Conducting A Needs Assessment - Six Steps to Success

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January 28th, 2022

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Land Acknowledgement

We wish to acknowledge this land on which the University of Toronto operates.

For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit.

Today, this meeting place is still the home to many Indigenous people from across Turtle Island.

We are grateful to have the opportunity to work on this land.

2

Presenter Disclosures

Presenters have NO noted relationships with commercial interest

This program has received NO commercial support

This program has received NO in-kind support

There are NO known conflicts of interest

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Zoom Etiquette 101

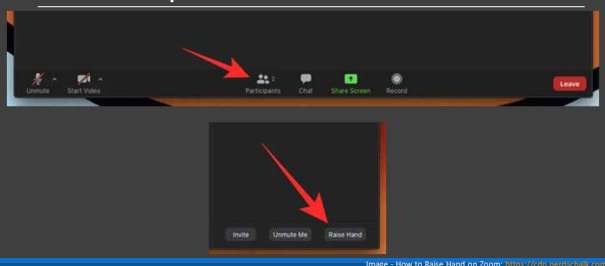

Image - How to Raise Hand on Zoom: https://cdn.nerdschalk.com/wp-content/uploads/2020/04/zoom-raise-hand-pc-1-a.png?width=800 <Accessed Jan 3, 2022>

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Zoom Etiquette 101

Image - How to switch to Gallery View on Zoom: https://elearningevolve.com/blog/zoom-wordpress-plugin-v4-12/ <Accessed Jan 3, 2022>

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Zoom Etiquette 101

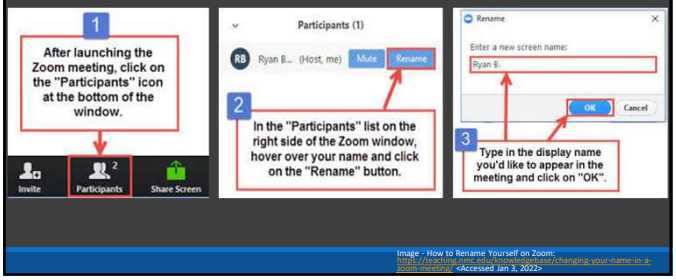

Image - How to Rename Yourself on Zoom: https://teaching.cmu.edu/knowledgebase/changing-your-name-in-a-zoom-meeting/ <Accessed Jan 3, 2022>

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~~Safe Space~~ BRAVE Space

Examples of Brave Space agreements:

1. Listen to understand, then to be understood
2. Address the idea proposed, not the person
3. Respect diverse opinions

Now it's YOUR turn!

Arao B & Clemens K. (2013) From Safe Spaces to Brave Spaces.

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~~Safe Space~~ BRAVE Space - Group Norms

Follow the Mentimeter link in the Zoom Chat or QR Code below!

What helps you speak freely in group settings on Zoom?

Arao B & Clemens K. (2013) From Safe Spaces to Brave Spaces.

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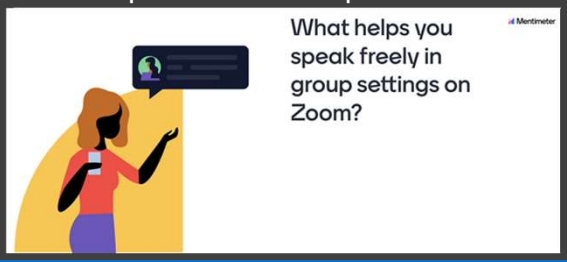
BRAVE Space - Our Group Norms



Arao B & Clemens K. (2013) From Safe Spaces to Brave Spaces.

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Outline for Today

Part 1:
Introduction, terminology, and lingo for needs assessments

Part 2:
Discussion of needs assessment frameworks

BREAK (9:20a - 9:35a)

Part 3:
Smart's 6-step model of conducting a needs assessment

BREAK (10:15a - 10:30a)

Part 4:
Case-based scenario(s)

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Learning Objectives

1. Define terminology involved in needs assessments
2. Identify 3 frameworks for conducting a needs assessment
3. Recognize 6 data-collection methods of a needs assessment
4. Apply Smart's adapted 6-step model to a case-based-scenario in a break-out session

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ZOOM Poll PRE Quiz

What do you know about needs assessments?

