Research to Practice: An evaluation of adolescent SBIRT training on student perceptions of confidence and attitudes toward implementing in the field

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Partners and Co-authors

Funded by:

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Overview of the Project

Integrating Adolescent SBIRT Throughout Social Work & Nursing School Education

- Launched in September 2014
- Over 30+ subject matter experts, researchers, educators, practitioners, and professional associations
- Learning Collaborative of nursing and social work programs
- 4 Implementation and Evaluation Tracks

sbirt.webs.com

Implementation

- Program offers a variety of implementation tracks

- Track C –

    - Flexible implementation terms

    - 9 schools selected for this analysis implementing in the same semesters

    - Pre and post evaluation participation

Track C Implementation

Pretest

Implement Curriculum
- Learner's Guide Modules
- SBI with Adolescents online simulation

Posttest
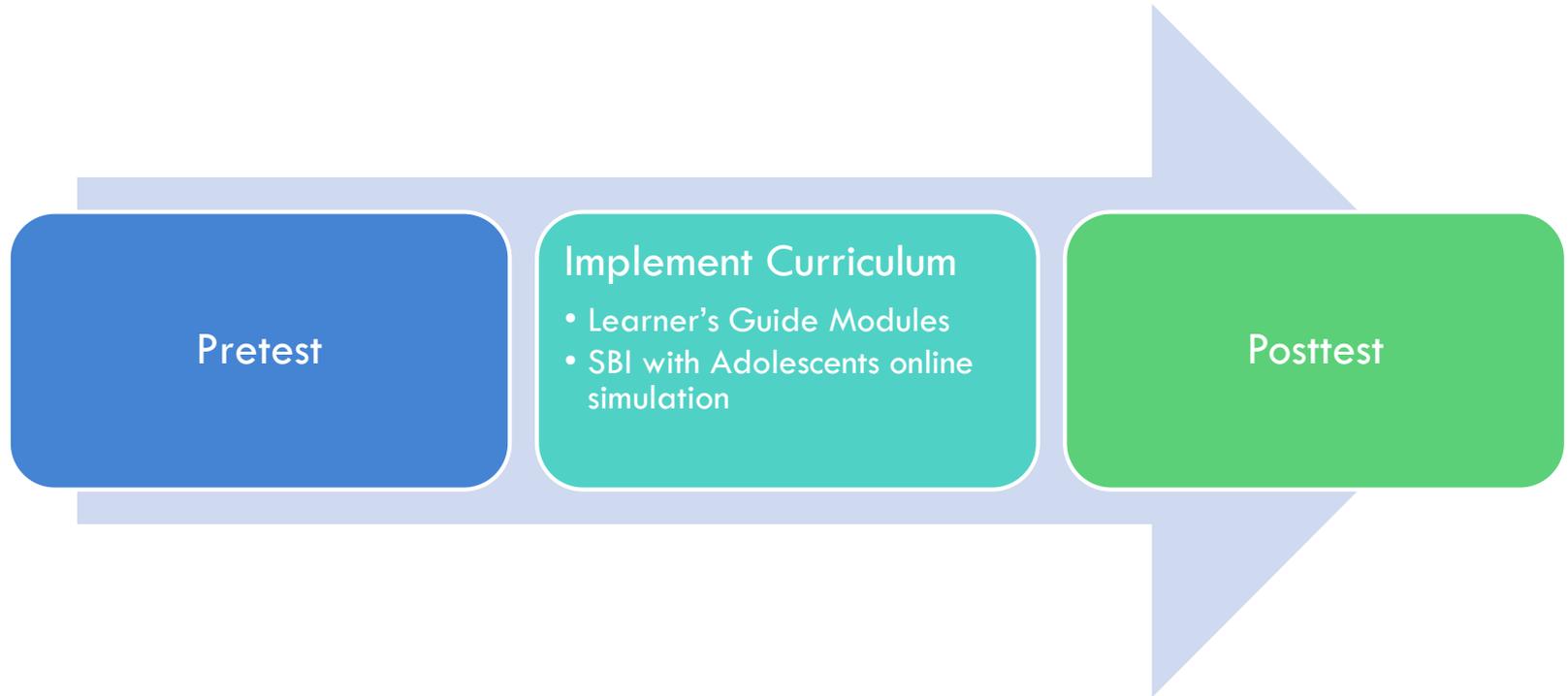
Adolescent SBIRT Curriculum

- Comprehensive Learner's Guide to SBIRT for adolescents and young adults.

