



Influence of the Mindfulness of the Teacher on Senior Secondary Student English Language Outcomes in Sri Lankan Context

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Abstract

At present teacher stress has become a critical issue in the educational field which affects negatively towards the teacher student relationship, teacher creativity, teaching methodologies and student outcomes. Though the studies have revealed that teacher can improve their well-being, as well as the student outcome through the use of mindfulness practices which was taught by the Buddha 2600 years ago, any convincing evidence of the influence of teachers' mindfulness towards student English Language outcomes in Sri Lanka or any other country cannot be found. To fulfil that gap, this study explored the influence of teachers' mindfulness towards student outcomes in the government schools in Sri Lanka, using Pretest and Posttest Experimental design. Data was collected before and after 8-week intervention period, from a sample consisted of 230 students and 9 teachers of English, that were observed quantitatively. Findings revealed that the teachers' mindfulness as one of the most influential factors that decides the student outcomes and the stress-free enjoyable learning teaching environment for both teachers and students. This offers valuable recommendations to the education system in Sri Lanka, in order to enhance student academic performances, steps should be taken to improve the mindful living of teachers.



Key Words: Teacher’s Mindfulness (TM), Student English Language Outcomes (ELOs), Senior Secondary Students

Introduction

According to the findings of the researchers; Greenberg, et al., (2016), Flook, et al., (2013), Wilkes, (2018), and Herbet, (2018) teaching has been identified as the most stressful profession in the human service industry which influences negatively on well-being of teachers and student academic performances.

It has been found out that, lack of mindfulness may result in high stress levels of a person which affects his/her body awareness and clarity of mind adversely. At the same time, it was revealed that, a person can improve his /her well-being by practicing the mindfulness, which was revealed by the Buddha 2600 years ago. According to the research done by Harris, et al., 2015; Flook, et al., 2013; Wilkes, 2018; and Herbet, 2018, it was revealed that, teachers can improve their well-being through the use of mindfulness practices that affects the student performances favourably.

There is a surprising paucity of current research into teacher well-being and mindfulness in the Sri Lankan context, and even greater scarcity of Sri Lanka based research into the potential impact of mindfulness-based practices of teacher on student outcomes. This study aimed to address this significant gap by exploring the influence of teachers’ mindfulness on students’ academic performance in Government schools in Sri Lanka.

Literature Review

Mindfulness is the awareness of the present moment without judgment (Flook, et al., 2013; Hölzel, et al, 2011). According to the Mindfulness guidelines, 2018; Mindfulness is the practice of focusing attention on the experience of the current moment, with an attitude of non-judgmental acceptance and curiosity. Studies have revealed that people who have practised mindfulness show thickening of the grey matter in their frontal cortex. This is the area of the brain responsible for attention, self-regulation, executive function, and planning. They also show thickening of the hippocampus; the area which is responsible for memory function, the insula and precuneus; areas that responsible for self-awareness and emotional processing. Those who practise mindfulness also show reduced activity in the amygdala; the area which is associated with distraction, anxiety, fear, depression and stress and the default mode network associated with worry and rumination, depression, and schizophrenia (Figure 1,).



Figure1. Mindfulness and Brain Structure (Holzel, et al,2011)

