

# Initial Report

Last Modified: 03/06/2016

## 1. Name

### Text Response

Danielle Shin

## 2. Affiliation

#	Answer	Bar	Response	%
1	Faculty		0	0%
2	Fellow		0	0%
3	Graduate Student		0	0%
4	Medical Student		0	0%
5	Postdoctoral Scholar		0	0%
6	Resident		1	100%
	Total		1	

## 3. Department

### Text Response

Pediatrics

## 4. Title

### Text Response

PGY-2

## 5. Email

### Text Response

dhshin@stanford.edu

## 6. Phone Number

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**Text Response**

650-497-8979

7. Please attach a brief CV or NIH biosketch to accompany your application

File Upload	File Type	File Size
<a href="#">Danielle Shin - CV.pdf</a>	application/pdf	118.9KB

8. Clinical Educator (CE) Faculty must request and obtain a CE Faculty PI waiver through their RPM, instructions are online at <http://med.stanford.edu/rmg/piwaiver.html#clinician>

*This question was not answered by the respondent.*

9. Grant Type

#	Answer	Bar	Response	%
1	Teaching and Mentoring Innovation Grant: Examples are curricular innovations, mentoring innovations, development of new courses, improvements to an existing course, new approaches to assessment, and/or evaluation of new pedagogical methodologies. This must include an evaluation of the project.		1	100%
2	Educational Scholarship: Examples are study of different approaches to teaching such as a flipped classroom and/or online course, new content development for specific topics (i.e., End of Life Care from the patient perspective and user perspective, or new content development for specific audiences - teaching of small groups, teaching at local universities and/or schools, and teaching of undergraduates in the School of Medicine sponsored summer programs. This must include an evaluation of the project and an outline of a planned scholarly work product in medical or graduate education (e.g., presentation, poster, publication).		0	0%
	Total		1	

10. Grant Amount Requested Two categories of funding will be considered. Up to 1/3 of the funding request is allowed for compensation and the remainder must be requested for non-compensation expenses. Note, continued funding beyond August 31, 2016 may be considered upon submission of a progress report and proposal with budget in the subsequent funding cycle.

#	Answer	Bar	Response	%
1	Large Grants: Grants are up to \$20,000 that must be expended by August 31, 2016		0	0%
2	Small Grants: Grants up to \$10,000 that must be expended by August 31, 2016		1	100%
Total			1	

11. Uploaded grant proposals must include all sections below and should not exceed 2 pages (optional)

*This question was not answered by the respondent.*

12. Project Description

**Text Response**

There is a growing awareness that introversion, the tendency to direct one's energy and attention inward, can be a disadvantage in the workplace, particularly in business and law where confidence and leadership skills are highly valued. Medicine, with its emphasis on presenting on rounds, thinking out loud and on-the-spot, and projecting confidence in uncertain situations, can be a similarly intimidating and unfavorable environment for introverted personality types. The goals of this project are to assess whether introversion (as measured by the Myers-Briggs Type Indicator) affects the evaluation of resident competencies, to assess whether there are any common themes among evaluator comments directed toward introverted residents, and to gather qualitative data from introverted residents about any perceived challenges during training and any strategies identified by learners or educators to help maximize learning and performance. Overall, we hope to help educate both learners and teachers about the role of personality type on learning and performance and eventually to provide tools to help introverts succeed in the medical training environment.

13. Rationale

**Text Response**

Introversion, a psychological type first described by Carl Jung and popularized by the Myers-Briggs Type Indicator (MBTI), has been described as the tendency to direct one's attention inward and derive energy from solitude and reflection, rather than the external environment (1). There is now a growing awareness that introverts may face specific challenges at work related to their overall inward orientation and reflective processing style, particularly in highly public and performance-oriented fields such as business and law (2), but likely also in medicine as well. While currently medical training is largely focused on the acquisition of knowledge and skills, there is some evidence that personality, or 'noncognitive skills,' may play a significant role in how such knowledge and skills are both learned and evaluated (3). Several studies looking at baseline personality characteristics in medical students have shown that a high degree of extraversion may be correlated with better performance (4). A study of anesthesia residents similarly showed that extraverts scored higher than introverts on a Global Assessment of Performance (based on placement of each resident into perceived quartile compared with their peers) (5), but overall there has been much less attention devoted to graduate medical education, although a preference for introversion might actually have a greater effect on residents given the exponential increase in amount of time presenting on rounds, interacting with faculty and families, and leading teams. Residency is also a uniquely challenging stage of clinical practice in that diverse individuals are all subjected to the same structured environment and schedule and expected to perform to a certain level, which may serve to accentuate even otherwise subtle personality type preferences, as opposed to later in practice when individuals may choose settings that are more suitable to their specific personality types. For this reason we would like to look specifically at the Stanford pediatric residents and more closely examine, using both quantitative and qualitative measures, the effect of introversion on the assessment of resident competence and on the residents' own experience of training and learning at this stage of training. 1. Jung, Carl. Psychological Types (The Collected Works of C.G. Jung, Volume 6). Princeton, N.J.: Princeton University Press, 1976. 2. Cain, Susan. Quiet: The Power of Introverts in a World That Can't Stop Talking. New York: Crown, 2012. 3. Hojat M, Erdmann JB, and Gonnella JS. Personality