- Examines each component of SBIRT and motivational interviewing skills.

- Screening tools, scripted interactions, case studies, and more.

- Sample pre/post evaluation measures, IRB materials, course syllabus.

Access More Information:
http://sbirt.webs.com/curriculum

ADOLESCENT
SBIRT

Learner's Guide to
Adolescent SBIRT

NORC
at the UNIVERSITY of CHICAGO

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at the UNIVERSITY of CHICAGO
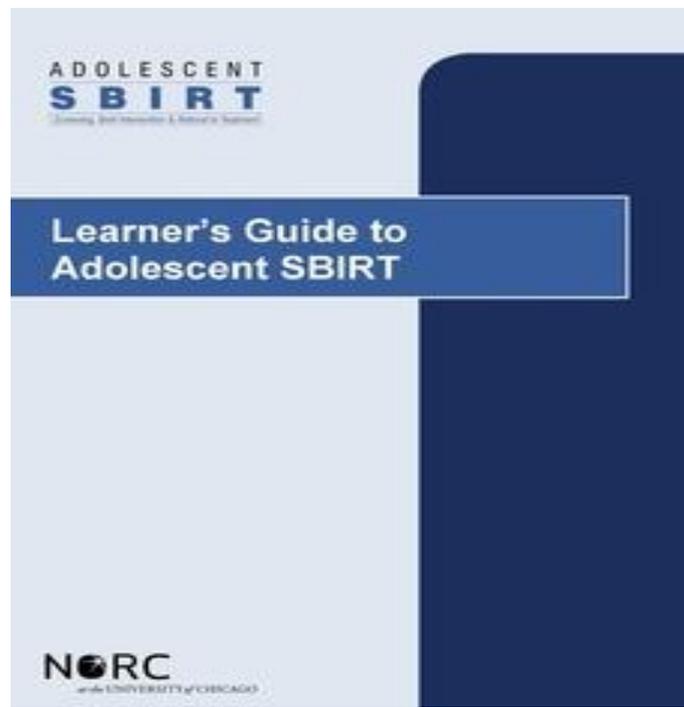
Virtual Simulations

BUILD REAL-LIFE SKILLS IN A VIRTUAL CLINIC

Assume the role of a health professional and talk with three virtual adolescent patients about their substance use. Try different approaches to see what works best.

CONVERSATION MENU

VIRTUAL HEALTH PROFESSIONAL

VIRTUAL PATIENTS

VIRTUAL COACH

TALK

UNDO

EMILY

KAYLA

JOSH

Research Questions

- Is there a significant difference in student attitudes, confidence, competence and readiness to administer adolescent SBIRT after training compared to prior to receiving training?

- Are there any differences by subgroups, e.g., program level?

Sample

- 9 schools of Nursing and Social Work

  - Implementation in Spring 2017

- 181 students participated in the training and took the pre and post tests

  - 34 Inter-professional students

  - 39 Nursing students

  - 108 Social Work students

Sample (cont'd)

- Program: 56% graduate students (MA and PhD)

- Prior Training:

  - Substance Use – 91%

  - SBIRT – 67%

  - Motivational Interviewing – 71%

- 96% of students completed the online simulation training

Past Training by Program Level

Percent of Students with Prior Training by Program Level
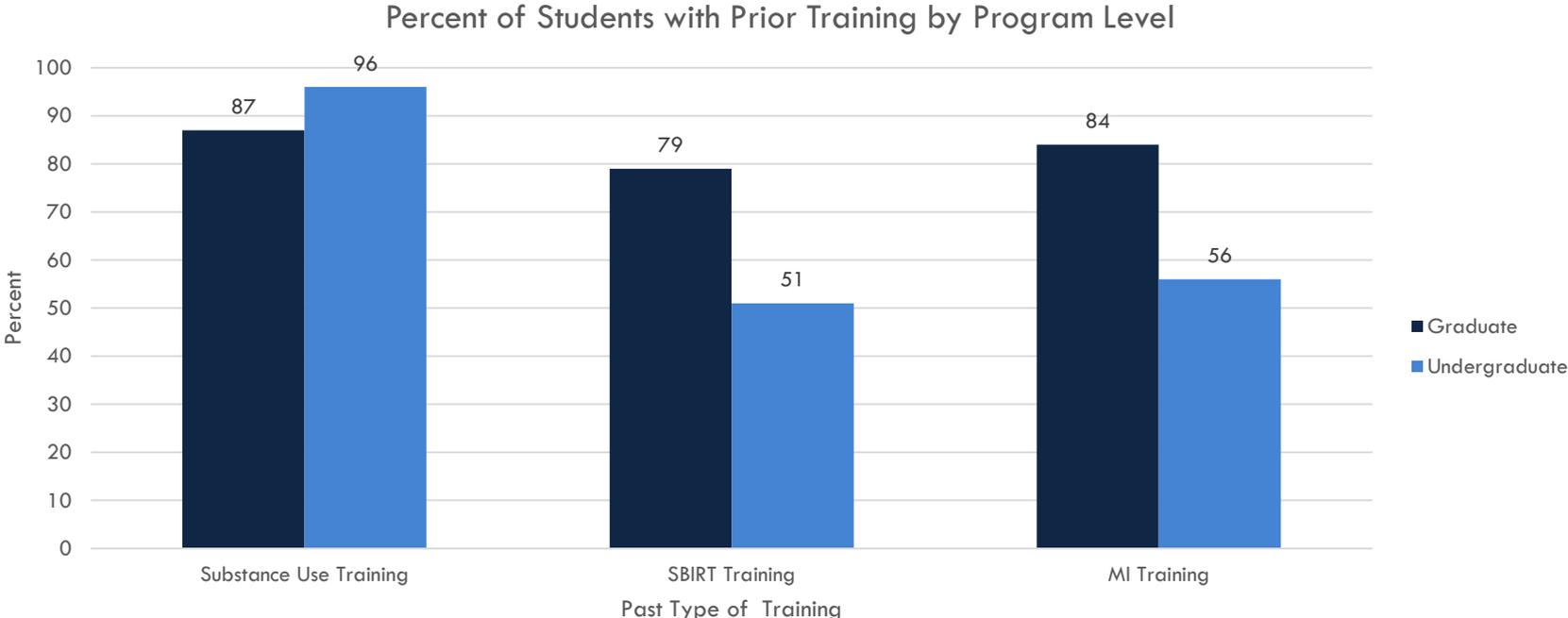
Methods

- Quantitative analysis of effect of the training

    - Compare pre and post scores on outcomes using paired sample t-test

    - Compare subgroups (e.g., undergraduate/graduate, nursing/social work) in pre-post difference on outcomes using independent sample t-test and OLS regression [i.e., regressing pre-post differences on each outcome on independent variables]

- Qualitative analysis of Track C Quarterly Reports

Measures—Attitude

- _Attitudes/beliefs (adaptation of BSAAS items)_ is a scale measured by 7 items as an item average (with negative items reverse coded) with higher value indicating more favorable attitudes (Cronbach's alpha~0.8).

  1. Alcoholism is associated with a weak will.
  2. An alcohol or drug dependent person cannot be helped until he/she has hit rock bottom.
  3. An alcohol or drug addicted person who has relapsed several times probably cannot be treated.
  4. Alcoholism is a treatable illness.
  5. Drug addiction is a treatable illness.
  6. Most alcohol dependent persons are unpleasant to work with as patients/clients.
  7. Most drug dependent persons are unpleasant to work with as patients/clients.

- Scale ranged from 1-5: 1 strongly agree➔5 strongly disagree

Measures—Competence

- For _Competence_ is a scale measured by 17 items as an item average. Higher score indicates stronger perceptions of competence to conduct Adolescent SBIRT using MI skills (Cronbach's alpha~0.9). For example,

  - Asking adolescents about their alcohol and drug use.

  - Asking adolescents about quantity and frequency of alcohol and drug use.

