



V. Mathialahan, K. Govindarajan, R. Nandhakumar, T. Balasubramanian, R. Sivannatham

Abstract: Purpose - In the present century the need and importance of understanding the emotional intelligence of the learner has been grown among the educationists. This is especially true and more prevalent in professions that require the employees to be highly emotionally intelligent such as in the teaching profession. In this study Emotional Intelligence, School Environment and Academic Achievement of secondary school students was probed to find the relationship between and among Emotional nature, School climate and outcomes of standard IX and X students. Methodology - In this study the Emotional Intelligence Questionnaire, School Environment Scale (SES) is used. The investigator used stratified random sampling technique for selecting the sample. The study will adopt a Normative Survey Method. The variables studied are the Emotional Intelligence, School Environment and Academic Achievement. Emotional Intelligence Scale developed and validated Balasubramanain and Shanty in 2005 is used for the study. Further School Environment questionnaire developed and validated by the Shanty Jose 2009 is used for the study. The academic achievement scores obtained by the student is used for analysing the learning outcome.

Findings - Finding shows from the study shows that there is a high level of Emotional Intelligence, school environment and academic achievement of secondary school students. No significant differences found between and among Emotional Intelligence, School Environment and Academic Achievement with respect to the variables gender, class, type of institutions, locality and medium of instruction. There is a significant relationship exists between and among Emotional Intelligence, school environment and academic achievement and its sub variables.

Significance - Emotion as the basis of all behaviours and activities and so is directly related to all human nature and achievements. Emotions are source of motivation, source of learning, source of strength and endurance to body. Emotional intelligence is being able to understand one's one behaviour and to use this to guide their action. Understanding the emotional intelligence of learner will help to analyse the academic performance of individual learner and to provide them useful support.

Manuscript published on January 30, 2020.

* Correspondence Author

V. Mathialahan*, Assistant Professor, Alagappa University, Karaikudi, Tamil Nadu, India.

Dr. K. Govindarajan, Assistant Professor and Research supervisor, Department of Education, Alagappa University, Karaikudi, Tamil Nadu, India.

R. Nandhakumar, Assistant Professor, Alagappa University, Karaikudi, Tamilnadu, India.

Balasubramanian T, Assistant Professor, Alagappa University. Karaikudi, Tamil Nadu, India.

R.Sivannatham, Assistant Professor, Alagappa University, Karaikudi, Tamil Nadu, India.

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an open access article under the CC-BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)

Keywords: Emotional intelligence, Academic achievement, Emotionally intelligent, School Environment, Emotions, Emotional tensions, Emotional tensions.

I. INTRODUCTION

Emotional intelligence is that the capability to know and manage your emotions. The talents concerned in emotional intelligence are knowingness, self-regulation, motivation, empathy, and social skills. emotional intelligence is that "something" among us that helps us to sense however we have a tendency to feel and allows us to actually connect with others and kind a bond -Knowingness – our ability to understand our emotions and perceive our tendencies to act in bound ways in which in given things. Success - Higher emotional intelligence helps us to be stronger motivators, which might scale back procrastination, increase self-assurance, and improve our ability to specialise in a goal. It additionally permits us to make higher networks of support, overcome setbacks, and continue with a additional resilient outlook. Students with higher levels of emotional intelligence are able to higher manage themselves and relate to others around them. This will facilitate them develop improved selfmotivation and more practical communication skillsessential skills to helping students become additional assured learners.

School environment refers to the psycho-Social climate of the school as perceived by the scholars at school. It includes six dimensions - inventive stimulation, psychological feature encouragement, tolerance, acceptance, rejection and management. A school is associate degree surroundings wherever is information is non heritable at varied levels. The buildings or environment wherever is non heritable is as vital because the knowledge itself. In recent years several makes an attempt are done to spot the link between student's educational action, home and school environment. It's ascertained that if a baby needs adjutant inputs from home and college, he are higher all told walks of life and his development are harmonious a lot of over it may also be opinioned that house is the primary faculty wherever kid gets experiences that facilitate him to survive long. The term environment has been considered providing a network forces and factors that surround, engulf and play role on the event of a private.



