

A STUDY ON EMOTIONAL INTELLIGENCE AND CONTENT PEDAGOGICAL KNOWLEDGE OF B.Ed. BIOLOGICAL SCIENCE STUDENTS

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ABSTRACT

This research article highlighted the emotional intelligence of B.Ed. biological science students and its influence on their content pedagogical knowledge. For this, the investigator adopted survey method. The population comprises of all the B.Ed. biological science students studying in the colleges of education in Tirunelveli, Thoothukudi and Kanyakumari districts. From the population, the investigator randomly selected 619 students using simple random sampling technique. Emotional Intelligence Scale of Thomas Alexander (2004) and Self-constructed Content Pedagogical Knowledge Scale were used as the tools of the study. Mean, Standard Deviation, 't' test and Product Moment Correlation were used to analyze the data. The findings revealed that significant relationship is found between emotional intelligence and content pedagogical knowledge of B.Ed. biological science students.

Keywords: Emotional Intelligence, Content Pedagogical Knowledge, Biological Science Students.

INTRODUCTION

A teacher is the active force in any educational institution, without his presence, there may not be any progress in the academic development of the students. Similarly, any educational institution without good teachers is a soulless body. Without competent teachers, even the best educational systems are bound to fail. Hence, a good teacher can certainly make the best of even from the worst system. Every teacher must understand the wordings of William Arthur Ward, who aptly remarked, "the good teacher explains, the superior teacher demonstrates and the great teacher inspires".

The teacher is the second parent of the child, who helps the child in the development of positive personality characteristics and good behavioural characteristics. He also performs the role of the parents not only in the classroom but also in the society, because he is the torchbearer of the society.

EMOTIONAL INTELLIGENCE

Emotions are impulses or stimuli to act. They are automatic implying that they are engrained into the subconscious minds of the people. Extreme emotions like love or fear are easy to identify. Many other emotions are "mixed" and belong somewhere "in between". They are complex and therefore difficult to recognize. Some may last for minutes, others may remain for weeks.

Even animals experience a degree of the emotions. The only difference with the human being is that they have a higher, more developed capability to think about them. In the words of Daniel Goleman (1995), Emotional Intelligence is, “The capacity for recognizing our own feelings and those of others. For motivating ourselves, for managing emotions well in ourselves and in our relationships”.

Emotional intelligence motivates oneself and manages emotions as well in oneself and one’s relationships with others. It is seen that many people who are book smart, but lack of emotional intelligence end up working for people who have lower IQs. People with good emotional capacity know their feelings well and are in control of them. They can read other people’s feelings and deal with them effectively. People with this type of intelligence have a defined thinking process, which in turn promotes creativity and productivity (Anjana Sharma, 2002).

Pratik Upadhyaya (2008) in his presentations on the importance of emotional intelligence links it with important work related outcomes such as individual performance and organizational productivity. People who are not in control of their emotions fight internal struggle that inhibit their ability to think clearly and concentrate on their work. It is their emotional intelligence that fails them.

Emotional intelligence is the ability to perceive and identify emotions in face, tone of voice, body language. It is the capacity for self-awareness, being aware of one’s own feelings as they are occurring. It is the capacity for emotional literacy. Being able to label specific feeling in oneself and others, being able to discuss emotions and communicate clearly and directly.

CONTENT PEDAGOGICAL KNOWLEDGE

Content Pedagogical Knowledge is the overlap of information about subject knowledge being taught, and pedagogic knowledge, that is knowledge of how to teach. Despite a teacher's deep understanding of a subject area he or she must also be able to foster understanding of subject or concepts for students.

Shulman (1987) identified “content pedagogical knowledge” as the most useful forms of representation of the ideas of the teacher that is conveyed to the taught with the most powerful analogies, illustrations, examples, explanations, and demonstrations, the ways of representing the subject that make it comprehensible to others. It also includes an understanding of what makes the learning of specific topics easy or difficult: the conceptions and preconceptions that students of different ages and backgrounds bring with them to learning. (Joyce, B. and Weil, M. 2000)

Content pedagogical knowledge also includes conceptual and procedural knowledge, a repertoire of varied techniques or activities (which meet different learning styles) knowledge of techniques for assessing and evaluating, and knowledge of a variety of resources, which can be easily accessed for use in the classroom (Farah J. Farooqi, 2006). Hence, the future teachers should be capable of having this to enrich their competency to teach the subject matter in an efficient manner.

