that is not directly stated. It provides a ground to utilise the inferential abilities of a person and is considered to be a meta-linguistic process. Although figurative language comprehension can be found among children, this comprehension gets progressively more sophisticated during childhood, adolescence and adulthood, (Nippold, 1988). Adolescent period is considered to be important in development of figurative language. The students come across figurative expressions in their textbooks and classrooms, though the usage of such expressions is limited in outdoor social situations, Kerbel & Grunwell (1997).

The modalities chosen for teaching the children also plays a major role in the comprehension of linguistic aspects as teachers use both the modalities interchangeably inside the classroom setup. In auditory modality the prosodic factors like inflection and punctuations like comma play an important role in figurative language comprehension. Comma and the prosodic break disambiguate the ambiguous sentences before the critical lexical element, despite the fact that clear evidence is only found in the auditory modality. Comma and prosodic break thus have parallel functions in both the modalities respectively (Kerkhofs, 2008). Though it is believed in general that the syllabus followed in schools has got nothing to do with the academic performance of a student, the syllabus followed by the students determines their language abilities to an extent. In India, the two major syllabus in schools are Central Board of Secondary Education (CBSE) and State syllabus undertaken by Central and State Governments with CBSE syllabus to have set higher standards in English language practiced as a part of their curriculum.

Objectives

- To investigate the age and gender difference in performance on reading and auditory verbal comprehension of figurative language comprehension in adolescents.
- To compare the performance on reading and auditory verbal comprehension of figurative language of adolescent students following CBSE and State syllabus.
- To compare the performance on reading and auditory verbal comprehension of figurative language of adolescents.
- To compare the performance on reading and auditory verbal comprehension of figurative language of adolescent students with above and below average academic performance.

Method

Participants

The total numbers of participants selected for the study were 120 (G) school going adolescents between the age group 10-16 years.

- ✓ Adolescent students attending English medium schooling since lower primary classes of the specified age range were included for the study.
- ✓ Individuals who are mentally or physically challenged (sensory loss, motor deficits) and individuals with language learning disability are excluded from the study.

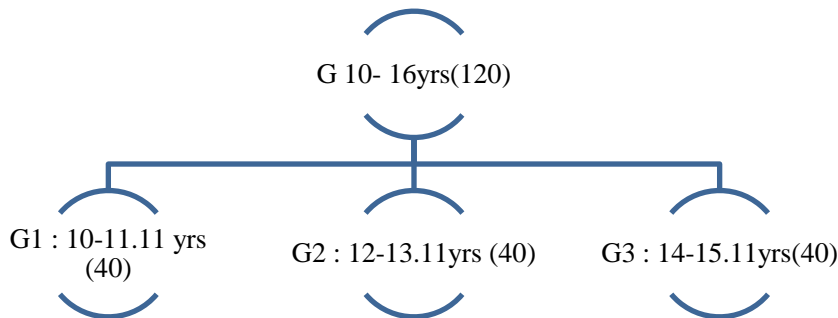


FIGURE 1: Grouping the subjects on the basis of age

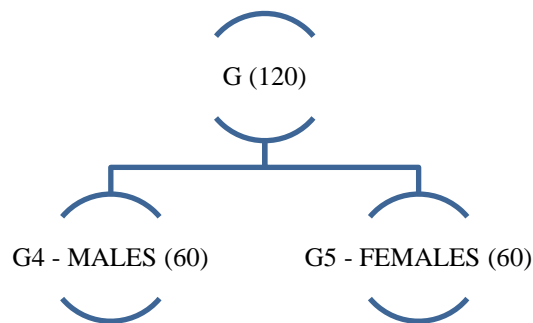


FIGURE 2: Grouping the students on the basis of gender

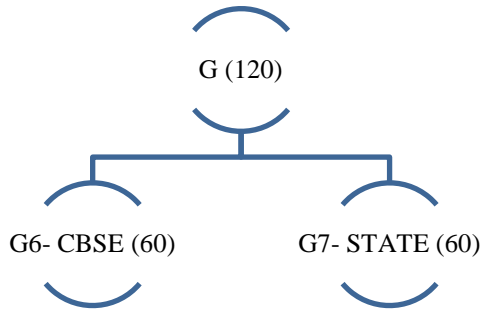


FIGURE 3: Grouping the students on the basis of syllabus followed in school.

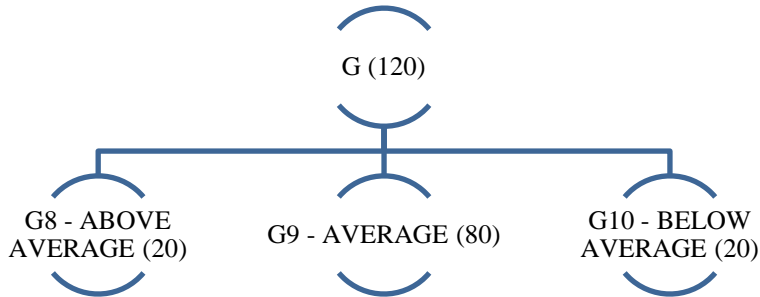


FIGURE 4: Grouping of students of three age groups on the basis of academic performance.

