

**Winthrop Inspiring a New Generation of Students (WINGS):
Increasing the Long-Term Outcomes of Challenge Course Programs**

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Purpose & Research Question

The project goal is to increase the long-term effects of a challenge course program with guided classroom reflection-based activities. This is an important and timely topic for the industry because over the past 15 years researchers have questioned the positive psychological and educational effects of challenge course programs. In a meta-analysis, Gillis and Speelman (2008) found that challenge courses are an effective tool for impacting a variety of educational and psychological constructs, but the mean effect sizes were only small to medium in magnitude (i.e., $d = 0.01-0.48$). In addition, Gillis and Speelman (2008) found that long-term effects were significantly lower, and few of the reviewed studies (27.3%) even collected follow-up data. Hatch and McCarthy (2005) also found minimal long-term effects from a low-element challenge course program. More recently, Schary, Lewis, and Cardinal (2015) reported immediate positive short-term gains in communication, group, and leadership variables following a challenge course program, yet the gains returned to pre-program levels at the three month follow-up.

Due to consistent findings that challenge course effects diminish over time, the industry will benefit from a program that can show sustainable long-term gains. To achieve long-term gains, Schary et al. (2015) suggested challenge course professionals use follow-up reinforcements following a challenge course program to help ingrain the learned concepts. For example, guided reflections or short refresher activities could remind individuals of principles learned (e.g., communication strategies, leadership skills, problem solving). In addition, the refreshers could be incorporated into other aspects of life, causing minimal disruption to everyday routines (e.g., school curriculum, company retreats, email newsletters; Schary et al., 2015). However, these suggestions have yet to be tested. Thus, this project aims to test these hypotheses by answering the following research question:

Do intentional follow-up activities help challenge course participants remember and apply learned principles three months after their experience?

Methodology

Sample & Design

The project entails recruiting 300 students from 15 randomly selected sections (20 students per section) of an introductory, freshman-level university course designed to teach students basic college skills. The 15 sections will then be randomly assigned to one of three groups: 1) full experimental, 2) partial experimental, 3) control. Each group will have 100 students. Students in the full experimental group will participate in the challenge course program with a modified curriculum that includes guided reflection-based activities and a facilitator led mid-semester activity. The partial experimental group will participate in the challenge course program but will not have reflection-based activities built into the curriculum. The control group will complete the standard curriculum without any modifications. All involved instructors will be briefed on the project and trained on leading the reflection-based classroom activities.

Students who complete the entire project will be entered into a raffle to win one of five \$20 Amazon gift cards. Following the completion of the study, the research team will ask the participating students in the full experimental group for 30 volunteers for two focus groups. Students who participate in the focus groups will be entered into an additional raffle to win a \$25 Amazon gift card. Offering incentives is an effective, common means of encouraging participation that is ethically justifiable (Brown & Merritt, 2013).

The project has the full support of the course director and college administration. In addition, this past spring semester, the research team conducted a pilot study with one section from the introductory course with 15

students and received feedback on the challenge course program, questionnaire, and reflection-based activities. The feedback helped to refine logistics (e.g., survey delivery) and informed the facilitators about how the activities were received. The research team has received Institutional Review Board approval and will require an informed consent to be signed. Participation is voluntary and may be discontinued at any time. In addition, participation has no effect on the student's grade in the course.

Challenge Course Program

Each course section will complete a three hour program, which will include socializing games and group initiatives. The socializing games will take approximately one hour and the group initiatives will take two hours. Two facilitators with at least 35 hours of training will lead each group. The activities will be selected by the facilitators to compliment the course curriculum. The course instructors in the full-experimental group will lead short reflection-based activities (e.g., journal assignments, class and small-group discussions) throughout the semester. The activities will relate to the course material and requires students to use skills learned during the challenge course program. When introducing the activity, the instructors will intentionally remind the students of the learned skills. The activities were designed by research team and the course director. During the instructor training (see Timeline), the research team will explain the activities but will allow the instructors to tailor the specifics to their teaching style and class dynamics. The research team will check-in with each instructor via email throughout the semester to ensure the activities are occurring and answer any questions or concerns (see Timeline). At the mid-semester, each full experimental group will also complete a short group activity led by a facilitator. This activity, and subsequent reflection, is meant to serve as a "refresher". The facilitator will consult with the instructor to determine the best activity for the class.

The research team recognizes challenge course programs often have four components (i.e., socializing games, group initiatives, low elements, and high elements), but a participant can still have a meaningful experience without all four components (Priest, Gass, & Gillis, 2000; Wolfe & Samdahl, 2005). The decision to not include low and high elements is pragmatic and logistical. The research team designed the project to be easily incorporated into the curriculum of a large introductory course. As a result, the success of the program relies on the course instructors to support and participate during the program and lead subsequent guided reflections (for the full experimental group) throughout the semester; thus, we felt that socializing games and group initiatives more easily support this goal than low and high elements. In addition, the logistical restraints involve concurrently delivering similar programs to multiple groups with activities that reinforce the current course curriculum. A flexible program that does not rely on permanent structures is necessary because the program must be run in multiple locations across campus. If successful, this simplified structure could be incorporated into any course, increasing the exposure of challenge course programs across university and college campuses.