  - Screening adolescents for alcohol and drug problems using a formal standardized screening instrument.

  - Assessing adolescent's readiness to change regarding their alcohol and drug use behavior

  - Discussing/ advising adolescents to reduce or halt their drinking and drug use behavior.

  - Providing personalized feedback to adolescents about their risk associated with drinking and drug use.

  - Tailoring brief interventions to adolescent's motivational level

- 1 not at all competent➔ 4 very competent

Measures—Confidence

- _Confidence in ability to conduct SBIRT_ is a scale measured by 9 items as an item average with higher value indicates more confidence (Cronbach's alpha~0.9).

  1. Reviewing the adolescent's previous substance use-related problems.

  2. Using information gathered about the adolescent's substance use to provide feedback.

  3. Reviewing possible reasons for decreasing substance use with the adolescent.

  4. Asking adolescents if they want to decrease their risk related to substance use.

  5. Helping an adolescent to agree to cut back or accept referral.

  6. Identifying adolescents who misuse prescription medications.

  7. Assessing an adolescent's readiness to change.

  8. Intervening with adolescents who misuse prescription medication.

  9. Expressing empathy and reflecting an adolescent's emotions during a brief intervention for substance use.

- Scale ranged from 0 to 10: 0 not at all confident➔ 10 extremely confident

Measures—Readiness

□ _Readiness to screen and intervene adolescent alcohol and drug use_ is a scale measured by 4 items as an item average with higher value indicates more readiness (Cronbach's alpha~0.9).

1. How ready are you to screen all adolescents for alcohol use?

2. How ready are you to screen all adolescents for illicit drug use or prescription drug misuse?

3. How ready are you to provide brief interventions for adolescents who screen positively for alcohol use?

4. How ready are you to provide brief interventions for adolescents who screen positively for illicit drug use or prescription drug misuse?

□ Scale ranged from 0 to 10: 0 not at all ready➔ 10 extremely ready

Results Overall (Paired Sample T-test)

Attitude

P-value=0.53

4.1913   4.1663

pre   post

Competence

P-value<0.001

2.6187   3.1633
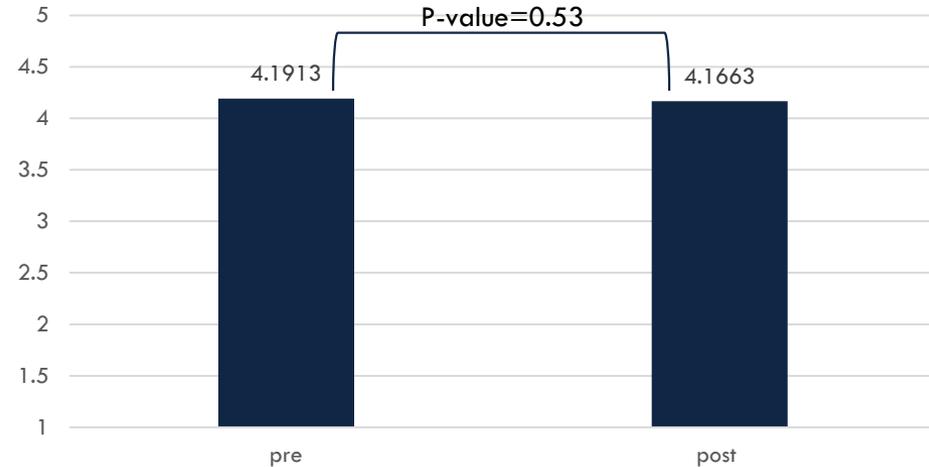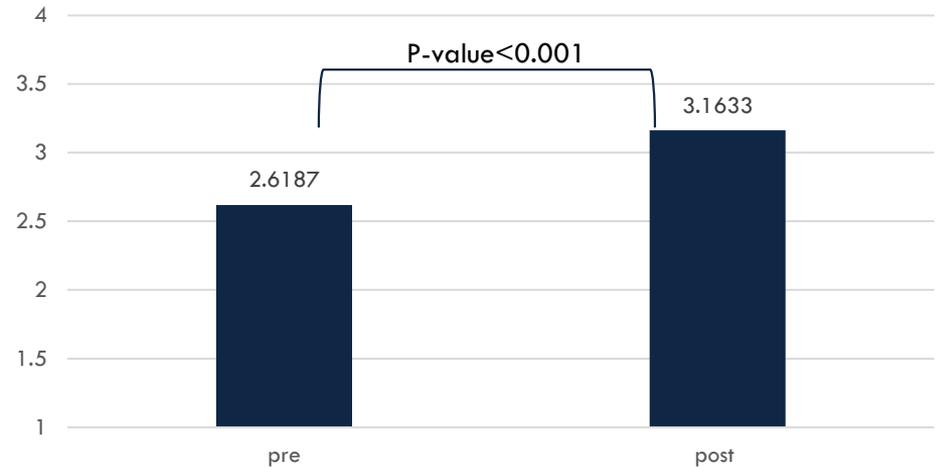
pre   post