The same classifications had been followed when administering the test material in both auditory and visual modalities.

Materials

- Grade level assessment checklist
- Language Experience and Proficiency- Questionnaire (LEAP-Q).
- Standardised test material, Manipal Manual of Adolescent Language Assessment

Phase 1: Development and validation of Grade level assessment checklist

A grade level assessment checklist consists of 2 parts, Part A and Part B, which was developed for the study. Part A included demographic data regarding age/gender, grade, school name and Syllabus followed (CBSE/ Kerala STATE syllabus), general health and associated health conditions, sensory and motor developmental issues, hearing loss, misarticulations, language disabilities, learning disabilities, dysfluencies. Part B addresses academic performance based ratings: A 3 point rating scale (0-2) is used for scoring with a total score of 60. Above average performance for each task will be scored as 2, average performance for each task scored as 1, and below average performance for each task will be scored as 0. Students obtaining a total

score between 60-40 are categorised as above average academic performers, students obtaining a total score between 40-20 are categorised as average academic performers, students obtaining a total score below 20 are categorised as below average academic performers.

Phase 2: Administration of the developed checklist for grouping the subjects into above and below average scholastic performance and administration of Language Experience and Proficiency- Questionnaire (LEAP-Q).

LEAP-Q and Grade Level Assessment Checklist were given to randomly selected participants of grade 5th to 10th. LEAP-Q was used to screen and select the students who were proficient in English language. The Grade level Assessment Checklist were given to the respective class teachers to assess their students' general academic performance. The student's yearly progress reports along with teacher's feedback about their general academic performance were also taken. Based on the results after administering LEAP-Q and the Grade Level Assessment Checklist, the total sample size selected for the study were 120 (G= 120). According to the scores obtained, the participants were grouped into G8 and G9 and G10. Group G8 (N=20) consisted of participants who obtained highest scores and so categorised as above average academic performers and G10 (N=20) consisted of participants who obtained lowest scores and thus categorised to be below average in academic performance, and G9 (N=80) consisted of participants who obtained in between scores were categorised as average performer respectively.

Phase 3: Administration of the standardised test material in visual (reading) and auditory (verbal instruction) modality.

All the selected participants were administered with the figurative language domain from the test material, Manipal Manual of Adolescent Language Assessment developed by Karuppali and Batt, (2016). The domains assessed were proverbs, idioms and similes. The scoring with respect to each domain is as follows:

DOMAIN 1: Proverbs/idioms

15 Proverbs

0- Incorrect score

1- Literal meaning

2- Figurative/ Indirect meaning

TOTAL SCORE = 15*2 =30

15 Idioms

0. Incorrect score

1. Literal meaning

2. Figurative/ Indirect meaning

TOTAL SCORE = 15*2 =30

Total score- Domain 1: Proverbs + idioms = 30 + 30 = 60

30 Similes

0- Incorrect response

1- Correct response

TOTAL SCORE= 30*1 = 30

Total score- domain 2 similes = 30

The test is initially administered through visual modality (reading task) and then after one month the same test was administered to these participants through auditory (verbal instruction) modality. This is to avoid subjective bias as a result of familiarity effect. The time taken for administration of the standardised test material in visual modality took 10-15 minutes whereas in auditory modality it took 15-20 minutes for each subject. The scores obtained after the assessment procedures were collected and compared within each group for the domains of figurative language in the test and were further documented for statistical analysis.

Phase 4: Statistical Analysis

Test statistics were used for the comparison of the respective groups based on each objective. Suitable parametric or non-parametric test were used. Recent version of Statistical Protocol for Social Sciences (SPSS) was used for statistical analysis. The mean and standard deviation values have been derived for all the participants across all the domain in the standardised test material. Paired t-test and Analysis of Variance (ANOVA) was employed to determine the significant difference between the groups and the different domains.

Results and Discussions

1. To investigate the age and gender difference in performance on figurative language comprehension in adolescents.

1a) Age difference: across groups G1, G2, and G3.

Mean and standard deviation of each domain was calculated for the three age groups. ANOVA was employed to determine the significant difference between groups G1, G2, and G3.

