ABSTRACT

Purpose: The ability to recognise emotions in oneself and in others is a fundamental prerequisite to function successfully in the social world. Emotion recognition deficit in people with learning disability may therefore be an important contributory factor to deficits in social skills and poor social adaptation. This study aimed to examine the level of emotional understanding in students with learning disabilities (LD).

Method: A pre-test, post-test equivalent groups design was adopted for this study. The focus was on identification of emotions through verbal and pictorial situations, and the appropriate expression of emotions. Training was provided to enhance the emotional understanding of students through the use of ‘I C ME’ module. The 6 emotions addressed in this study were anger, excitement, embarrassment, jealousy, love and anxiety. 30 children with LD, in the age group of 9-12 years, were selected for the study.

Results: It was seen that while children with LD had difficulty in the identification of an emotion, they found it more difficult to express the emotion in a socially appropriate way. The post-test results indicated that the training provided to the students significantly improved their emotional understanding.

Conclusions: The students learnt about the 6 emotions (anger, excitement, embarrassment, love, jealousy, and anxiety), the vocabulary associated with these emotions, and also the appropriate way to express, self-monitor and self-regulate each emotion.

Limitations: Intervention was done for only 6 emotions.

Key words: social skills deficit, emotional understanding, metacognitive strategy training.

INTRODUCTION

The acquisition of social and emotional skills is a vital area of learning. According to Crick and Dodge (1994), “social cognition includes the child’s ability to
spontaneously read and correctly interpret verbal and nonverbal social and emotional cues; the ability to recognise central and peripheral social and emotional information; the knowledge of different social behaviours and their consequences in diverse social tasks (e.g., how to initiate a conversation, how to negotiate needs, how to make a group entry); and the ability to make an adequate attribution about another person’s mental state i.e., “theory of mind’ abilities or role-taking abilities”. As it links cognitive and social-emotional difficulties together, social cognition can be considered as a difficult area for children with LD (Tur-Kaspa, 2002). Social incompetence is one aspect of the definition of learning disability (Adams & Markham, 1991), and social isolation and exclusion are a considerable problem for many people with learning disabilities (McConkey et al, 1983).

Emotion recognition is considered to be an integral component of social interaction (Stewart & Singh, 1995). The correct recognition of emotional cues in others is thought to allow for the selection of an appropriate behavioural response in ourselves (Adams & Markham, 1991). It is therefore assumed to play an important role in the development of social competence and is an essential factor for social learning (Rojahn et al, 1995). Students with LD are average or even above average in their intelligence capacity; however, they find it difficult to meet the basic social demands of everyday life. Research has shown that these students are poor at directing or perceiving the subtle social cues given by others, may appear to be less attuned to others’ feelings than their peers, and may use inappropriate behaviour or language because they do not know if the person with whom they are reacting is sad, happy, disapproving, accepting or rejecting. This insensitivity may be a source of difficulty with peers and parents (Pearl et al, 1986). Bandura (1986) has pointed out that “the ability to read the signs of emotions in social interaction has important adaptive value in guiding actions towards others”.

Parents of children with LD have specific social difficulties in the home setting, such as fewer social contacts with friends and organisations than seen with typically developing children (McConaughy & Ritter, 1985). Bryan (1977) suggested that the social-emotional problems of some youngsters with LD are due to social misperceptions. They may lack adequate skills in detecting subtle affective cues, thereby provoking negative reactions from others and perhaps becoming socially undesirable. “One critical aspect of nonverbal communication is the interpretation of facial expressions of emotions, and children with LD have been found to be less accurate than typically developing children in making such
interpretations” (Holder & Kirkpatrick, 1991). Studies have reported that young people with LD are less accepted by their peers (Elksnin & Elksnin, 1995; Olmeda & Trent, 2003). Poorly developed social-emotional skills have been found as the probable reason for peer rejection (Kuhne & Wiener, 2000; Horner et al, 2001).

