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CREATIVITY IN EDUCATION: BITE-SIZE VIDEO'S IMPACT ON STUDENT ENGAGEMENT AND SATISFACTION

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Abstract

This paper explores the impact of creative methods within active learning frameworks on student engagement, knowledge acquisition, and satisfaction. It suggests that adopting creativity into course design can significantly enhance learning outcomes, particularly in complex subject areas such as Supply Chain Management. To support this claim, a survey of 300 students in a UK higher education institution received 160 responses Furthermore, I analysed engagement metrics from the course's Canvas module page. The findings reveal that creative design strategies not only improve understanding but also increase student engagement and satisfaction. This paper will discuss specific creative techniques that can be easily adopted by educators across various disciplines, demonstrating creativity's role as a crucial component in enhancing educational effectiveness.

Keywords: *Higher education, creativity, knowledge, engagement, satisfaction.*

1. Introduction

In the dynamic landscape of global education, the imperative to adapt teaching methodologies to engage students better and enhance their learning experience has become increasingly apparent. Amidst these shifts, creativity in education emerges as a pivotal force in transforming traditional pedagogy to meet the complexities of modern academic and professional demands, particularly within higher education and business studies.

Integrating creative methods, such as bite-size videos, into educational frameworks has shown promising potential to impact student engagement, understanding, and overall satisfaction significantly. This is especially relevant in disciplines involving intricate subject matter, such as supply chain management, where traditional teaching methods often fail to convey the dynamic and detailed nature of the field fully.

This paper explores the impact of these creative teaching methods on student satisfaction within master's level supply chain management courses. Our central research question is: How do creative bite-size videos influence master students' satisfaction and their ability to grasp complex concepts?

The objectives of this study are twofold: to evaluate the effectiveness of bite-size videos in enhancing student engagement and satisfaction, and to understand how these methods affect comprehension and retention of complex course material. By addressing these aims, this paper contributes to the broader discourse on educational innovation, highlighting the potential of creative methodologies to revolutionize teaching and learning in higher education.

The structure of this paper is as follows: after this introduction, a comprehensive review of literature on active learning and creativity in education is presented, followed by an overview of the methodology employed, a discussion of findings from a survey of 300 master's students, and the conclusions drawn from this study, along with implications for educators and future research directions.

2. Literature review

Theoretical Foundations of Active Learning, grounded in the constructivist education theory, posits that students construct knowledge through active engagement rather than passive reception (Zimmerman, 1990; Mattar, 2018). Pioneers such as Jean-Jacques Rousseau, Maria Montessori, and John Dewey have historically emphasized that education should captivate students' interests and encourage active participation (Barak, 2017; Mattar, 2018). This approach has been particularly effective in business

curricula, where it shifts the traditional lecture-based paradigm to one that involves students in discussions, problem-solving, and case analyses (Kirschner, Sweller, & Clark, 2008; Middleton et al., 2021).

Linking Creativity to Enhanced Learning Outcomes Research has consistently shown that incorporating creative methods like problem-based learning, multimedia, and interactive sessions significantly boosts student engagement and satisfaction (Thorsteinsson & Page, 2007; Behnamnia et al., 2020). These methods are particularly impactful in complex disciplines such as supply chain management, where creative approaches like simulations and video content can demystify and elucidate challenging concepts (Christopoulos & Mystakidis, 2023).

Challenges and Criticisms Despite the proven benefits of active learning, it faces criticisms regarding its implementation. Critics argue that passive learning can also be engaging if properly structured and that not all students find active learning methods appealing (Mayer, 1989; Drake, 2012). Furthermore, reduced instructor guidance in active learning scenarios may hinder some students' ability to independently process information (Kirschner, Sweller, & Clark, 2008).

Balancing Act Educators must navigate the delicate balance between fostering creativity and adhering to stringent academic standards. The challenge lies in integrating innovative teaching methods while ensuring that curriculum requirements are met and that all students are supported in their learning journeys.

As a creative method, we used atomic and bite-size videos to summarise lengthy case studies from Harvard editing and my case studies. Each case study was split into 3, 5 minutes short videos. The videos were published on the module canvas page to allow students to watch them and take notes. Once in class, the videos were watched one last time, followed by a discussion and assessed by a quiz.

3. Methodology

This study was conducted within the Anglia Ruskin University Business School at the Cambridge campus, focusing on 350 postgraduate students enrolled in the Supply Chain Management program. Due to logistical considerations including distance and ease of student management, only students from this campus were invited to participate.

The survey, designed to gauge the impact of creative educational methods on student satisfaction, comprised 26 Likert-scale questions and 3 open-ended questions. It was distributed via the Canvas Learning Management System to enhance accessibility. Accompanying the survey, an ethical consent form and a student information sheet were provided, informing students about the voluntary nature of the survey, the anonymity of their responses, and their right to withdraw at any time. The survey successfully captured responses from 160 students, with age distributions as follows: 66% aged 18-24, 52.5% aged 25-34, and 6.3% aged 35 and over.

Quantitative data from the Likert-scale questions were initially explored using descriptive statistics to understand the central tendencies and dispersions. Given preliminary analyses suggested the potential for underlying relationships between constructs, regression analysis was employed to investigate these relationships and understand the impact of specific educational interventions on student satisfaction and engagement.