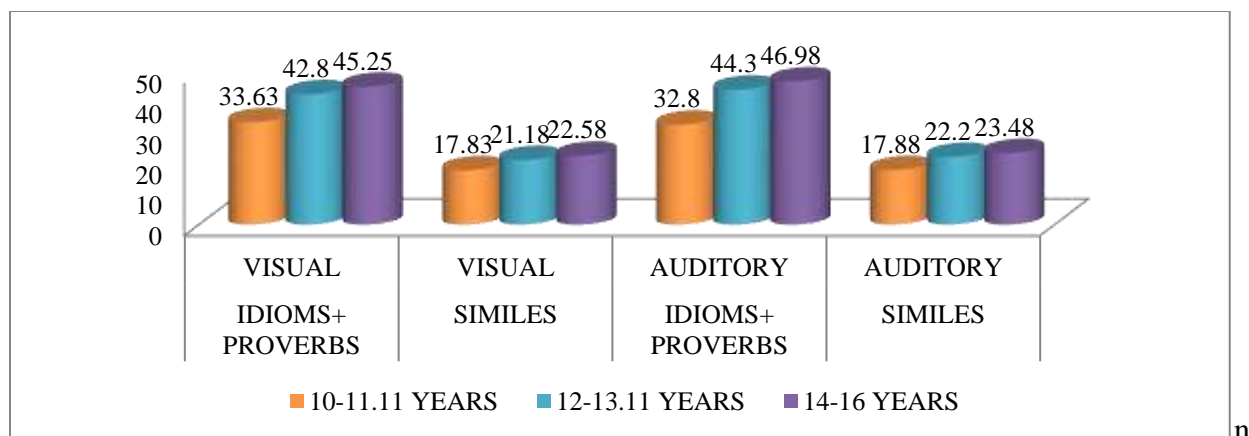


Figure 5a: Mean values of groups G1 (10-11.11 years), G2 (12-13.11 years), and G3 (14-16 years) across the domain idioms + proverbs and similes for both auditory and visual modalities.

TABLE 2a: Mean, Standard Deviation and ANOVA results of proverbs/idioms and similes
 Mean scores obtained for group G1 (10-11.11 years) for proverbs/idioms task when testing stimulus presented in visual modality shows higher scores when compared to auditory modality.

	Age	N	Mean	SD	Median	ANOVA	P value	
proverbs/idioms– Auditory	10 – 11.11	40	32.80	10.60	30.00	41.846	.000	HS
	12 – 13.11	40	44.30	6.25	46.00			
	14 – 15.11	40	46.98	3.35	47.00			
	Total	120	41.36	9.56	45.00			
proverbs/idioms– Visual	10 – 11	40	33.63	9.02	33.00	31.490	.000	HS
	12 – 13	40	42.80	6.65	45.00			
	14 – 15	40	45.25	4.19	45.50			
	Total	120	40.56	8.49	43.50			
similes – Auditory	10 – 11	40	17.88	4.39	18.00	35.784	.000	HS
	12 – 13	40	22.20	2.28	23.00			
	14 – 15	40	23.48	2.11	24.00			
	Total	120	21.18	3.91	22.50			
similes – Visual	10 – 11	40	17.83	4.09	19.00	23.682	.000	HS
	12 – 13	40	21.18	2.67	22.00			
	14 – 15	40	22.58	2.52	23.00			
	Total	120	20.53	3.73	22.00			

Whereas for similes the scores were better in auditory modality. It was observed during the testing procedure in auditory modality that the students of this age group had difficulty in comprehending idioms and proverbs which were complex and lengthy while listening. This may

be the possible reason of lower scores for the proverbs/idioms domain in auditory modality when compared with visual. Mean scores obtained for group G2 (12-13.11 years) and G3 (14-16 years) for both proverbs/idioms and similes tasks when testing stimulus presented in auditory shows higher scores when compared to visual modality. The highest mean scores were obtained for group G3 (14-16 years), lowest scores obtained for group G3 (14-16 years) and group G2 obtained mean scores falling between the other two groups. The results reveal that there is a highly significant difference in performance of students of the three age groups respectively.

1b) Gender difference:

Mean and standard deviation of each domain was calculated for groups. Paired t-test was employed to determine the significant difference between groups G4 (males) and G5 (females).

