



## Isolated Contexts in Australia as an Impetus for Enhancing Learning Motivation through Creative Movement

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### Abstract

*The COVID pandemic provided the impetus for many educators to revisit learning strategies especially in contexts, where traditional and structured forms of teaching were inhibited due to imposed lockdowns. This paper reports on a study that investigated the benefits of creative movement to the well-being, motivation, and academic outcomes for secondary educators during imposed periods of isolation from traditional learning contexts. The researchers explored the utility and value of two learning strategies during periods of unexpected and sudden imposed isolation. To achieve this N=18 secondary teachers participated online to learn a poem through either a Creative Movement (CM) Task where they learnt dance moves that corresponded to lines from the poem or through a Read and Revise (RR) Task, where participants only read lines from the poem and tried to remember them. The data gathered included academic scores from pre and post testing of the poem, and well-being scores measuring how participants felt before and after participating in either the CM or RR Task. We hypothesized that participants in the creative movement group would outperform the read and revise group, however data analysis indicated that both groups demonstrated similar and statistically significant improvement. Further, satisfaction scores improved, in addition to well-being and motivation scores, though not significantly, and the retention of content was aided by both intervention types. Overall, the results indicate that incorporating movement with academic learning, may enhance a greater sense of satisfaction in learning, and might be a viable strategy in the classroom.*

**Keywords:** *academic skills, creativity, movement, motivation, reading, teachers*

### Introduction

Recently school aged children experienced significant isolation caused by the COVID-19 pandemic. Consequently, educators needed to demonstrate agility in the way they delivered learning, and movement opportunities. This paper commences with a review of current literature outlining the impact of isolation on school children's movement and learning. This is followed by an examination of the impact to school students' well-being due to reduced opportunities to move and learn in usual environments and concludes this introduction with a review of the common strategies for teaching in isolated contexts.

Isolation leads to an upsurge in disconnectedness, negatively impacting well-being, and motivation [1]. The unprecedented COVID-19 pandemic highlighted impacts of isolation on individuals [2]. The mass lockdown impacted on education, health, and business services, and in turn well-being and mental health for many [3,4]. Of interest to this study, the continued restrictions caused severe disruption for school aged children, who had to abruptly transition from highly structured school environments to learning remotely. Public Health Orders (PHO) further restricted young people's access to social and physical interactions and the longevity of isolation periods impacted student motivation towards schooling [5].

Research demonstrates that movement-based learning activities leads to positive changes in children's attitudes and improved academic learning [6]. Concomitantly, pre pandemic data, showing that most Australian school age children did not meet the recommended levels of physical activity [7]. Lockdown restrictions exacerbated this, which, given the link between low physical activity rate, negative thoughts and a decline in mood and well-being [8], is problematic. Lockdowns however did prompt educators and people more generally, to seek alternate and more creative ways to engage in physical activity, e.g., rock hunting, and social media videos. Recent literature encourages schools to expand on this by exploring innovative ways to integrate movement into children's learning experiences. Studies have found that the providing greater freedom for teachers to engage in more



creative processes has increased learning opportunities for students which spans beyond traditional schooling tasks [9,10,11].

This study explored whether creative movement enhances one's motivation levels and improve retention of learned content. Research, [5,7,12] indicates that there are strong correlations between motivation and well-being. The benefits of this study include the additional information that may inform the way teachers plan and implement learning activities from both a content and motivational perspective. Specifically, we aimed to determine whether movement influenced learning in a small group of educators and whether this in turn, might induce them to explore movement orientated lessons for their students.

## Methods

The purpose of the study was to examine the impact of a read and revise learning condition compared to a movement-based learning condition, and if these conditions influenced knowledge retention, well-being, and motivation. We hypothesised that creative movement would improve retention, motivation, and well-being.

### Participants

Secondary teachers (N=18: 12Female/ 8Male: Mean age 35yrs) volunteered to participate in this study. They were recruited through social media advertisements and collegial teacher networks. Of those recruited, 17 participants worked as qualified secondary teachers in Australian schools and one participant taught in the UK. All eighteen provided informed consent according through the ethics procedure approved by the researcher's University Human Research Committee.

### Materials - Instruments (Surveys)

Participants firstly completed two adapted versions of well-being focused surveys. These included the Teacher Environment Survey (TES) (Mind Tools [13]) which measures self- motivation and attitudes across four subscales: self- confidence and self-efficacy, positive thinking, focus, and goal setting. This was followed by a Teacher Mindset Survey (TMS) which measured general level of self-evaluation [14]. A Topic Interest Questionnaire (TIQ) was also adapted (Interest Survey [12]), and measured post motivation levels of participants using four subscales: attention, relevance, confidence, and satisfaction.

### Procedure

All data were gathered at the height of the COVID pandemic in 2021.

#### *-Pre-testing to measure well-being and baseline knowledge*

Participants were asked to complete a pre-test quiz to assess prior knowledge of an iconic Australian poem used in this study. Specifically, participants read a line from the poem, then typed a word they perceived completed the actual line of the poem. This was followed by the completion of the TES/TMS surveys. Participants were then assigned to one of two conditions; Read and Revise (RR) or Creative Movement (CM) learning condition.

