# TRUANCY IN RELATION TO NON-VERBAL INTELLIGENCE AMONG HIGH SCHOOL STUDENTS 

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## Abstract

The present study focussed on studying the variable of truancy in relation to non-verbal intelligence among different groups of high school students. The groups were formed on the basis of gender and place of habitat (urban or rural) of the students. The sample included 640 students taken from twenty schools situated in four districts of Himachal Pradesh. For measuring Non-Verbal Intelligence of the students included in the sample, Standard Progressive Matrices developed by Raven, Court, and Raven (1977) was used in the present study. The results of the study were not uniform in favour of truant or non-truant groups of students and necessitate the replication of the study on a larger sample.

The Background: At its most basic, truancy means unexcused absence from school. However, there is an important distinction between truants and chronic truants. A student displays truant behaviour with a single unexcused absence from school, but a student needs to reach or surpass a certain number of unexcused absences to be considered a chronic truant. It is this latter category that most people typically think of when considering the issue of truancy. Yet there is no standard level of absenteeism that constitutes truancy (or chronic truancy). Instead, the definition varies from state to state, and even from division to division and school to school (Virginia Department of Education, 2005).

According to Reid (2000, pp. 1-2) 'Truancy' is a term that is frequently misused, and one that can be applied both generically and with local meaning. In different parts of Great Britain, truancy is known amongst other things as 'skipping off', 'mitching', 'dodging', 'skiving', 'bunking-off' and 'going missing'. In popular English literature, truancy is sometimes reported as a natural, impish act of escapism, which is likely to take place at some stage during the normal development of children. Truancy is often, quite rightly, associated with early or later adolescence. Truancy, as a term, is perversely often associated with fun. That is, it is considered by some to be more fun to be outside a school, avoiding formal lessons and, in theory, doing what you like, rather than sitting inside a classroom and 'learning'. This concept is the theme of Webster's famous painting of The Truant in the nineteenth century, which depicts two absconders standing elated outside their small school-room, nervously peering in at the activities inside.

Reid (pp. 3-4) further states that whatever the precise causes, the consequences of truancy are enormous. Consider a few simple facts: 40 per cent of all street robberies in London, 33 per cent of car thefts, 25 per cent of burglaries and 20 per cent of cases of criminal damage were committed by 10 to 16 year olds in 1997 and are blamed on truants. Truancy is the greatest single predictor of juvenile and adult crime and of adult psychiatric problems. Two-thirds of young offenders begin their criminal activities while truanting. Truancy is also closely linked to a wide range of other difficulties in adult life, including the inability to settle into the routine of work and/or marriage; frequent job changes; isolationism; pathological disorders; poverty; higher separation and divorce rates; living upon income support; illiteracy; depression; temper tantrums; and involvement with social workers and the Social Services. Truancy is also associated with a significantly higher likelihood of becoming a teenage parent and of being unemployed or homeless in later life. Truancy has immediate and longer-term consequences throughout all stages of adult life. Males who truant are more likely to marry girls who played truant at a similar age at school. 'Truant families' then tend to have sons or daughters who also play truant, thereby perpetuating a truancy syndrome into the next generation, rather like Jane.

A child may play truant due to a variety of reason. For better understanding, these reasons may be categorized as school, family, community and personal. Some of the reasons in each category may be considered as general (applicable to all places) whereas some may be specific to a particular locale. Psychological variables like level of intelligence, aspiration and
creativity etc. may be included under personal factors.
Though truancy is a problem with serious present and future repercussions to individual in particular and society at large, it is not much talked about and researched issue in India. It is felt that truancy is showing an increasing trend in Indian schools -- especially in Government schools. Further, the menace of truancy is not restricted to certain grades; it is prevalent from class I to XII. If immediate steps are not taken to tackle the issue it may go beyond control. However, O'Keeffe (2009) remarks:
It's utopian to think that schools will ever be totally free of truancy. Schools without truancy are like marriages without conflict. There's no such thing. But a better curriculum, and more attention paid to children's reading and mathematics, would cut truancy down to a less shameful level.

Before in-depth studies are undertaken on truancy, it is worthwhile to identify certain psychological characteristics of truants. In this context, the present study aims at studying the level of non-verbal intelligence among different groups of truant high school students. Since it has been observed that truants exhibit low level of verbal ability, the non-verbal measure of intelligence may yield relatively valid results.