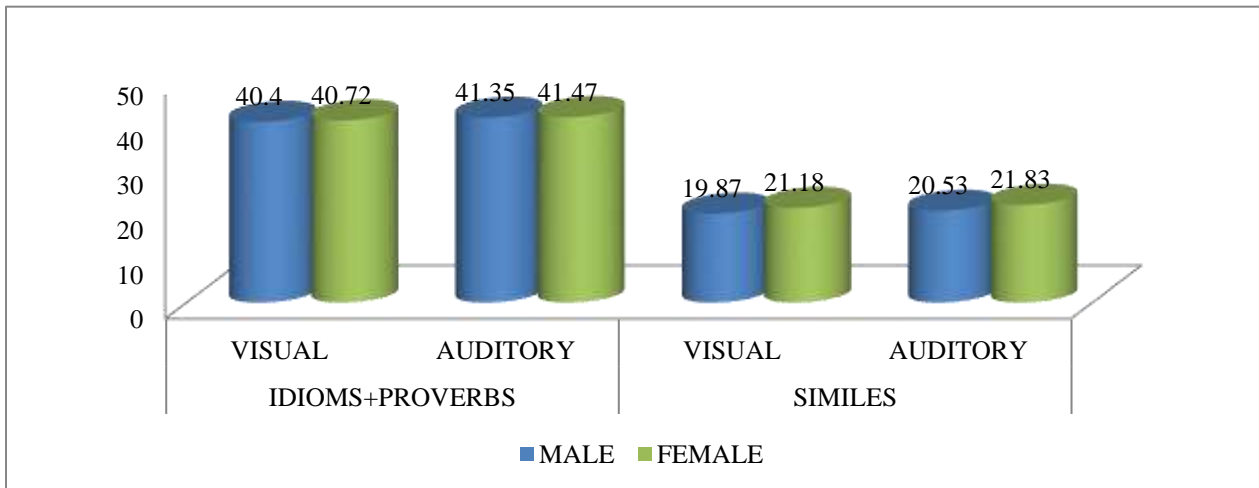


Figure 5b: Mean values of groups G4 (Males) and G5 (Females) across the domains proverbs/idioms and similes in auditory and visual modalities.

TABLE 2b: Mean, Standard Deviation and paired t-test results of groups G4 (Males) and G5 (Females) across the domains proverbs/idioms and similes for both modalities.

	Sex	N	Mean	Std. Deviation	Median	t value	P value	
proverbs/idioms– Auditory	Male	60	41.25	9.15	45.00	-.124	.902	NS
	Female	60	41.47	10.04	46.00			
	Total	120	41.36	9.56	45.00			
proverbs/idioms– Visual	Male	60	40.40	8.06	42.00	-.203	.839	NS
	Female	60	40.72	8.97	44.00			

	Total	120	40.56	8.49	43.50			
similes – Auditory	Male	60	20.53	4.18	22.00	-1.841	.068	NS
	Female	60	21.83	3.53	23.00			
	Total	120	21.18	3.91	22.50			
similes - Visual	Male	60	19.87	3.86	21.00	-1.957	.053	NS
	Female	60	21.18	3.50	22.00			
	Total	120	20.53	3.73	22.00			

Mean scores obtained for group G4 (males) and G5 (females) for both proverbs/idioms and similes tasks when testing stimulus presented in auditory shows higher scores when compared to visual modality. During the testing procedure it was observed that the female participants tend to be more focused and dedicated in doing the tasks than compared to male participants who seemed to be more distracted and impatient in completing the testing procedures. In this study, though there is a greater mean score values obtained for female participants, the results reveals that there no gender based differences in figurative language comprehension in adolescents as there is no significant difference in performance of male and female participants

2) To compare the performance on reading and auditory verbal comprehension of figurative language of adolescent students following CBSE and State syllabus.

Mean and standard deviation of each domain was calculated for the two groups. T-test was employed to determine the significant difference between groups G6 (CBSE) and G7 (STATE).

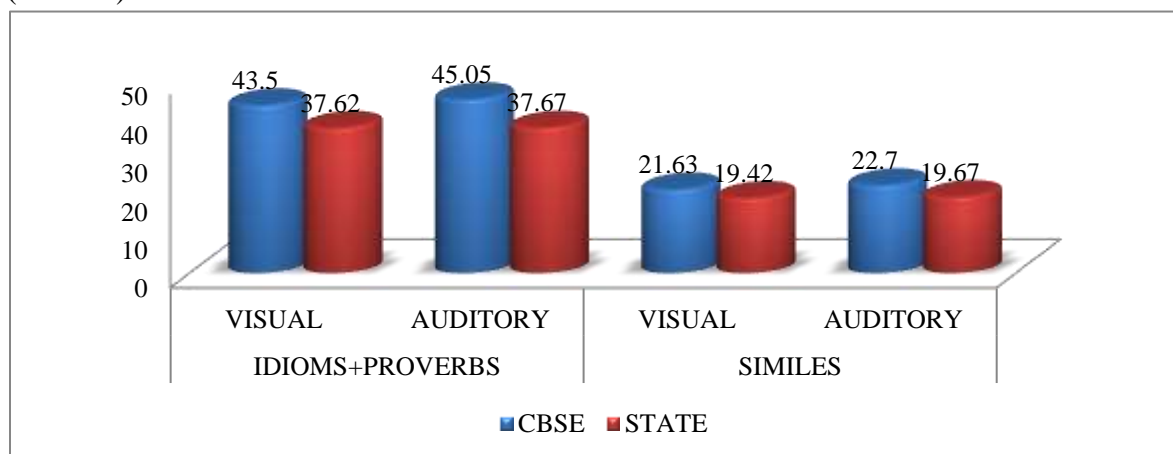


Figure 6: Mean values of groups G6 and G7 across the domains proverbs/idioms and similes for both auditory and visual modalities.

