Evaluation of an online course for young immigrant and refugee workers
In the United States on occupational safety and health.

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Introduction
- NJ Safe Schools Program (NJSS) assists secondary schools to reduce occupational safety and health hazards (S&H) at school and work.
- NJSS provides work-based learning trainings and professional development for teachers, and student trainings.
- Student-oriented course developed on the introduction of occupational S&H, wage and labor laws, and general workplace skills and knowledge. Course was set-up in response to teacher requests for an introductory curriculum for their work-based learning students.
- Investigating how to suit needs of, and make course available to young newcomer (including immigrant and refugee) students and workers.

Objectives
- Provide students with a clear, concise, and engaging curriculum to expand awareness of specific S&H issues and provide relevant resources and information on securing work.
- Provide a low to no cost and easy to navigate online course for teachers to administer curriculum to students.
- Create opportunities and implement strategies to ensure course evaluation is available to newcomer students and workers.

Methodology
- Approval: Rutgers University/RBHS IRB, Exempt (021997W0383)
- Course available on Rutgers Canvas learning management system.
- Free online course offered to NJ public, charter and private school students, and personnel, who earn a certificate upon completion.
- Students are graded on knowledge checks (KC) following each module, as well as a course reflection and evaluation.

Student Performance
- Between 2018-2020, 410 students from eleven schools have registered.
- Course has been administered to students in comprehensive and career and technical secondary schools. Newcomer populations within participating student body were not disclosed.
- In 2018-2019 school year (SY), of the 181 students who registered for the course, 162 began the course, and 130 students completed the course.
- To date for 2019-2020 SY, 229 students registered and 60 completed.
- Presented results are from the 2018-2019 SY.

Course Evaluation
- Course evaluation was completed by 133 students across seven schools in North, South and Central New Jersey.
- Eighty-six percent of students said they would recommend this course.
- About 86% of students were able to complete the course in 1-3 hours, 26% took less than one hour and 16% took more than three hours.
- When asked what they liked about the course, students stated it would help them in working world (19%), content was clear (17%), and they learned new and important information (15%).
- Students also liked modular format, text to voice accessibility, and videos.
- Eighty-eight percent of students had no suggestions for improvement but some wanted more videos, diagrams and pictures (9%).

Table 1: 2018-2019 Knowledge Check Grades

<table>
<thead>
<tr>
<th>Assessment</th>
<th># of students who completed course</th>
<th>% completed</th>
<th>Average Final Score</th>
<th>Average First Score</th>
<th>Mean (min-max) # of attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC 1: FLSA &amp; Young Workers</td>
<td>130</td>
<td>100%</td>
<td>81%</td>
<td>66%</td>
<td>1 (1-3)</td>
</tr>
<tr>
<td>KC 2: Work Hours &amp; Wage</td>
<td>150</td>
<td>100%</td>
<td>84%</td>
<td>70%</td>
<td>1.6 (1-6)</td>
</tr>
<tr>
<td>KC 3: Employee and Employers</td>
<td>130</td>
<td>100%</td>
<td>90%</td>
<td>78%</td>
<td>1.5 (1-6)</td>
</tr>
<tr>
<td>KC 4: Workplace Hazards</td>
<td>128</td>
<td>98%</td>
<td>70%</td>
<td>60%</td>
<td>1 (1-2)</td>
</tr>
<tr>
<td>KC 5: Controlling Hazards</td>
<td>129</td>
<td>99%</td>
<td>95%</td>
<td>92%</td>
<td>1 (1-2)</td>
</tr>
<tr>
<td>KC 6: Workplace Violence</td>
<td>130</td>
<td>100%</td>
<td>95%</td>
<td>95%</td>
<td>1.1 (1-3)</td>
</tr>
<tr>
<td>KC 7: Soft Skills</td>
<td>129</td>
<td>99%</td>
<td>100%</td>
<td>100%</td>
<td>n/a</td>
</tr>
<tr>
<td>Cumulative Reflection</td>
<td>130</td>
<td>100%</td>
<td>100%</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Course Evaluation</td>
<td>130</td>
<td>100%</td>
<td>100%</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Table 2: Student Course Evaluation

<table>
<thead>
<tr>
<th>How satisfied are you with the overall course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Dissatisfied</td>
</tr>
<tr>
<td>Very Satisfied</td>
</tr>
<tr>
<td>How satisfied are you with the course content?</td>
</tr>
<tr>
<td>Satisfied</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Dissatisfied</td>
</tr>
</tbody>
</table>

How satisfied are you with the knowledge check quizzes?
- Very Satisfied | 42% |
- Satisfied      | 36% |
- Neutral        | 14% |
- Dissatisfied/Very Dissatisfied | 2% |

“Teacher Testimonials”
- “I liked the simplicity of presentation. I have special needs students and I can visualize them completing most of this course on their own. The videos were very appropriate and motivating.”

“Student Testimonial”
- “I enjoyed reading and informing myself on all of the different aspects of working and hazards I may come across in the workplace. It has opened my eyes in the sense of getting a better understanding of all of the things that could go wrong and how to manage those things from happening again and taking care of issues.”

Discussion
- Frequently incorrect questions suggest greater need in education on:
  - Identifying and categorizing occupational hazards.
  - Especially “other hazards” like stress, ergonomics, clothing, etc.
  - Minimum wage

Strengths
- No cost to NJ K-12 education schools/staff.
- Easy to complete for participants given modular format.
- Clear, simple, and brief presentation.
- Comprised of videos, short readings and short answer and multiple choice question styles to accommodate various learning styles.

Limitations
- No follow-up survey assessing effectiveness of information retention.
- Unable to yet provide translations of course and course materials.
- Reaching newcomer populations:
  - Teachers in English as a Second Language (ESL) & English Language Learning (ELL) programs had difficulty accessing computers & laptops.
  - Small to large, full-time ESL & ELL programs in NJ require 100+ minutes weekly (< 10 students) or one period daily (> 10 students) of ESL instructor led teaching. This course may help meet requirements.

Conclusion
- For the 2019-2020 school year:
  - Provide an expansion and more examples of workplace hazards.
  - Create second companion course “Introduction to Risk Assessment and Hazard/Exposure Agents Identification for Young Workers.”
  - NJSS continues to promote this new course in 2020-2021.
  - NJSS reaches out to other groups, organizations, and programs assisting newcomer student and worker populations.

Related Initiatives
- Free online courses to high school students and supervising staff on:
  - Personal protective equipment to better inform safety practices.
  - Cyber safety and security.

Acknowledgements
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