Van Petegem (1994) concluded that poor school results often precede obstinate truancy even though research evidence suggests that there is no direct relationship between intelligence and truancy. Kalhotra (2013) attempted to find out the relationship of certain sociopsychological variables with the truant behaviour. The sample for conducting the present study included 100 students in class 9 th, which include 50 truants and 50 non-truants. t-test was used to find out the relationship. The results revealed that habitual truants and regulars do not differ significantly on the variable of school satisfaction however, possess lower verbal intelligence. According to ABC : The ABCs of Mental Health (n.d.) unlike physical disabilities, learning disabilities can contribute to truancy issues directly as students with average intelligence struggle to achieve at an acceptable level and find school unrewarding or even humiliating.

The review of research literature indicates that there is lack of studies investigating intelligence in relation to truant behavior and further the results of these studies are not uniform. Moreover, the investigators did not find a worthwhile study investigating the relationship between truancy and non-verbal intelligence. In view of this, the present investigation was envisaged to examine the variable of truancy in relation to non-verbal intelligence among
different groups of high school students. The study is an attempt to answer the following research question:
Do the following groups of high school students differ significantly with respect to their mean scores on Non-Verbal Intelligence?

1. Boy non-truant versus boy truant Students
2. Girl non-truant versus girl truant students
3. Boy non-truant versus girl truant students
4. Girl non-truant versus boy truant students
5. Boy non-truant versus girl non-truant students
6. Boy truant versus girl truant students
7. Urban non-truant versus urban truant students
8. Rural non-truant versus rural truant students
9. Urban non-truant versus rural truant students
10. Rural non-truant versus urban truant students
11. Urban non-truant versus rural non-truant students
12. Urban truant versus rural truant students
13. Non-truant versus truant students (Total Sample)

Objective of the Study: The following objective was formulated for the study:
To compare the following groups of high school students with respect to their mean scores on Non-Verbal Intelligence:

1. Boy non-truant versus boy truant Students
2. Girl non-truant versus girl truant students
3. Boy non-truant versus girl truant students
4. Girl non-truant versus boy truant students
5. Boy non-truant versus girl non-truant students
6. Boy truant versus girl truant students
7. Urban non-truant versus urban truant students
8. Rural non-truant versus rural truant students
9. Urban non-truant versus rural truant students
10. Rural non-truant versus urban truant students
11. Urban non-truant versus rural non-truant students
12. Urban truant versus rural truant students
13. Non-truant versus truant students (Total Sample)

Hypothesis of the study: The following research hypothesis was formulated for the present study:

The following groups of high school students differ significantly with respect to their mean scores on Non-Verbal Intelligence: 1. Boy non-truant versus boy truant Students. 2. Girl nontruant versus girl truant students. 3. Boy non-truant versus girl truant students. 4. Girl non-truant versus boy truant students. 5. Boy non-truant versus girl non-truant students. 6. Boy truant versus girl truant students. 7. Urban non-truant versus urban truant students. 8. Rural non-truant versus rural truant students. 9. Urban non-truant versus rural truant students. 10. Rural non-truant versus urban truant students. 11. Urban non-truant versus rural non-truant students. 12. Urban truant versus rural truant students. 13 Non-truant versus truant students (Total Sample)
Operational Definitions of Key Terms: Certain terms were used in the text of the paper which may have different meanings in different contexts. The operational definitions of these terms in the perspective of this paper are given as under:
Non-Verbal Intelligence: Non-Verbal Intelligence of a subject refers to the score obtained by him/her on Progressive Matrices and Vocabulary Scales by Raven, Court and Raven (1977)..
High School Students: High school students in the present study refer to students studying in grades IX and X in Government High/Senior Secondary Schools situated in Himachal Pradesh state of India.
High School: This is a school which runs classes from VI to X.
Senior Secondary School: This is a school which runs classes from VI to XII.
Rural: A rural area refers to a place which falls under a Gram Panchayat.
Urban: An urban area refers to a place which is a notified area i.e. falls under a Nagar Panchayat.

Gram Panchayat: A Gram Panchayat (Village Council) is a local self-government institution at the village level in India having a minimum population of 500. Depending upon population, Gram Panchayat may include more than one village. A Gram Panchayat has a minimum of five members including a President and a Vice-President. Other members are called ward-members. Nagar Panchayat: Nagar Panchayat refers to local self-government institution at a small town
level in India having a minimum population of 11000. The area covered under Nagar Panchayat is called Notified Area.

