

Utilizing Process Drama Techniques as an Approach for the Development of Adaptability Skills in Junior Secondary Students

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Abstract: Adaptability is defined as appropriate cognitive, behavioural, and/or affective adjustment in the face of uncertainty and novelty; significant skill as being necessary for students to be effective in future economic work contexts. However, in Sri Lanka human capital mismatch with the enhancement of national economic and social development; school leavers are not opened to trying new challenges or experimenting with different and unpredictable solutions to problems and challenges in the workplace. The study was a non-randomised control group an intervention program, which was designed to examine and evaluate the potential of process drama techniques to develop creative thinking and adaptability skills in Grade 7, 128 school students, aged 11-12, who were studying drama. This article only presents evaluation results of adaptability scale. Over twelve consecutive weeks in weekly two-hour sessions by regular drama teachers who had been trained in the method. Martin's Adaptability Scale used as pre/post-test intervention measures to assess the enhancement of students' suitable adaptation. Following this, a one-way ANOVA was conducted to check whether there are any differences between pre/post adaptability scores among the three factors, and basic descriptive statistics for the adaptability scale were also examined. The overall adaptability results showed a significant difference between total pre-and post-test scores in the intervention group and results suggest that process drama techniques might develop better approaches to situations that involve change.

Keywords: Adaptability, Schoolstudents, Sri Lanka

1. Introduction

School is one of the most important microsystems in students' lives, and it has deep and massive influence on their social and academic adaptation [44]. Therefore, successful collaboration with the positive school environment is essential for students' psychological well-being. However, the general education system and school-based pedagogy in Sri Lanka have failed to produce students with the requisite skills that are in high demand in a competitive economy [1, 40]. The competitive education system focused reproduction of content knowledge over the years has not permitted teachers to develop students' coping skills or self-esteem through the provision of adequate emotional sustenance [10]. As of these students in ways which result in anxiety, depression, and other significant damage [27, 41]. The World Health Organization ranks Sri Lanka as having the fourth-highest suicide rate in the

world [42]; and government figures link this statistic to anxiety about school performance, parental pressure to achieve academic excellence, and economic distress [43]. Most students who die by suicide have failed their examinations [31]. Unfortunately, the Sri Lankan Government has yet to identify the best preparation in response to this call.

Concerning on the basic definition for the adaptability, VandenBos [38] described as the ways an individual modifies their behaviour when confronted with undefined or novel situations or conditions; while Nelson, Zaccaro, and Herman [24] offered this definition: "a practical change (cognitive, behavioural, and/or affective) in response to actual or correctly expected modifications in environmental possibilities" [24] (p. 132). According to Pearlman and Barney [26], adaptability is a personal value that is important in handling uncertainty, dealing with ambiguity and stress, and in working outside traditional temporal and physical

limitations.

In the Education 2030 Report [25] a case is made for education arrangements that develop a broad set of knowledges, skills, attitudes and values in order to empower students of the future to take 'soft skills.' The Universities UK Report [36] highlights the fact that 'soft skills' are highly appreciated by employers [36] (p. 14): skills such as creativity, adaptability, problem-solving and communication [30]; skills seen as relevant to employability and of value to all students. Moreover, adapting to a new learning stage or experience can be theorised as a complicated task, which can put substantial pressure on students [37]. For adolescents, for example, the transition into high school has long been recognised as a difficult experience, during which they are faced with many new challenges and encounters, including coping with the academic, social-emotional, and behavioural demands of a new environment [18].

Regarding school students' adaptation, Du [5] indicated that school adaptability involves both individual feelings around having to overcome difficulties and the desire to achieve comparatively good academic performance. In other words, the concept of adaptability relates to study attitudes, study skills, study environment, physical and mental health, and other associated fields. Zhang and her colleagues [44] similarly associate the idea of school adaptability to a student's behaviour in the school environment, during study activities and learning processes. Adaptability involves study habits, attitudes and sense of purpose, academic performance, social behaviour and peer effect. This is well suited with Vygotsky's socio-cultural theory [39], which emphasising on context of learning means that interaction impacts significantly on the divergent thinking of students. During the young adolescent stage, development includes the ongoing expansion of brain functions that allow for planning, reasoning, sustaining attention, and decision making [3]. This cognitive development provides young adolescents with an increased ability to understand and to reason and they prefer active to passive learning involvement and are most engaged in learning when they are allowed to cooperate with their peers during learning activities [34, 12].

Adaptability is shaped by a tripartite perspective. Cognitive adaptability affects the ability to obtain knowledge and to develop skills needed to exhibit performance [45]; represents the capacity to adjust decisions and ways of thinking to deal with new, varying, and undefined situations [20]. The focus is on students' responses to difficulty, such as coping mechanisms, resilience [9], and buoyancy [17, 29]. Behavioural adaptability denotes the capacity to adjust the nature and level of response and action in order to move positively into undefined situations [18]. Emotional adaptability denotes emotional regulation, for example, learning how to reduce disappointment, frustration, anxiety, or anger when situations change - such as when an enjoyable activity is cancelled; or minimising enthusiasm in some situations - such as encouraging the student to keep a 'level head' if they are in a really promising position in a task or event [14, 45]. McKenzie and Frydenberg [22] argued that

coping is essential for effective adaptation; that it denotes the capability to draw on both cognition and emotion to deal with particular external and/or internal demands, such as stressful situations [23]. Nejad [23] identifies academic buoyancy as another key element of adaptability skills. Martin and Marsh [15-17] define academic buoyancy as students' capacity to efficiently and positively manage academic hindrances and tasks that characterise 'everyday' sequences of school life (e. g., examination pressure, low test results, test demands and anxiety). Other researchers [13, 38] also identify the importance of resilience in relation to adaptability; the process and outcome related to "positively adapting to problematic or challenging life experiences, especially through mental, emotional and behavioural flexibility, and alteration to external and internal demands" [38] (p. 792). Similarly, the researcher [13] argue that resilience is an active process which includes positive regulation and adaptation when responding to a difficult situation.