Journal Website: www.ijrte.org

The term environment in its usual sense encompasses all of influences upon development that return from outside the individual. Several researchers have evidenced that home environment and school environment result the scholastic achievement of the students.

Academic Achievement reflects student ability and performance; it is associated with human development and psychological features, emotional, social and economical development; it's not associated with one instance, however happens across time and levels. Merriam Webster defines action as "the quality and amount of a student's work." This second definition is that the one that additional or less applies to the present analysis, the previous being too thoroughgoing. What we want here is that the quality of the students' work; we need to calculate the mean of their overall grades throughout the primary semester of the present year.

Secondary school students are the students **listed during a** course of study within the school providing courses on top of primary level. It includes students of ninth & tenth only.

II. NEED AND SIGNIFICANCE OF THE STUDY

It is important to note that having high emotional intelligence will give an added advantage to the learner may it be in educational or career development. The school is the most dynamic place which keep pace with the needs of the society. It should also develop in each individual the knowledge, interest, ideals, attitudes, habits, skills and powers, whereby s/he will find his/her right place in the social order and use that position to shape him/her and the society both towards the higher and nobler ends. The attainment of such objectives require proper school environment. The school is a social-psychological system i.e. principal and teachers working in a school constitute socially and psychologically interacting units and through their interactions, school acquires a land of distinct personality or a distinct atmosphere. The administration should work towards the improvement of school climate, so that a better output from school could be expected. Since emotional intelligence is a master aptitude, a capacity that profoundly affects all other abilities, either facilitating or interfering with them (Goleman, 1995), this give raise to the idea to investigate the Emotional Intelligence, School Environment and Academic Achievement among Students.

III. REVIEW OF RELATED LITERATURE

Sheikh Imran Perve (2018) A Study Of Emotional Intelligence Among Higher Secondary Level Students In Relation To Their Academic Achievement published in Review Of Research An International Multidisciplinary Peer Reviewed & Refereed Journal Vol. 7, Issue 4, January 2018 .The present paper aims to study the Emotional Intelligence of Higher Secondary level students in relation to their Academic Achievement. Simple random sampling was used in the selection of sample, which comprised 100 boys and 100 girls of class XII in two government aided schools in West Bengal. Emotional Intelligence scale (Singh and Narain, 2014) was used as tool for collecting data on Emotional Intelligence. Personal interviews were taken to collect data on Academic Achievement. The collected data was analysed by t-test and Karl Pearson's Coefficient of correlation (r). It was found that overall Higher Secondary

level girl students had higher Emotional Intelligence scores than H.S level boy students. Academic Achievement was not differing significantly according with their gender and there was no statistically significant correlation between Emotional Intelligence and Academic Achievement of H.S level students.

Govindarajan,K.(2019) in his book on Emotional Intelligence, Aptitude and Academic achievement in Commerce of Higher secondary school students discussed the importance of commerce education and the need for students achievement. There are many factors responsible for achievement in commerce education and one such a factor is emotional intelligence. The author analyzed aptitude on commerce education critically. The author also strengthened his view by a research study conducted using normative survey method. The sample of 782 students has been taken from the 12 higher secondary schools in Cuddalore district of Tamilnadu, India. Based on the statistical analysis the author concluded that Emotional intelligence and Aptitude plays significant role in the academic achievement of the learner in commerce.

Govindarajan.K., and Mathialahan.V(2019) enumerated the level of emotional intelligence and academic achievement of secondary school students with respect to different variables namely gender, class, locality and type of institution in order to maximize the performance of the students. Since emotion is the basis of all interests and motivation, it plays significant role in the achievement of learner particularly at the start of the adolescence. Emotional tension affect the efficiency of a learner and disturbs the learning ability. Emotional intelligence will guide the students in their thinking and action.

Govindarajan.K., and Mathialahan.V(2019) conducted a study on school environment and academic achievement of secondary school students. Normative survey method was adopted in this study. School environment and academic achievement were the variables used for the study. Totally 300 samples of IX and X standard students from government aided and unaided schools in Sivagangai district of Tamilnadu has been selected. The school environment questionnaire standardized by Anik Justina was used in the study. The results showed that there was a high level of influence in the school environment and academic achievement.