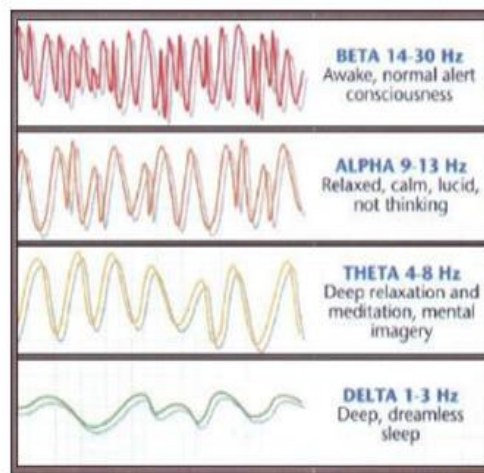
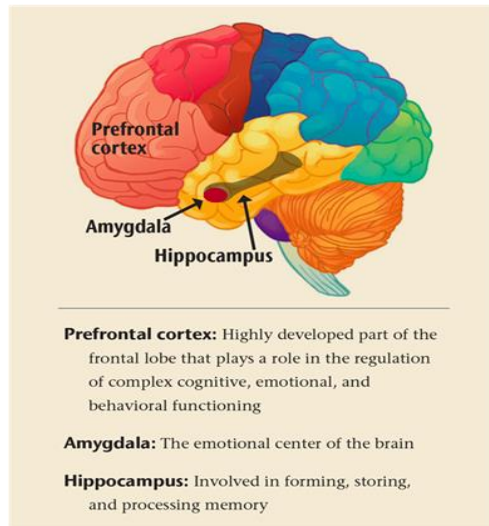


Figure 1. Brain wave patterns (Schutt, 2016)

Figure 2. Brain Wave patterns (Schutt, 2016)

Neurologists have classified brainwave patterns into four types; Beta, Alpha, Theta and Delta. In 2015 Morgan has revealed that, when a person practices mindfulness meditation regularly, his/her brain wave patterns gradually go from Beta to Delta. This indicates that mindfulness meditation leads to a calmer and relaxed mind (Figure 2 cited by Halpin, 2017).

Teachers' Mindfulness

According to Flook et al., 2013; Meiklejohn et al., 2012; Tracie Abram, 2020; The mindful Teacher is clear-minded, and kind-hearted in word and deed in the classroom. These researchers identify three necessary domains or facets of teacher expertise that encompass both instructional (i.e., content) and interpersonal (i.e., relational) aspects of teaching. These domains include: content knowledge (i.e., knowledge of subject matter), pedagogical knowledge (i.e., best practices for communicating subject matter to students), and knowledge about students and their learning (i.e., developmental knowledge). "Mindful Teacher" is clear-minded and aware (not distracted), calm-bodied (and not reactive), and kind-hearted (and not critical, coercive or biased) in word and deed, especially in his or her interactions with students, in the classroom. Mindful Teacher addresses the gap between abilities and actions" and more effective in the classroom, thus connecting with their students in meaningful and productive ways. As the student affective and cognitive outcome is affected by the teachers' mindfulness, it is possible to see teachers' mindfulness as a variable which may be positively related to the student outcomes.

H1: There is a positive relationship between Teachers' Mindfulness and Student outcomes.

Methodology

Using the pretest and posttest experimental method, this study explored the impact of teachers' mindfulness on student outcomes of the Senior Secondary students in the government schools of Type 1AB, Type 1C and Type 2 in the Western Province of Sri Lanka. Data was collected before and after eight-week intervention period, from a sample consist of 230 students and nine teachers of English that were observed quantitatively. Stratified random sampling method was used to select this sample.

Data Collection Procedure

As the first step of the procedure structured observation and interviews were conducted for both teachers as well as for the students in each school. After having a friendly discussion on the subject and the difficulties the teachers face, each student was asked the difficulties they have while learning English as a Second Language, and they were asked to write 15 sentences on 'Myself' for further clarification of the difficulties and for assisting the teachers to take necessary remedial steps for the feedback. When their essay on 'Myself' and the Pretest English Language answer scripts observed, the said difficulties were seen very clearly, by the researcher as well as the teachers.



As the Second step of the experimental research, the researcher discussed the following areas with the teachers of English of the both groups in each school (during three hour two sessions) to help the teachers to improve their professional skills and to bring the both groups to the same level.