The recent innovative research studies cited above provide good direction for thinking about how to prepare Sri Lankan students for the unpredicted situation and circumstances in future and beyond. It is important also to identify the specifics of where school students can be supported to develop these skills. For example, it might be in the classroom setting or it might be in the context of extra-curricular activities, such as after-school clubs [8]. The researcher's personal position is to choose the classroom setting as the best place for this project, with a specific focus on arts subjects, as researchers such as Kashefpakdel, Newton, and Clark [11] have shown that expressive arts subjects, including drama, have the potential to help students to develop to offer opportunities for new experience, to take students out of their comfort zone to create something; all recognised as effective experiences. Sadly, in Sri Lanka, drama teaching has taken stereotype approach focus is on notetaking for written examinations. In this context, teacher- centred pedagogy focused on examinations of the content taught in the overloaded syllabus means there is a lack of opportunity for the students to engage with best practice in drama pedagogy.

Various studies have found positive links between adaptability and secondary school students' engagement and academic achievement and with various levels of methodological rigour in a range of contexts in different countries has emphasized [2, 18, 20, 21]. Martin and his colleagues, for example, suggest that adaptability should be a central element in the school curriculum [18]. This research team studied 969 students from high schools in Australia and found that adaptability was associated with individual well-being and also with a sense of purpose. It was found that adaptable students were more impressive in terms of their future plans, more competent in keeping up with the fast pace and flexible nature of lessons, and more likely to experience positive learning outcomes; they were also less likely to give up. They concluded that adaptability skills enhance students' motivation, class engagement, school enjoyment and involvement.

Martin and his colleagues also reported the finding that

adaptability and self-regulation work together [19]. Self-regulation is seen as significant in terms of effective progression and management of school experience, while adaptability is more particularly significant when the student faces new challenges or responsibilities. The researchers [19] found that secondary school students who exhibit adaptability are better able to accept disappointment, compared to students who lack adaptability. Adaptable students seem better able to work out their situation or challenges, and to use cognitive and emotional strategies to mitigate their disappointment, such as examining and reflecting on tension or vulnerability they may experience.

The above research studies indicate that adaptability is shaped by a number of factors that are in cooperate internal and external to individuals; and provides strong evidence that by learning and practising appropriate adaptive behaviours in the classroom students' cognitive, behavioural and emotional flexibility is enhanced; that they become more adaptable, and in turn are able to help others to adapt. However, there have been no specific studies found that provide evidence that a process drama experience can enhance adaptability skills in secondary school students in a context such as Sri Lanka. Therefore, this might be the first study, by using adaptability scale to measure whether process drama could help to develop students general adaptability skills.

2. Method

2.1. Participants

The sample consisted of 145 students (Grade 7, ages 11–12 years old) and six drama teachers from three government schools in Sri Lanka. The schools were purposefully selected from districts in the Western province, Colombo, Gampaha, and Kalutara, with the conditions that there were drama classes available, that the teachers were willing to participate in the study and intervention. A similar socio-economic environment grounded in selected schools. The intervention group consisted of two single-sex classes, one class of 25 girls and one class of 37 boys. The active control group consisted of two single-sex classes, one class of 12 girls and one class of 24 boys. The control group consisted of two single-sex classes, one class of 20 girls and one class of 27 boys. One hundred and fifty students sat for the pre-test 128 students sat for the post-test. Some students were absent for either the pre-or post-tests and so 22 students' results were eliminated.

2.2. Measures: Adaptability Scale

The general adaptability scale was used pre and post-test to measure a student's capability to adjust his or her thinking, behaviour, affect, and emotions in response to a novel, indeterminate, or changing circumstances [20]. Three factors of adaptability behaviours are evaluated in the present study: cognitive, behavioural, and emotional. Each factor included three items, producing a 9-item scale. Students were asked to indicate the degree to which they agreed with statements that characterised on a seven-point agreement scale with extreme

response types fixed with a phrase (*1 = strongly disagree, 7 = strongly agree*). For example, cognitive (e.g., 'I am able to adjust my thinking or expectations to assist me in a new situation if necessary'); behavioural (e.g., 'To assist me in a new situation, I am able to change the way I do things if necessary'); and emotional (e.g., 'To help me through new or difficult situations, I am able to draw on positive feelings and emotions). The adaptability items were required to reflect four criteria [23]: (i) response to novelty, change, variability and/or uncertainty; (ii) cognitive, behavioural, or emotional functions; (iii) regulation, modification, fine-tuning, reconsideration, or a new way to access these three regulatory functions; (iv) a positive purpose and/or an adaptive result [23] (p. 71).

The Adaptability Scale was validated via empirical techniques such as exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and reliability analysis by the author of the test [18]. Other research projects involving diverse populations have confirmed evidence of the reliability and validity of the scale [19-21]. In the present study, Cronbach's alpha for the scale for the pre-test was .85, and for the post-test was .92.

