

# Improving Well-Being, Academic Self-Concept and Academic Achievement of Indian Children with Specific Learning Disability by utilising Positive Psychology Intervention

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## ABSTRACT

**Purpose:** It is widely recognised that children's well-being involves not only the absence of psychological distress, but also the presence of positive indicators of optimal functioning to be mentally healthy. The aim of this study was to investigate whether a Positive Psychology Intervention (PPI) implemented in schoolgoing children with specific learning disability (SLD) would lead to increased subjective well-being (SWB), improved academic self-concept (ASC) and academic achievement (AA).

**Method:** The study followed a one group pre-test post-test design. Purposive sampling was used to select 75 children with SLD (61 boys and 14 girls) from 3 schools in Telangana State, India. Children who were between 8 – 12 years of age (in classes 3 – 7) were selected on the basis of the inclusion criteria. The main outcome measures used were Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS), Positive and Negative Affect Schedule for Children (PANAS-C) and Academic Self-Concept Scale. Academic achievement was recorded through total marks scored by the student in all the core subjects (language/s, math, science, social studies) of the semester examination. The Positive Psychology Intervention consisted of activities integrating gratitude, mindfulness and attributional style. Each class group received weekly sessions of group intervention for 12 weeks. Results were analysed using Statistical Package for the Social Sciences (SPSS Version 20.0). Wilcoxon signed-rank test was calculated to find the difference between pre-, post- and follow-up scores.

**Results:** The findings showed significant increase in the levels of subjective well-being, academic self-concept and academic achievement of children with SLD after PPI. The follow-up after 6 months found the effect was maintained

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*on all the studied variables except academic achievement.*

**Conclusion and Implication:** *Positive Psychology Intervention has the potential to sustain significant improvements in happiness and academic self-concept of children with SLD. It also aided improvement in their academic achievement. There is a need to further investigate the applicability of these interventions to boost positive emotions and alleviate negative emotions in all children, with and without specific needs. In addition, these PPIs may be used to empower parents and teachers with positive attributes to face their challenges in dealing with other disabilities in children.*

**Key words:** *subjective well-being, life satisfaction, positive affect, negative affect, academic self-concept, academic achievement, positive psychology intervention, specific learning disability*

## INTRODUCTION

The foundation for an individual's personality and overall development is laid in early childhood. It is widely acknowledged that the child's emotional health and well-being influences cognitive, physical and social development, learning and mental well-being in the "future adult". Various emotional and social skills inculcated in childhood will not only facilitate optimal growth and development but will act as protective factors in later life. A longitudinal study (Richards & Huppert, 2011) concluded that childhood well-being predicts positive adult well-being and not merely the absence of mental ill-health.

All over the world there is a growing concern about child well-being research, with a view to understanding children's and adolescents' quality of life. Positive psychology is the study of topics as diverse as happiness, optimism, subjective well-being, psychological well-being, social well-being, personal growth and strength, flow, wisdom, creativity, imagination and characteristics of positive groups and institutions. A wide range of Positive Psychology Interventions have been devised to enhance subjective well-being, covering a wide range of theoretical approaches, intervention contexts, age groups, and targeted beneficiaries (e.g., children, parents, families, teachers and other normal and clinical populations). Seligman, Ernst, Gillham, Revidh and Lindkins (2009) proposed that well-being should be taught in schools because it can serve as an antidote to depression and as a means to increase life satisfaction; additionally, well-being may promote better learning and more creative thinking. Therefore, Positive Psychology

Intervention may act as an antidote to negative emotional experiences of children with specific learning disability, help in increasing life satisfaction, and aid better learning and more creative thinking. The current study is focused on improving Indian children's subjective well-being, academic self-concept and academic achievement by engaging them in positive intentional activities.

### **Subjective Well-being**

The science of well-being has a long history with a multidimensional phenomenon integrating biological, psychological, spiritual and social dimensions (Cloninger, 2004, 2006a, 2006b; Lyubomirsky et al, 2005; Bartels & Boomsma, 2009; McDowell, 2010). Primarily involved in the field of psychology, it is gradually spreading to other arenas like education, health, organisational and global human development. There is a conceptual overlap between various existing definitions of happiness, subjective well-being, and quality of life. The concept of "subjective well-being" (SWB) was introduced by Diener (1984) as comprising three primary components: life satisfaction (LS), positive affect (PA), and negative affect (NA). Diener (2006) has reconceptualised the concept of subjective well-being as: "An umbrella term for different valuations that people make regarding their lives, the events happening to them, their bodies and minds, and the circumstances in which they live". It embraces the personal experiences of individuals with three separate but related dimensions: positive and negative affect (i.e., frequency of experiencing positive and negative emotions in daily life, respectively) and life satisfaction (i.e., cognitive appraisal of one's life overall) (Diener, 2000).

Researchers concluded that high levels of SWB are associated with superior outcomes across important domains, including greater school satisfaction, academic self-perception and achievement, higher quality of social relationships, and greater perceived physical health and social support (Suldo, Riley & Shaffer, 2006; Suldo & Shaffer, 2008) among children.

**Positive affect** represents pleasant moods and emotions such as contentment, pleasure, affection, interest, engagement and joy (Diener, 2006). Positive affective experiences, usually referred to as positive emotions, have been shown to be related to several contributing functions such as learning and achievement, through the promotion of creativity and flexible learning strategies (Pekrun, Frenzel, Goetz & Perry, 2007), attentional and cognitive broadening (Isen, 2003), and protective function against depression among children and adolescents (Lonigan, Phillips, & Hooe, 2003). These positive emotions are not only helpful

in enhancing children's academic achievement but also in facilitating a positive school experience.

**Negative affect** includes moods and emotions that are unpleasant and represent negative responses that people experience in reaction to their lives, health, events, and circumstances such as anger, sadness, anxiety and worry, stress, frustration, guilt, shame, envy, loneliness and helplessness (Diener, 2006). Prolonged experience of negative emotions can interfere with effective functioning and happiness.