TABLE 3: Mean, Standard Deviation and t-test results of groups G6 and G7 across the domains proverbs/idioms and similes for both modalities. Mean scores obtained for groups G6 (CBSE) > G7 (STATE).

DOMAIN	SYLLABUS	N	Mean	Std. Deviation	Median	t value	p value	
proverbs/i dioms –	CBSE	60	45.05	6.15	47.00	4.568	.000	HS
	STATE	60	37.67	10.90	40.50			
Auditory	Total	120	41.36	9.56	45.00			
proverbs/i dioms –	CBSE	60	43.50	6.80	45.50	4.029	.000	HS
	STATE	60	37.62	9.04	38.00			
Visual	Total	120	40.56	8.49	43.50			
similes – Auditory	CBSE	60	22.70	2.85	23.00	4.599	.000	HS
	STATE	60	19.67	4.24	20.00			
	Total	120	21.18	3.91	22.50			
similes - Visual	CBSE	60	21.63	3.33	22.00	3.398	.001	HS
	STATE	60	19.42	3.80	20.00			
	Total	120	20.53	3.73	22.00			

Mean scores obtained for group G6 (CBSE) in both proverbs/idioms and similes tasks when testing stimulus presented in visual modality shows higher scores when compared to auditory modality.

Mean scores obtained for group G7 (STATE) for both proverbs/idioms and similes tasks when testing stimulus presented in auditory shows higher scores when compared to visual modality. It was observed during the testing procedure that students following STATE syllabus frequently asked for word meanings and demanded for more clarifications related to the test items provided to them. The chances of verbal assistances for the completion of their task was more when the stimulus were presented in auditory modality by the clinician. This probably lead to better scores for them when testing done in auditory modality. The result reveals that there is a highly significant difference between the groups G6 (CBSE) and G7 (STATE). This implies that it may be due to the difference in curriculum followed by both the group which lead to better understanding of figurative language domains such as similes, idioms and proverbs.

3) To compare the performance on reading (visual modality) and auditory verbal comprehension (auditory modality) of figurative language of adolescent students.

Mean and standard deviation of each domain was calculated for the two groups. Paired t-test was employed to determine the significant difference for auditory and visual modalities.

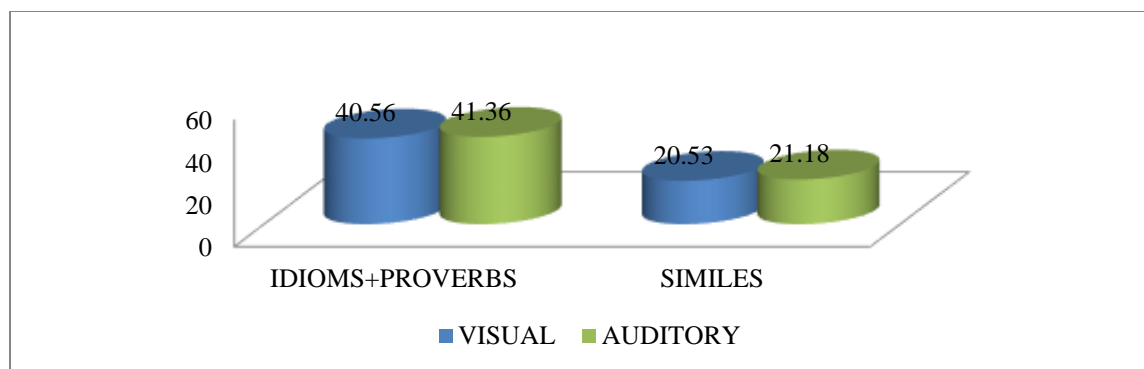


Figure 7: Mean values for auditory and visual modalities across the domains proverbs/idioms and similes.

TABLE 4: Mean, Standard Deviation and t-test results for auditory modality across the domains proverbs/idioms and similes.

	Mean	Std. Deviation	t value	P
Proverbs/idioms - Auditory	41.36	9.56	3.456	.001
Proverbs/idioms – Visual	40.56	8.49		HS
similes – Auditory	21.18	3.91	5.442	.000
similes - Visual (30)	20.53	3.73		HS

Mean scores obtained for both proverbs/idioms and similes tasks when testing stimulus presented in auditory shows higher scores when compared to visual modality. There is a highly significant difference in presenting the testing stimulus in auditory and visual modalities. The results reveal that students comprehend figurative language tasks when presented in auditory modality better than visual modality. One of the possible reasons for this findings may be familiarity effect of the testing stimulus as it was administered initially in visual modality one month before.

4) To compare the performance on reading and auditory verbal comprehension of figurative language of adolescent students with above average, average and below average academic performance.

The total participants (N=120) were assessed with a Grade level assessment checklist and also on the basis of yearly progress reports and teachers feedback about their general academic performance.