2.3. Procedure

Ethics was approved by an Australian University Human Research Ethics Committee. There were six classes involved in the study, two intervention classes, two controls and two active controls. Teachers in the two intervention classes in each school used a manual of lessons prepared by the researcher. All lessons in the manual were taken from the Sri Lankan teachers' guide for the second term of drama teaching. The lessons compiled on improvisation, hot-seat and storytelling techniques, which is not happening in Sri Lankan drama classes. All lesson activities design for group activities, which is supported to develop student's flexibility skills, to be able to respond effectively to problems and changes. The main intention was that encourage adaptation as a means of handling uncertainty and dealing with ambiguity for everyday challenges.

The intervention took place during twelve consecutive teaching weeks of a weekly two-hour process drama lesson. The first and last weeks pre-and post-surveys conducted. Forty classroom observations conducted by the researcher to ensure the fidelity, feasibility, and acceptability of the program. Both intervention group teachers were formed from 20 semi-structured interviews and two student focus groups in each intervention school to ensure the fidelity, feasibility, and acceptability of the program. To control for an experimental effect, Kalutara district two Grade 7 classes were selected as the active-control group. Both these classes received traditional note-taking teaching and practical activity that involved making props linked to their lessons. Ten classroom observation were made, but no data were recorded on these visits. Gampaha district was selected as the control group continued traditional note-taking teaching approach and they did not do anything different in the drama classrooms.

3. Data Analysis

First, a $2 \times 3 \times 2$ mixed-design ANOVA (a statistical procedure which compares different groups' scores to see if they are significantly different) was conducted, with time (pre and post) and a within-subject factor, condition (intervention, active-control, and control) as a between-subject factor, and gender (male and female) as a between-subject factor. According to Levene's test, there was a breach of the homogeneity of variances assumption ($p < .05$), suggesting error variances were not evenly distributed across the different groups at pre- and post-intervention test scores. Therefore, the alpha level for determining statistical significance was reduced ($p < .025$).

Secondly, a one-way ANOVA was conducted to check whether there are any differences between pre/post adaptability scores for each of the three factors (cognitive, behavioural and emotional) were examined. Finally, based on

eigenvalues, nine items were analysed by descriptive analyses, including an assessing scale, means and variances (standard deviation) to examine if adaptability can be denoted by cognitive, behavioural, and emotional dimensions.

4. Results

To measure the effect of the drama-based intervention program in relation to the development of adaptability skills, the adaptability scale was analysed by a $2 \times 3 \times 2$ mixed-design ANOVA method, within time (pre- and post-) as a within-subject factor, condition (intervention, active-control, and control) as a between-subject factor, and gender (male and female) as a between-subject factor. A significance level of p ($p < .025$), was used as a cut-off to determine the suitable adaptation between the included factors in the analysis, due to minor breaches in the assumption of homogeneity of variances (see Table 1).

Table 1. Levene's test for homogeneity of variances - adaptability test scores at each time point.

	F	df	P
Adaptability (pre)	3.64	5, 122	.004
Adaptability (post)	4.71	5, 122	.001

The pre/post-adaptability test results of the $2 \times 3 \times 2$ mixed design ANOVA method are presented in Table 2.

Table 2. Pre/post-adaptability test results.

	Wilks' Lambda	F	df	P
Time	.609	78.32	1,122	< .001*
Group		84.91	2,122	< .001*
Gender		0	1,122	.998
Group * Time	.826	12.89	2,122	< .001*
Time * Gender	.996	.51	1,122	.478
Group * Gender		1.29	2,122	.279
Group * Time * Gender	.99	.61	2,122	.545

*Significant at $< .025$

Mixed ANOVA analysis found a significant main effect of Time, a significant main effect of Group, and an interaction between them. Having examined whether there is a significant difference between genders, data indicated that the effect of Gender is not significant in adaptability scores. There were no other main effects or interactions. The research looked at the simple effect of Group at the pre-test time point. The different groups varied significantly at pre-testing, $F(2,122) = 25.78$, $p < .001$, and post-testing. Follow-up comparisons showed that the intervention group was significantly higher than the other two groups in the pre-test, $p < .001$, with no other differences found.

As shown by Figure 1, in relation to adaptability development, for the interaction between Time and Group simple effect of Time within each group reveals a significant difference between total pre- and post-test scores in the intervention group (Wilks' Lambda = .63, $F(1,122) = 71.64$, $p < .001$). There was an increase in scores in the active control group (Wilks' Lambda = .76, $F(1,122) = 39.43$, $p < .001$), and no difference in the control Group (Wilks' Lambda = .99,

$F(1,122) = 1.03$, $p = .312$).

4.1. Tripartite Perspective on Adaptability

The intervention initially hypothesised that three perspectives/components of adaptability skills (cognitive, behavioural and emotional) helped to adjust to, deal with and manage a novel, varying and uncertain in- and out-of-school life situations by using process drama techniques. Here, the basic descriptive statistics for the adaptability scale was first examined. Then, in relation to analyses based on eigenvalues, nine items were analysed by descriptive analyses, including an assessing scale, means and variances (standard deviation) to examine if adaptability can be denoted by cognitive, behavioural, and emotional dimensions. Furthermore, a one-way ANOVA was conducted to check whether there are any differences between pre/post adaptability scores among the three factors cognitive, behavioural and emotional factors. The following subsections present the results of these analyses.