**Life satisfaction** denotes how a person evaluates or appraises his or her life (at a particular point in time or as an integrative judgment about the person's life since birth) taken as a whole (Diener, 2006). Life satisfaction is an important factor for overall well-being because children who report higher levels of life satisfaction also report higher levels of academic performance, interpersonal relationships, and intrapersonal functioning, in comparison to students who report low levels of satisfaction (Gilman & Huebner, 2006). Gilman and Huebner (2003) reported that lower life satisfaction was linked to alcohol and drug use, depression, anxiety, and social stress.

### **Positive Psychology Intervention**

Positive Psychology Intervention (PPI) involves evidence-based specific strategies developed to promote well-being. As defined by Sin and Lyubomirsky's work (2009), Positive Psychology Intervention is a psychological intervention (training, exercise, therapy) primarily aimed at raising positive feelings, positive cognitions or positive behaviour, as opposed to interventions aiming to reduce symptoms, problems or disorders. It was stated by Seligman (2002) that people are capable of increasing their subjective well-being into the upper range of their biologically inherited set points through intentional activities. He proposed a multidimensional view of increasing happiness, including attention to past, present, and future aspects of emotional life. The "father of positive psychology" Martin Seligman (2002) popularised the happiness formula of  $H = S + C + V$  in his best-selling book 'Authentic Happiness'. This formula states that happiness is comprised of the individual's set happiness point (S), the individual's circumstances (C) and voluntary factors that are under the individual's control (V). This is similar to the architecture for sustainable change model of Lyubomirsky, Sheldon, and Schkade (2005), which states that happiness is 50% happiness set point, 10% life circumstances and 40% intentional activity. These theories acknowledge the

importance of the happiness set point and life's circumstances but propose that happiness can be actively pursued by addressing the factors that are under the individual's control. In enhancing well-being, PPIs target the 40% of variance associated with focused positive activities. Seligman suggested that feelings of satisfaction with the past can be increased through expressions of gratitude for positive events, such as journaling happenings for which one has been grateful or creating interpersonal expressions of gratitude. In terms of the present, Seligman suggested that people can improve lasting happiness by increasing gratifications through identifying their personal strengths and virtues, termed character strengths, and using them in new ways. Finally, Seligman suggested that happiness levels for the future could be increased through learned optimism, which is a cognitive behavioural method of altering pessimistic modes of thought through disputations of negative attributions, and development of an optimistic explanatory style which includes attributions of negative events as temporary, specific to situations, and related to external causes beyond one's complete control.

The current intervention is structured in three phases, including past, present, and future aspects of subjective well-being with developmentally and culturally appropriate modification. Gratitude, mindfulness and attributional style variables are selected to improve positive emotions about past, present and future respectively, within Seligman's (2002) framework of improving subjective well-being.

**Gratitude** has been conceptualised as an emotion, an attitude, a moral virtue, a habit, a personality trait, and a coping response. Gratitude is a cognitive-affective state that is typically associated with the perception that one has received a personal benefit that was not intentionally sought after, deserved, or earned but rather because of the good intentions of another person (Emmons & McCullough, 2003). Another definition of gratitude is as "a sense of thankfulness and joy in response to receiving a gift, whether the gift be a tangible benefit from a specific other or a moment of peaceful bliss evoked by natural beauty" (Peterson & Seligman, 2004). The benefit-appraisal curriculum intervention to promote gratitude in children by Froh et al. (2014) holds significant theoretical and applied implications. In the present study the gratitude curriculum is divided into three smaller steps, focusing on helping children understand a benefactor's intention in helping, the costs incurred in helping, and the benefits bestowed on the receiver - all crucial components of the gratitude experience (McCullough, 2001).

**Mindfulness** is the feeling of involvement or engagement. It is an active state of mind that is achieved by simply noticing new things. Jon Kabat-Zinn, the foremost pioneer in the therapeutic application of mindfulness, has defined mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment and non-judgmentally, to the unfolding of experience, moment by moment” (Kabat-Zinn, 2003). The concept of mindfulness among children can be introduced through directing their attention to things in their environment, drawing their attention to their surroundings, and emphasising the need for mindfulness by revealing what they are and are not aware of. Once children learn to be mindful or aware of their environment, they can be taught to pay attention to their own experience, beginning with their body, such as attending the senses, mindfulness of body movement and mindfulness of breath (Hooker & Fodor, 2008). Mindfulness in children has been found to mitigate the effects of bullying (Zhou, Liu, Niu, Sun, & Fan, 2017), enhance focus in children with ADHD (Zhang et al., 2017), and reduce attention problems (Crescentini, Capurso, Furlan, & Fabbro, 2016). It is important to provide age-appropriate mindfulness practices for children to improve their mental health and well-being. Mindfulness teaches children how to pay attention, and this way of paying attention enhances both academic and social-emotional learning.

**Optimistic thinking: Attributional style** - Attributional style, sometimes known as explanatory style, refers to the ways in which people explain the cause of events (positive or negative) within their lives, which subsequently predicts future expectations. Seligman (2006) has asserted that there are two different ways in which one can explain the manifestation of the positive and negative events experienced on a daily basis: either with an optimistic explanatory style or with a pessimistic one. According to Seligman (2006), an optimist is one who believes the cause of a positive event is personal (as a result of one’s own ability), permanent (forever), and pervasive (across all domains) and conversely, an optimist believes the cause of a negative event to be unrelated to his skill or ability but to some external reason, that it is temporary, and that it will not affect all areas of his life. A pessimist will attribute the cause of a negative event to a personal trait or skill, a stable phenomenon, and one that affects across all domains. A pessimist will believe positive events to be caused by an external factor, to be transitory and unstable, and to occur only in the present sphere (Seligman, 2006).