- i. Structure of the question paper - G.C.E. (Ordinary Level) English Language
- ii. Competencies and Competency Levels
- iii. Essential Learning Outcomes and Desired Learning Outcomes
- iv. Text types and Testing Techniques
- v. Marking Criteria
- vi. Importance of knowing those areas by the teacher as well as students

- vii. The Difficulties, the students of grade 11 have; letter formation, mechanics of writing (capitalization), reading difficulties, grammar, vocabulary, essay writing (content – facts, spelling, vocabulary, and organization) etc. by observing the errors and difficulties of the students’ essays on ‘Myself’ and their answer scripts of the third term Grade 10 English Language test paper conducted by the school at Provincial level, and the remedial steps to be taken to overcome them.
- viii. The Problems the teacher faces while teaching; classroom management, methodology etc.
- ix. The Measures that can be taken to overcome those problems

As the third step, the teachers and the students of the Experimental group was given the Mindfulness Training by Rev. Athurugiriye Dhammavihari, an expert in mindful training and the researcher herself using the activities; Mindful Listening, Mindful Sitting, Mindful Eating, Mindful Walking, Mindful Games and Activities, Mindful drawing, Body scanning, Simon says game, Mindful clapping game etc. (see Appendix 1), and they were asked to practice engage in mindful activities at home every day for five minutes.

As the fourth step, the researcher herself became an active participant of the experimental group while observing the students’ behaviour and did different types of language activities (see Appendix 2).

As the final step at the beginning of the 9th week post test was conducted. Students were unaware of observation. by being with them, the researcher collected the data on teachers’ mindfulness, student mindfulness and student behaviour. Students grade 11 provincial level English Language test paper marks were obtained as the posttest marks of achievement or student academic outcomes.



Findings

Student Outcomes of the two groups before and After Intervention

Mean and the standard deviation for the pretest and posttest of Student academic performance of the experimental and control groups were shown in table 2. Before the treatment, mean score of the students in the experimental group, the student outcome of English Language was 42.95. After the treatment the mean score is 47.40. The difference between the mean score of the pretest and the posttest of student outcome in the experimental group is 4.45, a significant improvement.

Mean score of the students in the control group, was 49.68 at the pretest. and the posttest mean score is 50.58. Though they were not provided the treatment, there is a difference between the mean score of the pretest and the posttest of the control group as 0.9. This difference can be assumed as the effect of the treatment given to the both groups on professional skill development programme. Therefore, the researcher can assume that the mean difference of the experimental group is solely not due to the mindfulness intervention, and the influence of the professional skill development programme too is included in that increment. When the difference of 0.9 is deducted from the difference of 4.45 of the experimental group, 3.55 can be taken as the actual effect of the mindful intervention.

Table 1: Mean score of the Student Outcome of the two groups

Groups	Pre-tests mean	Post-tests mean	Difference
Experimental Group	42.95	47.40	04.45
Control Group	49.68	50.58	00.90
Difference	06.73	03.18	03.55

It is statistically revealed that the mean score of the experimental group is significantly higher than the mean score of the control group. Hence, there is a significant increase in the performance of the students who were given the mindful treatment. This proves that mindfulness of the teachers and the mindfulness of the students influence the student academic performances significantly.

Objective of this research was to study the impact of teacher’s mindfulness on student outcomes.

It was hypothesized that ‘There is a positive relationship between Teachers’ Mindfulness and Student Academic Performance.’

Table 2: Correlations – TMF and SO

		TMF difference	SO Difference
TMF difference	Pearson Correlation	1	.146*
	Sig. (1-tailed)		.014

