2019 Duke AHEAD Grant Proposal
Due by 5:00 pm 06/24/2019

Check one:

☐ **regular small Duke AHEAD grant - proposal with budget up to $5,000**
☐ **targeted IPEC Duke AHEAD grant - proposal with budget up to $25,000**

Principal Investigator/School/Department: Deborah Engle, EdD, MS/School of Medicine/Medical Education

Collaborator(s)/School(s)/Department(s):

- Kearsley A Stewart, PhD/Duke Global Health Institute and Trinity College of Arts and Sciences/ Department of Cultural Anthropology
- Leonard E. White, PhD/School of Medicine/Department of Neurology

Focused question: What are the impacts of the annual Medical Student/Faculty Show (SFS) on the academic performance (students), psychosocial well-being, resilience and attitudes of student and faculty participants and non-participants?

Background: (including brief review of prior research)
A long-standing tradition in the Duke University School of Medicine is performance of the Medical Student/Faculty Show (SFS). In recent years, the show has been a light-hearted parody and celebration of the lived experiences of medical students in the Duke University School of Medicine. The show is presented as a two-act, theatrical and musical performance conceived, written, produced, directed and acted by medical students. Typically, some number of senior leadership, associate deans, assistant deans, faculty and staff are written into the show for cameo appearances and/or performance in the accompanying live stage band. To view the 2019 edition, click here: "Duke's Avengers: Civil Wards". As anyone who has ever attended the SFS can attest, the performance highlights the creativity, talent, experience and dedication of many students and faculty and reflects months of rehearsals leading up to the annual March performance. With such a significant demand on at least some key personnel involved in the show, it is reasonable to assume that there are significant impacts—both positive and negative—on those who participate, with collateral impacts affecting non-participating students, faculty, administrators and staff. With the exception of recent attempts to explore academic performance of first-year students around the time of the performance, such impacts have largely been the objects of speculation and conjecture. Nevertheless, several faculty and administrators have voiced strong, but we suspect poorly-informed, opinions about the potential benefits and liabilities associated with student participation in the show, with the main object of such opinions being the impact on student exam performance in the concurrent first-year course, "Body and Disease". Such concerns about performance on concurrent exams may be reasonable and well-founded. However, many other important questions remain unexplored, such as: Are there

academic risks associated with participation in the show that vary with level of participation? Does student participation in the show stave off the burn-out that recent study indicates increases monotonically across the first-year? Are there positive benefits in self-efficacy and well-being conferred by student participation in the show? Are there collateral impacts—positive or negative—on students who do not participate? Are there similar impacts on faculty who participate? How do the impacts of the show modulate over time? Student participation in theatre can be understood in the theory and practice of educators and dramatists, such as Paulo Freire and Augusto Boal, who advocate for theatre as a pedagogical tool capable of building critical-awareness and understanding of multiple perspectives and experiences. This suggests that the SFS could be a critical means for students (and faculty) to gain a deeper understanding of themselves as medical learners bound to particular community in the Duke University Medical Center. Moreover, decades of work in medical humanities confirm that theatre can improve a medical learner's communication skills (and thereby patient outcomes) through more effective problem solving, decision making, and collaboration. Recent research (Nagji et al., 2013) suggests medical student participation in optional theatre modules can increase well-being, work-life balance, resilience, and quality of life. Might such frameworks also help us understand the relevance and impacts of student participation in the Duke Medical Student/Faculty Show? Our overall goal is to design and execute a mixed methods, ethnographic study of the multi-dimensional impacts of the annual SFS to address such questions and close the existing gap between opinion and evidence. Although we are equally concerned for possible long-term impacts of participation in the show (throughout the years of medical education at Duke and beyond), our pilot study will focus on the experience of the March 2020 show.

Specific aims:
Aim 1: To study the impacts of the March 2020 SFS on students. Using a mixed-methods approach, we plan to investigate the academic performance, psychosocial well-being, resilience and attitudes of student participants and non-participants. This approach will identify the putative positive and negative impacts associated with the SFS. Aim 2: To study the impacts of the March 2020 SFS on faculty. Using a mixed-methods approach, we plan to investigate the attitudes of faculty participants and non-participants. This approach will identify the putative positive and negative impacts associated with the SFS.

Project Plan, including brief description of steps and/or timeline:
Phase 1, planning, 7/19–9/19 •Submit Duke IRB •Conduct preliminary meetings: Duke SOM Student-Faculty Show organizers •Develop research instruments: interview guide, focus group guide, check list for direct observation of rehearsals, pre-post surveys and self-assessments of student success, resilience, and psycho-social well-being and attitudes (including altruism) •Hire graduate student research assistant Phase 2, data collection, 9/19-3/20 •Test research instruments •Conduct key informant interviews: (a) students and faculty: (i) directly involved with production (ii) considered participation, but opted out (iii) students and faculty critical of event (b) if time allows; students (i) in past productions (ii) in other arts-based productions, such as A cappella singing group, Scopes exhibition, anatomy drawing class •Conduct one focus group discussion: students directly involved with production •Conduct direct observations at meetings and rehearsals, write ethnographic narrative •Collect basic survey data: demographics, time engaged with production, indicators of student success, etc. •Begin data entry: transcribe interview and focus group, transcribe direct observation and field notes, enter survey data Phase 3, data analysis, 3/20-5/20 •Qualitative research analysis software: NVivo •Analytic framework:

Applied thematic analysis, Guest et al 2012 •Conduct first-pass analysis of transcribed data, Saldana 2016 •Develop codebook based on refined first-pass themes, DeCuir-Gunby, et al, 2010 •Enter survey data and demographic data into NVivo •Code text-based data •Conduct thematic text-based analysis: text searches, word frequencies •Conduct analysis of association of basic demographic data (gender, level of involvement in production) with (i) key themes and codes (ii) key outcomes such as student success, resilience, burn-out Phase 4, dissemination •Poster, AAMC November 2020 •Manuscript, possible journals: Academic Medicine, Medical Education Online

Outcome measures: (please select from among the following)

- ☐ Pre- and post-intervention/innovation surveys
- ☐ Qualitative analysis (including focus groups or interviews)
- ☐ Post-intervention/innovation satisfaction survey
- ☐ Attendance figures/usage data
- ☐ other (please provide a brief description – max 20 words)

-The research assistant will directly observe development and rehearsal activities and then write an ethnographic descriptionof the production process.

Resource needs and budget:
Funding will be available for a 12-month period. Please fill in the table below and provide justification/description for each item below. Additional budgetary support may be available through DASHE vouchers for editorial support, data management, education research commons, and more (see https://dukeahead.duke.edu/how-we-can-help/duke-ahead-supporting-health-professions-educators).

If submitting a proposal for a targeted IPEC grant, please provide an estimate of the time/effort you will expend on this project. PI support may not total more than 25% of the requested funds. If submitting a proposal for a regular (small) grant, PI may not request financial support and it is not necessary to estimate time/effort. Administrative support for either type of grant is available through "consultant costs."

		Estimated Cost
PI support (for IPEC grant only)	[PI time/effort =]	$0.00
Consultant Costs	MSc-GH graduate student @ $15/hour plus fringe (~$18/hour) X 10 hours a week for 28 weeks	$5,000.00
Equipment		$0.00
Computer	Hardware *($1500/laptop)*	$0.00
	Software	$0.00
Supplies		$0.00
Travel	*(1,000/trip)*	$0.00
Other Expenses		$0.00
Total Costs for Proposed Project		**$5,000.00**