## **Academic Self-concept**

Self-concept is the perception of oneself, involving one's attitudes, feelings and knowledge about skills, abilities, appearance and social acceptability. Academic self-concept is the perception and evaluation that a child has or does about his or her academic abilities (Marsh & Craven, 2002). High academic self-concept is crucial to develop and maintain children's self-worth, since children spend a significant portion of their lives being evaluated in school classrooms. Thus, the self-concept directly affects their learning processes and academic achievement. Additionally, it helps to create various cognitive and self-regulative strategies (Zimmerman, 2000), which reflect on academic performance (Schunk, Pintrich, & Meece, 2008).

## **Academic Achievement**

Academic achievement is defined as the level of students' ability to excel within the academic setting (Noftle & Robins, 2007). School examination marks are customarily used as a measure of achievement for social research purposes (Buch, 1988). Academic achievement refers to how well a student performs in school, and includes indicators such as grade point average (GPA), standardised reading assessment scores, school attendance, and students' perceptions of their own academic abilities. Academic achievement is important for children because it promotes their success later in life. It is considered a key criterion to judge an individual's total potentialities and capabilities. The present study describes academic achievement in terms of actual marks or scores obtained by children in one semester examination.

Most of the research studies have reported that there is a mutually reinforcing relationship between academic self-concept and academic achievement (Arefi, Naghibzadeh, & Boloki, 2014). Enhanced self-concept has a significant importance for all students, especially for students with learning disabilities. In the context of education, the academic self-concept is an important psychological construct because "it has been found to be both a cause and an effect of academic achievement" (Cokley & Patel, 2007). A higher academic self-concept has been associated with greater academic achievement among students (Marsh, 1990). Academic self-concept and academic achievement are closely linked and important during childhood and adolescence for children's cognitive, social and emotional development, as student well-being is positively related to academic performance (Durlak, Weissberg, Dymnicki, Taylor & Schellinger,

2011). The experience of positive emotions broadens one's awareness and allows the building of new skills and resources (Fredrickson, 1998, 2001) which may eventually lead to enhanced academic achievement. Indeed, positive emotions are associated with better self-regulated learning, higher motivation, and better examination grades (Mega, Ronconi, & De Beni, 2014) and have a positive effect on memory and attention processes (Fiedler & Beier, 2014). Moreover, academic self-concept, a psychological construct by mediating performance outcome (academic achievement), is thereby closely associated with children's subjective experience of well-being. Academic self-concept is affected by learning disability status, but not general social self-concept (Al Zyoudi, 2010). It is well understood that children with SLD perform poor in academic tasks when compared with children without SLD. Hence, these two concepts - academic self-concept and academic achievement - have been taken into consideration in evaluating the impact of Positive Psychology Intervention on subjective well-being of children with SLD.

### **Children with Specific Learning Disability**

Specific learning disabilities (SLDs) are defined as a "heterogeneous group of conditions wherein there is a deficit in processing language, spoken or written, that may manifest itself as a difficulty to comprehend, speak, read, write, spell, or to do mathematical calculations, and includes such conditions as perceptual disabilities, dyslexia, dysgraphia, dyscalculia, dyspraxia and developmental aphasia" (RPWD Act, 2016). Co-morbidity is common in children with SLD and is generally associated with affective disorders, particularly depression, deficits in social skills, self-esteem, peer relationship problems, feelings of lack of control and poor self-esteem (Willcutt & Pennington, 2000). Children with SLD experience repeated academic failure and attribute this failure to self-incapability. The feeling of self-incapability results in low effort and concentration, lowered expectations in future academic successes, and lower academic self-concept. The fear of failure may further cause children not to try and thus lead to poor academic outcomes.

All over the world, including in India, there is growing concern about children's well-being and quality of life. This is especially so for children with SLD. Happy children are more creative, confident and accomplished. Positive Psychology Intervention can therefore serve a twofold function for children with SLD: by first providing prevention against psychological problems, and then by enhancing their subjective well-being. The current study is an effort to investigate whether



administration of Positive Psychology Intervention would bring about a significant positive change in children's happiness as well as functioning.

## **Objective**

It is well documented that children with specific learning disability tend to have more emotional concerns, such as anxiety, depression, loneliness, and low self-esteem, than do their peers without disabilities; this results in scholastic achievement declining still further. Studies of subjective well-being in relation to children with SLD are scarce, as most studies have focused on behavioural, attentional and cognitive issues. The objective of the present study was therefore to assess the effectiveness of Positive Psychology Intervention on subjective well-being, academic self-concept and academic achievement of children with SLD.

## **METHOD**

### **Study Design**

A one group pre-test post-test design was used to study the effect of PPI on subjective well-being, academic self-concept and academic achievement of children with SLD. Pre-test, post-test and follow-up scores were compared and differences were attributed to the application of the experimental treatment, i.e., Positive Psychology Intervention.

### **Study Setting**

The researcher selected 2 CBSE schools (Central Board of Secondary Education) and 1 State Board school from the twin cities of Secunderabad and Hyderabad in Telangana state, India.

### **Study Sample**

Purposive sampling technique was used. Due to the limited sample size, all children with SLD in the selected schools, 75 in total, were included in the study. There were 61 boys and 14 girls, between 8 – 12 years of age, from Classes 3 – 7. Among them, 53% (40) were children with associated condition of ADHD and 47% (35) were children without ADHD.

Inclusion criteria:

- Children of average intelligence, with an IQ of 90 or above on Malin's Intelligence Scale for Indian children;
- Meeting ICD-10 criteria for either Specific Reading Disorder (F81.0), Specific Spelling Disorder (F81.1) or Specific Disorder of Arithmetical Skills (F81.2), Mixed disorder of Scholastic Skills (F81.3) alone or in combination with or without Disturbance of Activity and Attention (F90.0).

Exclusion criteria:

- Children with other disabilities like visual impairment, hearing impairment and loco- motor disability; co-morbid disorders like seizure, conduct and emotional disorders, and chronic medical conditions such as diabetes, heart anomalies, and kidney disorders.
- Children and parents with mental illness.

