INTRODUCTION
The personalities of the students are not the same. At one extreme (Internal), the student thinks of himself as being or beyond his control responsible for his own academic achievement. At the other extreme (External) the student sees others or luck or circumstances responsible for his academic achievement. The internal student blames himself for his failures and accepts praise as deserved for his triumphs. The external student will not blame himself for his errors and will not think his successes are caused by his own efforts. Our approach in this field is to collect data, classify, analyse and to form a conclusion about the locus of control of B.Ed. students and their academic achievement in Biological Science and to guide the students in overcoming the faulty notions about their achievement and thereby to improve their achievement in Biological Sciences.

NEED FOR THE STUDY
Individuals are differing from one to another according to their personality. Without knowing educational psychology and its principles and theories, one cannot be an effective teacher. Therefore Educational Psychology is needed to study for every individual. One person knowing psychology and achieving its principles and theory he or she differs from others who does not know educational psychology much. Internal-External Locus of Control can also influence or interfere with achievement of any student on any subject. So the researcher is interested to study the “Relationship between Internal-External Locus of Control and Achievement in Biological Science among B.Ed. Students”. Hence there is a need to conduct this study.

SIGNIFICANCE OF THE STUDY
Now a day’s teachers are adopting various methods and using modern aids to improve the academic achievement of the students. Differences exist in achievement and in knowledge even among students who have almost same amount of schooling and experience. One of the reason is some students are not having faith in their own efforts i.e. the academic achievement of some students are affected by their wrong opinions, ideas and beliefs in their own efforts. The significance of this study is to find the ways and means of instilling qualities like reliance and self-confidence in students who don’t have them and to make them realize that their own efforts are not having faith in their own efforts i.e. the academic achievement or achievement in any subject is due to their own efforts.

STATEMENT OF THE PROBLEM
The study aims at to find out whether there is any “Relationship between Locus of Control and Achievement in Biological Science among B.Ed. Students”.

OPERATIONAL DEFINITIONS OF TECHNICAL TERMS
a. Locus of Control
Locus of control can be defined in several ways. In the broadest sense, it refers to an individual’s sense that he or she can manifest some degree of control over desired outcomes of a specific activity.

(i) Internal Locus of Control
An internal feels responsible for his actions as well as the consequences. The individual believes he has control over what happens to him and can attain success through ability and perseverance on his part. Believing he has control, he will actively strive and work toward his goals.

(ii) External Locus of Control
An external person feels that forces as fate, luck, chance or powerful others determine his life. If chance is believed to be the determining factor of all occurrences, the world is seen as irrational and unpredictable. As a case in point, predetermination is a belief of external control relating to fate. The external believes powerful others dominate his actions and outcomes.

b. Achievement
Academic achievement refers to investigate what determines academic outcomes of learners; they have come with more questions than answers. In recent time prior literature has shown the learning outcomes (Academic Achievement) has been determined by such variables.

c. Biological Science
Biology is a natural science concerned with the study of life and living organisms, including their structure, function, growth, evolution, distribution, and taxonomy.

d. B.Ed. Trainees
It refers to the students those who are studying B.Ed. program in the self-Financing colleges of Education in Tiruchirappalli District which are affiliated to Tamilnadu Teachers Education University, Chennai.

KEYWORDS
Locus of Control, Achievement, Biological Science, B.Ed. Students.
OBJECTIVES OF THE STUDY
The objectives of the study are stated as follows:
1. To find out the relationship between Internal-External Locus of Control and Achievement in Biological Science of B.Ed. Students.
2. To find out the relationship between Internal-External Locus of Control and Achievement in Biological Science of B.Ed., Students in terms of Sex.
3. To find out the relationship between Internal-External Locus of Control and Achievement in Biological Science of B.Ed., Students in terms of Educational Qualifications.
4. To find out the relationship between Internal-External Locus of Control and Achievement in Biological Science of B.Ed., Students in terms of Social Participation.
5. To find out the relationship between Internal-External Locus of Control and Achievement in Biological Science of B.Ed., Students in terms of Locality.

HYPOTHESES OF THE STUDY
In the light of the above objectives, the following null hypotheses are formulated for testing.

01. There is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science B.Ed., Students.
02. There is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of Male as well as Female B.Ed., Students.
03. There is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of under Graduate as well as Post Graduate B.Ed., Students.
04. There is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of of Rural as well as Urban B.Ed., Students.
05. There is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of B.Ed. Students in terms of Locality.