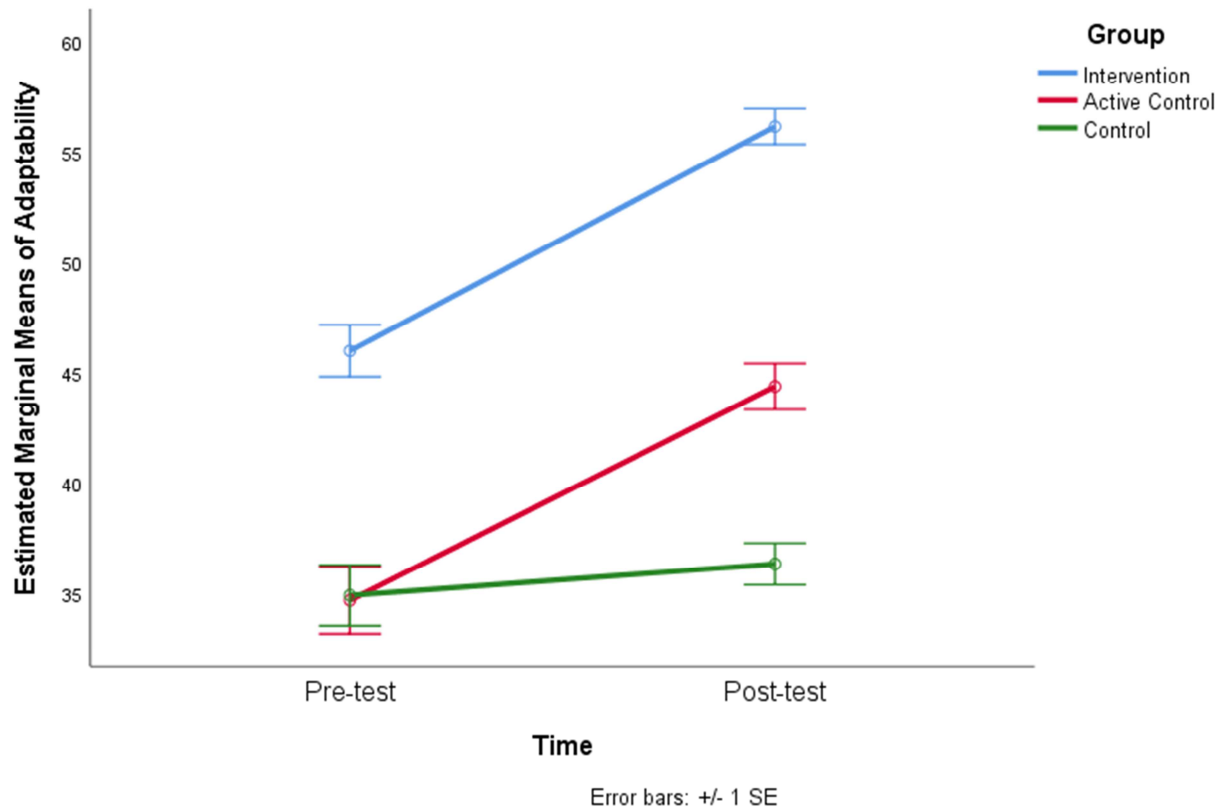


Figure 1. Pre/post adaptability total score.

4.2. Results of Pre and Post Cognitive Adaptability Skills

The mean cognitive adaptability scores for Intervention group A during the pre-test was 15.92 ± 3.078 , and during the post-test, it was 19.25 ± 1.29 , which was increased, yielding a 3.33% positive difference. Intervention group B received a mean pre-test score of 16.96 ± 2.77 and was increased by 2.72% after the intervention in the post-test (19.68 ± 1.40). The positive increment related to both the intervention groups shows that the difference between the pre-test and the post-test is statistically significant. This positive increase suggests a strong impact of the process drama-based intervention program on cognitive adaptability. The Active Control group A yielded a mean score of 13.25 ± 4.44 for the pre-test and 15.79 ± 2.50 for the post-test. The mean cognitive adaptability score for the Active Control group B shows 11.41 ± 3.11 for the pre-test and a mean score of 14.83 ± 2.36 during the post-test. A positive increment can be identified for the Active Control A and Active Control B groups of 2.54% and 3.42%, respectively. This positive

increase suggests a strong impact of the making and doing activities on cognitive adaptability. However, for the Control group A, a mean cognitive adaptability score of 12.15 ± 5.28 was reported for the pre-test and 12.89 ± 4.34 for the post-test. Furthermore, for Control group B, the pre-test and post-test scores are 10.95 ± 4.69 and 12.70 ± 3.62 , respectively. The slight difference between the pre-test and post-test scores shows no significant improvement for the Control groups.

As shown in Table 1, the one-way ANOVA findings indicate a significant difference during the pre-test ($F(5,122) = 6.57, p = 0.00$) and the post-test ($F(5,122) = 29.13, p = 0.00$). The improvement of the variance value from pre-test to post-test clearly states a statistically significant improvement in this research's cognitive adaptability intervention. From Table 1, It can also be noted that the Mean of Square value was increased by 94.89 value from pre-test to post-test between the groups. Hence, we can conclude that the process drama techniques suggested in this research would improve the students' cognitive adaptability.

Table 3. Pre/post cognitive adaptability skills between groups and within groups.