**Table 1: Demographic Variables of Children with Specific Learning Disability selected for Positive Psychology Intervention Programme**

Variables	Frequency ( <i>n</i> )	(%)
<b>Gender</b>		
Boys	61	81.3
Girls	14	18.7
<b>Class</b>		
3 <sup>rd</sup> standard	13	17.2
4 <sup>th</sup> standard	14	18.7
5 <sup>th</sup> standard	23	30.7
6 <sup>th</sup> standard	14	18.7
7 <sup>th</sup> standard	11	14.7
<b>ADHD</b>		
Present	40	53.3
Absent	35	46.7
<b>Total N</b>	75	100

### **Instruments: Outcome Measures**

- **Subjective Well-being (SWB)**

Diener (2009) postulated that subjective well-being is comprised of three primary components: life satisfaction (LS), positive affect (PA), and negative affect (NA). The LS was measured with Brief Multidimensional Students' Life Satisfaction Scale - BMSLSS (Seligson, Huebner, & Valois, 2003) - which

is a 6-item self-reported measure of students' satisfaction in the five domains of life (family, friends, school, living environment, self) contributing to youth Total Life Satisfaction (TLS) most relevantly. There is one item per domain, plus one-item rating of Global Life Satisfaction (GLLS) at the end of the BMSLSS to provide an assessment of overall life satisfaction. Children respond to items such as "I would describe my satisfaction with my school experience as..." and "I would describe my satisfaction with where I live as..." on a 7-point Likert scale, from 1(= terrible) to 7 (= delighted). In this study, five domain items are averaged to create a total life satisfaction (LS) score. Seligson et al. (2003) reported adequate internal consistency ( $\alpha = .75$ ) and evidence of strong criterion-related validity and construct validity based upon strong correlations with other life satisfaction measures.

In addition, children were administered Positive and Negative Affect Scale for Children - PANAS-C (Laurent et al., 1999) which is a 27-item measure appropriate for children in grades from 4 - 8. The 12-item Positive Affect (PA) scale assesses the respondents' frequency of experiencing various positive emotions (e.g., interested, energetic, cheerful, happy), and the 15-item Negative Affect (NA) scale assesses frequency of negative emotions (e.g., miserable, sad, angry, lonely). Children were asked to rate 27 words that describe various emotions on a 5-point Likert-like scale, to indicate the extent to which they have experienced each emotion in the past few weeks, from 1 (= very slightly or not at all) to 5 (= extremely). Laurent et al. (1999) reported internal consistency reliability of the PANAS-C at a coefficient alpha of .92 for the Negative Affect scale and .89 for the Positive Affect scale, which was similar to internal consistency reported for the PANAS at a coefficient alpha of .87 for both scales (Watson, Clark, & Tellegen, 1988). For better comprehension by children, a few words in the questionnaire were translated into simple English.

**Composite Subjective Well-being:** Bussari and Sadava (2011) postulated that there are several potential ways in which the three SWB components (LS, PA & NA) may be linked:

1. A hierarchical construct – in which a higher-order factor SWB correlates positively with PA and LS, and negatively with NA.
2. A causal system model – where, among other things, LS is influenced by PA and NA.

3. A configuration framework – which views SWB as an integrated system LS, PA, and NA, all of which are differently configured within distinct individuals (Shmotkin, 2005).
4. A composite model – wherein all three components combine to contribute to SWB together.

In the current study, SWB is conceptualised as a composite model in which all three components (LS, PA, and NA) are assessed and then combined to estimate a fourth variable, a composite (aggregate) SWB score (Busseri, 2015). In line with other recent studies (Sheldon & Elliot, 1999; Bettencourt & Sheldon, 2001; Linley, Nielsen, Gillett & Biswas-Diener, 2010), a composite subjective measure of well-being is computed by first standardising all scores and then subtracting negative affect from the sum of positive affect and life satisfaction (Diener, 1994).

- **Academic Self-concept**

Academic self-concept was measured with the Academic Self-concept Questionnaire - ASCQ (Liu & Wang, 2005). It comprises two self-report subscales, namely, academic confidence (10 items) and academic effort (10 items). Liu and Wang (2005) reported Cronbach's alpha of .82 for academic confidence, .71 for academic effort and .76 for internal consistency.

- **Academic Achievement**

Academic achievement was measured with the average marks obtained by students in core subjects in the semester examination.

## **Procedure**

Baseline assessment of children's level of SWB (LS, PA, NA) and academic self-concept was done through standardised tests, and academic achievement was assessed from students' report cards. Positive Psychology Intervention was administered to the study sample for 12 weeks. Post intervention, their levels of SWB (LS, PA, NA), academic self-concept and academic achievement were assessed, and after 6 months the follow-up data was collected on the same variables, i.e., SWB (LS, PA, NA), academic self-concept and academic achievement.

## **Subjective Well-being Intervention Programme**

The main aim of the intervention package was to enhance the SWB of children with SLD and find out whether the intervention had brought any significant

change in their level of academic self-concept and academic achievement. The subjective well-being group intervention programme was developed on the basis of Seligman's (2002) framework for increasing happiness about the past (gratitude), present (mindfulness), and future (optimistic thinking) aspects of children's emotional life, with appropriate modification in light of their development and culture.