#### *-Creative Movement and Read and Revise Learning tasks*

The CM activity required participants to collect several items in their home within a short time frame to increase motivation and quick thinking. Participants then viewed a video with a dance routine which represented lines from the poem. The dance was split up into three parts. Each part was shown to the participant in real time and then repeated twice in slow motion for participant practice. The video was then repeated continuously for approximately 30 minutes. The Read and Revise Task was also split into three parts, displaying the same lines from the poem as the CM group but without dance moves. The video was also repeated for approximately 30 minutes. Lines were displayed on a black screen with white text, making it simple to read without distraction on the screen. Participants were required to simply read the screen and try to remember the lines. There was no movement involved.

#### *-Post-testing to measure well-being and revised knowledge*

The post-test consisted of quiz that required participants to fill in missing words to complete lines from the poem. The purpose of this was to see whether differed between conditions and between pre and post testing.

TMS and TIQ surveys were also repeated, and participants reflected on their attitudes and capabilities in doing their assigned task. Two short reflection questions were also administered, 1) 'were you able to reflect on your own teaching as a result of participating today? and, 2) 'how do you feel movement or lack of movement benefits students? This provided insight into their perception of the learning tasks they currently use in the classroom, and when compared to the conditions applied in the study.

### Data Analysis



Dependent t-tests were conducted on pre and post TMS Survey scores and to compare group performance. Further, an independent t-test was used to compare post-test scores between condition for motivation levels. A dependent t-test was conducted using pre and post poetry percentages, to compare academic performance between condition. Participant written responses were also examined for thematic patterns related to attention, confidence, relevance, and satisfaction on responses to identify relationships between those who demonstrated higher motivation scores and what they felt about the tasks they did.

## Results and Discussion

The purpose of the study was to examine the impact of the read and revise learning condition compared to a movement-based learning condition, and if these conditions influenced well-being, satisfaction, and academic scores. We hypothesised that creative movement would improve retention, motivation, and well-being.

### Well-Being

Prior to completing the study intervention, we found that mean motivation levels for the Read and Revise Group ( $M=36\pm3.39$ ) and the Creative Movement Group ( $M=35.11\pm4.66$ ) were similar. Although, post-test analysis of group means indicated higher scores for the CM group were not significant, responses to Reflection Questions showed that CM group participants recognised the benefits of this condition. They found an increased interest in their learning and acknowledged that creative movement had potential to spark this interest. This can be seen in the below statements:

*"Movement does help benefit students as it helps get those creative juices flowing. I think by having these dance moves, [participants] were able to engage in a way which allowed them to understand the imagery" (P2).* And *"I feel that movement keeps the interest of students by creating a dynamic task that enables them to change their focus, and not feel "stuck" at a desk" (P5).*

Interestingly, the reflective responses of this group included difficulties with the task, e.g., *"I struggled a little with trying to remember the routine and that made me wonder perhaps I'm not giving them enough time."* (P4). Moreover, participants verbally expressed that fear of performance and the pace and duration of the task posed similar perceptions of difficulty. This suggests that even with creative movement, a lengthy or repetitive task may still lead to a decline in task enjoyment.

Well-being mean scores declined between pre and post-testing for the RR group with some participants stating their experience of the task as "boring," and "no engagement" and feeling as though a task of this nature in the classroom would lead to students feeling a "motivation slump". Whilst post-testing scores declined, group comparisons were not significant.

### Satisfaction

Post-test analysis of TIQ scores indicated a statistically significant difference ( $p>0.001$ ) between conditions. Bonferonni post hoc comparisons revealed that the attention subscale scale yielded lower scores compared to the satisfaction subscale. This may be attributed to participants feeling more satisfied with their learning and have positive feelings about this compared to having a genuine interest in the topic. It emerged that many participants made connections with skills used in their task with purposeful learning. Those who scored higher on the 'satisfaction' scale in motivation acknowledge learning that is interesting can engage students and give them more fulfilment in their learning. *"Movement in classrooms is a critical way of re-affirming key learnings. It is a tool, like pedagogical tools, that compliments the learning and teaching" (P 18).*

Allowing students opportunities to reflect on creative movement in their learning means students can attempt to understand how movement activities directly connect with learning outcomes, thus increasing their satisfaction with purposeful educational experiences.

### Academic Scores

Analysis of pre-post academic scores revealed both groups significantly improved. This suggests that both groups benefited from their respective learning tasks, regardless of whether the content was learned through movement or simply reading information. Both groups also demonstrated higher confidence levels and attributed this to individual learning and activity options as a factor that they thought encouraged participation in either the movement or non- movement activities. *"this study was beneficial as it exposed me to a range of strategies" (P 2).* Allowing students, the opportunity to engage in activities in which they are comfortable may have the capacity to enhance their level of confidence.

Over 50% of participants, regardless of group, reflected that the learning task was not engaging or that the repetition discouraged concentration and was not adequately engaging or motivating. Participants who did not rate their satisfaction as high in the TIQ indicated that educators



need to “*imagine*” the learning experience from the student perspective and think about “*what it would be like to be in their [student] shoes*”, suggesting that motivating students, might also involve opportunities to individualise learning.

## Conclusions

Motivation in learning is imperative in helping students succeed in their education. Encouraging engagement in learning was made unexpectedly difficult because of COVID lockdowns. The lockdowns did though prompt educators to reconsider some of the strategies used in their learning practices. Learners need opportunities to choose, experience and create tasks that interest and motivate them. Providing learning opportunities though creative movement could be one such option with the additional advantage of increasing levels of physical activity, especially as this study demonstrated no apparent decrement to learning in the CM learning group. A replication study with school age children is warranted.

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