IV. STATEMENT OF THE PROBLEM

In this highly competitive world, the achievement record of the student is much focused for the betterment of life. Academic achievement is not a single entity. It is being influenced by so many factors. Among those factors, the investigator has selected Emotional Intelligence, School Environment of the students and finds which contribute itself to the Academic Achievement either individually or combination. The study is entitled as "Emotional Intelligence, School Environment and Academic achievement of secondary school students"

Objectives of the study

 To find the level of Emotional Intelligence, School Environment and Academic achievement of secondary school students.





- To study the difference in Emotional Intelligence among the students with respect to Gender, Class, Locality, Types of Institutions and Medium of Instructions
- To study the difference in School Environment in terms of Gender, Class, Locality, Types of Institutions and Medium of Instructions
- To study the difference in Academic Achievement in terms of Gender, Class, Locality, Types of Institutions and Medium of Instructions
- To find out the relationship between Emotional Intelligence and School Environment
- To find out the relationship between Emotional Intelligence and Academic achievement of secondary school students

Hypotheses

- There is no significant difference in Emotional Intelligence among the students of secondary schools with respect to Gender, Class, Locality, Types of Institutions and Medium of Instructions
- There is no significant difference in School Environment respect to Gender, Class, Locality, Types of Institutions and Medium of Instructions
- There is no significant difference in Academic Achievement of secondary school students with respect to Gender, class, Locality , Types of Institutions and Medium of Instructions
- There is significant relationship between Emotional Intelligence and School Environment of secondary school students

Methodology of the study

The Normative Survey Method is adopted for the study. The variables used are the Emotional Intelligence, School Environment and Academic Achievement.

Population

IX and X Standard students of secondary school in Valliore Educational District are the population of this study.

Sample

The sample consists of 300 IX and X standard students from both Government Aided and Unaided schools in Valliore Educational District.

Tools

Emotional Intelligence Scale developed and validated by the *Balasubramanain and Shanty* in 2005 will be used for the study.

School Environment questionnaire developed and validated by the **Shanty Jose 2009 was** used for the study

Academic Achievement scores obtained by the student is to be used for this study.

Validity and reliability of the tool

The sample reliability is established by test-retest method by the investigator and the reliability coefficient is found to be 0.80. Hence the tools are highly reliable.

Procedure of data collection

The Emotional Intelligence and School Environment Questionnaire will be given to the selected sample with a request to fill in the required data enclosing a copy of permission letter from the District Educational Officer.

V. DATA ANALYSIS DESCRIPTIVE ANALYSIS

Table – I. Mean and SD of Variable Emotional Intelligence and its sub-variables

¥7		Values	
Variable	No	Mean	SD
Emotionall Intelligence	300	103.37	10.24
Boys	112	101.67	9.14
Girls	118	104.39	10.74
IX	233	103.08	10.`19
X	67	104.39	10.44
Rural	200	103.23	10.23
Urban	100	103.66	10.32
Govt.	50	102.42	7.54
Aided	120	101.93	11.41
Unaided	130	105.08	9.81
Tamil	170	102.07	10.4
English	130	105.08	9.81

Table - II Mean and SD of Variable Home Environment and its sub-variables

Vaniahl.		Values			
Variable	No	Mean	SD		
Home Environment	300	97.65	9.18		
Boys	112	95.92	8.9		
Girls	118	98.69	9.21		
IX	233	97.49	9.38		
X	67	98.22	8.45		
Rural	200	97.38	8.98		
Urban	100	98.2	9.58		
Govt.	50	97.16	7.28		
Aided	120	96.51	9.65		
Unaided	130	98.9	9.28		
Tamil	170	96.7	9.00		
English	130	98.9	9.28		

Table - III. Mean and SD of Academic Achievement and its sub-variables

Variable	Values			
variable	No	Mean	SD	
Academic Acheivement	300	380.71	48.94	
Boys	112	373.152	47.69	
Girls	118	385.22	49.24	
IX	233	382.47	48.64	
X	67	374.61	49.84	
Rural	200	377.09	51.02	
Urban	100	387.96	43.84	