The Grade level assessment checklist consist of 2 parts, Part A and Part B, which was developed for the study. Part A included demographic data and part B addresses academic

performance based ratings: A 3 point rating scale (0-2) is used for scoring with a total score of 60. Above average performance for each task will be scored as 2, average performance for each task scored as 1, and below average performance for each task will be scored as 0.

Students obtaining a total score between 60-40 are categorised as above average academic performers, students obtaining a total score between 40-20 are categorised as average academic performers, students obtaining a total score below 20 are categorised as below average academic performers.

4a) Mean and standard deviation of each domain was calculated for the three groups. ANOVA was employed to determine the significant difference between groups G8 (above average), G9 (average), G10 (below average).

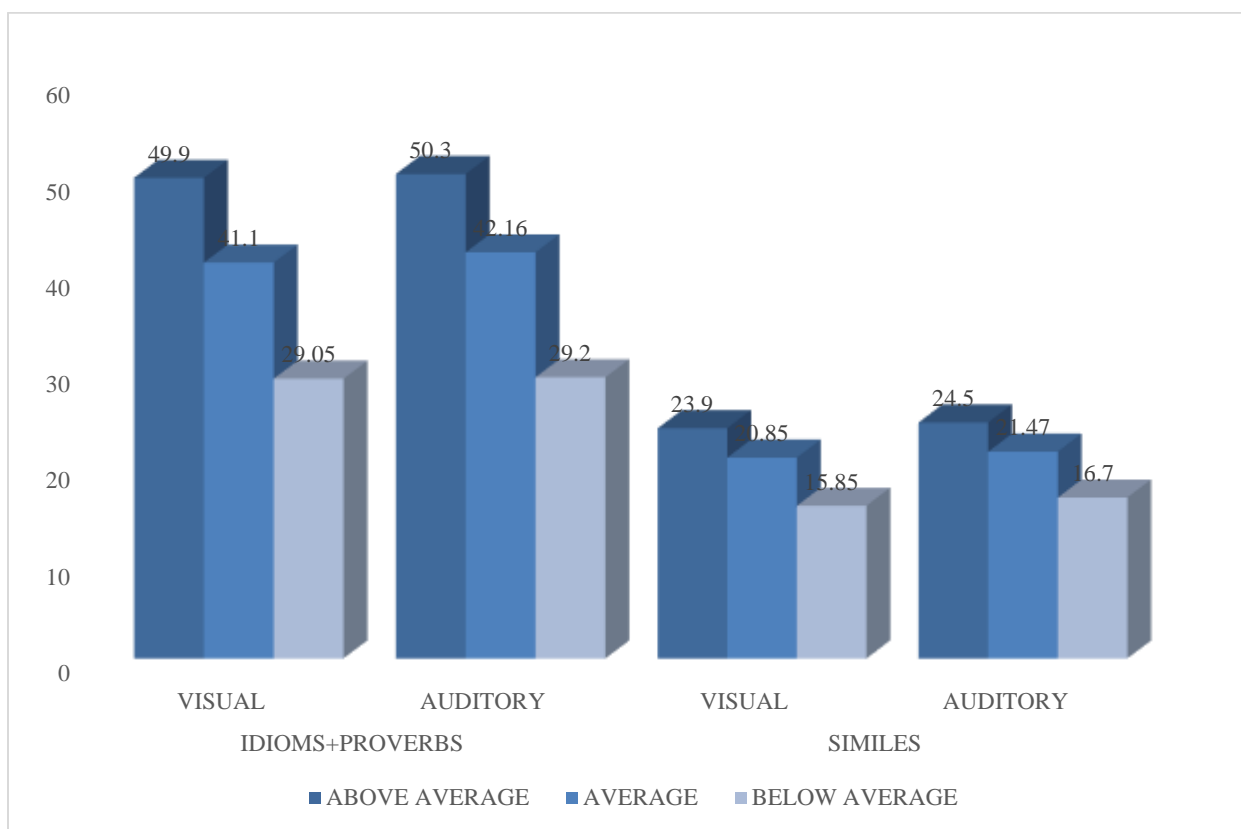


Figure 8a: Mean values of groups G8, G9, and G10 across the domains proverbs/idioms and similes for both auditory and visual modalities.

TABLE 5a: Mean, Standard Deviation and ANOVA results of groups G8, G9, and G10 across the domains proverbs/idioms and similes for both auditory and visual modalities.