The intervention programme had two phases. In the first phase, a pilot study was conducted on a sample of 31 children with SLD. The results showed significant improvement in the level of SWB post intervention. However, based on the observation, children's performance on home assignments and parental feedback, a few changes were undertaken in the home assignment activity. It was made more pictorial, choice-based, and more time was allotted for completion. The intervention time was extended from 1 hour to 2 hours because children needed more time and repeated explanation of concepts and activities. The second phase consisted of the administration of the programme by the researcher to the children in groups. There were totally 12 weekly group sessions, each of two hours duration, spread over a period of 4 months. Groups were formed class wise. Activities during intervention included role play, storytelling, practical demonstration, group discussion, worksheets, chalk/white board activities, audio-visual aids, one-to-one interaction and minimal home assignments. Children were motivated through social and tangible rewards. Psychoeducation and closing sessions were conducted to motivate parents to implement and continue the positive intentional activities, thereby ensuring stable future benefits. Individual sessions were conducted for students who were absent during the regular group sessions. Sample pages are attached as Annexure-1

**Table 2: Subjective Well-being Intervention Programme – Overview**

Session	Theme	Outcome
1 <sup>st</sup> session	Introduction to Intervention	Establishing a supportive group environment; increasing awareness of subjective well-being.
2 <sup>nd</sup> session	Gratitude	Introduction to gratitude - defining gratitude and how it can impact happiness; learning a method of using gratitude to create a focus on positive interpretations of past events.
3 <sup>rd</sup> session		Integrating and reviewing all the components of gratitude: intention, cost, and benefit; learning how to express gratitude.

4 <sup>th</sup> session	Mindfulness	Introduction to mindfulness - awareness of the external environment, strengthening attention to be in the present moment.
5 <sup>th</sup> session		Awareness of the self in the environment; cultivating awareness and acceptance without judgment. Breathing exercise.
6 <sup>th</sup> session	Attributional Style: Optimistic Thinking	Introducing optimistic thinking; discussing the value of optimism in happiness as related to the future; helping children to note and externalise self-talk.
7 <sup>th</sup> session		Reinforcing awareness of internal thoughts; introducing Antecedents, Behavior, Consequences (ABC) Model - Consolidating the link between thoughts and feelings.
8 <sup>th</sup> session		Teaching concepts of optimism, pessimism, and thinking styles.
9 <sup>th</sup> session		Teaching the importance of disputing thoughts; teaching the skills of disputation - thinking more accurately and flexibly about unpleasant events in life.
10 <sup>th</sup> session		Awareness about catastrophic thinking; teaching the skills of decatastrophising.
11 <sup>th</sup> session		Integrating the skills of Optimistic Thinking.
12 <sup>th</sup> session	Termination	Reviewing structure for increasing personal happiness by doing purposeful positive activities; encouraging a personal reflection and feedback on purposeful activities; appraising children's feedback on subjective well-being programme; motivating for continuation of helpful activities in future.

## Data Analysis

Statistical analysis of the data obtained with different scales was performed using the Statistical Package for Social Sciences (SPSS Version 20.0).

## Ethical Considerations

Informed consent was obtained from the respective school authorities after explaining the nature and purpose of the research study. Parents were given detailed information regarding the study and told that they could withdraw their children from participation at any time. Children could also choose whether to participate or not, and had the option to withdraw from the study at any time. At the beginning of the intervention, confidentiality issues and concerns were discussed with them and it was emphasised that the content of group discussions would remain confidential. Children were provided with the opportunity to express their opinions without compromising their safety and well-being, as proposed by Schenk and Williamson (2005). Information collected was used only for research purposes and accurate findings were reported.

## RESULTS

The aim of the study was to find the effect of Positive Psychology Intervention on subjective well-being, academic self-concept and academic achievement of children with SLD. Mean, standard deviation and Wilcoxon signed-rank test were carried out on the data to examine whether any differences were significant from pre- to post- and follow-up intervention.

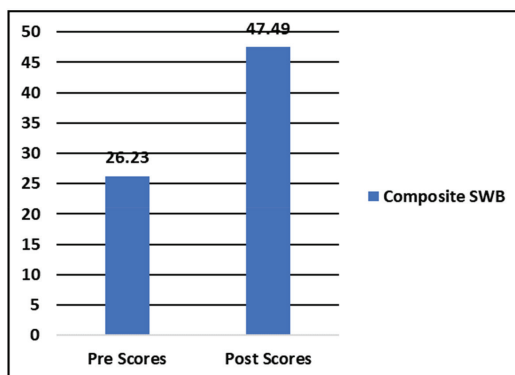
**Table 3: Pre- and Post- Intervention Mean Scores on Composite Subjective Well-Being (SWB) (N = 75)**

Variable	Pre Scores	Post Scores	Mean Difference	<i>p</i> -Value
Composite Subjective Well-being	26.23	47.49	21.27	$p < .01$

Composite subjective well-being (SWB) is a single well-being indicator computed by an aggregate measure of subjective well-being by first standardising all scores and then subtracting negative affect from the sum of positive affect and life satisfaction (Diener, 1994; Linley et al., 2010). Table 3 shows a comparison of mean scores from pre- to post- intervention yielding the mean difference of 21.2666 ( $p < .01$ ) which suggests statistically substantial level changes in composite SWB. Hence it can be concluded that there was a significant improvement in children's composite level of subjective well-being post intervention.

It is notable that Kahneman, Diener, and Schwarz (1999) considered the concept of subjective well-being to be essentially interchangeable with happiness, thus suggesting that the composite SWB of children in the study improved substantially, indicating that their happiness scaled up after intervention (Figure 1).

