## PLUGGED INTO MINDFULNESS

# Report on Evaluation

# **Breathwork & Mindfulness Training**

Provided to:

# **Slippery Rock School District Educators**

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Prepared for:

Healthy Body – Peaceful Soul, Inc.



Funded by: Butler County Human Services

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#### Introduction

Healthy Body – Peaceful Soul Inc. (HBPS), provided a series of training sessions to Educators employed by the Slippery Rock School District in order to teach mindfulness techniques that might be used to reduce personal stress and reduce feelings of "burnout". In addition, the Plugged Into Mindfulness (PIM) training provides the participating educators with techniques they might use in the classroom to help students focus and better cope with anxiety and stress in the school environment. The PIM course was provided in person; however, the sessions were also available online to accommodate any of the participants who were unable to attend a particular session. Ten sessions were provided over a 4-month period beginning September 7, 2021 and concluding on January 25, 2022.

A non-randomized control group of Slippery Rock educators not participating in the PIM course also completed the pre-test and post-test in order to provide data necessary to compare the participant group responses to a similar group of educators who did not participate in the PIM course.

## Methodology

The evaluation was conducted by an independent evaluator using a quasi-experimental pre-test – post-test non-randomized control design.

The 15-item Five-Facet Mindfulness Questionnaire (FFMQ) was used to assess the effectiveness of the PIM course in areas related to judging oneself, reacting to stress, reacting with awareness, and ability to express (describe) feelings. The 15-item FFMQ consists of 15 questions administered to both the Slippery Rock educators enrolled in the PIM course as well as those that volunteered to serve as a control group.

A total of 33 educators employed by the Slippery Rock School District participated in the PIM sessions. A control group of 31 Slippery Rock educators who had no prior mindfulness training and were not participating in the PIM course served as a control group. Each group (PIM participants and control) completed the pre-test at the beginning of the training course and then completed the post-test after completion of all training sessions. The 15 item Five-Facet Mindfulness Questionnaire was used as the test instrument for both the pre-test and post-test.

The 15-item FFMQ is scored using a 5-point Likert type scale from 1 to 5 with a value of 5 assigned the most desired response and 1 assigned to the least desired response. The maximum possible score is then 75 (15X5). The difference between the average pre-test score and the average posttest score is then calculated and the mean score of the participant group was compared to that of the control group.

In order to determine if the differences in pre-test and post-test mean scores are statistically significant, an *ANOVA Single Factor* analysis was conducted to compare the means of the pre-test and post-test distribution of scores.

### **Evaluation Findings**

#### Difference in Pre-Test and Post-Test Average Scores – PIM Participants

The average pre-test score of the educators participating in the PIM course was 46.14 and the average post-test score of these educators was 53.70. The increase in average post-test score when compared to the average pre-test score is 7.56. This is a 16.38% increase in desired post-test responses as compared to pre-test responses.

The outcome measure for the Slippery Rock School District Educators who participated in the PIM Training Course is a 7.56-point increase in average post-test score equivalent to a 16.4% gain as compared to the average pre-test score.

#### Difference in Pre-Test and Post-Test Average Scores – Control Group

The average pre-test score of the educators volunteering to be part of the control group was 47.18 and the average post-test score of the control group educators was 50.83. The increase in average post-test score when compared to the average pre-test score is 3.65. This is a 7.73% increase in desired post-test responses as compared to pre-test responses.

A 3.65 -point increase in average post-test score as compared to the pre-test score was observed for the control group.

The simple comparative analysis of the difference in average pre-test and post-test scores indicates both groups of educators (PIM participants and non-participants) scored higher on the post-test than on the pre-test. Those educators that participated in the PIM training course did, however, demonstrate a much higher percentage increase in average raw score as measured by the test instrument (15-item FFMQ).

#### Statistical Analysis

An *Analysis of Variance* statistical test (ANOVA) was used to determine the significance of the difference in the pre-test and post-test mean score of both the participant group and the control group.

When the difference in the means of the pre-test and posttest score for the participant group was tested at the 95% confidence level, the increase in average score of the PIM participants was determined to be statistically significant. The *F value* for the participant group of 13.86 greatly The increase in in post-test scores for the PIM participants is statistically significant with a high degree of confidence.

exceeds the *F critical value* of 4.00 indicating the gain in scores on the post-test was not due to chance.

The difference in average pre-test and post test score was not found to be statistically significant for the control group. The F value of the control group is 3.88 which is lower than *the F critical value* of 4.00 indicating a lack of statistical relevance at the 95% confidence level.

