Using Digital Sandbox Gaming to Improve Creativity Within Boys’ Writing

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## Sample

8 boys from a Year 3 class (aged 7-8 years)

## Implications For Educators About

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# Abstract

There is a persistent “gender gap” in boys’ literacy in the United Kingdom. This
article reports on one technology-based intervention that may aid teachers in
supporting boys to develop creativity within their writing. Boys from a Year 3
class used Minecraft – a sandbox computer game – to create virtual worlds that
might help them to visualize the environments they write about. Through preand
post-tests of writing samples and focus group interviews with students, the
study finds positive potential in the technology-based intervention. Discussions
with the students showed that the boys did not believe they were good writers
and they were not aware of what was expected of them when writing. However,
it was also clear from the discussions that the boys enjoyed engaging with an
interactive stimulus, which aided their thinking and provided them with new
creative ideas for their writing. The results from the written task were inconclusive,
suggesting the need for further research.

# Outcome

"The writing analysis showed that all the boys had either remained steady or improved their creative
ideas and vocabulary choices. Thus, the students were found to have either benefited from using
Minecraft to develop creativity and depth of insight into their castle designs or stayed steady.
While the written pieces provided inconclusive evidence for substantial improvements in creative
writing, the interviews with the students showed students’ belief that the intervention was positive in developing their creativity. The students largely signified that their use of Minecraft to develop their castles helped them to think more deeply and creatively in their written piece. Furthermore, the students signified their sense of excitement and engagement as a result of the intervention... the students perceived their engagement and confidence to have significantly
increased as a result of the task. The task was widely believed by the students to be enjoyable and
Table 2. Adapted marking grid based on Mackenzie et al.’s (2013) writing analysis tool.
Rating Text structure Sentence structure and grammatical features Vocabulary
1 Message not clear Words are random. Uses simple words that are personally
significant.
2 Unrelated ideas Uses appropriate sentence structure, including
employing noun/verb agreement.
Uses common and high frequency words.
3 Several related ideas Use of simple clauses and conjunctives. Uses everyday vocabulary (example: the
Oxford list of 307 first words; or culturally
relevant words).
4 Ideas sequenced and
clearly related
Use of simple and compound sentences. Use of
adverbs to indicate when, where, how, or with.
Uses a range of topic-specific vocabulary.
5 Evidence of structure
that matches genre
requirements
Use of a variety of sentence structures and
correct pronouns throughout.
Uses a range of descriptive and emotive
words.
6 Complex, with
attention to purpose
and audience
Use of variety of sentence structures and
lengths. Correct use of tense. Sentences flow.
A range of phrases used to begin sentences.
Unique or specific vocabulary used in the
right context. Figurative language, such as
metaphor and simile, employed.
Table 3. Summary of students’ results in pre-tests and post-tests.
Vocabulary
Sentence
structure
Text
structure
Pre-test
score Vocabulary
Sentence
structure
Text
structure
Post-test
score Change
Student A 5 5 4 4.7 6 6 5 5.7 +1
Student B 4 3 2 3 5 4 3 4 +1
Student C 3 2 2 2.3 5 4 4 4.3 +2
Student D 5 4 3 4 5 5 2 4 0
Student G 2 2 3 2.3 2 2 3 2.3 0
Student H 3 3 2 2.7 3 4 1 2.7 0
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stimulating for their subsequent written task. Second, the students perceived that the exercise helped
them to generate creative ideas, which was corroborated by students’ “sentence structure” grades in
the post-test. Lastly, and building on the previous point, more authorial depth was generated in
the second written piece. Students generally used a wider range of vocabulary to describe specific
elements of the castles, indicating greater confidence describing their castles." (Ellison and Drew, 2020: 282-3).