Methodology: Method: The objectives laid down for the study at hand conformed to all the characteristics of descriptive method. Hence, descriptive method of research was used in the present study.
Sample: The sample for the present study was drawn in the following manner: 1. A sample of four districts, namely, Shimla, Solan, Mandi and Chamba was taken randomly from a total of twelve districts of Himachal Pradesh. 2. Five High and/or Senior Secondary Schools from each of the four districts were selected on the basis of purpose, convenience and willingness of the heads of schools. However, while selecting the schools it was observed that they (a) were far apart from each other; (b) represented both rural and urban areas; and (c) represented both boys and girls. Thus, a total of twenty schools were selected for data collection out of which eleven were situated in urban area and nine in rural area. However, it may be noted that all the students studying in schools situated in urban area did not come from the notified area. Some of the students came from adjacent rural areas. For the purpose of the present study, the students who came from rural areas in such schools were considered rural students. Similar treatment was given to students studying in schools situated in rural area but who belonged to urban area. 3. Since the study aimed at comparing truant and non-truant students on the variable of academic achievement, it was needed to select the two groups of students from each school using appropriate criteria. To serve this purpose, the following procedure was adopted.
For identifying a truant or a non-truant, the following criteria were laid down on the basis of literature and discussion with some teachers teaching in High and Senior Secondary Schools situated in Himachal Pradesh.

Criteria for Selecting Truant Students: A student was treated as a truant: 1. who skips school after recess without taking leave and repeats this performance at least five times a month and/or 2. Who remains absent without leave for three consecutive days and repeats this performance at least twice a month and/or 3. Who skips from specific periods without informing the concerned teacher and repeats this performance at least five times a month.

Criteria for Selecting Non-Truant Students: A student who had at least 90 percent attendance for the last six months was treated as a non-truant student.

Selecting Truant Students: The truant students were identified from classes IX and X following the criteria laid down for this purpose. The information regarding the first two criteria was obtained from the attendance register of the class by examining the attendance of the students for the last six months. The names of the students who fulfilled either or both the criteria were noted down. The information regarding the third criterion was obtained from the subject teacher of the class. The names of the students identified on the basis of the comments made by the subject teachers of the classes were also noted down. All the students thus identified as truants were taken for inclusion in the sample. It may be pointed out that the minimum and maximum number of truant students identified in different schools varied from 14 to 18.

Selecting Non-Truant Students: The non-truant students were identified from classes IX and X following the criterion laid down for this purpose. The information regarding the criterion was obtained from the attendance register of the class by examining the attendance of the students for the last six months. The names of the students who fulfilled the criterion were noted down.

After this, 15 to 18 such students from two classes were selected randomly out of the identified ones for inclusion in the sample.

Finally, the total sample consisted of 640 students studying in classes IX and X, which included 310 truant and 330 non-truant students.

Tools Used: For measuring Non-Verbal Intelligence of the students included in the sample, Standard Progressive Matrices developed by Raven, Court, and Raven (1977) was used in the present study.

The Procedure : The truant and non-truant students were identified following the procedure detailed above and their academic achievement in the form of aggregate scores obtained by them in ‘Class-VIII Annual Examinations’ conducted by Board of School Education, Himachal Pradesh was noted down from school records. The data available on the selected variables were tabulated, analyzed and interpreted in the following manner.

Statistical Technique Used: The purpose of the study was to compare two groups of students at a time on the variable of academic achievement - one group in each case consisted of truants and the other included non-truants. Hence, the technique of t-test was employed to analyze the data in each case.

Analysis and Interpretation of Data: The data on the selected variable were tabulated and analyzed for (a) Groups on the basis of sex; (b) Groups on the basis of locale; and (c) Total sample.

Formation of Groups for Analysis: On the basis of Truancy: The total sample consisted of 607 high school students, which included 290 truants and 317 non-truants. However, while analyzing the data, the two groups were made equal in number for the ease of computation and making inferences. To serve this purpose, 290 truants from a total of 290 and 290 non-truants from a total of 317 were selected randomly, and data on the selected variable were analyzed with respect to these two equal groups.

Groups on the Basis of Gender (Irrespective of locale): Out of 290 truant students, 154 were boys and 136 were girls. Similarly, out of 290 non-truant students 136 were boys and 154 were girls. Again, for the ease of computation and making inferences, 130 boys and 130 girls were selected randomly from each of the groups of truant and non-truant students. The data for these groups were analyzed and interpreted as under.

