

**Narrative Transport of Undergraduate CANR Students in an Environmental and Sustainability Film Course**

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## **Introduction**

Use of film as an instructional approach provides a unique perspective for undergraduate student learners. One way to improve the educational experience is through integration of film into the undergraduate classroom (Levey, 2015). Filene (2005) suggests that enthusiasm toward teaching and stimulating student interest through the use of film provides students with a framework for learning and retention of content. The National Research Council (2009) has issued a call for post-secondary agricultural curricula and teaching to utilize dynamic approaches to learning for post-secondary students. Narrative transport is one approach where film or the written word is used by students to induce empathy and mental imagery to detach from the real world while creating an environment conducive to positive classroom learning experiences (Green & Brock, 2000). Use of film in undergraduate curricula has occurred across a wide range of disciplines including business (Levey, 2015), psychology (Mannes & Ingaglio, 2015), engineering (Joshi, 2012), geography (Smiley, 2017), criminal justice (Cozine, 2015), and agriculture (Scott & Weeks, 2015). Examples of film in an undergraduate learning experience include incorporation of complete full-length movies or TV shows as a vehicle to teach an entire class session about subject content (Levey, 2015).

## **Theoretical Framework**

The “zone of proximal development” was Vygotsky’s (1978) attempt at operationalizing “flow” in the context of learning. Vygotsky’s definition was characterized by providing students with a task that challenges an individual while falling just beyond that same individual’s skill level in the activity (1978). The “zone of proximal development” is generally based on the model of “flow” or optimal learning experiences with assumptions that: (1) there is a balance between perceived skills and perceived task demands; (2) there are clear proximal goals; and (3) there is immediate feedback associated with the task (Nakamura & Csikszentmihalyi, 2009).

Undergraduate education using the process of storytelling can be a powerful medium for learning. Individual learners can be absorbed in the teaching message or story through the narration process has the potential to effect real-world-beliefs through transportation into a narrative world (Green & Brock, 2000). The purpose of this descriptive correlational study was to utilize flow theory and narrative transport theory to analyze differences between students who have optimal experiences during various films and the types of movies explored during the course. This study was guided by the research question comparing descriptive differences and correlations between optimal experiences and narrative transport in the context of a College of Agriculture course entitled Exploring Environmental and Sustainability Issues and Policy Using Film.

## **Methodology**

Data were collected at Michigan State University in the fall semester of 2018 in a 200-level course. There were 60 undergraduates enrolled in the course and all students participated in the

research study. The EduFlow research instrument for this study was a modified version of the Experience Sampling Method (Hektner, Schmidt, & Csikszentmihalyi., 2007). The Eduflow survey instrument combines Experience Sampling Method criteria specific to the context of education (Huettenlocher, Fenouillet, Kaplan, Martin-Krumm, & Bachelet, 2016). The narrative transport instrument was a modified version from Green and Brock (2000). Both instruments included 12 items used to measure optimal experience or narrative transport, respectively. Survey instruments were provided prior to each class session and students were asked to fill out the instrument immediately following the conclusion of the class session movie. Analysis of descriptive statistics, Eduflow and narrative transport data were conducted using IBM SPSS 25.0. Eduflow constructs were separated into four thematic areas related to optimal experience including: 1) cognitive absorption (CA); 2) time transformation (TT); 3) loss of self-consciousness (LS); and 4) autotelic experience (AE). Narrative transport items were summated (scores ranged from 12 to 60). Both scales ranged from 1 (Not Agree) to 5 (Very Much Agree) for all items. Films were categorized into documentary-based drama films (e.g., Erin Brockovich) or documentary films (e.g., Food Inc.) and student produced films as an end of semester assignment. The MSU Institutional Review Board deemed this study exempt.

## **Results**

Student respondents in the CSUS265 course ( $n = 60$ ), included 27 different majors across seven Colleges at Michigan State University. The 60 students also represented seven U.S. States and five different countries. Over 66 percent of respondents in the course were female with an average age of all students being 20 ( $SD = 3.31$ ). Films were categorized into themes including documentary-based dramas or documentaries. Descriptive results indicated that optimal experiences of CA, TT, and LC and narrative transport was highest when students were watching the films that they produced as part of a class assignment. It should also be noted that student ratings of documentary films were also highest for the creation of AE. Strong correlations existed between optimal experience and narrative transport constructs within all film categories.

## **Conclusions**

In summary, descriptive results are consistent with students having an appreciation for the process of learning by doing rather than simply sitting and listening as way to maximize the potential for optimal experiences as suggested by Green and Brock (2000). Strong correlations were found between all Eduflow constructs and narrative transport scores within each of the three categories of films. These results support the ability of students to detach themselves from their current setting through induced empathy and mental imagery to “transport” themselves into the material as a dynamic approach to learning in post-secondary classroom Learning.

## **Implications and Recommendations**

Increasing incidence of optimal experience and narrative transport in certain learning environments has the potential to increase retention of material while creating positive classroom experiences in CANR undergraduate settings. The authors suggest further research comparing optimal experience and narrative transport data in other environmental and sustainability films.

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