LIMITATIONS OF THE STUDY
- The Expost-facto study is only used.
- The study only concentrates on Biological Science department students only.
- 68 Males, 132 Females taken from 22 B.Ed., Colleges are alone used for this study.
- The research is conducted among B.Ed., students studied in Tiruchirappalli district only.

REVIEW OF RELATED LITERATURE
Practically all human knowledge can be found in books and libraries. Unlike other animals that must start a new with each generation, man builds upon the accumulated and recorded knowledge of the past.

John W. Best (1999)

REVIVE OF RELATED LITERATURE ON LOCUS OF CONTROL
Indirani (2012) conducted a study on “Extraversion and Introversion types and their reaction to punishment in school children”. He found that extroverted personalities are more sensitive to reward than punishment whereas introverted personalities are more sensitive to punishment than reward.

REVIEW RELATED LITERATURE ON ACADEMIC ACHIEVEMENT
Johnson (2012) conducted a study on “The relationship of selected variables and Academic Achievement of low Socio economic status African American Male students”. He selected family structure, number of siblings, educational levels of parents, family males, and parent’s rules in home, school attendance and study habits as personal variables. He found that African-American male students who had regular school attendance exhibited the least disruptive behavior and who fewest numbers of sibling and earliest birth orders experienced the greatest academic achievement.

Catherine. S and Muthuchamy. I (2014) “Perceived Self-Efficacy of B.Ed., student Teachers in Relation to their Attitude towards Teaching”. This study has been said that teacher characters are related to and influence, the way teachers practice their profession. Perceived self-efficacy and attitude towards teaching are integral factors that increase the quality of teaching. Based on the findings it could be concluded that the student teachers must develop perceived self-efficacy and positive attitude towards teaching. Teacher education is believed to be the only hope to make the society.

METHODOLOGY
Research is carefully recorded and reported. Each important term is defined; limiting factors are recognized procedures are described in detail references are carefully documented, results are objectively recorded and conclusions are presented with scholarly cautions and restraint (Best, 1977).

DESIGN OF THE STUDY
In the present study, Expost-facto research design has been used as most suitable for analysis. On the basis of dependent and independent variables the analysis is carried out.

SAMPLE
The data of B.Ed., Students are collected from various self-financing B.Ed., Colleges located in Tiruchirappalli district. For the present study a sample of 200 B.Ed., students are selected randomly, students are selected irrespective of their sex, educational qualifications, social participation, locality are taken in their B.Ed., course. Twenty Two Colleges of Education are taken for this study which is affiliated to Tamilnadu Teachers Education University, Chennai.

TOOLS USED
For the present study the following tools were used.

a. Internal-External Locus of Control Inventory developed by C. Ashok Kumar and Dr. I. Muthuchamy.
b. Achievement Test in Biological Science developed by C. Ashok Kumar and Dr. I. Muthuchamy.

STATISTICAL ANALYSIS
Statistical measure are analyzed in order to fulfil the objectives and also to test the hypotheses. They are;

- Correlation Analysis – Karl Pearson co-efficient of correlation is used to test hypotheses.

ANALYSIS AND INTERPRETATION OF DATA
Research data becomes meaningful in the process of being analyzed and interpreted on the basis of data. The appropriate analysis can lead to appropriate conclusions (Mouly, 1964)

STATISTICAL ANALYSIS OF THE DATA
Two hundred B.Ed. students constituted the sample. The present study investigates Internal as well as External Locus of Control and Achievement in Biological Science of B.Ed. students in Biological Science as optional subject with reference to some selected variables.

CORRELATION ANALYSIS
Hypothesis: 1
There is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of B.Ed., Students.

Table 1 Result shows the relationship between Internal as well as External Locus of control and Achievement in Biological Science of B.Ed., Students.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Pearson Correlation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1
Table 3 Result shows the relationship between Internal as well as External Locus of control and Achievement in Biological Science of B.Ed., Students educational qualification-wise.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub Variab e</th>
<th>Number</th>
<th>Pearson Correla- tion ('r')</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve-ment in Biological Science</td>
<td>Male Students</td>
<td>Internal Locus of Control</td>
<td>35</td>
<td>0.067</td>
</tr>
<tr>
<td></td>
<td>Female Students</td>
<td>Internal Locus of Control</td>
<td>72</td>
<td>0.204</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Locus of Control</td>
<td>33</td>
<td>0.356</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Locus of Control</td>
<td>60</td>
<td>0.059</td>
</tr>
</tbody>
</table>

Inference
From the table number 3 reveals that the calculated value is lesser than the table value, therefore there is no significant relationship found between Internal as well as External Locus of Control and Achievement in Biological Science of B.Ed., Students. Hence the Hypothesis is accepted.