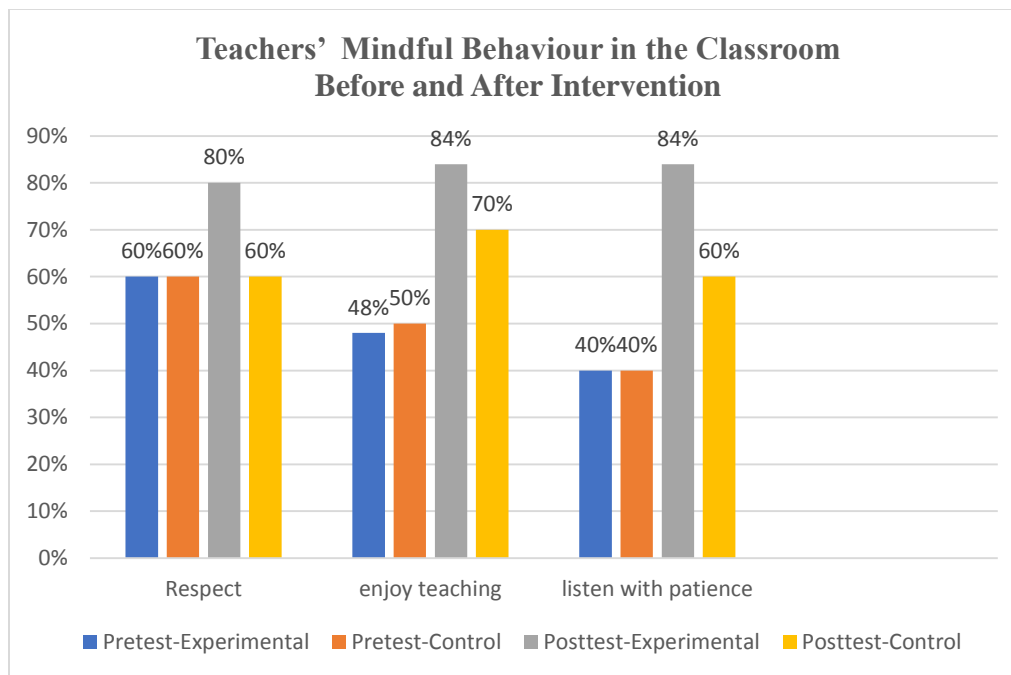


	N	230	230
SO, Difference	Pearson Correlation	.146*	1
	Sig. (1-tailed)	.014	
	N	230	230

*. Correlation is significant at the 0.05 level (1-tailed).

In this study according to the Pearson correlation coefficient between the two variables teachers' Mindfulness (TMF) and the Student Academic Performance (SAP), there is a small positive correlation between the two variables ($r = .146$, $n = 230$, $p < .0005$). As the direction of the relationship is positive, it is statistically proven that there is a positive relationship between the teachers' mindfulness and the student academic performances. The results support the findings by Meyer L. (2018); Flook et al., (2013). It is statistically proven that, by improving the mindfulness of the teachers, academic performance of the students, can be improved.

Figure 3



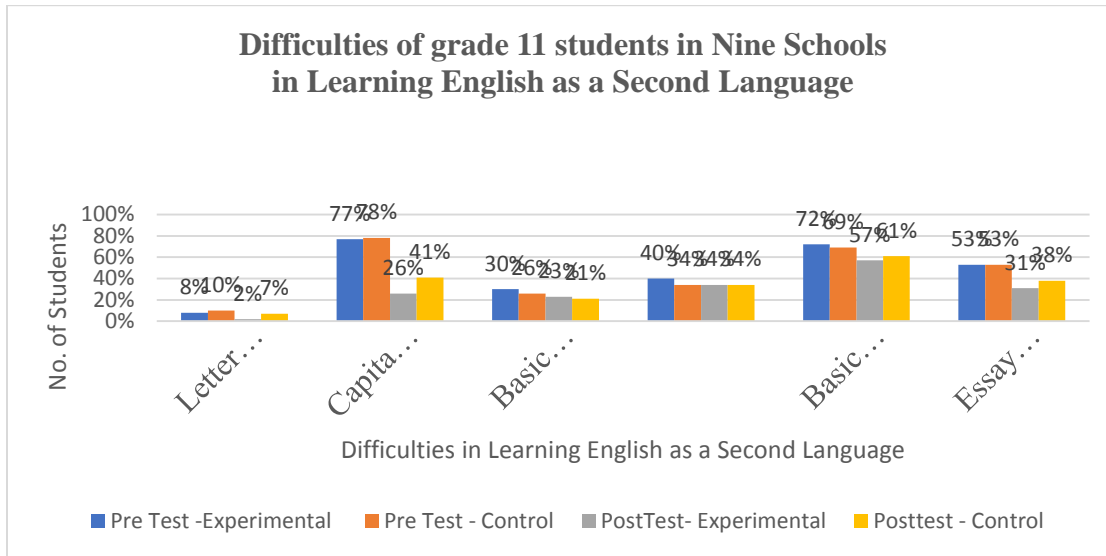
In this study the researcher personally experienced the stressful behaviour of the teachers at the pretest while observing their mindfulness; by observing their respect towards students, whether the teacher enjoys teaching or not, and whether the teacher listens to the students with patience. Teachers did not listen to the students much and they thought that students should listen to them and do what they asked to do without questioning. Students who were at the expected level of a grade 11 student were able follow the teacher and did the activities the teacher given, but the other students were demotivated, neglected and they did their own work. As a result of that teacher shouted at them, without having any respect towards them, especially students' age made them more aggressive.