**Figure 1: Pre- and Post- Intervention Mean Scores on Composite Subjective Well-being**

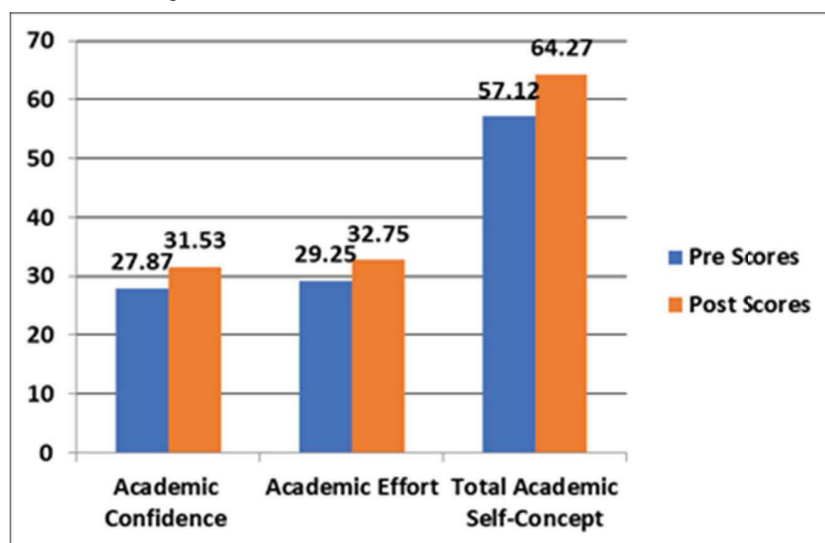


**Table 4: Pre- and Post- Intervention Mean Scores on Academic Self-concept Questionnaire (ASCQ) (N = 75)**

Domains of Academic Self-concept	Pre Scores	Post Scores	Mean Difference	<i>p</i> -Value
Academic Confidence (AC)	27.87	31.53	3.66	<i>p</i> < .01
Academic Effort (AE)	29.25	32.75	3.5	<i>p</i> < .01
Total (Academic Self-concept)	57.12	64.27	7.15	<i>p</i> < .01

Academic self-concept (ASC) consists of academic confidence (AC) and academic effort (AE). The academic confidence subscale assessed children's feelings and perceptions about their academic competence. The academic effort subscale assessed children's commitment to, involvement and interest in schoolwork. Analyses of the results of academic self-concept are presented in Table 4. An increase in AC mean scores by 3.66 ( $p < .01$ ) revealed statistically significant improvement in children's academic confidence post intervention. Similarly, results evidenced that the AE mean scores also increased by 3.5 ( $p < .01$ ), indicating statistically significant improvement in the academic effort domain. The mean scores on total academic self-concept gained by 7.15 ( $p < .01$ ), demonstrating statistically significant improvement in children's academic self-concept post intervention, as represented in Figure 2.

**Figure 2: Pre- and Post- Intervention Mean Scores on Academic Self-concept Questionnaire (ASCQ)**





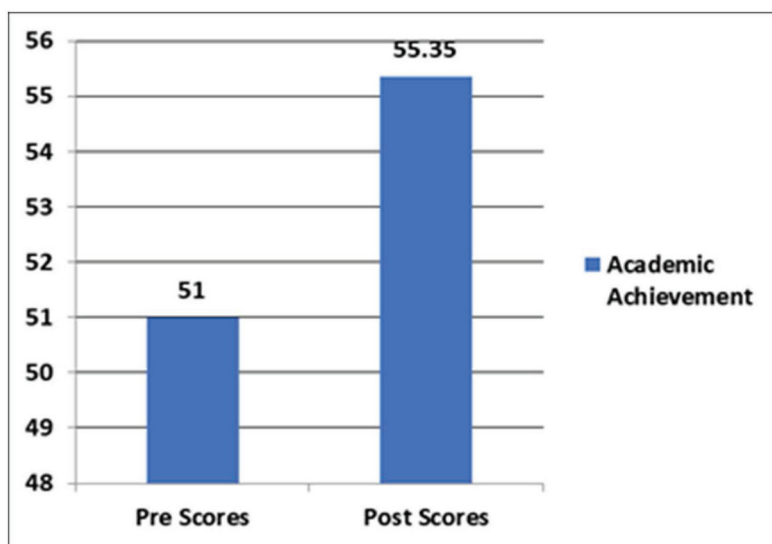
**Table 5: Pre- and Post- Intervention Mean Scores on Academic Achievement (AA)**

(N = 75)

Variable	Pre Scores	Post Scores	Mean Difference	<i>p</i> -Value
Academic Achievement (AA)	51.00	55.35	4.35	$p < .01$

Table 5 presents the mean scores on academic achievement (AA) showing the mean difference of 4.35 ( $p < .01$ ) which is statistically highly significant. This indicates that post intervention the children's academic achievement has improved distinctly, as can be seen in Figure 3.

**Figure 3: Pre- and Post- Intervention Mean Scores on Academic Achievement**



### Results of Follow-up Intervention

A follow-up assessment of all earlier studied variables was done 6 months after the intervention in order to see the retention effect on children with SLD. A Wilcoxon signed- rank test was carried out to find the mean difference between pre- and follow-up scores.

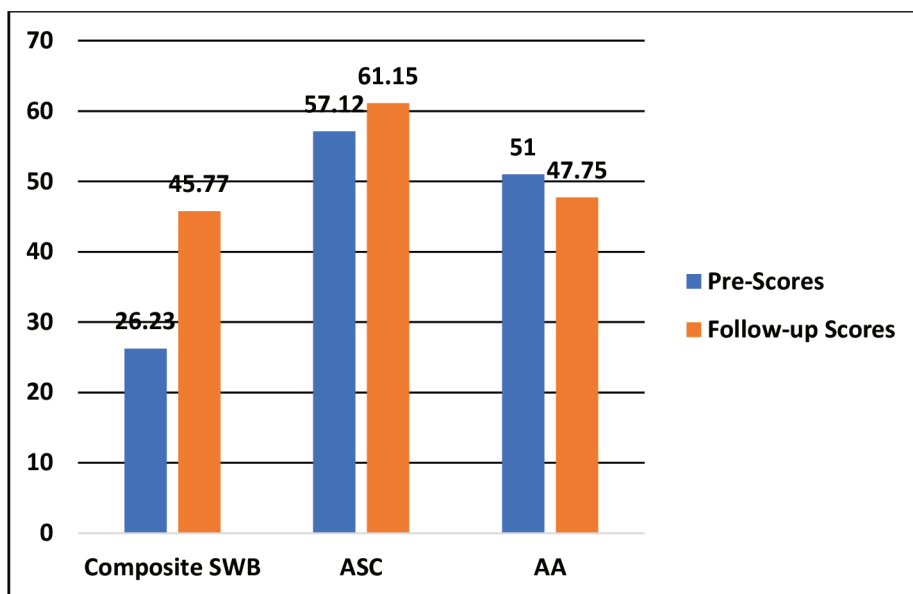
**Table 6: Pre- and Follow-up Intervention Mean Scores on Composite SWB, Academic Self-concept and Academic Achievement of Children with SLD (N = 75)**