Results Overall (Paired Sample T-test)

Confidence

P-value<0.001

6.2605

7.3129

pre

post

Readiness

P-value<0.001

5.2151

7.1797

pre
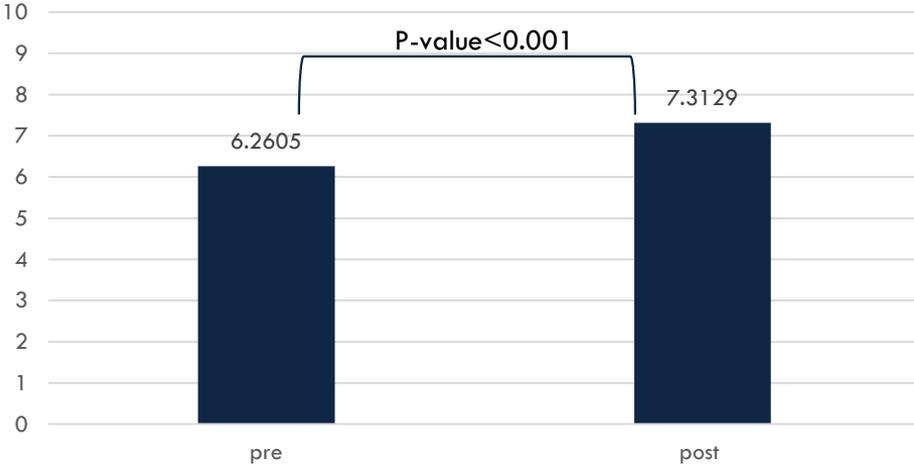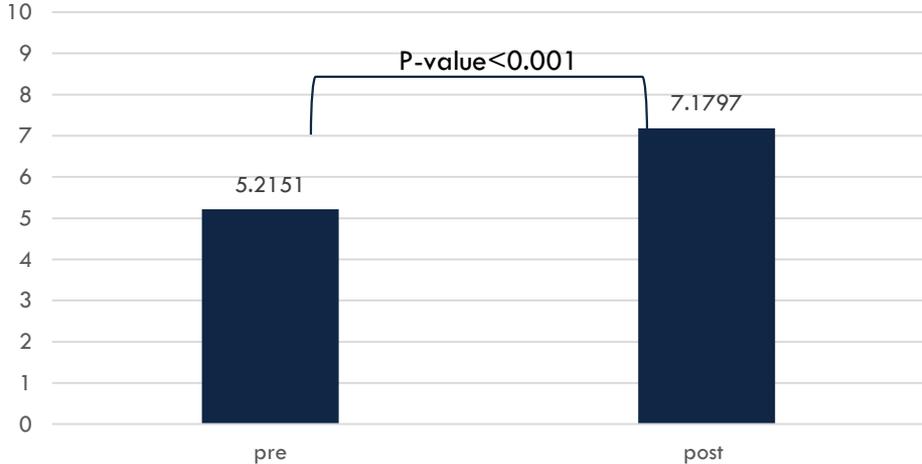
post