NEED AND SIGNIFICANCE OF THE STUDY

The quality of teacher education depends upon the quality, efficiency and competency of teacher educators. The teachers should be expertized in certain skills like controlling their self, thinking capacity, problem solving and the like. They should be highly motivated to learn new concepts and techniques, and acquire various skills in order to improve their proficiency in teaching that are helpful to the nation building process.

All the school going children require certain skills and have to practise them to successfully develop their knowledge database. These skills play a vital role in deciding their levels of achievement, which may decide their career. The ambitions and aspirations of the students are largely governed by their skills. Moreover, above all the skills, the student teachers should be capable of handling different students with different capabilities under different critical situations. With the broad spectrum of cognitive characteristics, there may be strengths and weaknesses, which influence their study skills and their pedagogical content pedagogical knowledge of student teachers. Hence, the investigator would like to take up this study.

TITLE OF THE STUDY

A STUDY ON EMOTIONAL INTELLIGENCE AND CONTENT PEDAGOGICAL KNOWLEDGE OF B.Ed. BIOLOGICAL SCIENCE STUDENTS

DEFINITION OF THE KEY TERMS

Emotional Intelligence

“It denotes abilities such as being able to motivate oneself and persist in the face of frustrations, to control impulses and delay gratification: to regulate one’s moods and keep distress from swamping the ability to think; to empathize and to hope” (Goleman, 1995).

Here, it means the ability to recognize one’s emotions, empathize with peers and deal with crisis in schools, colleges and workplace. It is the understanding of one’s own feelings and regulation of emotions in a way that enhances living. It includes (a) self-awareness; (b) self-management; (c) social awareness and (d) relationship management.

Content Pedagogical Knowledge

Content pedagogical knowledge refers to a type of knowledge that is unique to teachers, and is based on the manner in which the teachers relate their pedagogical knowledge (what they know about teaching) to their subject knowledge (what they know about what they teach).

B.Ed. Biological Science Students

By ‘B.Ed. Biological Science Students’, the investigator means the student teachers studying two years B.Ed. degree course having the optional subject - biological science.

OBJECTIVES

1. To find the level of emotional intelligence and content pedagogical knowledge of B.Ed. biological science students.
2. To find the significant difference in the emotional intelligence of B.Ed. biological science students with regard to certain background variables - gender, family type and locality of residence.
3. To find the significant difference in the content pedagogical knowledge of B.Ed. biological science students with regard to certain background variables - gender, family type and locality of residence.
4. To find the significant relationship between emotional intelligence of B.Ed. Biological Science Students and their content pedagogical knowledge.

METHOD AND PROCEDURE

The investigator adopted survey method. The population comprises of all the B.Ed. biological science students studying in the colleges of education in Tirunelveli, Thoothukudi and Kanyakumari districts. From the population, the investigator randomly selected 619 students using simple random sampling technique. Emotional Intelligence Scale of Thomas Alexander (2004) and Self-constructed Content Pedagogical Knowledge Scale were used as the tools of the study. Mean, Standard Deviation, 't' test and Product Moment Correlation were used to analyze the data.

ANALYSIS AND FINDINGS

Percentage Analysis

Level of Emotional Intelligence and Content Pedagogical Knowledge of B.Ed. Biological Science Students.

Table - 1 : Level of Emotional Intelligence and Content Pedagogical Knowledge of B.Ed. Biological Science Students

Dimensions	Low		Moderate		High	
	N	%	N	%	N	%
Self-Awareness	114	18.40	411	66.40	94	15.20
Self-Management	118	19.10	405	65.40	96	15.50
Social Awareness	112	18.10	430	69.50	77	12.40
Relationship Management	116	18.70	391	63.20	112	18.10
Emotional Intelligence in Total	124	20.00	387	62.50	108	17.40
Content Pedagogical Knowledge	118	19.10	387	62.50	114	18.40

From the above table, it is inferred that 20.00% of B.Ed. Biological Science Students have low, 62.50% of them have moderate and 17.40% of them have high level emotional intelligence. In the case of the dimensions, 18.40% of them have low, 66.40% of them have moderate and 15.20% of them have high level self-awareness. 19.10% of them have low, 65.40% of them have moderate and 15.50% of them have high level self-management. 18.10% of them have low, 69.50% of them have moderate and 12.40% of them have high level social awareness. 18.70% of them have low, 63.20% of them have moderate and 18.10% of them have high level relationship management.