Variables	Pre Scores	Follow-up Scores	Mean Difference	<i>p</i> -Value
Composite SWB	26.23	45.77	19.56	$p < .01$
ASC	57.12	61.15	4.03	$p < .01$
AA	51.00	47.75	-3.25	$p > .05$

Note: ASC = academic self-concept; AA = academic achievement

A statistically highly significant improvement was observed from baseline to follow-up mean difference scores of Composite SWB 19.56 ( $p < .01$ ) and ASC 4.03 ( $p < .01$ ), whereas a slight decrease in mean difference of AA -3.25 ( $p > .05$ ) was noticed which is statistically not significant (Figure 4). This probably occurred due to the increased difficulty level of the core subjects as, at the time of follow-up, the children with SLD were promoted to the next class (after the second semester). They might have encountered academic difficulties in the higher-level class and due to their SLDs did not score as well as in the junior class.

**Figure 4: Pre- and Follow-up Intervention Mean Scores on Composite SWB, Academic Self-concept (ASC) and Academic Achievement (AA) of Children with SLD**



It is evident from the follow-up results (shown in Table 6 and Figure 4) that benefits of PPI on composite SWB and ASC were retained even 6 months after

the intervention. Children's academic achievement was found to have decreased at follow-up in comparison to baseline scores. However, this reduction was not statistically significant.

## DISCUSSION

The aim of the current study was to examine whether the positive psychology group intervention incorporating gratitude, mindfulness and optimistic thinking-attribitional style contributes to subjective well-being, academic self-concept and academic achievement of children with SLD. Statistical analysis revealed a significant increase in the level of subjective well-being, academic self-concept and academic achievement post intervention. In accordance with previous research (Stiglbauer, Gnambs, Gamsjager, & Batinic, 2013; Dawood, 2014; Shoshani & Slone, 2017), this study showed that a Positive Psychology Intervention for children is effective in improving their well-being and functioning. The study results revealed that there was also significant improvement in children's academic self-concept. This is in consonance with the notion by Fredrickson (1998, 2001) that the experience of positive emotions broadens one's awareness and encourages the development of new skills and resources which may eventually lead to enhanced academic achievement. In the school context, children experienced more positive emotions through Positive Psychology Intervention, which facilitated their personal resources and classroom learning, thereby enhancing their academic-related self-concept. This shows the significance of engaging children in positive activities because their academic self-concept is affected by the learning disability status but not the general social self-concept (Al Zyoudi, 2010). There was also a significant improvement noticed in children's academic achievement post intervention. This can be explained by the broaden-and-build theory of positive emotions (Fredrickson, 1998, 2001) leading to enhanced academic achievement. Indeed, positive emotions are associated with better self-regulated learning, higher motivation, and better examination grades (Mega et al., 2014), and have a positive effect on memory and attention processes (Fiedler & Beier, 2014). In conclusion, happy children learn and perform better in a positive state of mind.

Results of a follow-up study revealed that the gains were maintained in subjective well-being and academic self-concept, but not in academic achievement. The reason for this may be the increased difficulty level of the higher class to which children were promoted at the time of the follow-up.

There are various studies targeted at either improving cognitive learning or reducing negative symptoms among children with SLD. It would be more effective to strengthen their ability to maintain a reservoir of positive attributes through Positive Psychology Intervention. These positive characteristics would be beneficial to their socialisation, emotional and cognitive learning. Park (2004) has argued that programmes aimed at youth development are more successful when they begin early, extend over time, are structured, and are guided by specific theories. In an Indian study on adolescents (Singh & Junnarkar, 2015), it was observed that positive mental health was predicted by flourishing, positive affect, physical health, psychological well-being, social relationships, and environmental health. Research indicates that positive affectivity is a major protective factor against depression among children and adolescents (Lonigan et al, 2003). Children with SLD often receive negative comments regarding their academic activities and performance from peers, teachers and parents. Inculcating positive emotions in children with SLD through intentional activities would empower them to improve their relationship with others during aversive situations and protect them against academics-related stress and anxiety. Positive affect enables adolescents to initiate and maintain relationships and show less vulnerability to negative peer influence (Mrug, Madan, & Windle, 2012). These interventions can have the dual effect of laying a foundation to support positive development and being a tool for protection, especially for children at risk.

To sum up, findings suggest that the PPI used in the current study significantly improved subjective well-being, academic self-concept and academic achievement of children with SLD by the end of the intervention. Furthermore, it is encouraging that the gains in subjective well-being and academic self-concept in the present research study were maintained at the follow-up 6 months later.

## CONCLUSION

It is evident from the findings of the present study that there was a remarkable improvement in children's level of subjective well-being, academic self-concept and academic achievement after Positive Psychology Intervention. PPIs may be used as protective and proactive measures in the rehabilitation of children with disabilities. The positive intervention activities such as gratitude, mindfulness, attributional style and others can be incorporated into school curricula and be applied in regular classrooms for holistic development of all children. Positive intervention activities cultivating positive feelings, positive

behaviours and positive cognitions can also be useful in counselling students, teachers and parents in the school set-up. Findings of the present study suggest potentially useful guidelines for the development of future interventions aimed at improving the well-being of children with SLD as well as other children. It also highlights the need for research on parents and teachers as they are the key stakeholders in children's overall development, and can be involved in future Positive Psychology Intervention processes. While further research is needed on the application of Positive Psychology Intervention tools to special needs populations, it is hoped that these recommendations will also benefit teachers and students with special needs. The study findings offer scope for prevention as well as remediation programmes based on positive psychology principles for children's overall optimal development. Children's well-being is the need of the hour; children who flourish will grow up to be citizens who contribute to the nation and the world.