Measures & Data Collection

Individual and Group Processes. The Challenge Course Experience Questionnaire (CCEQ) will be delivered at three points: immediately before the challenge course program, immediately after the challenge course program, and at the end of the semester (approximately three months after participation). The CCEQ has ten items (nine items for the CCEQ-pre, ten items for the CCEQ-post, and eight items for the CCEQ-final) measuring initial feeling, attitude, problem solving abilities, social interaction, transferability of skills, and communication. The CCEQ is a brief but descriptive measure of challenge course participants with acceptable levels of internal reliability ($\alpha = 0.6 - 0.85$; Schary et al., 2015).

Individual and Group Experiences. Following completion of the course, two 15 participant focus groups will be conducted from volunteers from the full experimental group. The focus groups will follow a semi-structured interview format, where participants will be asked open-ended, reflection-based questions about their experiences throughout the semester. Particular emphasis will be placed on the initial activity and in-class reflections (e.g., Do you think the challenge course program helped increase class cohesion?).

Budget

Student Group Facilitators: \$875 (\$17.50 fringe costs)

Funding seven hours at \$12.50 per hour supports ten student group facilitators to lead the project's initial intervention activity and a mid-semester follow-up (two facilitators per group, five groups per three hour initial session plus one hour mid-semester follow-up session for the full experimental group). The hourly wage is higher because of the facilitators' unique skill-set; each facilitator completes 35 hours of group facilitator and challenge course training. The wage is identical to Winthrop University's Outdoor Education Center, the primary employer of student facilitators. The research team is comfortable with this amount because the success of the project (and any challenge course program) relies heavily on the quality and skill of the facilitator.

Research Assistant: \$200 (\$4.00 fringe costs)

Funding 25 hours at \$8 per hour supports an undergraduate worker in performing administrative, logistical, and data-entry duties. By employing an undergraduate worker to complete these duties, it will allow the investigators to employ their area of expertise through research, data collection, analysis, and writing.

Transcription: \$160 (\$11.20 sales tax)

Both focus groups will be transcribed verbatim by GMR Transcription for analysis. GMR Transcription is a reputable company with competitive rates that the research team has previously used. This will fund approximately 45 minutes per focus group at \$1.60 per recorded minute.

Incentives: \$125 (\$8.75 sales tax)

To encourage participation, each participant in the full and partial experimental group, who completes the study, will be entered into a raffle for one of five \$20 Amazon gift cards. The focus group participants will be entered into a raffle for one \$25 Amazon gift card. The winners will be randomly selected from the list of eligible participants; the gift cards will be sent to each winner via email.

Hospitality: \$92 (\$6.44 sales tax)

The research team will provide light refreshments to encourage participation for both course instructors and participants. For course instructors, refreshments will be provided during the pre-semester, mid-semester, and post-semester meetings. For participants, refreshments will be provided during the focus group sessions. Each meeting will have a budget of approximately \$20 for 15 to 20 people.

Subtotal: \$1,452

Sales Tax: \$26.39

South Carolina charges sales tax at seven percent for each purchase. The estimated sales tax is listed above in parentheses after each line item.

Fringe Costs: \$21.50

Winthrop University requires two percent of salaries for fringe costs; this is not considered indirect costs.

Total: \$1499.89

Timeline

The project timeline will cover the 2015 – 2016 academic year, beginning August 1, 2015 and ending June 1, 2016. The fall 2015 semester will include the intervention (i.e., challenge course program, reflection-based activities, and mid-semester activity). The spring 2016 semester will include analyzing the data and presentation and manuscript preparation. The project’s results and recommendations will be presented at the 2017 ACCT international conference.

Month (2015-2016)	Activity
August	15 th – Meet and train course section instructors 25 th – Meet with participants: recruit, consent, and pre-evaluations
September	11 th – Challenge course program for full experimental sections 18 th – Challenge course program for partial experimental sections 25 th – Check-in with instructors via email *Reflection-based activities built into course curriculum starting after the program
October	9 th & 30 th – Check-in with the instructors via email 19 th – 23 rd – Follow-up activity in class with facilitators *Reflection-based activities built into course curriculum all month
November	6 th & 13 th – Check-in with the instructors via email 16 th – 20 th – Meet with participants: debrief, incentives, and post-evaluations *Reflection-based activities built into course curriculum through the 13 th
December	1 st & 3 rd – Conduct focus groups
January to March	Data entry and analysis
April to May	Presentation and manuscript preparation Submit presentation proposal for 2017 ACCT international conference

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Potential References

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