Man writing on table image:
https://www.pexels.com/photo/man-writing-on-table-3380743/
<Accessed Jan 3, 2022>

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What is a need?

- "Need" refers to the gap or discrepancy between a present state and a desired state.
- It is neither the present nor the future state

  → it is the gap between them.

Photo by Bruno Figueiredo on Unsplash

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What is a needs assessment?

A method for determining existing "gaps" between current state and desired state to help develop an action plan to reach that desired state or goal.

Current State → How do we get there? → **Future State**

Photo by Sammie Chaffin on Unsplash

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What is a learning need?

Learning Need:

A gap between a learner's current level of knowledge/skills and the level required to perform a task or a set of tasks.

Photo by Ludovic Migneault on Unsplash

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DESIRED LEARNER OUTCOMES	minus	CURRENT LEARNER STATUS	equals	AN EDUCATIONAL NEED
100% of ninth grade students get a passing score on their exams	–	70% of ninth grade students get a passing score on their exams	=	30% of ninth grade students must get a passing score on their exams
What should be		What is		Need

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Purpose of Needs Assessment

- Allocation and redistribution of resources and funding
- Design of programs, policies, and services
- A method of evaluation, prioritization, and planning
- Providing baseline data
- Aids in decision-making

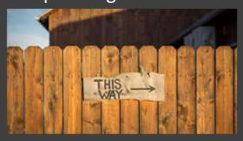

Photo by Jamie Templeton on Unsplash

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Types of Needs

1. Perceived Needs
   "I know what I want and need to know"
1. Unperceived Needs
   "I don't know what I don't know"
1. Misperceived Needs
   "I think I know something I don't"
1. Emergent Needs
   "Now that I have new information, I realize I want/ need to learn something instead of/ in addition to what I'm learning now"

(CEPD. Faculty of Medicine. U of T 2009)

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4 Important Questions

1. Is it relevant to my practice?
1. Is it credible?
1. Is it worth my time?
1. Is it accessible?

(CEPD. Faculty of Medicine. U of T 2009)

Question mark image:
https://www.dreamstime.com/media/1017338/view/single-blue-question-mark-illustration
<accessed Jan 9, 2022>

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Part 4:
Case-based scenario

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Education Cycle

Ghavam-Rassoul and Peranson, INTAPT course, AFGS 2021-22

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Needs Assessment Models

Process	Mapping	Matrix
Witkin and Altschuld's 3 step model/Smart 6 Step Model	Rummler and Brache's Relationship Map	Gilbert's Performance Matrix
Burton and Merril's Four Phase Model	Wedman's Performance Pyramid Model	Authur's performance Evaluation Matrix

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Process example: Witkin and Altschuld's Model

Phase 1 → Phase 2 → Phase 3

Pre-assessment (Exploration)

Assessment (Data Gathering)

Post-assessment (Utilization)

Witkin BR, Altschuld JW, Altschuld J. Planning and conducting needs assessments: A practical guide. Sage; 1995 Sep 7.

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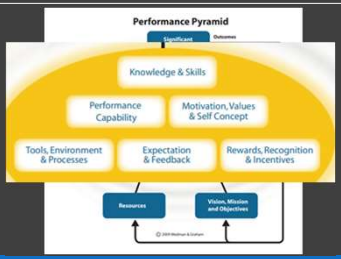
Mapping example: Wedman's Pyramid Model



Wedman J. The performance pyramid. Handbook of Improving Performance in the Workplace: Volumes 1-3. 2009 Nov 18:51-79.

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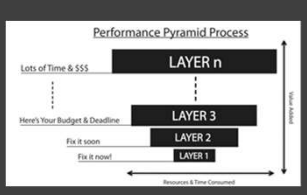
Mapping example: Wedman's Pyramid Model

NOT a sequence of events, a set of inter-related tasks



Wedman J. The performance pyramid. Handbook of Improving Performance in the Workplace: Volumes 1-3. 2009 Nov 18:51-79.