1. Boy Non-Truants versus Boy Truants: Table 1 presents the $t$-value for boy non-truant and boy truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 1: t-Value for Boy Non-Truant and Boy Truant Groups of High School Students
with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | df | SD | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Boy Non-Truants | 130 | 36.90 | 1.26 | 258 | 10.74 | 0.94 | 1.03 |
| Boy Truants | 130 | 35.64 |  | 8.93 | 0.78 |  |  |

Not significant at 0.05 level of confidence
It is revealed from Table 1 that t -value came out to be 1.03 , which is not significant at 0.05 level of confidence. This indicates that boy non-truant and boy truant groups of high school students do not differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The boy non-truant and boy truant high school students differ significantly on the variable of non-verbal intelligence" is rejected. Hence, it may be inferred that boy non-truant and boy truant groups of high school students are more or less similar on non-verbal intelligence.

Girl Non-Truants versus Girl Truants : The Table 2 presents the t -value for girl non-truant and girl truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 2: $t$-Value for Girl Non-Truant and Girl Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | df | SD | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Girl Non-Truants | 130 | 37.00 | 2.68 | 258 | 10.17 | 0.89 |  |
|  | Girl Truants | 130 |  |  | 9.11 | 0.80 |  |

*Significant at 0.05 level of confidence
It is revealed from Table 2 that t -value came out to be 2.24 , which is significant at 0.05 level of confidence. This indicates that girl non-truant and girl truant groups of high school students differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The girl non-truant and girl truant high school students differ significantly on the variable of non-verbal intelligence" is accepted.

Since, the mean score on Non-Verbal Intelligence is higher for girl non-truant group (37.00) as compared to girl truant group (34.32), it may be inferred that girl non-truant group of high school students exhibits significantly higher level of Non-Verbal Intelligence in comparison to girl truant group.
Boy Non-Truants versus Girl Truants : Table 3 presents the t -value for boy non-truant and girl truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 3: t-Value for Boy Non-Truant and Girl Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | $\mathbf{d f}$ | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Boy Non-Truants | 130 | 36.90 | 2.58 | 258 | 10.74 | 0.94 |  |
| Girl Truants | 130 | 34.32 |  |  | 0.80 |  |  |

*Significant at 0.05 level of confidence
It is revealed from Table 3 that t -value came out to be 2.09 , which is significant at 0.05 level of confidence. This indicates that boy non-truant and girl truant groups of high school students differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The boy non- truant and girl truant high school students differ significantly on the variable of non-verbal intelligence" is rejected.

Since, the mean score on Non-Verbal Intelligence is higher for boy non-truant group (36.90) as compared to girl truant group (34.32), it may be inferred that boy non-truant group of high school students exhibits significantly higher level of Non-Verbal Intelligence in comparison to girl truant group.
Girl Non-Truants versus Boy Truants: Table 4 presents the $t$-value for girl non-truant and boy truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 4: t-Value for Girl Non-Truant and Boy Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | df | SD | SE $_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Girl Non-Truants | 130 | 37.00 | 1.36 | 258 | 10.17 | 0.89 | 1.14 |
|  | Boy Truants | 130 |  |  | 8.93 | 0.78 |  |

Not significant at 0.05 level of confidence
It is revealed from Table 4 that t -value came out to be 1.14 , which is not significant at 0.05 level of confidence. This indicates that girl non-truant and boy truant groups of high school students do not differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The girl non- truant and boy truant high school students differ significantly on the variable of non-verbal intelligence" is rejected. Hence, it may be inferred that girl non-truant and boy truant groups of high school students are more or less similar on non-verbal intelligence.

Boy Non-Truants versus Girl Non-Truants: Table 5 presents the $t$-value for boy non-truant and girl non-truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 5: t-Value for Boy Non-Truant and Girl Non-Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | df | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Boy Non-Truants | 130 | 36.90 | 0.10 | 258 | 10.74 | 0.94 | $0.77^{*}$ |
|  | Girl Non-Truants | 130 |  |  | 10.16 | 0.89 |  |

*Not significant at 0.05 level of confidence

It is revealed from Table 5 that $t$-value came out to be 0.77 , which is not significant at 0.05 level of confidence. This indicates that boy non-truant and girl non-truant groups of high school students do not differ significantly with respect to their mean scores on the variable of NonVerbal Intelligence. Hence, the hypothesis that "The boy non-truant and girl non-truant high school students differ significantly on the variable of non-verbal intelligence" is rejected. Hence, it may be inferred that boy non-truant and girl non-truant groups of high school students are more or less similar on non-verbal intelligence.