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The author declares there is no conflict of interest.

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## Annexure-1

### Sample pages from Subjective Well-being Intervention Programme

#### Subjective Well-being Intervention Programme

#### Session 4: Introduction to Mindfulness

#### Overview

#### Goals

- Discover students' current levels of mindfulness
- Awareness of the external environment
- Strengthening attention to be in the present moment

#### Session Procedures

- A. Group Discussion: What is mindfulness? Rate your own mindfulness. Importance of mindfulness
- B. 'Mind in Jar' Video presentation and discussion
- C. Mindful Observation Exercise
- D. Homework: Daily mindful observation exercise

#### Materials Needed

- Mindfulness – PPT
- Small paper slips for students to note self-identified ratings
- Video - 'Mind in a Jar'  
<https://www.youtube.com/watch?v=QNmMH6tqiMc>
- Objects for observation (soft ball, pen, toy, piece of cloth, clip, seed, notebook, eraser, crayon)
- Student comprehension check: Mindfulness
- Bell
- Mindful Observation Exercise Worksheet
- Tangible rewards for homework completion (stickers, pencils, ball pens)

## Session 4 Procedures Defined

### A. Group Discussion: Mindfulness and its importance

A brief introduction to mindfulness was carried out by stating that sometimes we all feel like we have a hard time focusing or paying attention. Our days are busy and there is a lot going on. Mindfulness in a simple word is awareness. It is paying attention in a specific way. It is noticing our thoughts, feelings, bodily sensations, and anything that is around us and happening right now.

#### Rate your own mindfulness:

Before further discussion children were provided with a piece of paper and stated:

*We are going to rate our own level of mindfulness. Think about your current mindfulness level (aware of your own thinking, feeling and doing). Rate it on a scale from 0 to 10 with 0 being never mindful, 5 being sometimes mindful, and 10 being always mindful.*

0 = being never mindful

10 = being always mindful

5 = being sometimes mindful

0	1	2	3	4	5	6	7	8	9	10
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Having students write their ratings on a piece of paper and handing over to therapist.

*“Today we are going to learn about what it means to be aware or attentive. Can anyone tell me what is the meaning of the phrase to be aware or attentive?”* Students’ responses were discussed.

Students were explained that mindfulness is just being aware of the present moment. It is paying attention to those things in the present moment that they never noticed before. It is a skill of noticing and accepting the internal and external environment. We use five senses to be mindful i.e., sight, hearing, touch, taste and smell.

Posing these questions to the group:

- *Why is it important or not important to be mindful in your life?*
- *Do you think being mindful can increase happiness? Why or why not?*

Mindfulness can help to take a few minutes to pause and let our minds and bodies relax and refocus. It strengthens our attention and concentration, reduces worry before testing, improves classroom participation, and improves friendship and good relations with others. Mindfulness can make us feel calm, relaxed and happy. (PPT on Mindfulness was used for better understanding of the concepts)

### **B. 'Mind in Jar' Video presentation and discussion**

Prior to relaxation jar activity, children were shown the video 'Mind in Jar' and explained that when we are stressed, our mind is clouded with many thoughts and feelings and we are not able to see situation clearly. Once we focus our attention to our breath, we gradually settle down and are able to see the event clearly and take right action.

Children were explained that while we wait, the glitter does not go away. It stays at the bottom. Our thoughts and feelings and wishes are still in our minds, but they are no longer in our way, clouding our idea. Same happens to our brain.

### **C. Mindful Observation Exercise**

The concept of mindfulness was introduced to children through directing their attention to things in their environment. They were first instructed to describe everything they observed in the classroom. They were helped to observe the given environment in a manner which they have never noticed before. They were explained with the help of a soft ball how to observe mindfully – its color, size, shape, texture.

**Exercise:** They were asked to sit upright, comfortably at their desks. They were each given a single object such as, pen, toy, piece of cloth, clip, seed, notebook, eraser, unsharpened pencil, and crayon. They were asked to spend some time looking at the given object and paying attention to its

smaller and smaller details, once time starts (ringing a bell to start time), they would observe the object—noticing how it looks, feels, and smells if so, without labelling or naming it. Just noticing and describing, without judging. Helpful prompts were given to students:

- “Observe your object, notice and describe its features without labelling it”
- “Notice what it feels like in touch, is it smooth? Hard? Rough? Soft? Slippery? Can it be squeezed or not?”
- “Notice how it smells, if so.”
- “Notice how it looks, long, short, flat, big, is it sharp? is it round?”

After 2-3 minutes, their awareness was brought back to the room and their surroundings by ringing the bell to stop. Students were asked to share their observations about their objects. Reminding them to stick to observations, describing what they noticed non-judgmentally.

#### Reflection Questions:

These questions were asked to debrief after a mindfulness activity:

1. *Was this exercise hard or easy? Why?*
2. *Did you notice your mind wandering during the exercise? What strategies did you use to bring yourself back to the present or to the task at hand?*
3. *Can you be mindful or aware of your feelings, thoughts, and environment around you?*
4. *Do you think you could use a mindfulness exercise outside of the classroom? In what situation might it be helpful?*

#### **D. Homework: Mindful Observation Exercise**

Observe an object daily and record in the Mindful Observation Exercise Worksheet. Your effort will be duly rewarded. Remember to look at the object as if you are seeing it for the first time.

**E. Review Homework: Mindful Observation Exercise**

Children were asked how often they did their Mindful Observation Exercise. For students who did not comply with the daily requirement, the importance of daily effort was stressed for changes in happiness to occur. Small tangible rewards (e.g., pencil, sticker, edible) were provided for homework completion. Children were asked to share any new reflections that they had over the week.

End