For the qualitative data from the three open-ended questions, thematic analysis was used to identify key themes and patterns, providing depth and context to the quantitative findings. Word clouds were also generated to visually summarize the most frequently occurring terms, offering insights into common perceptions and attitudes among the participants.

Complementary to the survey, analytics from the YuJa platform on the Canvas module page were collected. These analytics provided objective measures of student engagement with the bite-size video content, including metrics such as view counts, average watch time, and interaction rates. This data allowed for a comparative year-over-year analysis of engagement, elucidating the effects of the newly integrated video materials.

The study adhered to strict ethical guidelines approved by the university's review board. Confidentiality of participant data was ensured, and all participants were informed about the purpose of the research and their rights within it, reinforcing the ethical integrity of the study.

This study's geographical and demographic limitations are acknowledged, as only students from one campus and within certain age groups were surveyed. These factors may affect the generalizability of the findings to other contexts or populations.

The 5 survey questions are listed in table 1 for reference.

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Table 1. Survey questions.

Survey Q1	Survey Q2	Survey Q3	Survey Q4	Survey Q5
Has the new teaching Method improved your engagement and interaction with the content?	How effectively provided resources facilitate and support your learning?	Reflect on whether the teaching methods (Video+Discussion+Quizzes) promote critical thinking and active participation.	Evaluate how the teaching method (V+D+Q) used in the course impacted your learning experience.	Videos and Quizzes align with the Learning Outcomes.

4. Results

The analysis of survey data revealed that creative teaching methods employing bite-size videos have a significant positive correlation with student satisfaction and engagement in supply chain management courses. Key findings include

Table 2. Frequency (mean, Median and Standard deviation for the 5 survey questions.

		SQ1	SQ2	SQ3	SQ4	SQ5
N	Valid	160	160	160	160	160
	Missing	0	0	0	0	0
Mean		4.27	4.59	4.42	4.14	4.06
Median		4.00	5.00	5.00	4.00	4.00
Std. Deviation		.852	.638	.756	.731	.750

Alignment with Learning Outcomes (SQ1): The mean rating of 4.27 suggests that students generally feel that videos and quizzes align well with learning outcomes, although some variability in responses was observed (SD = 0.85).

Impact on Learning Experience (SQ2): With a higher mean of 4.59 and a lower standard deviation of 0.64, the teaching methods were perceived as having a more consistent positive impact across respondents.

Critical Thinking and Participation (SQ3): The promotion of critical thinking and active participation was positively viewed with a mean of 4.11, but showed some variability (SD = 0.74).

Effectiveness of Resources (SQ4): Resources were considered effective with a mean of 4.14, indicating positive feedback from students.

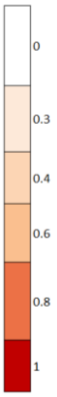
Improvement in Engagement (SQ5): The new teaching methods are perceived to have improved engagement and interaction, with a mean score of 4.06 and a standard deviation of 0.75."

The third table provided (Table 3) presents the correlation matrix, highlighting the strength of relationships between different survey questions.

Table 3. Heat map for correlation Matrix.

	Method improved your engagement and interaction with the content?	provided resources facilitate and support your learning	teaching methods (Video+Discussion+Quizzes) promote critical thinking and active	Evalutate how the teaching method (V+D+Q) used in the course impacted your learnin experience	Videos and Quizzes align with the Learning Outcomes
Have the new teaching Method improved your engagement and interaction with the content?	1	0.651	0.608	0.475	0.436
How effective provided resources facilitate and support your learning	**0.651**	1	0.612	0.473	0.385
methods (Video+Discussion+Quizzes) promote critical thinking and	**0.608**	**0.612**	1	0.582	0.507
Evalutate how the teaching method (V+D+Q) used in the course impacted your learnin experience	0.475	0.473	**0.582**	1	0.471
Videos and Quizzes align with the Learning Outcomes	0.436	0.385	**0.507**	0.471	1

All Correlations are significant at the 0.01 level (2-tailed).



5. Discussion

The positive correlations observed between the use of creative methods and student engagement and satisfaction suggest that such pedagogical approaches may be effective in higher education settings, particularly within complex and specialized fields like supply chain management. These findings support the theoretical underpinnings of constructivist learning theories, which advocate for active engagement and real-world applicability in learning processes (Barak, 2017; Mattar, 2018). The consistent positive feedback across different aspects of the course indicates that the integration of bite-size videos and interactive quizzes can enhance the overall educational experience for students (Getachew, 2024). It's important to note, however, that while the overall trend is positive, variability in responses indicates that individual student experiences can differ significantly.

6. Conclusion and future research direction. Discussion

In conclusion, this study provides evidence that creative teaching methods, such as the use of bite-size videos, positively influence student satisfaction and engagement in learning complex subjects. These methods foster an active learning environment that can lead to enhanced understanding and retention of course material. While the study results are promising, future research should investigate the long-term impact of these methods on student outcomes and explore the potential for scalability across different subjects and institutions. Additionally, qualitative data from open-ended survey questions could be analyzed further to provide a more nuanced understanding of student perceptions and experiences.

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