It is also inferred that 19.10% of the students have low, 62.50% of them have moderate and 18.40% of them have high level content pedagogical knowledge.

Null Hypothesis - 1

There is no significant difference in the emotional intelligence of B.Ed. Biological Science Students with respect to gender.

Table - 2 : Difference in the Emotional Intelligence of B.Ed. Biological Science Students with respect to Gender

Dimensions	Gender	N	Mean	SD	Calculated 't' value	Remark
Self-Awareness	Male	44	38.52	8.775	0.834	NS
	Female	575	37.37	8.880		
Self-Management	Male	44	57.70	11.978	2.494	S
	Female	575	53.04	11.785		
Social Awareness	Male	44	31.20	6.575	1.630	NS
	Female	575	29.26	7.689		
Relationship Management	Male	44	64.73	13.190	2.046	S
	Female	575	60.48	14.222		
Emotional Intelligence in Total	Male	44	192.16	36.267	2.106	S
	Female	575	180.15	39.058		

(At 5% level of significance the table 't' value is 1.96)

It is inferred from the above table that the calculated 't' values are greater than the table value at 5% level of significance. Hence, the null hypothesis is rejected in the case of emotional intelligence in total and in the dimensions - self-management and relationship management. Therefore, there is significant difference in the emotional intelligence of B.Ed. biological science students with regard to gender. The male students have better emotional intelligence in total and in the dimensions - self-management and relationship management than their female counterparts.

It is also inferred from the above table that the calculated 't' values are less than the table value at 5% level of significance. Hence, the null hypothesis is accepted in the case of the dimensions - self-awareness and social awareness. Therefore, there is no significant difference between male and female students in their emotional intelligence related to self-awareness and social awareness.

Null Hypothesis - 2

There is no significant difference in the emotional intelligence of B.Ed. Biological Science Students with respect to family type.

Table - 3 : Difference in the Emotional Intelligence of B.Ed. Biological Science Students with respect to Family Type

Dimensions	Family Type	N	Mean	SD	Calculated 't' value	Remarks
Self-Awareness	Nuclear	261	34.97	8.826	6.057	S
	Joint	358	39.25	8.470		
Self-Management	Nuclear	261	50.35	12.626	5.404	S
	Joint	358	55.57	10.745		
Social Awareness	Nuclear	261	27.19	7.805	6.261	S
	Joint	358	31.01	7.081		
Relationship Management	Nuclear	261	56.70	14.418	6.215	S
	Joint	358	63.76	13.260		
Emotional Intelligence in Total	Nuclear	261	169.21	40.151	6.527	S
	Joint	358	189.59	35.750		

(At 5% level of significance the table 't' value is 1.96)

It is inferred from the above table, that the calculated 't' values are greater than the table value at 5% level of significance. Hence, the null hypothesis is rejected. Therefore, it is concluded that there is significant difference between students belonging to nuclear families and joint families in their emotional intelligence. The students belonging to the joint families have better emotional intelligence in total and in all the dimensions.

Null Hypothesis - 3

There is no significant difference in the emotional intelligence of B.Ed. Biological Science Students with respect to locality of residence.

Table 4 : Difference in the Emotional Intelligence of B.Ed. Biological Science Students with respect to Locality of Residence

Dimensions	Locality of Residence	N	Mean	SD	Calculated 't' value	Remarks
Self-Awareness	Rural	521	37.54	9.034	0.581	NS
	Urban	98	36.97	7.970		
Self-Management	Rural	521	53.59	11.703	1.051	NS
	Urban	98	52.21	12.603		
Social Awareness	Rural	521	29.73	7.671	2.566	S
	Urban	98	27.67	7.182		
Relationship Management	Rural	521	61.14	14.250	1.436	NS
	Urban	98	58.90	13.740		
Emotional Intelligence in Total	Rural	521	181.99	39.246	1.454	NS
	Urban	98	175.76	37.164		

(At 5% level of significance the table 't' value is 1.96)

It is inferred from the above table, that the calculated 't' value is greater than the table value at 5% level of significance. Hence, the null hypothesis is rejected in the case of the dimension - social awareness. Therefore, there is significant difference between the rural and urban students in their emotional intelligence related to social awareness. The rural area students have better social awareness than their counterparts in urban areas.