Further, the probability that the average increase in PIM participant scores is due to chance is very low ( $P \ value = 0.0004$ ); thus, we can conclude with a high degree of confidence that the PIM

sessions resulted in an increase in the average score of the participants related to mindfulness areas assessed by the FFMQ such as judging oneself, reacting to stress, reacting with awareness, and ability to express (describe) feelings by the PIM participants when compared to a control group of similar educators who did not participate in the PIM sessions.

Results of the statistical analysis conducted may be found in Appendix B.

#### **Observations and Conclusions**

- Although some gain in post-test scores was observed in both the participant and control groups, the average increase in score for the PIM participants is much more pronounced and is statistically significant with a high degree of confidence.
- The PIM sessions were provided over a four-month period during a period when the Slippery Rock area experienced a spike in COVID 19 cases. Anxiety about the COVID 19 Pandemic is likely a notable intervening variable and may have had an effect of responses to the test instrument.
- When average scores of individual test items were reviewed, both the participant group
  and the control group scored highest on items related to expressing their feelings and scored
  lower on items describing an ability to let distressing thoughts go and paying attention to
  tasks.

Participants in the PIM Course were asked to share any comments they might have about their experience participating in the PIM sessions. Eighteen of the thirty-three educators offered one or more comments. Comments were generally very positive, and participants seemed to enjoy the PIM sessions. All verbatim comments are listed in Appendix C, and these comments may be useful in shaping future PIM course for school personnel.

# Appendix A – Summary of Pre-Test & Post-Test Data

|         | <u>Partici</u>        | <u>pants</u>           | <u>Control</u>        |                        |  |
|---------|-----------------------|------------------------|-----------------------|------------------------|--|
|         | <u>Pre-Test Score</u> | <u>Post-Test Score</u> | <u>Pre-Test Score</u> | <u>Post-Test Score</u> |  |
|         | 57.75                 | 63.00                  | 57.00                 | 48.75                  |  |
| _       | 48.00                 | 47.25                  | 51.00                 | 44.25                  |  |
|         | 42.75                 | 51.00                  | 57.00                 | 60.75                  |  |
|         | 57.75                 | 50.25                  | 45.75                 | 54.75                  |  |
| _       | 39.00                 | 59.25                  | 50.25                 | 53.25                  |  |
|         | 39.75                 | 57.00                  | 33.75                 | 54.00                  |  |
|         | 47.25                 | 62.25                  | 54.00                 | 42.00                  |  |
|         | 41.25                 | 60.75                  | 47.25                 | 50.25                  |  |
| _       | 48.75                 | 59.25                  | 48.00                 | 36.75                  |  |
| _       | 57.00                 | 50.25                  | 44.25                 | 57.75                  |  |
|         | 32.25                 | 48.00                  | 48.00                 | 39.75                  |  |
|         | 48.00                 | 69.75                  | 32.25                 | 48.00                  |  |
|         | 44.25                 | 57.00                  | 39.75                 | 57.00                  |  |
| _       | 53.25                 | 45.00                  | 53.25                 | 39.75                  |  |
| _       | 50.25                 | 59.25                  | 54.00                 | 45.75                  |  |
| _       | 45.00                 | 53.25                  | 48.75                 | 54.75                  |  |
|         | 30.75                 | 57.75                  | 45.75                 | 53.25                  |  |
|         | 48.75                 | 44.25                  | 42.00                 | 45.75                  |  |
|         | 50.25                 | 42.75                  | 45.75                 | 54.00                  |  |
| _       | 44.25                 | 51.75                  | 30.00                 | 54.00                  |  |
| _       | 48.75                 | 47.25                  | 45.00                 | 45.00                  |  |
|         | 60.00                 | 50.25                  | 57.00                 | 66.00                  |  |
|         | 42.75                 | 48.75                  | 36.00                 | 57.75                  |  |
|         | 44.25                 | 56.25                  | 47.25                 | 44.25                  |  |
|         | 24.75                 | 51.75                  | 42.75                 | 56.25                  |  |
|         | 39.00                 | 53.25                  | 51.75                 | 60.00                  |  |
|         | 47.25                 | 57.75                  | 47.25                 | 63.00                  |  |
|         | 68.25                 | 60.75                  | 56.25                 | 42.75                  |  |
|         | 39.75                 | 38.25                  | 45.00                 | 48.00                  |  |
|         | 32.25                 | 57.75                  | 57.75                 | 48.00                  |  |
|         | 50.25                 |                        | 48.75                 | 50.25                  |  |
|         | 47.25                 |                        |                       |                        |  |
|         | 51.75                 |                        |                       |                        |  |
| Average |                       |                        |                       |                        |  |
| Score   | 46.14                 | 53.7                   | 47.18                 | 50.83                  |  |