Figure 3 reveals the teachers' behaviour before and after introducing mindfulness. At the pretest of mindful behaviour of the teachers; showing respect towards the students was 60% in both groups, but after introducing mindfulness to the experimental group, showing respect towards students has been increased by 20% and they did not shout at the students who were aggressive. Instead of that the teacher went to them and patiently tried to help them. Gradually the aggressive behaviour of the students decreased and at the end of the first week students became calm. At the end of the eight weeks of intervention, (practice of mindfulness) Teachers' patience has been increased by 44% (from 40% to 84%) and they began to love teaching, their liking was increased by 36%, the respect towards the students too has been increased by 20% (from 60% to 80%). Though the control group didn't receive the mindfulness treatment, the researcher as a passive observer, was able to see a difference of behaviour of the teachers in the control group too. They used multi tasks from simple to complex to help their students to achieve the learning outcomes with patience after taking part the training sessions provided for both groups on improving teachers' professional skills. Therefore, it is obvious that, when the students are helped to do the activities proper way to achieve the learning outcomes they are motivated to learn and become calm, and that calmness and motivation make teachers enjoy teaching and students enjoy learning, and at the same time it is proved that mindfulness helps to understand the feelings of others and it helps to adjust one's behaviour to behave without hurting others' feelings. Patience and liking towards teaching were increased of the teachers in the control group from 40% to 60% and 50% to 70% respectively, a 20% improvement in each dimension and it was not due the mindfulness but due to the use of their professional skill proper way. This reveals that the improvement of teachers' mindful behaviour in the experimental group is a result of both mindfulness intervention and the training provided on teachers' professional skills and at the same time it is proved that practicing mindfulness helps to improve one's social and emotional skills.

At the posttest of the student outcome, it was revealed that teachers are competent enough to select appropriate teaching techniques and tasks that help the students to achieve the outcomes related to each competency level and teachers' use of multi-level tasks have created a kind of interest in students to learn the language in an enjoyable manner with confidence. As a result of this self-motivation, students showed a kind of self-discipline instead of being aggressive.