			Sum of Squares	df	Mean Square	F	Sig.
Pre-test	Between Groups	(Combined)	485.92	5	97.18	6.57	.000
	Within Groups		1804.51	122	14.79		
	Total		2290.43	127			
Post-test	Between Groups	(Combined)	960.37	5	192.07	29.13	.000
	Within Groups		804.30	122	6.59		
	Total		1764.68	127			

*Significant at $< .005$

4.3. Results of Pre and Post Behavioural Adaptability Skills

When comparing the pre-test and post-test for the intervention Group A, it can be noted that the average pre-test score (14.92 ± 3.484) was increased by 3.79% during the post-test (18.71 ± 1.718). The intervention Group B also performed a similar behaviour where the pre-test score (15.12 ± 3.72) increased by 3.44% during the post-test (18.56 ± 1.68). This positive increase in mean score value related to both interventional groups emphasises that the post-test group's behavioural adaptability is statistically significant. Active Control Group A's post-test score was 15.87 ± 2.54 , a 5% increase compared with the pre-test score (10.87 ± 3.19). Active Control B group shows a significant improvement in the post-test (12.70 ± 3.62) compared with the pre-test score (10.95 ± 4.69). When the two control groups are considered, it should be noted that there is no significant improvement in

the post-test values compared with pre-test values. Hence, it can be noted that the intervention technique suggested in this research is a successful technique to improve behavioural adaptability.

Table 2 presents the one-way ANOVA test results for the pre and post behavioural adaptability skills between groups and within groups used in this research. The one-way ANOVA findings indicate a statistical significant difference during the pre-test ($F(5,122) = 6.92, p = 0.00$) and the post-test ($F(5,122) = 36.06, p = 0.00$). This improvement of the variance value from pre-test to post-test is statistically significant. The results presented in Table 2 also shows that the mean Square value was increased by 138.21 value from pre-test to post-test between the groups. Hence, we can conclude that this research's process drama techniques would improve the students' behavioural adaptability.

Table 4. Pre/post behavioural adaptability skills between groups and within groups.

			Sum of Squares	df	Mean Square	F	Sig.
Pre-test	Between Groups	(Combined)	486.07	5	97.21	6.92	.000
	Within Groups		1712.23	122	14.03		
	Total		2198.30	127			
Post-test	Between Groups	(Combined)	1177.14	5	235.42	36.06	.000
	Within Groups		796.35	122	6.52		
	Total		1973.50	127			

*Significant at $< .005$

4.4. Results of Pre and Post Emotional Adaptability Skills

The mean pre-test score for Intervention group A is 14.28 ± 3.57 , while the same group got an 18.46 ± 2.25 during the post-test yielding a 4.18% increment in the post-test mean score. Intervention group B got a mean pre-test score of 14.80 ± 4.27 and a post-test score of 17.60 ± 1.84 , showing similar behaviour to Intervention group A. These results indicate a significant improvement due to the process drama techniques based intervention. Active Control group A and Active Control group B resulted in a pre-score of 11.20 ± 3.28 and 11.16 ± 2.51 , respectively. These mean scores were increased during the post-test yielding values of 14.62 ± 3.06 and 13.58 ± 2.64 , respectively. These positive increments indicate the impact of the process drama interventions. The mean pre-test score of Control group A is 10.94 ± 4.60 , and the post-test 11.63 ± 3.74 . The Control group B also exhibit similar behaviour with no significant improvement in the post-test with a value of 11.65 ± 3.13 compared with the pre-test value of 11.35 ± 3.39 . Hence, it can be noted that the intervention technique suggested in this research is a successful technique to improve emotional adaptability.

As shown in Table 3, the one-way ANOVA findings indicate a significant difference during the pre-test ($F(5,122) = 5.08, p = 0.00$) and the post-test ($F(5,122) = 24.96, p = 0.00$). The improvement of the variance value from pre-test to post-test clearly states a statistically significant improvement in this research's emotional adaptability intervention. From Table 3, it can also be noted that the mean

of Square value was increased by 123.53 value from pre-test to post-test between the groups. Hence, we can conclude that the process drama intervention techniques suggested in this research would improve the students' emotional adaptability.

5. Discussion

The overall adaptability results showed a significant difference between total pre- and post-test scores in the intervention group, suggesting that process drama techniques might develop better approaches to situations involving change. This is a similar conclusion to that of Martin and his colleagues [20], who note the benefits of encouraging positive and productive actions when students face unpredictable or uncertain situations. Positive psychology offers insights to processes that encourage positive emotions and decrease maladaptive reactions in human development [33]. The focus is on positive involvement, character strength and positive qualities, happiness and positive associations [28], which are seen to subsequently build strong personal resources.

The overall adaptability results showed that the active control group also increased their scores in adaptability skills, suggesting that the activity-based teaching approach also benefited their adaptability skills. The results found no difference in the control group scores. These findings further suggest that any new teaching approach, unlike chalk-and-talk, benefits the development of students' cognitive, behavioural, and emotional skills; a similar conclusion to that reached by Goode and Beckmann [7]. For example, as reported, both the

intervention and the active control group students were involved in creative performance tasks rather than traditional teaching. This experience required them to engage with new situations, to recognize challenges associated with change, and to modify their problem-solving behaviour. The process drama and activity-based teaching approaches are clearly beneficial for academic but also for broader non-academic outcomes.