Previous research has focussed on the social deficits of children with LD, with a few pointing to the emotion recognition and regulation deficits. There has been little research on teaching the skills of emotional understanding, which includes identification and management of emotions. Goleman (1995) in his book ‘Emotional Intelligence’ stated, “The brain is remarkably plastic, constantly learning. Therefore any lapses in emotional skills can be remediated to a great extent and, with the right effort, can be improved upon”.

Thus, it can be summarised that students with LD experience consistent difficulties with social and emotional skills. This puts them at a disadvantage as it interferes with their successful functioning in everyday life. An intervention programme focussing on the social and emotional development of students with LD is one of the ways to respond to this highly critical need.

This study aimed at developing a training module in emotional understanding for children with LD. The focus of the training programme was on facilitating them to identify and accept their emotions, and helping them to express and cope with their feelings. This in turn would have a positive effect on their overall interactions with peers, family and in society.

**Objectives**

a) To identify the problems in the emotional understanding of students with LD.

b) To train students in a metacognitive strategy.

c) To study the effectiveness of the training programme on the emotional understanding of students with LD.

**METHOD**

The pre-test post-test equivalent groups design was adopted for this study. While treatment was given only to the experimental group, a pre-test and a post-test were administered to both the experimental and control groups before and after the treatment.
Study Sample
The sample selected for the study comprised 30 students with learning disability, who were 9-12 years of age, were studying in English medium schools in Mumbai in India, and had difficulty in emotional understanding, according to their teachers. Students whose scores at the pre-test fell in between ±1SD from the mean score were selected. The external validity was strengthened by randomly assigning an equal number of students to control and experimental groups - 15 students in each group.

Since all the selected students were from English medium schools and spoke to their peers in the same language, the intervention was planned in English. All the same, if students fumbled while reading or expressing themselves, the researchers would provide support in terms of prompts and cues.

Study Tools
The researchers had constructed a tool called ‘Test on Emotional Understanding’ for the pre-test and post-test. It focussed on the six emotions under consideration in this study. The test was made up of 3 parts - A, B and C. Part A consisted of 18 situations depicted pictorially, while Part B consisted of 18 written situations - 3 specific to each of the six emotions. Each situation had 3 alternatives and the student had to select the correct option on the answer sheet provided. Part C contained 12 questions on the expression of emotions. There were 2 situations specific to each emotion. The student had to tick the most appropriate option. A score of one was allotted to every correct response and zero for a wrong answer or if multiple options were ticked. The maximum scores a student could get on Parts A, B, and C of the test were 18, 18 and 12 respectively. The maximum score a student could get on the total ‘Test on Emotional Understanding’ was 48.

The researchers constructed an intervention module - ‘I C ME’ - for the treatment phase which aimed at improving the emotional understanding of students with LD.

I – Identification of the emotions

C – Controlling the emotions

ME – Management and expression of the emotions

Content validity of all the tools was obtained after discussion and inputs from content matter specialists in the field of special education and human
development. The tools were pilot-tested on 6 students with LD before the final administration.

**Procedure**

Data for the study was collected in 3 phases - Pre-test, Intervention, and Post-test. The pre-test was administered to all 30 students. Based on the number of students per school, groups were formed for the intervention phase.

**Intervention Programme**

The intervention tool was developed on the basis of the domains of emotional intelligence as given by Salovey and Mayer (1990). It consisted of a small booklet for each emotion. The format, which was the same for each of the emotions, was as follows:

1. Read the emotion. What is the colour that comes to your mind when you think of the emotion given? Write what you think about that emotion.
2. List new words to express the same emotion.
3. Look at the picture and read the situation given below and explain the emotion being expressed.
4. Read the situations given below and explain the emotions being expressed.
5. List a personal experience where you might have felt that particular emotion.
6. Select ways which are appropriate to express the given emotion.