Boy Truants versus Girl Truants: Table 6 presents the t -value for boy truant and girl truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 6: t-Value for Boy Truant and Girl Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | $\mathbf{d f}$ | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Boy Truants | 130 | 35.64 | 1.32 | 258 | 8.93 | 0.78 | $1.18^{*}$ |
| Girl Truants | 130 | 34.32 |  | 9.11 | 0.80 |  |  |

*Not significant at 0.05 level of confidence
It is revealed from Table 6 that t -value came out to be 1.18 , which is not significant at 0.05 level of confidence. This indicates that boy truant and girl truant groups of high school students do not differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The boy truant and girl truant high school students differ significantly on the variable of non-verbal intelligence" is rejected.

Hence, it may be inferred that boy truant and girl truant groups of high school students are more or less similar on non-verbal intelligence.

Groups on the basis of Locality (Irrespective of gender): Out of 290 truant students, 144 belonged to urban area and 146 to rural area. Similarly, out of 290 non-truant students 148 belonged to urban area and 142 to rural area. Again, for the ease of computation and making inferences, 130 students belonging to urban area and 130 students belonging to rural area were selected randomly from each of the groups of truant and non-truant students. The data for these groups were analyzed and interpreted as under. Urban Non-Truants versus Urban Truants: The Table 7 presents the t-value for urban non-
truant and urban truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 7: t-Value for Urban Non-Truant and Urban Truant Groups of High School
Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | df | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Urban Non-Truants | 130 | 39.16 | 3.56 | 258 | 9.99 | 0.88 | $2.95^{* *}$ |
|  | Urban Truants | 130 |  |  | 9.50 | 0.83 |  |
| ** Significant at 0.01 level of confidence |  |  |  |  |  |  |  |

It is revealed from Table 7 that t -value came out to be 2.95 , which is significant at 0.01 level of confidence. This indicates that urban non-truant and urban truant groups of high school students differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The urban non-truant and urban truant high school students differ significantly on the variable of non-verbal intelligence" is accepted.

Since, the mean score on Non-Verbal Intelligence is higher for urban non-truant group (39.16) as compared to urban truant group (35.60), it may be inferred that urban non-truant group of high school students exhibits significantly higher level of Non-Verbal Intelligence in comparison to urban truant group.
Rural Non-Truants versus Rural Truants: The Table 8 presents the $t$-value for rural nontruant and rural truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 8: t-Value for Rural Non-Truant and Rural Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | df | SD | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Rural Non-Truants | 130 | 34.69 | 0.14 | 258 | 10.56 | 0.93 |  |
|  | Rural Truants | 130 |  |  | 8.08 | 0.71 |  |

Not significant at 0.05 level of confidence
It is revealed from Table 8 that t -value came out to be 0.12 , which is not significant at 0.05 level of confidence. This indicates that rural non-truant and rural truant groups of high school students do not differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The rural non-truant and rural truant high school
students differ significantly on the variable of non-verbal intelligence" is rejected. Hence, it may be inferred that rural non-truant and rural truant groups of high school students exhibit more or less similar level of non-verbal intelligence.

Urban Non-Truants versus Rural Truants: The Table 9 presents the t-value for urban nontruant and rural truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.
Table 9: t-Value for Urban Non-Truant and Rural Truant Groups of High School Students
with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | $\mathbf{d f}$ | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Urban Non- Truants | 130 | 39.16 | 4.61 | 258 | 9.99 | 0.88 |  |
|  | Rural Truants | 130 |  |  | 8.08 | 0.71 |  |

It is revealed from Table 9 that t -value came out to be 4.09 , which is significant at 0.01 level of confidence. This indicates that urban non-truant and rural truant groups of high school students differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The urban non-truant and rural truant high school students differ significantly on the variable of non-verbal intelligence" is accepted.