## Appendix B – Statistical Analysis

### **PIM Course Participants**

**ANOVA: Single Factor** 

alpha = .05
SUMMARY

| Groups           | Count | Sum    | Average  | Variance |
|------------------|-------|--------|----------|----------|
| Pre-Test Scores  | 33    | 1522.5 | 46.13636 | 79.84411 |
| Post-Test Scores | 30    | 1611   | 53.7     | 48.32069 |

#### ANOVA

| Source of      |          |    |          |          |          |          |
|----------------|----------|----|----------|----------|----------|----------|
| Variation      | SS       | df | MS       | F        | P-value  | F crit   |
| Between Groups | 898.9922 | 1  | 898.9922 | 13.86102 | 0.000432 | 3.998494 |
| Within Groups  | 3956.311 | 61 | 64.85756 |          |          |          |
|                |          |    |          |          |          |          |
| Total          | 4855.304 | 62 |          |          |          |          |

### **Control Group**

**ANOVA: Single Factor** 

alpha = .05
SUMMARY

| Groups          | Count | Sum     | Average  | Variance |
|-----------------|-------|---------|----------|----------|
| Pre-Test Score  | 31    | 1462.5  | 47.17742 | 53.78831 |
| Post-Test Score | 31    | 1575.75 | 50.83065 | 52.82661 |

#### ANOVA

| Source of      |          |    |          |          |          |          |
|----------------|----------|----|----------|----------|----------|----------|
| Variation      | SS       | df | MS       | F        | P-value  | F crit   |
| Between Groups | 206.8639 | 1  | 206.8639 | 3.880581 | 0.053469 | 4.001191 |
| Within Groups  | 3198.448 | 60 | 53.30746 |          |          |          |
|                |          |    |          |          |          |          |
| Total          | 3405.311 | 61 |          |          |          |          |

## Appendix C - Verbatim Comments from PIM Participants

It relaxed me. I was not "buying it" at first, but now am a believer!!

Great training. Thoroughly enjoyed it!

I thought this training was very beneficial. I'd be interested in learning more about mindfulness rooms and about how to facilitate group activities about mindfulness. Thank you!

I thought it was a wonderful course. It was an excellent class on a subject that as educators we don't delve into. It not only helped our work life but most importantly our family life.

Great program. Thank you!

I very much enjoyed the body scans and the mindful activities. I had to attend virtually a few times due to the location of the training and do not recommend the virtual. I understand that you want to hear our feedback but the 30 minutes of just sitting there and hearing the same people say the same things was pretty daunting especially when you couldn't hear what most were saying. The information in the training was invaluable and I am glad that I signed up for this. My suggestion is to make physical presence mandatory (I realize you probably can't do this) and to spend more time in active practice instead of reflection.

It was a great experience. Thanks for putting this together!

At first, I thought this class was going to be "goofy" for lack of a better word. However, after a stressful day, I found it to be relaxing and helpful. The book that accompanied class was also beneficial for my mindfulness practice!

Make the meetings weekly.

Thank you!

I think there could be more application/variety of methods that can be incorporated into the classroom. I know we discussed a few that potentially could work, but I just think there could be more emphasis for application in an educational setting for diverse learners. I personally believe mindfulness is a spectrum that students may need more options to feel comfortable practicing something like this with peers. I also think a session for these strategies for students with disabilities would be a nice addition. The course was meaningful, there were just a few times I felt a little disconnected to the application of the strategies themselves.

I really appreciated having an online option.

It was really hard to stay in the habit of being mindful when we would have 3 weeks between sessions, and it was really difficult to buy in when we had class just before break.

Also, I was disappointed that we didn't spend more time on how to teach this to students and incorporating mindfulness in our classes. It was on the agenda, but it kept getting pushed back.

Less discussion, more instruction. Some days we were open to discussion, but others we weren't so it was forced. As good students, we stepped up and said relevant things, but then it took away from having practice led for us, or discussion of what was on the agenda.

I enjoyed the training. I hope to use some of the training in the classroom. I think it will be helpful to students. We have a lot of students dealing with anxiety and depression. These tools would be helpful for them.

Maybe have the training be more structured rather than open for discussion. It seemed as though no one wanted to share their experiences voluntarily at the start of each class. Having a prompt to answer or activity might help encourage participation.

They are a good way to re-focus and be productive. They do not fix problems but can help to manage/reduce/deal in a healthier way.

I found this training very valuable for both my personal life and within my teaching! Thanks so much.

I found having the virtual option to be very helpful since the schools vary in distance from each other.

Joni-the practices you shared are so powerful and you facilitation was absolutely outstanding. Thank you!