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Matrix Example: Gilbert's Performance Matrix

Process	Information	Instrumentation	Motivation
Environmental	1. Data	2. Instruments	3. Incentives
Worker Behaviours	4. Knowledge	5. Capacity	4. Motives

Gilbert, T. (1978). Human competence: Engineering worthy performance. New York: McGraw-Hill

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Needs Assessment Models

Process	Mapping	Matrix
Pros: Linear process Generalizable, usable in many fields, such as education	Pros: Can identify relationships between different areas Process can be upscaled or downscaled	Pros: Identifies fields and areas for assessment
Cons: Need to identify specific fields requires prior knowledge	Cons: No sequence, set of inter-related tasks	Cons: No sequence model not as flexible
Use: Generalizable	Use: Upper management	Use: Middle Management

Leigh D, Watkins R, Platt WA, Kaufman R. Alternate models of needs assessment: Selecting the right one for your organization (Links to an external site.). Human Resource Development Quarterly. 2000 Mar;11(1):87-93.

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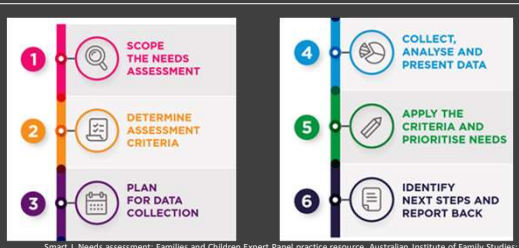
Smart's Model - Adaptation of Witkin and Altschuld



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Pause and Reflect - Group Discussion

Please provide us examples of how you can see Needs Assessments being used in your workplace?

What types of *learning needs* need to be addressed?

Christina Morello, June 22, 2018, Three women in front of desk, retrieved from: https://www.pexels.com/photo/three-women-in-front-of-desk-1181618/

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BREAK-TIME

15 minutes

Caffiend Coffee Mug Image: https://societyb.com/product/yasss1425434_mug <Accessed Jan 3, 2022>

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Step 1 - Scope of a Needs Assessment

Determine the goal of the needs assessment and the method.

Describe the characteristics of population of interest.

This occurs BEFORE beginning the needs assessment.

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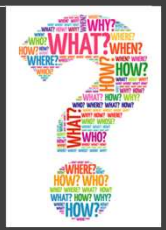
Step 1 - Key Questions to be Asked

A. What is the purpose?
B. Who will use the results?
C. Who and what will be included/excluded from the process?
D. What are the available resources?
E. How will the community be involved?
F. Who will be the decision-makers?



Question mark image:
https://www.skipprichard.com/ask-questions-to-improve-your-leadership/
<Accessed Jan 3, 2022>

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Step 2- Determine Assessment Criteria

Develop meaningful criteria:

About the Issue	About Context and Community	About Agency and Resources
Equity	Other related work	Staff expertise
Long term impact	Public and political support	Managerial support
Feasibility to change	Agency/ regional/ national goals and priorities	Resources required
Severity		Existing programs/ interventions
Frequency		
Intersection with other issues		

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Step 3 - Planning for Data Collection

Conducted to identify and measure the gap in knowledge, attitudes, or skills

They help to anticipate deficiencies based on healthcare needs

Several 'tools' can be utilized to measure the learning need

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Step 3 - Data Collection Methods

Informal Discussions

Advantages:
- Convenient
- Inexpen$ive
- Rich in qualitative information

Disadvantages:
- Lack of methodologic rigor
- Interviewer bias
- Variations in questions asked

Women in Discussion Image:
https://www.pexels.com/photo/women-at-the-meeting-3810798/ <Accessed Jan 3, 2022>

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Step 3 - Data Collection Methods

Focus Group Interviews/Discussions

Advantages:
- Efficient method of 'interviewing'
- Group interaction enriches learning

Disadvantages:
- Requires skilled facilitator
- No quantitative information provided

Focus Group Discussion Image:
https://www.pexels.com/photo/people-discussing-project-in-light-room-7176295/
<Accessed Jan 3, 2022>: Kern, 1998

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Step 3 - Data Collection Methods

Surveys/Questionnaires

Advantages:
- Representative data (with good response rate)
- Useful to assess attitudes and beliefs
- Can be replicated

Disadvantages:
- Requires skilled question development
- Requires time, effort, and pilot testing to ensure methodologic rigor
- Often needs a high response rate