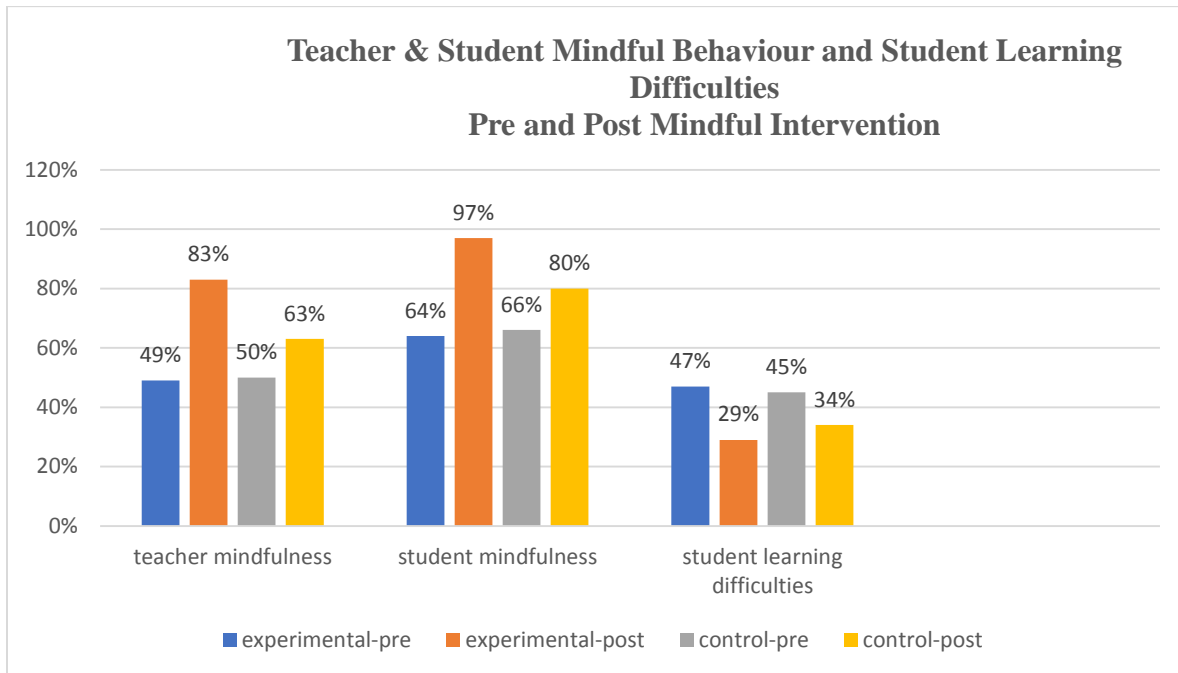
Figure 4



After intervention it was revealed that number of students that were unable to write letters in the experimental group were decreased from 8% to 2%, while in control group 10% to 7%. Students that were unable to use capitalization where necessary was decreased from 77% to 26% and 78% to 41% respectively.

Students that were unable to read the words as they couldn't identify the sounds that each letter represents, decreased from 30% to 23% and 26% to 21%. Students that were unable to comprehend the meaning of the new vocabulary as they have no practice of guessing the meaning contextually has been decreased from 40% to 34% while the number of students who has the difficulty of comprehending vocabulary in control group remains same. Number of students in experimental group that were unable to use the basic knowledge of grammar has been decreased from 72% to 57%, it has been decreased from 69% to 61% in the students in control group. While the No. of students in experimental group that were unable to write even a simple essay on a familiar topic has been decreased from 53% to 31%, no. of students in control group has been decreased from 53% to 38%.

Figure 5: The teachers’ mindful behaviour and student mindful behaviour, before and after mindful intervention.



Before intervention teachers in both experimental and control group were frustrated as some students in each class were troublesome and unable to reach the expected level. Students and teachers couldn’t tolerate each other. They didn’t have a healthy relationship. They didn’t want to listen to each other. But after intervention teachers in the experimental group became calm and they began to listen to the students. They tried to understand the students’ difficulties and created multi-level tasks to support them. As a result of this friendly approach, they began to respect each other and students became confident enough to create a healthy rapport between teachers as well as their peers. Students’ aggressive, uncontrollable nature and behaviour changed into self-motivated, friendly, self-controlled behaviour. This behavioural change in the classroom has directly influenced the students’ academic outcome.

Learning teaching process became enjoyable for both parties in the experimental group while control group remained unchanged to some extent. Though the control group was not given the mindful treatment; for the teachers of both groups; experimental and control were given professional skill training to bring them to same level. At the pretest the researcher observed that the teachers in both groups faced the same difficulties mentioned above and they were unable to find solutions for classroom management or to get the attention of the students to create an interest in them to learn the language, but the researcher’s mindful, friendly approach motivated the teachers to follow the instruction given to create a stress-free, enjoyable learning teaching environment.