A total of 8 sessions were planned for the students in the intervention phase. The duration of each session was 45 minutes. Training was provided to the students through the ‘I C ME’ strategy.

Each session began with the researcher trying to gauge the students’ understanding of the word suggesting an emotion. The module trained them in using the ‘I C ME’ strategy appropriately. They were asked to pictorially represent the emotion using colours, followed by a discussion on that emotion and the probable reasons. The students were then provided with exercises comprising pictures and situations depicting that emotion. They had to write what they comprehended about the various situations. Also included were exercises on new vocabulary,
personal experiences of that emotion and appropriate ways to express that particular emotion.

**Post-test**

At the post-test, the experimental and control groups were given the same tool as the pre-test. The tests were conducted in the same groups as the intervention and were scored on the basis of the scoring procedure designed by the researcher.

**RESULTS and DISCUSSION**

The data were analysed quantitatively using the ‘t test’ of significance between two means.

**Table 1: Mean values obtained by experimental and control groups on Emotional Understanding**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>Pre-test</td>
<td>15</td>
<td>19.40</td>
<td>3.979</td>
</tr>
<tr>
<td>Experimental</td>
<td>Post-test</td>
<td>15</td>
<td>40.47</td>
<td>3.852</td>
</tr>
<tr>
<td>Control</td>
<td>Pre-test</td>
<td>15</td>
<td>20.40</td>
<td>3.979</td>
</tr>
<tr>
<td>Control</td>
<td>Post-test</td>
<td>15</td>
<td>21.00</td>
<td>4.259</td>
</tr>
</tbody>
</table>

The mean emotional understanding score at the pre-test for the experimental group was 19.40, while that of the control group was 20.40. The standard deviation of the experimental group at the pre-test was 3.979 which was the same as that of the control group. This implied that the two groups were similar in terms of their performance on emotional understanding before the intervention. As seen in Table 1, the mean score of the experimental group at the pre-test was 19.40 and at the post-test it was 40.47. The difference in the means of the pre-test and post-test emotional understanding scores for the experimental group (40.47 – 19.40 = 21.07) showed a significant gain score of 21.07 after the intervention. The standard deviations (3.98 for pre-test and 3.85 for post-test) suggested that there would be no overlap in the two sets of scores. For the experimental group, the associated t-value for the mean paired difference of the pre-test and the post-test (21.07) was statistically significant (t = - 22.45, p < .0005).
In the case of the control group, the mean score obtained at the pre-test was 20.40 and the post-test score was 21.00. The difference in the means of the pre-test and post-test emotional understanding scores (21.00 − 20.40 = 0.6) was too small in the context of the standard deviations (3.98 for pre-test and 4.26 for post-test) suggesting that there was considerable overlap in the two sets of scores. For the control group, the mean paired difference for the pre-test and the post-test (-.60) was not statistically significant (t= - 0.74, p = .47).

In view of the above findings, it can be seen that students with LD have difficulties with their emotional understanding. At the pre-test, both the experimental and control groups had similar mean scores. However, intervention was only provided to the experimental group. The higher mean score of the experimental group at the post-test, compared to the control group, was indicative that the intervention was effective. Thus, training in emotional understanding proved beneficial for students with LD.

Table 2: Mean scores of the experimental group on Pictorial Situations

<table>
<thead>
<tr>
<th>Type of test</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictorial Situations</td>
<td>Pre-test</td>
<td>15</td>
<td>7.53</td>
<td>1.807</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>15</td>
<td>16.53</td>
<td>1.246</td>
</tr>
</tbody>
</table>

Further analysis showed that the mean scores obtained by the experimental group on ‘pictorial situations’, sub-part A of the ‘Test on Emotional Understanding’, differed considerably at the pre-test and post-test. For the experimental group, the associated t-value for the mean paired difference of the pre-test and the post-test was statistically significant (t = - 18.09, p < .0005). Mean emotional understanding score on ‘pictorial situations’ on the post-test (M = 16.53) was statistically higher than that of the pre-test (M = 7.53) for the experimental group. This indicated that training in ‘pictorial situations’ had proved significantly effective.