Result
There is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of B.Ed., Students.

Hypothesis: 3
There is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of B.Ed., Students in terms of their educational qualification.

Table 4 Result shows the relationship between Internal as well as External Locus of control and Achievement in Biological Science of B.Ed., Students in terms of sex.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub Variable</th>
<th>Number</th>
<th>Pearson Correlation ('r')</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve-ment in Biological Science</td>
<td>Male</td>
<td>Internal Locus of Control</td>
<td>49</td>
<td>0.399**</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>Internal Locus of Control</td>
<td>39</td>
<td>0.081</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Locus of Control</td>
<td>50</td>
<td>0.040</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Locus of Control</td>
<td>62</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Inference
From the table number 4 reveals that the calculated value of socially participated internals is greater than the table value, therefore there is a significant relationship found in academic achievement. But the socially participated externals and socially non participated internals and externals calculated values are lesser than the table value, therefore there is no significant relationship found in academic achievement. Hence the one fourth of Hypothesis is accepted.

Result
There is a significant relationship found in Socially Participated Internals only, when compared to Socially Participated Externals as well as socially non participated Internals andExternals.

Hypothesis: 5
There is no significant relationship between Internal as well as External Locus of control and Achievement in Biological Science of B.Ed., Students in terms of their social participation.

Table 5 Result shows the relationship between Internal as well as External Locus of control and Achievement in Biological Science of B.Ed., Students in terms of their locality.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub Variab e</th>
<th>Number</th>
<th>Pearson Correla- tion ('r')</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve-ment in Biological Science</td>
<td>Rural Students</td>
<td>Internal Locus of Control</td>
<td>52</td>
<td>-0.178</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Locus of Control</td>
<td>54</td>
<td>0.103</td>
</tr>
<tr>
<td></td>
<td>Urban Students</td>
<td>Internal Locus of Control</td>
<td>49</td>
<td>0.230</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Locus of Control</td>
<td>45</td>
<td>0.014</td>
</tr>
</tbody>
</table>

Inference
From the table number 5 reveals that the calculated value is lesser than the table value, therefore there is no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of Rural as well as Urban B.Ed., Students. Hence the Hypothesis is accepted.

Result
There is no significant relationship found between Internal as well as External Locus of Control and Achievement in Biological Science of Rural as well as Urban B.Ed., Students.
MAJOR FINDINGS
1. No significant relationship is found between Internal-External Locus of Control and Achievement in Biological Science of B.Ed., Students.
2. No significant relationship is found between Internal-External Locus of Control and Achievement in Biological Science of B.Ed., Students in terms of sex wise.
3. There is a significant relationship found only on Internal Locus of Control and Achievement in Biological Science of Under graduate and Post graduate B.Ed., Students only when compared to Externals.
4. There is a significant relationship found in Socially Participated Internals only, when compared to Socially Participated Externals as well as socially non participated Internals and Externals.
5. No significant relationship is found between Internal-External Locus of Control and Achievement in Biological Science of B.Ed., Students locality wise.

CONCLUSION
The present investigator has found that no significant relationship between Internal as well as External Locus of Control and Achievement in Biological Science of B.Ed., Students regarding Male, Female, Socially non Participated, Rural and Urban students, but there is relationship found between Internal Locus of Control and Achievement in Biological Science among Under Graduates, Post Graduates, and Socially Participated, Students only.

The investigation of Locus of Control and Achievement in Biological Science reveals that High Achievers are Internals and Low Achievers are Externals.

EDUCATIONAL IMPLICATIONS OF THE STUDY
Locus of Control is a concept in between Psychology and Sociology, related to where individuals conceptually place responsibility, choice and control for events in their lives. It distinguishes between two common approaches, which place the actual control both internal and external to the person, themselves.

Locus of Control has frequently been viewed as a cognitive model of personality, its roots can actually be seen in Behaviorism as the immediate background to this theory related to beliefs about reinforcement.

In terms of personality types, the concept distinguisher’s, the internals, who attribute events to their own control and the externals, which attribute events in their life to external circumstances.

SUGGESTIONS FOR FURTHER STUDY
1. The present study is limited to the students with one district only. The study could also be done for a wider population.
2. Since the study was mainly conducted in Biological Science department students only, similar studies may take up in other department students.
3. The influence of other factors such as intelligence, originality, cognitive development and creativity on locus of control and achievement should also be intensively studied.
4. The study was limited to the students of the colleges of Education only. It could be extended to all students, both in schools and arts colleges.

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