Pre-Post scores on each outcome by Subgroup

	Competence (1-4)		Confidence (0-10)		Readiness (0-10)	
	Pre	Post	Pre	Post	Pre	Post
Program level						
Graduate Students	2.55	3.18	6.03	7.23	5.28	7.30
Under-graduate Students	2.73	3.09	6.35	7.29	5.05	6.89
Area						
Nursing	2.62	3.14	6.08	7.10	5.76	7.40
Social work	2.70	3.23	6.48	7.51	5.32	7.39
Inter-Professional	2.45	2.90	5.73	6.88	4.32	6.18
Received SAMHSA funding						
Yes	2.62	3.21	6.35	7.38	5.66	7.25
No	2.65	3.11	6.19	7.24	4.94	7.09

Pre-post scores on each outcome by Subgroup (cont'd)

	Competence (1-4)		Confidence (0-10)		Readiness (0-10)	
	Pre	Post	Pre	Post	Pre	Post
Previous substance use training						
Yes	2.64	3.16	6.26	7.37	5.29	7.23
No	2.56	2.98	5.91	6.32	4.37	6.20
Previous SBIRT Training						
Yes	2.69	3.19	6.39	7.30	5.53	7.25
No	2.56	3.06	6.01	7.26	4.60	6.93
Previous Motivational Interview Training						
Yes	2.65	3.17	6.35	7.28	5.42	7.18
No	2.58	3.10	6.04	7.33	4.71	7.04

OLS Regression Results—DV: Pre-Post Difference

	Competence (post-pre)		Confidence (post-pre)		Readiness (post-pre)	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Nursing*	-0.21	0.35	-0.24	0.70	-0.29	0.69
Inter-professional*	0.03	0.86	0.44	0.39	0.59	0.43
Graduate Students	0.35	0.06	0.57	0.29	0.52	0.41
Substance Use Training	0.18	0.33	1.13	0.13	0.47	0.36
SBIRT Training	-0.03	0.81	-0.37	0.45	-0.63	0.39
Motivational Interview Training	-0.17	0.22	-0.37	0.37	-0.06	0.91
Received SAMHSA grant	0.07	0.70	-0.14	0.73	-0.78	0.21

*Compared to the reference category: social work [Borderline significant at 0.05 level]

Results – Qualitative: MSN Students

- *"I have downloaded and made copies of the SBIRT screening tools for use in my practice as well. I **believe they will be effective** in my industrial location."*

- *"The scenarios were realistic in content and I felt comfortable with the demonstration enough to see that **I could incorporate this type of screening into my work environment…**with screening such as SBIRT at my disposal I have a better chance of identifying those patients with risky alcohol and drug use at an earlier point in the process."*

- *"As beneficial as it may be, with a lack of time I don't feel that I will ever be confident enough to correctly practice motivational interviewing. I feel much more prepared to provide MI, but feel **like I need a lot of practice to feel confident in my interviewing skills**."*

Results – Qualitative: BSW Students

- I thought this assignment was extremely **rewarding** and truly gave us all an insight on what kind of work we may all get into in our futures (depending on what everybody wants to do with their lives).

- Although I've taken a class on interviewing and know the importance of open ended questions, by watching the stimulations on SBIRT made it **more clear** to me on how to conduct a proper interview.

- I currently work with adolescents who have drank and smoked pot on occasion so **the SBIRT practice is going to help me while at work.** I learned that with the proper words and skills you can assist the client's readiness to change just by simply asking them.

- It was informative for me because **I will use it in the future.**

- I really feel like this will **something I will always remember,** whether I'm in school or not.

- **I know I can incorporate all these skills** that I have learned from the simulation and apply them to the real world.

Conclusions

- The implications of these findings suggest that adolescent SBIRT education including simulation-based training can positively affect student outcomes as they prepare to implement adolescent SBIRT in the field.

- The effect of training did <u>not</u> differ significantly by subgroups, e.g., program, area and training level.

Future Directions

- Other outcomes, e.g. knowledge, skills
- Long-term follow up
- For whom the training works the best
  - Past training profiles, e.g. past experience of one type of training versus past experience of all three types
  - Timing of the past training, e.g., during graduate program or during undergraduate programs
- Dosage effect
  - Online simulation training: does the effect of training depend on the percentage of training completed?
  - Classroom training: does the effect of training depend on the length of classroom training?

Thank You

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