Table 3: Mean scores of the experimental group on Verbal Situations

<table>
<thead>
<tr>
<th>Type of test</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Situations</td>
<td>Pre-test</td>
<td>15</td>
<td>6.93</td>
<td>1.870</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>15</td>
<td>14.67</td>
<td>1.447</td>
</tr>
</tbody>
</table>
The mean scores obtained by the experimental group on ‘verbal situations’, sub-
part B of the ‘Test on Emotional Understanding’, was 6.93 at the pre-test and
14.67 at the post-test. For the experimental group, the associated t-value for the
mean paired difference of the pre-test and the post-test (-7.73) was statistically
significant (t = -16.718, p < .0005). This indicated that the intervention in ‘verbal
situations’ proved significantly effective.

Identification of an emotion in a verbal situation posed more difficulty than in the
pictorial ones where the emotion could be gauged, to some extent, by facial clues. It
was observed that at the pre-test of ‘verbal situations’, the students had difficulties
with the vocabulary associated with emotions. They read the given options but did
not know what the words meant. Thus, knowledge about the language, vocabulary
and names of the emotions appeared to be a problem. Possession of a wider and
more complex vocabulary pertaining to emotions enables children to make finer
distinctions between feelings, helps them to communicate better with others about
their internal affective states, and to engage in discussions about their personal
experiences with the world. Children with disabilities have more limited ‘feeling
classifiers’ than their typically developing peers (Feldman et al, 1993).

Table 4: Mean scores of the experimental group on Expression of Emotions

<table>
<thead>
<tr>
<th>Type of test</th>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression of Emotions</td>
<td>Pre-test</td>
<td>15</td>
<td>4.93</td>
<td>1.100</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>15</td>
<td>9.27</td>
<td>2.052</td>
</tr>
</tbody>
</table>

The mean scores obtained by the experimental group at the pre-test and post-test
on ‘expression of emotions’, sub-part C of the ‘Test on Emotional Understanding’,
were 4.93 and 9.27 respectively. For the experimental group, the associated t-value for the mean paired difference of the pre-test and the post-test (-4.333)
was statistically significant (t = -8.940, p < .0005). At the pre-test in the sub-part
C, ‘expression of emotions’, the students’ responses were very impulsive. It
was observed that they neither pondered over the options given nor indulged
in reflective thinking. During the intervention, the students had difficulty in
understanding the perspective of others in a given situation and hence could not
modify their expression of emotions accordingly. During this phase they spent
the maximum amount of time in thinking of ways to express an emotion. Also,
most of them came up with self-defensive, hostile and egocentric responses. For
instance, they reported that if they were angry they would hit back at the other person. It was at this point in the intervention phase that the researchers helped the students to reflect on their selected options, and self-regulate and self-monitor their behaviour.

These findings are supported by previous studies, where it has been reported that “children with LD exhibit difficulty in appropriately interpreting social situations, comprehension of verbal and nonverbal social cues, and have weak social perception processes” (Bryan, 1977). Weiss (1984) found “children with LD demonstrated lower competence levels than did average achieving children in taking others’ perspectives and in understanding others’ emotions”.

CONCLUSION

From the results obtained in this study, it can be concluded that students with LD have difficulties in the identification of emotions and, in particular, the expression of socially appropriate emotions. Training through the ‘I C ME’ module on emotional understanding proved to be effective. The students learnt about the 6 emotions, the vocabulary associated with them and also the appropriate expression, self-monitoring and self-regulation for each emotion. Teachers, parents and educators may therefore direct students with LD to apply the metacognitive strategy in various social situations. This will help them to express and deal with emotions in socially appropriate ways, and thus pave the way for building successful and healthy social and emotional relationships.

REFERENCES