Woman with Questionnaire image:
https://www.pexels.com/photo/crop-woman-writing-on-clipboard-5699432/
<Accessed Jan 3, 2022>: Kern, 1998

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Step 3 - Data Collection Methods

Chart Audits

Advantages:
- Useful for medical record keeping and provision of care
- Assesses real-life performance

Disadvantages:
- Requires known standards for comparison
- Requires time and effort to perform audit
- Incomplete measure of care

Clipboard Image:
https://www.pexels.com/photo/crop-woman-writing-on-clipboard-5699432/
<Accessed Jan 3, 2022>: Kern, 1998

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Step 3 - Data Collection Methods

Standardized Patients

Advantages:
- Best method for assessing skills
- Opportunity for corrective behaviour

Disadvantages:
- Observer bias
- Assesses performance but not necessarily real-life ability

Women in Discussion Image: https://www.pexels.com/photo/person-in-white-dress-shirt-holding-pen-writing-on-white-paper-7678816/ <Accessed Jan 3, 2022> Kern, 1998

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Step 3 - Data Collection Methods

Standardized Testing

Advantages:
- Objective means of assessing cognitive abilities
- Tests of key knowledge items are relatively easy to construct

Disadvantages:
- Requires skill to construct valid tests of skills and high-order cognitive abilities
- Assesses performance, not real-life ability

Man Writing on Table Image: https://www.pexels.com/photo/man-writing-on-table-3380743/ <Accessed Jan 3, 2022> Kern, 1998

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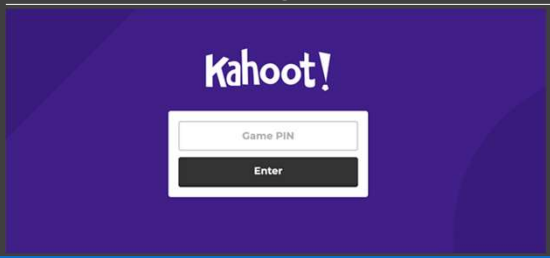
Data Collection Methods - Test Your Knowledge!



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Step 4 - Collect, Analyze and Present Data

1. Collect data
2. Analyze data
3. Identify needs
4. Consolidate needs into groups
5. Present data to decision-makers

Campaign Creators - Unsplash

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Step 5- Apply the Criteria and Prioritise Needs

Meet with decision making group
- steering committee
- stakeholders

Determine decision- making strategy
- rating and ranking
- relative worth
- forced ranking
- delphi
- hanlon
- delbeq

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Step 5- Apply the Criteria and Prioritise Needs

Prioritize needs- Rating and ranking strategy
- review criteria (step 2)
- discuss issues
- rate issues (individually / small groups)
- discuss ratings as a group
- rank issues according to agreed criteria

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Step 6 - Identify next steps and report back

Aims to select interventions to address the issue

Target interventions towards a group/population

Communicate back to stakeholders as to why issues were prioritized

Smart J. Needs assessment: Families and Children Expert Panel practice resource. Australian Institute of Family Studies; 2019 Mar 29.
Photo by Jake Hills on Unsplash

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Temperature Check! - Use Annotate

...COFFEE TIME!

Caffiend Coffee Mug Image: https://societyб.com/product/yasss1425434_mug <Accessed Jan 3, 2022>

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BREAK-TIME

15 minutes

Caffiend Coffee Mug Image: https://societyб.com/product/yasss1425434_mug <Accessed Jan 3, 2022>

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Example Needs Assessment

Nutrition education for Family medicine Residents

Background

30% of adults in Canada have obesity and may require medical support

Education critical in the prevention and management

little nutrition training in medical education (american studies)

Do family medicine residents need more nutrition education during their training?

Photo by an vision- Unsplash

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Recap

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Step 1: Scope the needs assessment

What is the purpose?

- Determining the need for integration of more nutrition education in the Family Medicine Curriculum

Who will use the results?

- Department of Community and Family Medicine (DFCM)
- Family Medicine residents and staff

What are your resources?

- Literature search assessing state of nutrition education in Family Medicine Residency programs
- Family Medicine residents/Staff
- Curriculum development committee

Who will be the decision makers?

