Spring Newsletter

Individual Differences in Performance Technical Group

Welcome
The Individual Differences in Performance Technical Group (IDTG) would like to welcome all new members to the organization and encourage its members to invite anyone who may be interested in joining the TG or the Human Factors and Ergonomics Society.

IDTG Newsletter Updates
The deadlines for the Best Student Paper Award and Student Travel Award have been extended to July 30th at 5:00 PM EST.

We would like to announce that the newsletter will be transitioning from a quarterly publication to a biannual publication beginning in Summer 2018.

Annual Meeting Reviews
The IDTG would like to say thank you to all of its reviewers! We appreciate your volunteering very much!

The IDTG had 19 submissions and all reviews have been completed at this time. We are currently working on the acceptance/rejection of IDTG proceedings and hope to have these decisions finalized by early to mid-May 2018.

We will provide more information about the IDTG Meeting, poster session, and lectures/talks in the Summer edition of the newsletter.

Research Spotlight

For the Research Spotlight, we would like to showcase the accomplishments of Deputy Fire Chief Shaughn Maxwell of South Snohomish County Fire and Rescue – District #1 in Everett, Washington, USA.

Deputy Fire Chief Shaughn Maxwell has been in working in the field of firefighting and paramedicine for three decades. Currently, he oversees a fire-based EMS system just North of Seattle. South County Fire responds to over 35,000 – 911 calls annually (80% of which tend to be emergencies). In his current role, it is his responsibility to enhance the effectiveness of fire and medical personnel on the front lines.

Chief Maxwell has had opportunities to work with the Washington State Governor’s Office and the Obama administration. Additionally, Chief Maxwell has received three national awards for developing novel best practices for emergency medicine services (by the way, Shaughn is a two-time Journal of Emergency Medical Services Top 10 Innovator and The Congressional Fire Services Institute Award winner). Chief Maxwell is also a national speaker, an editorial board member for the Journal of Emergency Medical Services, and serves on state and federal committees developing EMS performance metrics.

One of Chief Maxwell’s ideas was to develop checklists for paramedics to use when treating
critical patients. The catalyst for the idea occurred while working on a state committee to develop a standardized response to cardiac and stroke emergencies. Shaughn worked with a talented group of sixty professionals, including neurologists, emergency physicians, nurses, and paramedics to develop a list of important evidence-based interventions for cardiac and stroke patients. It was a challenging year-long exercise and consensus process.

The next step for the group was to publish the established interventions statewide for thousands of first responders to execute. However, as a Fire Chief, Shaughn contemplated the challenges of ensuring the interventions were applied reliably and consistently. How could we assure a paramedic on his twentieth call of the day remembers to apply every intervention, every time, even in the wee hours of the morning (think 3 AM)? Conversely, how do we assure a rural volunteer, who only responds to calls a few times per year, applies the proper interventions every time?

One solution, used with much success in the field of human factors, was to ensure the usage of intervention-based checklists. Checklists are not protocols or algorithms; fire and EMS responders have used these tools for decades. However, the challenge presented here was developing new, evidence-based intervention checklists.

In 2010, Chief Maxwell and Dr. Richard Campbell, South County Fire’s Medical Director, compiled evidence-based interventions for the highest acuity patient conditions. While there are thousands of conditions paramedic are called to treat, only 10-20 conditions have evidence-based interventions proven to change outcomes.

In 2011, the first EMS intervention checklists were developed for approximately a dozen conditions, including cardiac arrest, stroke, asthma, and anaphylaxis. In 2012, the stroke checklist was deployed and used to show proof of concept and desensitize firefighters and paramedics to this new tool. In 2013, a full set of checklists were published. Firefighters were required to use the checklists when they were presented with a condition that matched a checklist condition. However, the checklists were not initially accepted, culturally or operationally, by firefighters and EMS professionals.

After a period of data collection, firefighter and EMS responses were compared to pre-checklist performance. The results indicated that executing key interventions jumped from the 50% pre-checklist to 90% post-checklist, a sharp increase in successful medical practices.

After the success of human factors in the development and implementation of these checklists, Shaughn is now working to explore other ways in which human factors can improve the work of firefighters and EMS professionals, especially in the fire academies and promotional tests.

We would like to thank Shaughn for his time for this contribution to the newsletter and his service as Fire Chief.

**Best Student Paper Award**

The IDTG is pleased to announce an award for “Best Student Paper” submitted to the Individual Differences Technical Group for the 2018 International Meeting of the Human Factors and Ergonomics Society. The award includes a prize of $400 and a plaque for the student to display at their host institution.
The Best Student Paper Award is available to all current graduate and undergraduate students whose work was submitted and accepted to the 2018 HFES Meeting as a part of the IDTG.

In order to be eligible for this award, students must meet the following criteria:

- Currently a graduate student or undergraduate student, or a graduate or undergraduate student at the time of submission
- The student is first author and performed a majority of the writing, design, and analyses in the paper
- Attend the 2018 HFES Meeting to receive your award for Best Paper during the IDTG Meeting in Philadelphia

If you are interested in applying, please submit a PDF of your paper with all personal identifiers (i.e., names of authors, institutions, etc.) removed, along with your current CV, and proof of conference registration to Lexi Neigel at alexis.neigel@gmail.com.

The deadline to submit papers for the Best Student Paper Award is **JULY 30th, 2018 at 5:00 PM EST**.

If you are interested in serving on the Best Student Paper Award Review Committee, please contact Lexi Neigel at alexis.neigel@gmail.com as soon as possible.

**Student Travel Award**

The IDTG is pleased to also announce a Student Travel Award to assist students in defraying the costs of travel to the 2018 HFES Meeting.

The award includes a prize of $400 and a plaque for the student to display at their host institution.

The Student Travel Award is available to all current graduate and undergraduate students whose work was submitted and accepted to the 2018 HFES Meeting as a part of the IDTG.

In order to be eligible for this award, students must meet the following criteria:

- Currently a graduate student or undergraduate student
- The student is first author on a paper or presentation submitted and accepted to the 2018 HFES Meeting
- Attend the 2018 HFES Meeting to receive your plaque during the IDTG Meeting in Philadelphia

If you are interested in applying, please submit a PDF of your final conference submission (e.g., Abstract, Extended Abstract, or Proceeding), your current CV, and proof of conference registration to Lexi Neigel at alexis.neigel@gmail.com.

Students should also submit a 500 word essay describing how the funds will be used to attend the conference, the research performed by the student, and disclose any funding received to travel to the 2018 HFES Annual Meeting.

The deadline to submit all of the materials for the Student Travel Award is **JULY 30th, 2018 at 5:00 PM EST**.

If you are interested in serving on the Student Travel Award Review Committee, please contact Lexi Neigel at alexis.neigel@gmail.com as soon as possible.

**Newsletter Solicitation for Content**

The IDTG is soliciting contributions from readers for the next biannual newsletter.
We are particularly interested contributions for the following sections:

• Special topics or interest segments

• Laboratory, student, or colleague spotlights

• Interviews with students, professionals, or experts

• Brief Q&As

• Announcements or updates

If you are interested in contributing to the next IDTG newsletter, please contact Stephen Bao, newsletter editor, at baos235@lni.wa.gov.