Recommendations

All the Teachers and students should be given mindful training that help them to make them aware of themselves and others, and adopt a policy to implement mindfulness in the school curricular. And continuous mindfulness development programmes for teachers and students should be implemented in Sri Lanka.

Conclusion

Findings of this study revealed that mindfulness of a teacher is an effective tool that can be used to improve the poor education outcomes of the public education system of Sri Lanka by creating a stress-free learning teaching environment in the classroom, and it is statistically proven that mindfulness of a teacher is an effective tool which can be employed in all the schools in Sri Lanka as a remedy for the disparity of student outcome.

Appendix 1

Mindful activities that used for mindful intervention:

Mindful Walking

Mindful walking means walking leisurely, enjoying every step. We become aware of the contact of our feet with the ground without thinking regrets about the past, fears and anxieties about the future, or preoccupations in the present when we walk mindfully. We can feel the cool comfortable nature of the grass when our feet touch the grass. When our feet touch the rough parts of the earth, we can feel the roughness of the path we are walking. 'Our planet earth has so many great virtues. It is patient. The earth doesn't discriminate. We can throw fragrant flowers on the earth, or we can throw urine and excrement on the earth, and the earth purifies it. The earth has a great capacity to endure. And it offers so much to nourish us—water, shelter, food, and air to breathe. When we walk mindfully on the face of the earth, all of the earth's qualities of patience, stability, creativity, love, and nondiscrimination are available to us when we walk reverently, aware of our connection. We are made of body and mind. Our body can radiate the energy of peace and compassion. Our mind also has energy. The energy of the mind can be powerful. If the energy of the mind is filled with fear and anger, it can be very destructive. But if we sit mindfully, if we walk mindfully and reverently on the earth, we will generate the energies of mindfulness, of peace, and of compassion in both body and mind. This kind of energy can heal and transform' (Thich Nhat Hanh, 2019).

Mindful Eating

When you eat the apple, just concentrate on eating the apple without thinking of anything else. Being focused and slowing down will allow you to truly savor all the qualities the apple offers: its sweetness, aroma, freshness, juiciness, and crispness. While eating the apple slowly: what it feels like in your mouth; what it tastes like; what it's like to chew and swallow it, without thinking about the things you have to do, without having anger, sorrow, fear or without thinking about past or future chew slowly and consciously becoming fully aware of the present



moment. 'Living in the moment, you can really receive what the apple offers you, and you become more alive. We can become fully aware of the miracle of our body – the taste buds in our mouth, and our body transforming food into energy and vitality. This food is a gift of the earth, the sky, numerous living beings, and much hard and loving work. May we eat with mindfulness and gratitude so as to be worthy to receive this food. May we recognize and transform unwholesome mental formations, especially our greed and learn to eat with moderation. We accept this food so that we may nurture our brotherhood and sisterhood, build our Sangha, and realize our ideal of serving all living beings' (Thich Nhat Hanh, 2019).

Mindful Sitting

'It's important to find a comfortable position, so our body can relax completely. You could be seated on a cushion or on a chair; cross-legged in the lotus or half-lotus, or kneeling. We can adjust our posture so the back upright yet relaxed, our two knees touching the ground, and our hands placed gently in our lap. We allow the muscles in our face to relax, release any tension around the jaw and mouth, and gently relax our shoulders. If our legs or feet fall asleep or begin to hurt while sitting, we gently adjust our position while following our breathing.

Mindfulness is a kind of *energy* that we generate when we bring our mind back to our body and get in touch with what is going on in the present moment, within us and around us. We become aware of our breathing and come home to our body, fully present for ourselves and whatever we are doing.

The energy of mindfulness helps us touch life deeply throughout the day, whether we're brushing our teeth, washing the dishes, walking to work, eating a meal, or driving the car. We can be mindful while standing, walking or lying down; while speaking, listening, working, playing and cooking. Mindfulness is not hard work. It's very pleasant and relaxing, and we don't need extra time to do it. There's an art to finding creative ways to generate the energy of mindfulness, peace, and happiness in everyday life' (Thich Nhat Hanh, 2019).