In terms of this intervention, we examined whether process drama techniques helped to develop the tripartite perspective on adaptability skills (cognitive, behavioural and emotional), which helps students to deal with novel, changing, and undefined in and out of school life circumstances. The overall results suggest that the tripartite model of adaptability is connected with motivation [21] because it considers the affective domain - identifying emotions that need to be altered in order to improve performance [18]. Motivation is broadly concerned with academic tasks and demands, and is relevant to situations involving change, novelty and uncertainty [18]. The pre/post adaptability one- test results showed that the intervention group of students showed statistically different and meaningfully higher scores than the active control and control group students in their tripartite perspective on adaptation skills. Cognitive adaptability is related to the development of approaches which support and encourage the process of thinking about individual thoughts, feelings, emotions and actions [32]. We can predict that an intervention program based on process drama techniques may help to develop students' higher-order thinking about what they know about themselves, their surroundings, their environments and their tasks. For example, both intervention groups moved slightly from their traditional teaching approaches during the intervention; students had a chance to be more open and conscious of their thinking processes.

Behavioural adaptability is concerned with adjusting and altering behaviour in response to internal and/or external stimuli as an individual faces' uncertainty [23]; and behavioural regulation includes elements of cognitive regulation [14]. There is a link here with process drama techniques, which help to develop student's self-control and behaviour management skills. For example, when Group A students were initially using the open-air theatre, they could not control themselves; the teacher had to make an additional effort to control them and to maintain class discipline. However, as the intervention progressed, students were able to manage and modify their behaviour.

Emotional adaptability is associated with encouraging and enhancing positive emotions, for example by inspiring students' interest in schoolwork, strengthening self-concepts and encouraging academic potential [6]. A process drama intervention program helps to develop students' positive emotions. For example, students from both groups talked about feeling 'relaxed' 'free' and 'happy' in their new style drama classroom. They also talked about the 'playfulness' of the sessions.

Interestingly, the active control group students also showed a statistically significant difference and meaningfully higher

scores than the control group students in the tripartite model of adaptability skills. These results further suggest that activity-based teaching and learning helps to develop students' cognitive, behavioural and emotional adaptability skills. Previous research [17, 18, 20, 21, 23] has suggested that the three elements of adaptability correlate strongly with factors such as facing challenges, personality expression, and progressive opinions. For example, Cleary and Zimmerman's [4] study, which provided intervention instruction designed to improve students' cognitive behaviour (Self-Regulation Empowerment Program), involved graphing, cognitive demonstrating, cognitive expressing, and designed practice sessions; and the findings suggested that such intervention programs help to develop specific educational and learning skills, including problem-solving capabilities.

The overall adaptability results suggest that the junior secondary school students in this study developed a higher level of adaptability; and that more adaptable students are likely to hold more progressive views on capability [5]. Moreover, students' adaptability is likely to be reflected in higher levels of psychological well-being, in the form of life satisfaction, self-esteem and sense of meaning and purpose [44]. As discussed in the previous section, this is a first-ever intervention study to use an adaptability scale in Sri Lanka. The results represent an initial understanding that may help to all students, but especially those that struggle with adaptability, to be more adaptable. It is also hoped that these results may encourage teachers and administrators support students who may really need help with adaptability and creative thinking, and to improve methods of assessing the success of all students' efforts on school-related tasks. For example, by considering how teachers can introduce drama to help students manage and deal with change, novelty, and uncertainty, regardless of whether they are positive or negative, may assist teachers implement activities that encourage "everyday resilience" or variance in educational and personal well-being outcomes rather than focus on an approach that is solely devoted to giving notes for assessing examination.

6. Limitations

The main limitation of this study was that the one instrument used (the Adaptability scale) was new in the Sri Lankan context, so there were no norms with which to compare results; however, the scale were suitable for between-group comparisons; and that both measures were self-report measures; however, for comparison purposes, this was not problematic as each group was compared with their own scores pre- and post- the intervention. Additionally, the six participating schools were all located in the Western province of Sri Lanka. The study's findings might not be generalisable to schools located in the other eight provinces, as there are considerable differences in learning outcomes in secondary education in terms of province, gender, income, and location [40]. It would also be useful to repeat this intervention in other grades, to examine if a process drama approach has a similar effect on adaptability outside of the

junior secondary years.

7. Conclusion

This study has provided evidence of the effectiveness of process drama techniques for developing students' tripartite perspective on adaptability skills, such as cognitive, behavioural and emotional. To date it is the only experimental research study to focus on the issue of adaptability to have been conducted in Sri Lankan schools. The research outcomes offer a number of suggestions for policymakers, school administration teams, as well as for teachers themselves. Sri Lankan policymakers (Ministry of Education/National Institute of Education) could consider developing evidence-based interventions such as the one described in this paper to support more effective ways of teaching skills such as adaptability to junior secondary school students. School principals play a leading role in promoting effective and high-performing schools; it is they who take the lead in creating a school climate capable of providing freedom for teachers to work productively and innovatively.

Overall, the study has provided insight in teaching practices in Sri Lanka and highlighted the need for institutional and professional development support for teachers to make some important pedagogical shifts in their practice, in order to strengthen their knowledge of more current student-centred approaches to teaching and learning and to make key shifts in perspective. As we know that change is challenging. Though, teaching and learning process need to encourage students to evolve their resiliency and become more adaptable in the face of change. Learning how to shift gears and overcome new, uncertain challenges is a skill that will serve them well into adulthood and this would ultimately sets them up for success. Finally, this intervention is universally significant, because it may be the first process drama intervention for the development of the general adaptability skills by using process drama techniques. There have been no specific studies, specifically quantitative experimental design studies that have provided evidence that process drama experience can enhance adaptability skills in secondary school students. Similar studies could be replicated to further extend the evidence base for such work.