Since, the mean score on Non-Verbal Intelligence is higher for urban non-truant group (39.16) as compared to rural truant group (34.55), it may be inferred that urban non-truant group of high school students exhibits significantly higher level of Non-Verbal Intelligence in comparison to rural truant group.
Rural Non-Truants versus Urban Truants: The Table 10 presents the t -value for rural nontruant and urban truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.
Table 10: t-Value for Rural Non-Truant and Urban Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | df | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Rural Non-Truants | 130 | 34.69 | 0.91 | 258 | 10.56 | 0.93 | 0.73 |
| Urban Truants | 130 | 35.60 |  | 9.50 | 0.83 |  |  |

Not significant at 0.05 level of confidence
It is revealed from Table 10 that t -value came out to be 0.73 , which is not significant at 0.05 level of confidence. This indicates that rural non-truant and urban truant groups of high school students do not differ significantly with respect to their mean scores on the variable of NonVerbal Intelligence. Hence, the hypothesis that "The rural non-truant and urban truant high school students differ significantly on the variable of non-verbal intelligence" is rejected. Hence, it may be inferred that rural non-truant and urban truant groups of high school students exhibit more or less similar level of non-verbal intelligence.
Urban Non-Truants versus Rural Non-Truants: The Table 11 presents the t-value for urban non-truant and rural non-truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

## Table 11: t-Value for Urban Non-Truant and Rural Non-Truant Groups of High School

Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | $\mathbf{d f}$ | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Urban Non- Truants | 130 | 39.16 | 4.47 | 258 | 9.99 | 0.88 | $3.51^{* *}$ |
|  | Rural Non-Truants | 130 |  |  | 10.60 | 0.93 |  |
| **Significant at 0.01 level of confidence |  |  |  |  |  |  |  |

It is revealed from Table 11 that $t$-value came out to be 3.51 , which is significant at 0.01 level of confidence. This indicates that urban non-truant and rural non-truant groups of high school students differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The urban non-truant and rural non-truant high school students differ significantly on the variable of non-verbal intelligence" is accepted.

Since, the mean score on Non-Verbal Intelligence is higher for urban non-truant group (39.16) as compared to rural truant group (34.69), it may be inferred that urban non-truant group of high school students exhibits significantly higher level of Non-Verbal Intelligence in comparison to rural non-truant group.

Urban Truants versus Rural Truants: The Table 12 presents the $t$-value for urban truant and rural truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.

Table 12: t-Value for Urban Truant and Rural Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | $\mathbf{d f}$ | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Urban Truants | 130 | 35.60 | 1.05 | 258 | 9.50 | 0.83 | 0.96 |
|  | Rural Truants | 130 |  |  | 8.08 | 0.71 |  |

Not significant at 0.05 level of confidence
It is revealed from Table 12 that t -value came out to be 0.96 , which is not significant at 0.05 level of confidence. This indicates that urban truant and rural truant groups of high school students do not differ significantly with respect to their mean scores on the variable of NonVerbal Intelligence. Hence, the hypothesis that "The urban truant and rural truant high school students differ significantly on the variable of non-verbal intelligence" is rejected. Hence, it may be inferred that urban truant and rural truant groups of high school students exhibit more or less similar level of non-verbal intelligence.

Total Sample: Non-Truant versus Truant Students (Total Samples): Table 13 presents the tvalue for non-truant and truant groups of high school students with respect to the variable of Non-Verbal Intelligence along with Ns, Means, SDs and Standard Error of Means for the two groups.
Table 13: t-Value for Non-Truant and Truant Groups of High School Students with respect to the Variable of Non-Verbal Intelligence

| Group | $\mathbf{N}$ | Mean | Mean <br> Difference | df | $\mathbf{S D}$ | $\mathbf{S E}_{\mathbf{M}}$ | t-value |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Non-Truants | 290 | 36.95 | 2.06 | 578 | 10.45 | 0.61 | $2.5 *$ |
|  | Truants | 290 |  |  | 8.90 | 0.52 |  |
| $* *$ Significant at 0.01 level of confidence |  |  |  |  |  |  |  |

It is revealed from Table 13 that t -value came out to be 2.55 , which is significant at 0.01 level of confidence. This indicates that non-truant and truant groups of high school students differ significantly with respect to their mean scores on the variable of Non-Verbal Intelligence. Hence, the hypothesis that "The non-truant and truant high school students differ significantly on the variable of non-verbal intelligence" is accepted. Since, the mean score on Non-Verbal Intelligence is higher for non-truant group (36.95) as compared to truant group (34.89), it may be
inferred that non-truant group of high school students possesses significantly higher level of Non-Verbal Intelligence in comparison to truant group.
Discussion: On the basis of analysis and interpretation of data, the following conclusions may be drawn:

1. Boy non-truant and boy truant groups of high school students are more or less similar on non-verbal intelligence.
2. Girl non-truant group of high school students exhibited significantly higher level of nonverbal intelligence in comparison to girl truant group.
3. Boy non-truant group of high school students exhibited significantly higher level of nonverbal intelligence in comparison to girl truant group.
4. Girl non-truant and boy truant groups of high school students are more or less similar on non-verbal intelligence.
5. Boy non-truant and girl non-truant groups of high school students are more or less similar on non-verbal intelligence.
6. Boy truant and girl truant groups of high school students are more or less similar on nonverbal intelligence.
7. Urban non-truant group of high school students exhibited significantly higher level of non-verbal intelligence in comparison to urban truant group.
8. Rural non-truant and rural truant groups of high school students exhibited more or less similar level of non-verbal intelligence.
9. Urban non-truant group of high school students exhibited significantly higher level of non-verbal intelligence in comparison to rural truant group.
10. Rural non-truant and urban truant groups of high school students exhibited more or less similar level of non-verbal intelligence.
11. Urban non-truant group of high school students exhibits significantly higher level of nonverbal intelligence in comparison to rural non-truant group.
12. Urban truant and rural truant groups of high school students exhibit more or less similar level of non-verbal intelligence
13. Non-truant group of high school students possesses significantly higher level of nonverbal intelligence in comparison to truant group.

The following significant features emerge from the results of the study:

1. In case of total sample, non-truant group of high school students possessed significantly superior level of non-verbal intelligence in comparison to truant group.
This indicated that:
A. When the sample was analyzed irrespective of gender and locale, non-truant high school students exhibited superior level of non-verbal intelligence in comparison to truant group.
2. However, when the variable was compared for gender groups:
(i) Boy non-truant and boy truant groups of high school students are more or less similar on non-verbal intelligence.
(ii) Girl non-truant group of high school students exhibited significantly higher level of NonVerbal Intelligence in comparison to girl truant group.
This indicated that:
B. The occurrence of truancy among high school boys was independent of level of nonverbal intelligence.
C. Only those high school girls who were low on non-verbal intelligence were vulnerable to truancy.
3. Further, when the variable was compared for locale groups:
(i) Urban non-truant group of high school students exhibited significantly higher level of non-verbal intelligence in comparison to urban truant group
(ii) Rural non-truant and rural truant groups of high school students were more or less similar on non-verbal intelligence.
This indicated that:
D. Only those urban high school students who were low on non-verbal intelligence were exposed to truancy.
E. Occurrence of truancy among rural high school students was independent of level of verbal intelligence.
4. Conclusion numbers $3,4,5$ and 6 are conflicting among themselves in view of conclusion numbers 1 and 2. If these conclusions are analyzed, logically it may be said that boy non-truants should have possessed superior non-verbal intelligence in comparison to girl truants. Though the mean on non-verbal intelligence is in favour of boy truants, it is not significant.

If higher mean (though not significant) in favour of boy truants is considered acceptable, this indicates that:
F. Boy non-truant, boy truant and girl non-truant groups of high school students possessed superior non-verbal intelligence in comparison to girl truant high school students.
5. Conclusion numbers $9,10,11$ and 12 are logically correct and acceptable in view of conclusion numbers 7 and 8 .

This indicates that:
G. Urban non-truant high school students possess superior non-verbal intelligence in comparison to all other groups formed on the basis of locale.

In the end it is suggested that in view of conflicting results in certain cases and limitations in the sampling procedure, the study needs to be replicated by taking a larger and more representative sample.

## References

O'Keeffe, Dennis (2009). Truancy: It's not Just the Pupils who Bunk Off. Retrieved on 02.012.2014 from: http://www.independent.co.uk/news/education/schools/dennis-okeeffe-truancy-its-not-just-the-pupils-who-bunk-off-1707508.html
Reid, Ken (2000). Tackling Truancy in Schools -- A Practical Manual for Primary and Secondary Schools. London: Routledge.

Singh, Y.G. (2012). Emotional intelligence and school satisfaction of truant and non-truant students. Shodh Samiksha aur Mulyankan, Vol. IV, Issue 38, 10-11.

Virginia Department of Education (2005). Improving School Attendance -- A Resource Guide for Virginia Schools. Office of Student Services, Virginia Department of Education.