Mindful Listening (for five minutes)

Students were asked to sit comfortably, close their eyes, and to listen to the sound of the environment; sounds of the birds, sounds of vehicles etc. the sounds they hear. Sounds closer to them and far away sounds. Then they become aware the sounds they couldn't hear till that moment. Then they become aware about themselves. Then they were asked to aware on their pattern of breathing. Inhaling next exhaling. At the end of this five minutes the students and teachers become calm and peaceful. When they practice this mindful listening every day for 5 minutes, they become aware of their mind, feelings and their behavior as well as others feelings emotions more and more and become a calm, peaceful and happy child and happy person.



Appendix 2

For example, some Language activities done:

1. Writing capital and simple letters in the Alphabet of English Language – to help them to identify the differences, formation,
2. Using capital letters where necessary- at the beginning of a name of a person, animal, place, the word 'I' - to help them to use capital and simple letters where necessary
3. Sounds of the letters – vowel sounds, consonant sounds – a, e, i, o, u three letter words, four letter words, - to help them to read the words correctly
4. Re writing the sentences using capital letters where necessary - to help them to use capital and simple letters where necessary
5. Listen to a simple text and fill the form using the given words – to improve listening skill – listening comprehension
6. Read the text and fill the form – read and find specific information- reading and writing skills
7. Prepare a form and complete with their information – form filling
8. Practice asking questions on personal information - speaking - like a game
9. Prepare a form and fill with friend's information – using the language – speaking, listening, reading and writing skills
10. Writing on 'Myself' using the model given. – parallel writing
11. Give a speech on 'Myself'.
12. Writing about 'My Best Friend' using the model given. – parallel writing
13. Give a speech on 'My Best Friend'.
14. Comprehension questions on 'Vandalism' – Unit 1 – lesson 1- Grade 11- Reading and writing – group work – answers in complete sentences. Ask them to find words they can understand and create their own definition for vandalism. Eg: What is vandalism? What are the two levels of vandalism? Explain each level with examples. What are the reasons for vandalism? What are the bad effects of vandalism? How can we stop vandalism? Etc.
15. Write the answers on the board by the students in each group.
16. Discuss the answers with the other groups and do the needed corrections by the students on the board.
17. They do the corrections in their writing books.
18. Students practice asking and answering the questions orally in groups. They help each other speaking
19. They make a circle. Pass the ball and ask and answer the questions by each. They help each other when needed.
20. They write an essay on 'Vandalism' using the answers.



Appendix 3

Table 2: Operational Definitions of the Variables in this Study

Variable	Operational Definition	Items of the Questionnaire/ Observation Sheet	Source & Scale
Teacher's Mindfulness (TMF)	Effectiveness of being at the present moment And self-awareness	1. Confidence 2. Teacher enjoys teaching 3. A good listener (Passive Participatory Observation)	(Adapted from Meyer L. 2018 5-point Likert Scale
Student Mindfulness (SMF)	Effectiveness of being at the present moment And self-awareness	1. Student attention 2. Confidence 3. Student enjoys Learning (Active and Passive Participatory Observation)	(Adapted from Meyer L. 2018 5-point Likert Scale
Student Academic Performances (SAPs)	Achievements levels of Competencies related to Reading, Writing, Vocabulary and Grammar	Marks obtained for English Language Grade10 Last Term Test Paper (Pre-Test) & Grade 11 First Term Test Paper (Post Test) 1. Letter Formation 2. Capitalization 3. Basic Reading 4. Vocabulary Comprehension 5. Basic Grammar 6. Essay Writing	Test Papers prepared at Provincial Level (Adapted from Syed Kamal – Ud-Din Shah 2014;) No. of students of each class with these each



		(Active Participatory Observation and interviewing)	difficulty
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