References

- [1] Abayasekara, A., & Arunatilake, N. (2018). School Resources and Education Outcomes: Evidence from Sri Lanka. *International Journal of Educational Development*, 61 (1), 127–141. <https://crawford.anu.edu.au/sites/default/files/events/attachments/2018-06/abayasekara.pdf>
- [2] Burns, E. C., Martin, A. J., & Collie, R. J (2018). Adaptability, personal best (PB) goals setting, and gains in students' academic outcomes: A longitudinal examination from a social cognitive perspective. *Contemporary Educational Psychology*, 53, 57-72. <https://doi.org/10.1016/j.cedpsych.2018.02.001>
- [3] Caskey, M. M., & Ruben, B. (2007). Under construction: The young adolescent brain. In S. B. Mertens, V. A. Anfara, Jr., & M. M. Caskey (Eds.), *The young adolescent and the middle school* (pp. 47-72). Charlotte, NC: Information Age.
- [4] Cleary, T. J., & Zimmerman, B. J. (2004). Self-regulation empowerment program: A school-based program to enhance self-regulated and self-motivated cycles of student learning. *Psychology in the Schools*, 41 (5), 537–550. <https://doi.org/10.1002/pits.10177>
- [5] Du, P. (2009). Factors influencing students' adaptability in school: A production function model and multilevel analysis. *Chinese Education and Society*, 41 (5), 21-35. <https://doi.org/10.2753/CED1061-1932410502>
- [6] Ferris, J., & Gerber, R. (1996). Mature-age students' feelings of enjoying learning in a further education context. *European Journal of Psychology of Education*, 11, 79-96. <https://doi.org/10.1007/BF03172937>
- [7] Goode, N., & Beckmann, J. (2010). You need to know: There is a causal relationship between structural knowledge and control performance in complex problem-solving tasks. *Intelligence*, 38, 345-352. <https://doi.org/10.1016/j.intell.2010.01.001>
- [8] Goodman, A., Joshi, H., Nasim, B., & Tyler, C. (2015). *Social and emotional skills in childhood and their long-term effects on adult life*. London: Early Intervention Foundation. <https://www.eif.org.uk/report/social-and-emotional-skills-in-childhood-and-their-long-term-effects-on-adult-life>
- [9] Howard, S., & Johnson, B. (2000). Resilient and non-resilient behaviour in adolescents. In A. Graycar (Ed.), *Trends and issues in crime and criminal justice series* (pp. 1–6). Canberra: Australian Institute of Criminology.
- [10] Irugalbandara, A. I. (2020). *Investigation of the Development of Creative Thinking and Adaptability Skills through Process Drama Techniques in Junior Secondary School Students in Sri Lanka* [Doctoral dissertation, Queensland University of Technology]. Queensland University of Technology. <https://eprints.qut.edu.au/203805/>
- [11] Kashefpakdel, E., Newton, O., & Clark, J. (2018). *Joint Dialogue: How are schools developing real employability skills?* <https://www.thecdi.net/write/JOINT-DIALOGUE-FINAL-REPORT-3.pdf>
- [12] Kellough, R. D., & Kellough, N. G. (2008). *Teaching young adolescents: Methods and resources for middle grades teaching* (5th ed.). Upper Saddle River, NJ: Pearson.
- [13] Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71 (3), 543–562. <https://doi.org/10.1111/1467-8624.00164>
- [14] Martin, A. J. (2017). Adaptability -what it is and what it is not. *American Psychologist*, 72 (7), 696-698. <https://doi.org/10.1037/amp0000163>
- [15] Martin, A. J., & Marsh, H. W. (2008a). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology*, 46 (1), 53–83. <https://doi.org/10.1016/j.jsp.2007.01.002>
- [16] Martin, A. J., & Marsh, H. W. (2008b). Workplace and academic buoyancy: Psychometric assessment and construct validity amongst school personnel and students. *Journal of Psychoeducational Assessment*, 26 (2), 168–184. <https://doi.org/10.1177/0734282907313767>