assessments and outcomes in medical education and the practice of medicine: AMEE Guide No. 79. Medical Teacher. (2013) 35: e1267–e1301. 4. Doherty, E. M. and Nugent, E. Personality factors and medical training: a review of the literature. Medical Education. (2011) 45: 132–140. 5. Schell RM et al. Anesthesiology resident personality type correlates with faculty assessment of resident performance. Journal of Clinical Anesthesia (2012) 24, 566–572

## 14. Pilot Data

### Text Response

n/a

## 15. How the project supports/promotes diversity

### Text Response

This project supports/promotes diversity because engrained in the concept of personality type preferences, as described by Carl Jung and expressed in the Myers-Briggs Type Indicator instrument, is the idea that there are differences between normal, healthy adults in how we prefer to direct our attention and derive energy, whether it be internally from solitude and reflection or from the external environment. There is no 'ideal' type, nor is any type 'better' or 'worse.' Both types have their strengths and weaknesses, and all of us are able to learn to use both as the situation warrants. The MBTI tool is used widely in the business world to help promote communication and understanding by providing insight into how different types of normal adults prefer to take in information and make decisions. The medical environment is particularly striking because it requires one to exercise not only introverted solitude and reflection for reading and studying, but also extraverted communication skills in developing patient rapport and working in teams. Identifying one's own innate preference and learning to recognize them in others has great potential to help promote teambuilding as well as augment resident education by creating room for those differences and celebrating them, rather than suppressing differences by insisting that everyone learn the same way.

## 16. Methods of Design

### Text Response

Participants will be recruited from the current Stanford pediatric residency program (2015-16), and data will be gathered from pre-existing evaluations and ACGME competency milestone ratings, the results of the MBTI (Myers Brigg Type Indicator) instrument, as well as a qualitative survey given at the time of MBTI administration. Informed consent will be obtained prior to data collection. The MBTI will be administered to all willing participants via a validated written assessment tool, as well as a survey specifically designed to gather qualitative data regarding the effect of introversion on residency training and potential tips/strategies for maximizing learning and performance. MBTI and survey results will be de-identified, with linking identifiers created to coded IDs and key kept only in locked file in residency office. Resident evaluations, including competency milestone data, will be similarly de-identified by a member of residency program leadership already involved in the resident evaluation process and thus with access to this data. Data will be maintained on secure server and accessed only via encrypted, password-protected computers. Quantitative analysis of de-identified resident evaluations will be performed to determine if there is a difference in ACGME competency milestones between introverts and extroverts. Qualitative analysis will be performed of de-identified evaluation comments from core rotations (PGY-1 only) to identify common themes in the assessment of strengths/weaknesses of introverted residents. Qualitative analysis will also be performed of resident survey responses to identify challenges faced by both introverted and extraverted residents and potential strategies for improvement.

## 17. Timeline and Implementation Plan

### Text Response

The MBTI instrument and surveys will be administered in May/June 2016 during the annual resident "Step Up" day for each class. The ACGME competency milestone ratings and evaluation data for residents will be compiled and de-identified in June/July 2016. Data will be analyzed through the Fall/Winter of 2016 with goal of presenting and publishing data by the Spring of 2017.

## 18. Anticipated work product

### Text Response

This study will yield a quantitative comparison of numerical evaluation data between residents with a preference for introversion and those with a preference for extraversion. It will also yield qualitative data including themes from evaluators directed at those with a preference for introversion and themes from residents as to how their preferences have affected their experience of residency. These data will be summarized in a presentation to program leadership, as well as in a peer-reviewed publication and possibly as part of a larger workshop as detailed below in 'Dissemination of Results.'

## 19. Evaluation Plan

*This question was not answered by the respondent.*

## 20. Dissemination of Results

### Text Response

These data may be disseminated to the larger pediatric and residency communities as part of a workshop at a regional or national meeting such as APPD (Association of Pediatric Program Directors), as there will be a workshop on this subject at APPD for the first time this year. I also hope to submit a written editorial in a peer-reviewed publication such as Medical Education or JAMA.

## 21. Anticipated impact of project on education and/or mentoring

### Text Response

We hope to learn whether a preference for introversion may adversely affect the assessment of resident competence, which will be important in informing both the education and evaluation of future residents. If a difference is found, it would prompt discussion as to whether residents with a preference for introversion may benefit from additional skills training or whether current assessment methods are inadequate to capture the competence of this particular personality type, or more likely a combination of both. We also hope to gather residents' perspective on how their preference for introversion or extraversion may have affected their training experience in order to provide additional resources for support and also to educate faculty regarding how different personality types may manifest in the clinical setting.