Govt.	50	382.48	34.84
Aided	120	369.67	55.24
Unaided	130	390.23	45.48
Tamil	170	373.44	50.35
English	130	390.23	45.48

Differential analysis - Emotional Intelligence

Table - IV. Mean SD and 't' value of Emotional Intelligence and its sub-variables

Variable		Values		t	S
variable	No	Mean	SD		
Boys	112	101.67	9.14		NIC
Girls	118	104.39	10.74	0.02	NS
IX	233	103.08	10.`19	0.367	NS
X	67	104.39	10.44	0.307	No
Rural	200	103.23	10.23		NS
Urban	100	103.66	10.32	0.733	No
Govt.	50	102.42	7.54	0.74	NS
Aided	120	101.93	11.41	0.74	No
Govt	50	102.42	7.54		
Un Aided	130	105.08	9.81	0.055	NS
Aided	120	101.93	11.41	0.021	NS
Unaided	130	105.08	9.81	0.021	IND
Tamil	170	102.07	10.4		NS
English	130	105.08	9.81	0.368	1/10

Home Environment

Table – V. Mean SD and 't' value of Home Environment and its sub-variables

X7		Values		t	S
Variable	No	Mean	SD		
Boys	112	95.92	8.9		NC
Girls	118	98.69	9.21	0.011	NS
IX	233	97.49	9.38	0.562	NS
X	67	98.22	8.45	0.362	NS
Rural	200	97.38	8.98		NC
Urban	100	98.2	9.58	0.477	NS
Govt.	50	97.16	7.28		NS
Aided	120	96.51	9.65	0.457	NS
Govt	50	97.16	7.28		
Un Aided	130	98.9	9.28	0.188	NS
Aided	120	96.51	9.65		NS
Unaided	130	98.9	9.28	0.047	CNI
Tamil	170	96.7	9.00	0.041	NS
English	130	98.9	9.28	0.041	110

Academic Achievement

Table – VI. Mean, SD and 't' of Academic Achievement and its sub-variables

X7		Values		t	S
Variable	No	Mean	SD		
Boys	112	373.152	47.69		NC
Girls	118	385.22	49.24	0.037	NS
IX	233	382.47	48.64	0.256	NS
X	67	374.61	49.84	0.230	No
Rural	200	377.09	51.02		NS
Urban	100	387.96	43.84	0.057	No
Govt.	50	382.48	34.84		NS
Aided	120	369.67	55.24	0.041	No
Govt	50	382.48	34.84		
Un Aided	130	390.23	45.48	0.224	NS
Aided	120	369.67	55.24	0.002	NS
Unaided	130	390.23	45.48	0.002	IND
Tamil	170	373.44	50.35	0.003	NS
English	130	390.23	45.48	0.003	IND

Table - VII. Correlation analysis

Variable		Values	
Variable	No.	r'	S
Emotional Intelligence and Academic achievement	300	0.745	S
Boys	112	0.726	S
Girls	118	0.751	S
IX	233	0.769	S
X	67	0.692	S
Rural	200	0.71	S
Urban	100	0.85	S
Govt.	50	0.754	S
Aided	120	0.694	S
Unaided	130	0.799	S
Tamil	170	0.7	S
English	130	0.799	S

Table - VIII

Variable	Values		
variable	No.	ʻr'	S
Home Environment and Academic Achievement	300	0.78	s
Boys	112	0.8	S
Girls	118	0.76	S





IX	233	0.79	S
X	67	0.73	S
Rural	200	0.75	S
Urban	100	0.85	S
Govt.	50	0.74	S
Aided	120	0.7	S
Unaided	130	0.87	S
Tamil	170	0.7	S
English	130	0.87	S

VI. FINDINGS, SUGGESSTIONS AND CONCLUSION

Findings

Descriptive analysis - Emotional intelligence

- The level of Emotional Intelligence of secondary school students is high
- Mean score of Girls' Emotional Intelligence is greater than the Boys
- The students studying in X std are at a higher level than the students studying in IX std. with respect to Emotional Intelligence
- The students studying in unaided schools are at a higher level than the students studying in Government schools with respect to Emotional Intelligence
- Mean score of urban school students Emotional Intelligence is same compared to the rural schools students.
- Mean score of English medium school students Emotional Intelligence is same when we compare to Tamil medium schools students.