DOMAIN		N	Mean	Std. Deviation	ANOVA	P
Proverbs/idioms- Auditory	Below average	20	29.20	9.41	42.957	HS .000
	Average	80	42.16	7.57		
	Above average	20	50.00	1.62		
	Total	120	41.35	9.56		
Proverbs/ idioms- visual	Below average	20	29.05	7.74	62.005	HS .000
	Average	80	41.10	6.13		
	Above average	20	49.90	1.71		
	Total	120	40.55	8.49		
Similes- auditory	Below average	20	16.70	4.53	30.987	HS .000
	Average	80	21.47	3.13		
	Above average	20	24.50	1.05		
	Total	120	21.18	3.90		
Similes- visual	Below average	20	15.85	4.00	40.174	HS .000
	Average	80	20.85	2.84		
	Above average	20	23.90	1.41		
	Total	120	20.52	3.72		

Mean scores obtained for all the three groups for both proverbs/idioms and similes tasks when testing stimulus presented in auditory shows higher scores when compared to visual modality.

The results reveal highest mean scores for above average performers, lowest mean scores for below average performers and average performers means scores falling between these two groups. There is a highly significant difference between performance of above average, average and below average students.

This indicates that there is a positive correlation between academic performance and language tasks which implies to a better the understanding of language and metalinguistic abilities greater there is a chance of better academic performance. Language and communication skills in general play an inevitable role in the academic achievements of students.

5b) Mean and standard deviation of each domain was calculated for the three groups. Paired t-test was employed to determine the significant difference both auditory and visual modalities across the groups G10 (above average), G11 (average), G12 (below average).

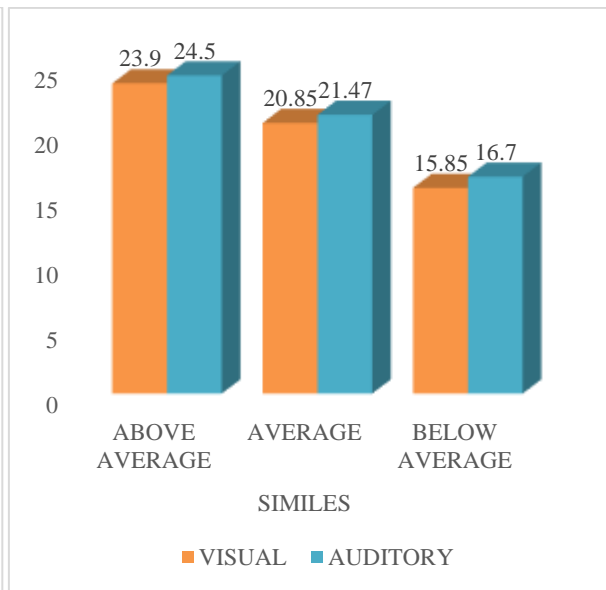
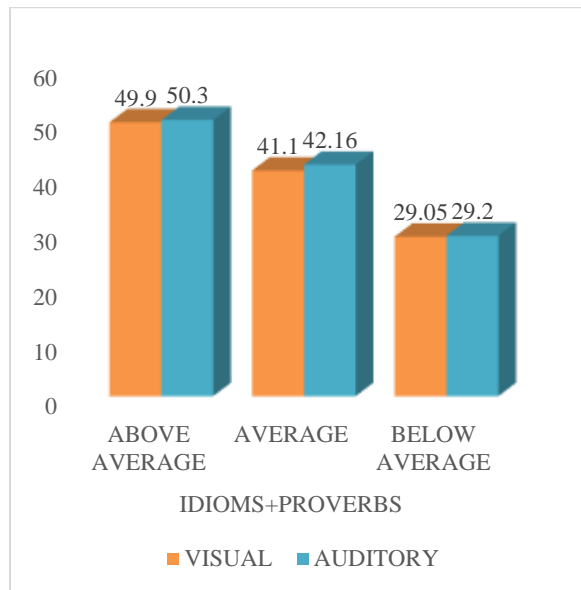


Figure 8b: Mean values of groups G8, G9, and G10 for the domain proverbs/similes across auditory and visual modalities.

Figure 8c: Mean values of groups G8, G9, and G10 for the domain similes across auditory and visual modalities.

TABLE 5b: Mean, Standard Deviation and ANOVA results of groups G8, G9, and G10 across the domains proverbs/idioms and similes for both auditory and visual modalities.

		Mean	Std. Deviation	t value	P
Below average	proverbs/idioms – Auditory	29.2000	9.41779	.213	.834
	proverbs/idioms – Visual	29.0500	7.74240		NS
	similes – Auditory	16.7000	4.53176	2.095	.050
	similes - Visual (30)	15.8500	4.00362		NS
I	proverbs/idioms – Auditory	42.1625	7.57986	3.633	.000
	proverbs/idioms – Visual	41.1000	6.13477		HS

	similes – Auditory	21.4750	3.13403	4.218	.000
	similes - Visual (30)	20.8500	2.84227		HS
Above average	proverbs/idioms – Auditory	50.3000	1.62546	1.798	.088
	proverbs/idioms – Visual	49.9000	1.71372		NS
	similes – Auditory	24.5000	1.05131	4.485	.000
	similes - Visual (30)	23.9000	1.41049		HS