- DFCM curriculum development committee (local level)
- CFPC (national level)

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Step 1: Scope the Needs assessment

What are the perceived/ unperceived/ misperceived needs?

Perceived	Unperceived	Misperceived
"I know what I want and need to know"	"I don't know what I don't know"	"I think I know something I don't"

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Step 1: Scope the Needs assessment

What are the perceived/ unperceived/ misperceived needs?

Perceived	Unperceived	Misperceived
Lack of formal teaching Lack of practice with counseling Lack of mentors	need for role modelling Need for more counselling teaching	Adequte nutrition education but not relevant for FMD setting Evidence from the media around fad diets/ dietary advice

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Step 2- Determine Assessment Criteria

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Severity		Existing programs/ interventions
Frequency		
Intersection with other issues		

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Step 2- Determine Assessment Criteria

Equity
- academic vs community sites

Impact
- improving cardiometabolic disease management/ preventative care

Feasibility
- tradeoff of existing curriculum time

Intersection
- SDOH, culturally sensitive counselling

Related work
- American initiatives (ALM, AACGME, NNA)

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Step 2- Determine Assessment Criteria

Public/ political support
- Economic benefit of investing in preventative care

Staff expertise
- Collaboration with allied health (dietitians)

Managerial support
- FM site directors, DFCM program director, CFPC

Resources
- time, funding

Existing programs
- None to date in Canada

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Step 3: Plan for Data Collection
Step 4: Collect Data

Informal discussions
Focus groups interviews
Surveys
Chart audits
Standardized patients
Standardized testing

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Step 3: Plan for Data Collection
Step 4: Collect Data

Informal discussions
Focus groups interviews
-> Surveys <-
Chart audits
Standardized patients
Standardized testing

Woman with Questionnaire mage:
https://www.pexels.com/photo/man-woman-writing-on-clipboard-5699432/
<Accessed Jan 3, 2022>; Kem, 1998

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Step 5: Apply Criteria and Prioritize Needs

Based on the findings of the (hypothetical) *survey* it was determined that:

- Family Medicine Residents only received 1 hour of nutrition training over their 2 year residency program
- Residents encountered opportunities for dietary counselling in 50% of their clinical cases, but only provided counseling 15% of the time
- 90% of residents felt underprepared to provide dietary counseling

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Step 5: Apply Criteria and Prioritize Needs

Decision making strategy

- Rating and Ranking Method

Prioritize needs

- More didactic lectures on topics in nutrition (academic half day, seminars)
- More clinical training in nutrition (working with a dietitian)
- More asynchronous training on topics in nutrition (PBSG modules, online modules)
- More training on strategies for dietary behavioral change (motivational interviewing)

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Step 6: Identify Next Steps and Report Back

Review literature for examples of nutrition curricula for discussion with program director

Select topics/objectives for a proposed nutrition curriculum

Brooke Lark - Unsplash

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Interactive Group Activity

You will have 30 minutes to apply Smart's modified model to perform a needs assessment

Is knowledge of zoom an essential skill for medical education during the pandemic?

Record your answers on the Google Doc (link on Quercus page and in the chat)

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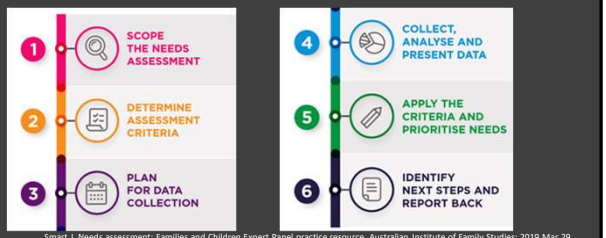
Discussion



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ZOOM Poll POST-Quiz

Man writing on table Image:
https://www.pexels.com/photo/man-writing-on-table-3380743/
<Accessed Jan 3, 2022>

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Take Home Points

- Needs assessments inform and design curricular change
- There are four main types of needs: Perceived, Unperceived, Misperceived and Emergent

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Take Home Points

- Multiple models for needs assessments exist:
  Smart's 6-step model is easily adaptable to medical education
- Data collection methods are the tools to measure the educational gap:
  Informal discussions, focus groups, surveys etc.

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Debrief

Thank you for your participation!

Please fill out our evaluation :)
(link in chat & quercus)

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