School environment

- Mean score of Girls in the school Environment is higher than the boys in the school environment.
- ❖ The students studying in X std are at a higher level than the students studying in IX std. with respect to School condition
- ❖ The students studying in Government schools are at a higher level than the students studying in Aided schools with respect to School Environment
- ❖ The students studying in unaided schools are at greater level of School Environment than the students studying in Government schools.
- The students studying in unaided schools are at a higher level than the students studying in aided schools with respect to School Environment
- Mean score of urban school students School Environment is higher than the rural schools students school environment
- Mean score of English medium school students School Environment greater than the Tamil medium schools students

Academic achievement

- √ The level of Academic Achievement of secondary school students seems to be high level.
- ✓ Mean score of Girls Academic Achievement is greater than the boys The students studying in IX std are at a

- higher level than the students studying in X std with respect to Academic achievement students.
- ✓ The students studying in Government schools are at a higher level than the students studying in Aided schools with respect to Academic achievement
- ✓ The students studying in Unaided schools are at a higher level than the students studying in Government schools with respect to Academic achievement
- ✓ The students studying in unaided schools are highest level of students studying in aided schools with respect to Academic achievement
- ✓ Mean score of urban school students Academic Achievement is greater than the rural schools students.
- ✓ Mean score of English medium school students Academic Achievement is higher than the Tamil medium schools students.

Differential analysis Emotional intelligence

- ➤ There is no significant difference between boys and girls with respect to Emotional Intelligence among secondary school students.
- ➤ There is no significant difference between IX and X std. with respect to Emotional Intelligence among secondary school students.
- ➤ There is no significant difference between Government and Aided with respect to Emotional Intelligence among secondary school students.
- ➤ There is no significant difference between Government and unaided with respect to Emotional Intelligence among secondary school students.
- There is no significant difference between Aided and unaided with respect to Emotional Intelligence among secondary school students.
- ➤ There is no significant difference between rural and urban school with respect to Emotional Intelligence among secondary school students.
- There is no significant difference between Tamil and English Medium school with respect to Emotional Intelligence among secondary school students.

School environment

- There is no significant difference between boys and girls with respect to School Environment among secondary school students.
- ❖There is no significant difference between IX and X std. students with respect to School Environment among secondary school students.
- ❖There is no significant difference between Government and Aided with respect to School Environment among secondary school students.
- There is no significant difference between Government and unaided with respect to School Environment among secondary school students
- ❖There is no significant difference between Aided and unaided with respect to School Environment among secondary school students.
- There is no significant difference between rural and urban school with respect to School Environment among secondary school students.



❖There is no significant difference between Tamil and English Medium School with respect to School Environment among secondary school students.

Academic achievement

- There is no significant difference between boys and girls with respect to Academic Achievement among secondary school students.
- ✓ There is no significant difference between IX and X std. students with respect to Academic Achievement among secondary school students.
- ✓ There is no significant difference between Government and Aided with respect to Academic Achievement among secondary school students.
- ✓ There is no significant difference between Government and unaided with respect to Academic Achievement among secondary school students.
- ✓ There is no significant difference between Aided and unaided with respect to Academic Achievement among secondary school students.
- ✓ There is no significant difference between rural and urban school with respect to Academic Achievement among secondary school students.
- ✓ There is no significant difference between Tamil and English Medium school with respect to Academic Achievement among secondary school students.
- ✓ From the study it is inferred that there is no significance difference between and among boys ,girls, std. IX and std X , Government school, aided school, unaided school, rural school ,urban school, Tamil medium and English medium school students with respect to Academic Achievement among secondary school students.