Mean scores obtained for groups G8 (above average) for the domains proverbs/idioms and similes when compared across auditory and visual modalities showed higher scores for auditory modality when compared to visual modality but had no significant difference between groups. Mean scores obtained for groups G9 (average) for the domains proverbs/idioms and similes when compared across auditory and visual modalities, auditory modality showed higher scores compared to visual modality and was highly significant between groups. Mean scores obtained for groups G10 (above average) for the domain proverbs/idioms when compared across auditory and visual modalities showed higher scores for auditory modality when compared to visual modality but had no significant difference between groups. Whereas, mean scores obtained for groups G10 (above average) for the domain simile when compared across auditory and visual modalities showed higher scores for auditory modality when compared to visual modality and was highly significant between groups. The result reveals that mode of communication also plays a significant role in academic performance. Auditory modality seem to be more comprehensive in case of figurative language tasks for mainly average students.

Summary and Conclusion

The importance of language in the life of any human being needs no emphasis. Adolescent period is crucial for the development of meta-linguistic abilities such as figurative language comprehension. In this context the objective of teaching languages is not simply to make the students learn language skills but to enable them to play their communicative roles effectively. In this context, the study is of importance as it investigate the age and gender difference in figurative language comprehension of adolescents, reading and auditory verbal comprehension of adolescents following CBSE and State syllabus, and also to compare the performance in figurative language comprehension tasks of students categorised as above average, average and below average academic performance.

In the study, performance in figurative language tasks by adolescent students was better as their age increased. Though there were no clinically significant difference in performance of male and female participants, females were observed to outperform males in comprehension of

figurative language tasks though no clinically significant correlation between gender and figurative language comprehension in adolescents. Results reveal a significant correlation between the curriculums based teaching strategies and figurative language comprehension in adolescents. On the basis of the results it was concluded that students following CBSE syllabus had better comprehension of figurative language tasks. The possible reason which lead to this result may be the differences in curriculum, as CBSE syllabus emphasis is on a more language oriented curriculum for students. Fourthly, higher mean values were obtained for auditory modality when compared to visual modality and showed highly significant difference between both the domains.

At the American Speech-Language-Hearing Association (ASHA) Convention in 2016, a group of university and school-based speech-language pathologists (SLPs) were discussing the evolution of speech-language services in the schools. As it often happens at the ASHA Convention, great discussion ensued, and the seed for this clinical forum was planted. Each SLP agreed that the landscape of school-based service delivery models has evolved over the last decade. So, to conclude, Adolescent population should be addressed by SLPs to identify and progress monitor critical language/literacy skills such as listening comprehension and oral narratives skills measures that will discriminate students with inadequate language skills and curriculum-based assessment and intervention strategies should be given more emphasis, which is useful to determine the effectiveness of language/literacy in this population. Evaluations and interventions by SLP's would be helpful for this population to improve their overall language learning abilities which involves higher level thought processes and thereby enhancing their general academic performance.

Implications of the Study

1. The present study gives emphasis to the influence of language abilities in general academic performance of adolescents.
2. It serves as an academic research focusing on the impact of differences in choices for the mode of presentation of language in schools.
3. It gives an insight to emphasising the importance of cognitive linguistic strategies in school curriculum right from primary classes for stronger foundations in dealing with language learning issues.

Limitations of the Study

1. Small sample size.
2. The testing procedure was time consuming as the testing stimulus was lengthy.
3. There was only one month gap between the administration of the test material in auditory and visual modalities.

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Analysis of Figurative Language Comprehension in School Going Adolescents

125

4. Second language was used as the medium for the assessment.

Future Directions

1. The study can be carried out in a different population, such as children with developmental language disorders and other communication disorders.
2. Other figurative language tasks can be chosen for the study such as sarcasm, irony, etc.
3. Similar study can be done after adopting the standardised test material to a language which is the mother tongue of the participants.
4. A comparative study of adolescent comprehension of figurative language can be carried out in school going students in urban and rural areas.
5. Similar studies can be carried out using a larger population size and with early adolescents or pre-adolescents.

Acknowledgement

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References

- Nippold, M. A. (1988). *Later language development: ages 9 through 19*: Little Brown and Company.
- Kerbel, D., & Grunwell, P. (1997). Idioms in the classroom: An investigation of language unit and mainstream teachers' use of idioms. *Child Language Teaching and Therapy*, 13(2), 113-123. doi:10.1177/026565909701300201
- Kerkhofs R, et al. Brain Res. (2008). Sentence processing in the visual and auditory modality: do comma and prosodic break have parallel functions? *Brain Res.*12(24):102-18. doi: 10.1016/j.brainres.2008.05.034. Epub 2008 May 21.
- Karuppali & Bhatt. (2016). *Manipal Manual of Adolescent Language Assessment*. Manipal Technologies Ltd, Manipal.
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