It is also inferred from the above table, that the calculated 't' values are less than the table value at 5% level of significance. Hence, the null hypothesis is accepted in the case of emotional intelligence in total and in the dimension - self-awareness, self-management and relationship management. Therefore, there is no significant difference between the rural and urban students in their emotional intelligence in total and in the dimensions - self-awareness, self-management and relationship management.

Null Hypothesis - 4

There is no significant difference in the Content Pedagogical Knowledge of the B.Ed. Biological Science Students with respect to gender.

Table - 5 : Difference in the Content Pedagogical Knowledge of the B.Ed. Biological Science Students with respect to Gender

Gender	N	Mean	SD	Calculated 't' value	Remark
Male	44	103.98	18.333	1.064	NS
Female	575	100.32	22.232		

(At 5% level of significance the table 't' value is 1.96)

It is inferred from the above table that the calculated 't' value is less than the table value at 5% level of significance. So, the null hypothesis is accepted. Hence, there is no significant difference between the male and female students in the content pedagogical knowledge.

Null Hypothesis - 5

There is no significant difference in the Content Pedagogical Knowledge of the B.Ed. Biological Science Students with respect to family type.

Table - 6 : Difference in the Content Pedagogical Knowledge of the B.Ed. Biological Science Students with respect to Family Type

Family Type	N	Mean	SD	Calculated 't' value	Remark
Nuclear	261	94.15	22.782	6.285	S
Joint	358	105.26	20.162		

(At 5% level of significance the table 't' value is 1.96)

It is inferred from the above table that the calculated 't' value is greater than the table value at 5% level of significance. So, the null hypothesis is rejected. Hence, there is significant difference between the students belonging to nuclear and joint families in their content pedagogical knowledge. The students belonging to joint families have better content pedagogical knowledge.

Null Hypothesis - 6

There is no significant difference in the Content Pedagogical Knowledge of the B.Ed. Biological Science Students with respect to locality of residence.

Table - 7 : Difference in the Content Pedagogical Knowledge of the B.Ed. Biological Science Students with respect to Locality of Residence

Locality of Residence	N	Mean	SD	Calculated 't' value	Remark
Rural	521	101.45	22.039	2.357	S
Urban	98	95.92	21.203		

(At 5% level of significance the table 't' value is 1.96)

It is inferred from the above table that the calculated 't' value is greater than the table value at 5% level of significance. So, the null hypothesis is rejected. Hence, there is significant difference between the rural and urban students in their content pedagogical knowledge. The rural students have better content pedagogical knowledge.

Null Hypothesis - 7

There is no significant relationship between emotional intelligence and content pedagogical knowledge of B.Ed. biological science students.

Table - 8 : Relationship between Emotional Intelligence and Content Pedagogical Knowledge of B.Ed. Biological Science Students

Dimensions	N	Calculated 'r' Value	Remark
Self-Awareness	619	0.731	S
Self-Management	619	0.769	S
Social Awareness	619	0.795	S
Relationship Management	619	0.830	S
Emotional Intelligence in Total	619	0.858	S

(Table Value = 0.095 at 5% level of significance)

It is inferred from the above table that the calculated 'r' value is greater than the table value at 5% level of significance. Hence, the null hypothesis is rejected. So, there is significant relationship between emotional intelligence and content pedagogical knowledge of B.Ed. biological science students.

CONCLUSION

The researcher concluded that the B.Ed. biological science students have moderate level of study skills and content pedagogical knowledge. Their gender does not have any significant influence on their study skills and content pedagogical knowledge. The family type has significant influence on their study skills and content pedagogical knowledge. The finding of the correlation analysis revealed that significant relationship is found between the study skills of B.Ed. biological science students and their content pedagogical knowledge. From these observations, it is obvious that study skills and content pedagogical knowledge are the vital factors for effective teaching and learning.

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