Correlation analysis

- There is a significant relationship between Emotional Intelligence and School Environment of secondary school students. Also there exists significance relationship among boys, girls., std. IX, std X, Government school, aided school, unaided school, rural school ,urban school, Tamil medium and English medium school students
- There is a significant relationship between Emotional Intelligence and Academic achievement of secondary school students. Also there exists significance relationship among boys, girls., std. IX, std X, Government school, aided school, unaided school, rural school urban school, Tamil medium and English medium school students
- There is a significant relationship between School Environment and Academic achievement of secondary school students with respect to boys, girls., std. IX, std X, Government school, aided school, unaided school, rural school ,urban school, Tamil medium and English medium school students

Suggestion For The Further Research

The present study is an attempt to analyze the influence of school and the influence of intelligence on academic achievement of secondary school students. The area of study of the present study was in Valliore Educational District of Tamilnadu with relatively small sample size.

 The present study only covers the students and schools sample of Government ,Aided and Unaided Secondary Schools . In order to give more conclusive results, private, recognized and non-recognized schools from where a

- large number of students have been appearing in class-X board examination can be taken for investigation.
- The present study was conducted only on secondary level. It studied the influence of School Environment and intelligence on academic achievement of secondary school students. The academic achievement of the students may be extended to the other level of education i.e. primary and higher level also.
- In the present investigation, a few of the important variables is studied which suggested that the investigation can be extended some other variables which may have significant importance in academic achievement of students.

VI. CONCLUSION

Emotional imbalance may cause poor health like lack of sleep, restlessness, headache, and, lack of appetite. Focus on educational outcomes has increased in the past decade with state wide high stakes testing and nationwide school accountability programs. In an effort to improve the success of students, it has become necessary to examine all components of the educational process. Educational services are often not tangible and are difficult to measure because they result in the form of transformation of knowledge, life skills and behaviour modifications of learners (Tsinidou and others, 2010). So there is no commonly agreed upon definition of quality that is applied to education field. This social assistance has a crucial role for the accomplishment of performance goals of students at school.

REFERENCES

- Anjali Sharma and Pinku, (2017). A study of Emotional Intelligence in Relation to Academic Achievement, Gender and Locality International Journal of Engineering Technology Science and Research IJETSR Volume 4, Issue 7 July 2017
- Archana Kumari and Chamundeswari (2015). Emotional Intelligence, School Environment and Academic Achievement of Students. AEIJMR – Vol 3 - Issue 2 – February 2015.
- 3. Arul lawrence and S. A.Vimala (2012). School environment and academic achievement of standard ix students
- Bhadouria and Preeti(2014) conducted study of personality and emotional intelligence and its effect on academic achievement of high school students researcher.
- Chaturvedi (2009) investigated the effect of school environment and certain demographic variables on achievement motivation and academic achievement of young adolescents
- Felix Omemui (2018). School Climate and Student academic achievement in Edo State Public Secondary school International Journal of Scientific Research in Education, JUNE 2018, Vol. 11(2), 175-186
- Govindarajan,K (2019). Emotional Intelligence , Aptitude and Academic Achievement in Commerce og Higher Secondary School Students . New Delhi: Adam Book House.
- 8. Govindarajan, K. and Mathialahan. V (2019). The Influence of Emotional Intelligence on Academic achievement of Secondary school students. Review of Research, 8(9),1-8.
- Govindarajan, K. and Mathialahan. V (2019). School environment and Academic achievement of Secondary school students. Think India Journal, 22(10),677-690.
- 10. KiagusMuhammadSobria1FaridaHanumb1HutkemriZulnaidic1 Abdul Razaq Ahmadd Alfitria1 (2017). A comparative study of School atmosphere for students' skills development in Malaya and Republic of Indonesia| Dutch East Indies| country| state| land Ketsart Journal of Social Sciences





- Odeh. R. C,1 Oguche, O. Angelina2 and Ivagher, Ezekiel Dondo3 (2015). Influence Of School Environment On Academic Achievement Of Students In Secondary Schools In Zone "A" Senatorial District Of Benue State, Nigeria International Journal of Recent Scientific Research Vol. 6, Issue, 7, pp.4914-4922, July, 2015.
- 12. Vimala (2012) on school environment and academic achievement of standard IX students probed into the relationship between school environment and academic achievement of these students