- [17] Martin, A. J., & Marsh, H. W. (2009). Academic resilience and academic buoyancy: Multidimensional and hierarchical conceptual framing of causes, correlates and cognate constructs. *Oxford Review of Education*, 35 (3), 353–370. <https://doi.org/10.1080/03054980902934639>
- [18] Martin, A. J., Nejad, H. G., Colmar, S., & Liem, G. A. D. (2013b). Adaptability: How students' responses to uncertainty and novelty predict their academic and non-academic outcomes. *Journal of Educational Psychology*, 105 (3), 728–746. <https://doi.org/10.1037/a0032794>
- [19] Martin, A. J., Nejad, H. G., Colmar, S., Liem, G. A. D., & Collie, R. J. (2015). The role of adaptability in promoting control and reducing failure dynamics: A mediation model. *Learning and Individual Differences*, 38 (1), 36–43. <https://doi.org/10.1016/j.lindif.2015.02.004>
- [20] Martin, A. J., Anderson, J., Bobis, J., Way, J., & Vellar, R. (2012). Switching on and switching off in mathematics: An ecological study of future intent and disengagement among middle school students. *Journal of Educational Psychology*, 104 (1), 1–18. <https://doi.org/10.1037/a0025988>
- [21] Martin, A., Mansour, M., Anderson, M., Gibson, R., Liem, G., & Sudmalis, D. (2013). The role of arts participation in students' academic and non-academic outcomes: A longitudinal study of school, home, and community factors. *Journal of Educational Psychology*, 105 (3), 709–727. <http://doi.org/10.1037/a0032795>
- [22] McKenzie, V., & Frydenberg, E. (2004). Young people and their resources. In E. Frydenberg (Ed.), *Thriving, Surviving or Going Under: Coping with Everyday Lives* (pp. 79-108). Greenwich: Information Age Publishing.
- [23] Nejad, H. G. (2014). *Adaptability in youth: Components, predictors and consequences*. (Unpublished doctoral dissertation). The University of Sydney. Retrieved from https://ses.library.usyd.edu.au/bitstream/handle/2123/11548/Ghasemi_Nejad_%20M%20N_Thesis.pdf;jsessionid=389AAB81328D67345573791208826C00?sequence=4
- [24] Nelson, J. K., Zaccaro, S. J., & Herman, J. L. (2010). Strategic information provision and experiential variety as tools for developing adaptive leadership skills. *Consulting Psychology Journal: Practice and Research*, 62 (2), 131–142. <https://doi.org/10.1037/a0019989>
- [25] OCED (2019). *Working and learning together -Rethinking human resource policies for schools*. https://read.oecd-ilibrary.org/education/working-and-learning-together_b7aaf050-en#page1
- [26] Pearlman, K., & Barney, M. F. (2000). In J. F. Kehoe (Ed.), *Managing selection in changing organizations: Human resource strategies* (pp. 3-72). San Francisco: Jossey-Bass.
- [27] Perera, H. (2009). Mental health of adolescent school children in Sri Lanka - A national survey. *Sri Lanka Journal of Child Health*, 33 (3), 78–81. <http://doi.org/10.4038/sljch.v33i3.642>
- [28] Peterson, C., & Park, N. (2009). Character strengths: Research and practice. *Journal of College and Character*, 10 (4), 1-10. <https://doi.org/10.2202/1940-1639.1042>
- [29] Putwain, D. W., Connors, L., Symes, W., & Douglas-Osborn, E. (2012). Is academic buoyancy anything more than adaptive coping? *Anxiety, Stress & Coping: An International Journal*, 25 (3), 349–358. <https://doi.org/10.1080/10615806.2011.582459>
- [30] Quality Assurance Agency for Higher Education (2018). *Enterprise and entrepreneurship education: Guidance for UK higher education providers*. https://www.qaa.ac.uk/docs/qaas/enhancement-and-development/enterprise-and-entrepreneurship-education-2018.pdf?sfvrsn=15f1f981_8
- [31] Ranasinghe, R. (2013). *Dramatherapy in Sri Lanka*. Author publication.
- [32] Schunk, D. H. (2008). Metacognition, self-regulation, and self-regulated learning: Research recommendations. *Educational Psychology Review*, 20 (4), 463–467. <https://doi.org/10.1007/s10648-008-9086-3>
- [33] Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60 (5), 410–421. <https://doi.org/10.1037/0003-066X.60.5.410>
- [34] Stevenson, C. (2002). *Teaching ten to fourteen-year olds* (3rd ed.). Boston, MA: Allyn & Bacon.
- [35] The National Education Commission. (2014). Study on Evaluation and the Assessment System in General Education in Sri Lanka. *Research Series*, 3, 1–45. National Education Commission.
- [36] Universities UK (2018). *Solving Future Skills Challenges*. London: Universities <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2018/solving-future-skills-challenges.pdf#search=solving%20future%20skills%20challenges>
- [37] Valentine, J. C., DuBois, D. L., & Cooper, H. (2004). The relation between self-beliefs and academic achievement: A meta-analytic review. *Educational Psychologist*, 39 (2), 111–133. https://doi.org/10.1207/s15326985ep3902_3
- [38] VandenBos, G. (2007). *APA Dictionary of Psychology*. Washington: American Psychological Association.
- [39] Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge MA: Harvard University Press.
- [40] World Bank (2017). *Annual Report*. <http://pubdocs.worldbank.org/en/908481507403754670/Annual-Report-2017-WBG.pdf>
- [41] World Bank. (2011a). Learning for All: Investing in People's Knowledge and Skills to Promote Development. In *Prepared by the World Bank Group Education Strategy 2020*. Washington, DC: World Bank.
- [42] World Health Organization (2001). *Regional framework for introducing life-skills education to promote the health of adolescents*. http://apps.searo.who.int/pds_docs/B3352.pdf
- [43] World Health Organization, (2016). *A journey of commitment, passion and dedication - Annual report Sri Lanka*. <https://apps.who.int/iris/bitstream/handle/10665/254823/SRLAnnualReport.pdf?sequence=3&isAllowed=y>
- [44] Zhang, D., Cui, Y., Zhou, Y., Cai, M., & Liu, H. (2018). The role of school adaptation and self-concept in influencing Chinese high school students' growth in math achievement. *Frontiers in Psychology*, 29, 1–11. <https://doi.org/10.3389/fpsyg.2018.02356>
- [45] Zorzie, M. (2012). Individual adaptability: Testing a model of its development and outcomes. (Unpublished doctoral dissertation). Michigan State University. <https://doi.org/doi:10.25335/M5GD76>