## 22. Specific Educational Aims

### Text Response

1. To determine if introversion, as opposed to extraversion, affects the assessment of resident competence. 2. To identify themes from resident surveys to further explore how introversion/extraversion may affect the experience of

residency. 3. To identify themes from faculty assessments of residents to further explore how introversion/extraversion may affect the perception of resident performance.

**23.** Budget request upload (must include tables above)

*This question was not answered by the respondent.*

**24.** Compensation request

Default - Line item 1				
Description of request	Compensation/Salary and Benefits Amount	%FTE (if applicable)	Cost per 100% FTE-salary and benefits (if applicable)	Total Cost
-	-	-	-	-
Default - Line item 2				
Description of request	Compensation/Salary and Benefits Amount	%FTE (if applicable)	Cost per 100% FTE-salary and benefits (if applicable)	Total Cost
-	-	-	-	-
Default - Line item 3				
Description of request	Compensation/Salary and Benefits Amount	%FTE (if applicable)	Cost per 100% FTE-salary and benefits (if applicable)	Total Cost
-	-	-	-	-
Default - Line item 4				
Description of request	Compensation/Salary and Benefits Amount	%FTE (if applicable)	Cost per 100% FTE-salary and benefits (if applicable)	Total Cost
-	-	-	-	-
Default - Line item 5				
Description of request	Compensation/Salary and Benefits Amount	%FTE (if applicable)	Cost per 100% FTE-salary and benefits (if applicable)	Total Cost
-	-	-	-	-
Default - Line item 6				
Description of request	Compensation/Salary and Benefits Amount	%FTE (if applicable)	Cost per 100% FTE-salary and benefits (if applicable)	Total Cost
-	-	-	-	-

**25.** Non-Compensation

Default - Line item 1				
Description of request	Item	Quantity of item	Cost per item	Total Cost
Honorarium for MBTI Instructor	3000			3000
Default - Line item 2				

Description of request	Item	Quantity of item	Cost per item	Total Cost
MBTI Training and Certification	1795			1795
Default - Line item 3				
Description of request	Item	Quantity of item	Cost per item	Total Cost
MBTI Form M	1595			1595
Default - Line item 4				
Description of request	Item	Quantity of item	Cost per item	Total Cost
Transcription	50			50
Default - Line item 5				
Description of request	Item	Quantity of item	Cost per item	Total Cost
MBTI Session Materials	50			50
Default - Line item 6				
Description of request	Item	Quantity of item	Cost per item	Total Cost
MBTI Materials Shipping Cost	40			40

**26.** Budget justification (Narrative description of item as applicable)

**Text Response**

1. Honorarium for MBTI Instructor - Dr. Anda Kuo from UCSF, who has extensive experience administering the MBTI instrument to health care professionals, will be coming to facilitate 3 separate 3-4 hour sessions with the Stanford pediatric residents (separate sessions for interns, juniors, and senior residents) with a \$1000 honorarium for each session for a total of \$3000. 2. MBTI Training - The MBTI Training Institute certification course is a 4-day intensive program covering the details of the Myers Briggs Type Instrument including the history and underlying psychological framework as developed by Carl Jung, as well as the proper administration and application of the MBTI instrument for participants. The registration fee is \$1795 (not including shipping cost for materials). 2. MBTI Form M - The MBTI Form M is the self-scorable version of the Myers Briggs Type Indicator instrument that we will be using during our sessions. 100 copies will be required for participants at a cost of \$15.95 each for a total of \$1595 (not including shipping cost). 3. Transcription - All participants will be given hard copy paper surveys to fill out which will need to be transcribed, estimated cost \$50. 4. MBTI Session Materials - Administration of the MBTI instrument usually requires at least a 3-4 hour session which includes not only administration of the test but also interactive tasks to help better understand the meaning of type preferences. Materials typically include a variety of supplies including 1-2 large easels, poster boards, flip charts and markers, estimated at \$50. 5. MBTI Shipping Costs - Total cost for shipping materials including MBTI Training materials and Self-Scorable forms, estimated at \$40 total.

**27.** IV. APPROVAL AND LETTER OF SUPPORT Each applicant must provide a letter of support. For clinical trainees, the letter of support must be from his/her training and/or advising director. For basic science trainees, the letter of support must be from his/her faculty mentor. For faculty, the letter of support must be from his/her department chair. For graduate and medical students, the letter of support must be from his/her Advising Dean and/or faculty mentor.

File Upload	File Type	File Size
<a href="#">Letter of Rec - Danielle Shin - Teaching and Mentoring Academy Grant - 2016.pdf</a>	application/pdf	88.4KB