AUTHORS PROFILE



V. Mathialahan, is undergoing Ph.D programme in Education at Alagappa University, Karaikudi, Tamilnadu, India under the supervision of Dr.K.Govindarajan who is working as an Assistant Professor at Alagappa University. The author has completed his post graduate degree in Tamil and Education from Annmalai University. He also

completed Master of philosophy in Tamil from Madurai Kamarajar University and Master of philosophy in Education from Bharathidasan University. The author has published 5 articles in Education. He has presented more than 20 papers in national and international conferences. He has also written 12 chapters in chapter writing books and now he is doing research in the field of Education Organizational Climate, Emotional Intelligence and Teaching skills on Second grade teachers. He has completed 9 years of teaching experience in collegiate level in Education.



Dr. K. Govindarajan, is working as Assistant Professor and Research supervisor in the Department of Education at Alagappa University, Karaikudi. The author has got his post graduate degrees in Commerce, Education and Businesss Administration from the Madurai Kamaraj University, Post graduate degree in Psychology from the University of Madras,

Master of Philosophy from the Manonmaniam Sundaranar University.and Ph.D in Education from the Alagappa University, Karaikudi. He has put in more than 20 years of teaching experience in various universities like SASTRA University, Vinayaka Missions University and Alagappa University. He served as the Principal of the Department of Education at Vinayaka Missions University. He served as the Coordinator for B.Ed programmes of Distance mode at SASTRA Univerity and member of Board of studies in Alagappa University, SASTRA University and Vinayaka Mission University. He has acted as chief superintendent for conducting University examinations of University of Madras and SASTRA University. He has conducted research in various fields like Educational Psychology, Education Management, and Educational technology and Research methodology is his area of interest. He has visited Singapore, Malaysia and Srilanka to act as a chairperson in international conferences. He has published 80 articles in reputed journals and presented papers in national and international conferences. He has organized many International and National conferences and workshops. He wrote and published seven books on different topics. He is the member of Editorial board of reputed Journals. He has guided 22 students at M.Phil level and 42 candidates at PG level. Currently 4 Ph.D scholars and 4 M.Phil scholars and pursuing their programmes under his guidance.



R. Nandhakumar, is undergoing Ph.D programme in Education at Alagappa University, Karaikudi, India under the supervision of Dr.K.Govindarajan (Second Author) who is working as an Assistant Professor at Alagappa University. The author has completed his Post graduate degree in Physics from Annamalai University, Computer Applications in University of Madras and Education in Madurai Kamaraj University. The Author

has published two articles in Physics, one in Computer applications and five in Education. He has presented more than 20 papers in national and international conferences. He has conducted project work in the field of telecommunication, Doctoral research in crystallography and now he is doing research in the field of learning of physics and database technology. He has completed 15 years of service in teaching at college level.



Balasubramanian T, is undergoing Ph.D programme in Education at Alagappa University, Karaikudi, Tamilnadu, India under the supervision of Dr.K.Govindarajan who is working as an Assistant Professor at Alagappa University. The author has completed his post graduate degree in Computer science and Post graduate diploma in Computer

Application Annamalai University. Master of philosophy in Computer science from Tamil University. Post graduate degree in Education from the Vinayaga Mission University. The author has published 24 articles in Education. He has presented more than 25 papers in national and international conferences. He has also written 3 books in research in the field of Education in ICT. He also written a computer science text book in Tamilnadu Textbook Corporation. He has completed 22 years of teaching experience in higher secondary level school Education.



R.Sivannatham, is undergoing Ph.D programme in Education at Alagappa University, Karaikudi, Tamilnadu, India under the supervision of Dr.K.Govindarajan who is working as an Assistant Professor at Alagappa University. The author has completed his post graduate degree in Mathematics, Education and Master of philosophy in Mathematics

and Post graduate diploma in Educational Administration from Bharathidasan University. Master of philosophy in Education from Tamil University. Post graduate degree in Psychology from the Tamil Nadu Open University. The author has published 15 articles in Education. He has presented more than 75 papers in national and international conferences. He has also written 19 chapters in chapter writing books and now he is doing research in the field of Education Knowledge, Attitude and Skills on Ewaste management. He has completed 8 years of teaching experience in collegiate level in Education.

