

DATA COLLECTION INSTRUMENT

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**Directorate of Advanced Learning
Datta Meghe Institute of Higher Education & Research (Deemed to be University)
Sawangi (M), Wardha**

Research Title: Impact of Self-Directed Learning strategy, an innovative method in nursing undergraduates: A randomized controlled trial.

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Instructions

Thank you for participating in this study. Please read all the instructions carefully and answer as honestly as you can. This questionnaire consists of three sections, please do not leave any questions unanswered. Your cooperation is highly appreciated. All information gathered will be kept confidential.

Section A: Demographic profile of Student

Instruction: Please tick the appropriate answer for the questions below.

1. Age
 - a. ≤17 Years
 - b. 18-23 years
 - c. ≥ 24 years
2. Gender
 - a. Male
 - b. Female
3. Semester
 - a. First
 - b. Third
4. Residence
 - a. With parents
 - b. With relatives
 - c. With friends
 - d. Alone in rented room
 - e. In college hostel
5. Have you ever been exposed to class with game-based learning?
 - a. Yes
 - b. No

Section B: Structured questionnaire for assessing knowledge on antibiotics, antimicrobial resistance and antimicrobial stewardship.

Instruction: Please tick the appropriate answer for the questions below.

1. Which of the following condition should be treated with antibiotics?
 - a. Sore throat
 - b. Community acquired pneumonia
 - c. Allergic rhinitis
 - d. Cold & Flu

2. Prolonged courses of antimicrobials:
 - a. Are more likely to lead to antimicrobial resistance.
 - b. Are the preferred choice for preventing future infections.
 - c. Are needed as prophylaxis for patients undergoing surgical procedures.
 - d. Are needed for all patients with serious infections.

3. Common side effects of antibiotics include all of the following except:
 - a. Diarrhea
 - b. Yeast Infection
 - c. Rash
 - d. Constipation

4. Antimicrobial resistance is:
 - a. The ability of pathogens to multiply under difficult circumstances
 - b. The ability of pathogens to multiply in healthcare environments
 - c. The ability of pathogens to grow in the presence of a drug that would normally kill them
 - d. The ability of pathogens to overcome the human host's immune defenses

5. Which of the following gram-positive bacteria have become a threat and is considered a global pandemic in antibiotic resistance?
 - a. *Staphylococcus aureus*
 - b. *Mycobacterium tuberculosis*
 - c. *Pseudomonas aeruginosa*
 - d. *Candida albicans*

6. Patients with antimicrobial resistant infections:
 - a. Have longer duration of hospitalization than patients with drug-sensitive pathogens and increased healthcare costs.
 - b. Have shorter duration of hospitalization than patients with drug-sensitive pathogens and low healthcare costs.
 - c. Always respond well to first-line antibiotics.
 - d. Require less monitoring and follow-up than patients with non-resistant infections.

7. Antimicrobial resistance in healthcare facilities is spread mainly by:

- a. Environmental contamination
- b. Inadequate hand hygiene by healthcare workers
- c. Patient adherence to prescribed antibiotic regimens
- d. Improper storage of medications

8. Antimicrobial resistance is promoted by:

- a. Completing the full course of antibiotics as prescribed.
- b. Using antibiotics for viral infections, like the common cold.
- c. Practicing good hand hygiene in healthcare settings.
- d. Avoiding antibiotic use for minor infections.

9. Antimicrobial resistance can be prevented by

- a. Prescribing antibiotics at lower doses
- b. Using broad spectrum antibiotics for all infections.
- c. Using antibiotics only when necessary.
- d. Increasing the dosage of antibiotics.

10. Antimicrobial prescription guidelines:

- a. Encourage using the broadest-spectrum antibiotics available for all infections.
- b. Recommend stopping antibiotic treatment as soon as symptoms improve.
- c. Aim to optimize antibiotic selection, dosage, and duration based on infection type.
- d. Give recommendations on which brands of antimicrobials to use.

11. Antimicrobial stewardship programmes:

- a. Focus solely on developing new antibiotics.
- b. Aim to optimize the use of antimicrobials to combat resistance.
- c. Promote the use of antimicrobials as first-line treatment for all infections.
- d. Are primarily concerned with reducing costs associated with antibiotic prescriptions.

12. Goals of antimicrobial stewardship include:

- a. Reducing the duration of antibiotic therapy for all patients.
- b. Minimizing the development of antimicrobial resistance.
- c. Increasing the overall use of broad-spectrum antibiotics.
- d. Ensuring optimal treatment of infections while minimizing adverse effects.

13. Antimicrobial stewardship programmes can save healthcare facilities money by:

- a. Promoting the use of antimicrobials as a first-line treatment for all infections.
- b. Reducing unnecessary antibiotic prescriptions.
- c. Eliminating all antibiotic use in healthcare settings.
- d. Promoting the use of combination therapies for all infections.

14. An ideal antimicrobial stewardship team should be made up of:

- Pharmacists, infectious disease physicians, microbiologists, and infection control specialists.
- Hospital management, a microbiologist and a senior doctor
- Physical therapists, nurses, dietitians, and surgeons.
- Pharmacists, the IPC practitioner and a senior doctor

15. In Antimicrobial stewardship, major role of healthcare professional is to;

- Administer antibiotics without regard to established guidelines.
- Encourage patients to self-medicate when symptoms appear.
- Educate patients about the appropriate use of antibiotics.
- Educate patients about the benefits of over-the-counter antibiotics.

Section C: Self-Directed Learning Instrument (SDLI) for Nursing Students

Instruction: Please read each statement and circle the number that best describes your thoughts and feelings about your own learning. There is no right or wrong answer.

5 = Strongly agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly disagree

1.	I know what I need to learn.	5	4	3	2	1
2.	Regardless of the results or effectiveness of my learning, I still like learning.	5	4	3	2	1
3.	I strongly hope to constantly improve and excel in my learning.	5	4	3	2	1
4.	My successes and failures inspire me to continue learning.	5	4	3	2	1
5.	I enjoy finding answers to questions.	5	4	3	2	1
6.	I will not give up learning because I face some difficulties.	5	4	3	2	1
7.	I can pro-actively establish my learning goals.	5	4	3	2	1
8.	I know what learning strategies are appropriate for me in reaching my learning goals.	5	4	3	2	1
9.	I set the priorities of my learning.	5	4	3	2	1
10.	Whether in the clinical practicum, classroom or on my own, I am able to follow my own plan of learning.	5	4	3	2	1
11.	I am good at arranging and controlling my learning time.	5	4	3	2	1
12.	I know how to find resources for my learning.	5	4	3	2	1
13.	I can connect new knowledge with my own personal experiences.	5	4	3	2	1
14.	I understand the strengths and weakness of my learning.	5	4	3	2	1
15.	I can monitor my learning progress.	5	4	3	2	1
16.	I can evaluate on my own my learning outcomes.	5	4	3	2	1
17.	My interaction with others helps me plan for further learning.	5	4	3	2	1

18.	I would like to learn the language and culture of those whom I frequently interact with.	5	4	3	2	1
19.	I am able to express messages effectively in oral presentations.	5	4	3	2	1
20.	I am able to communicate messages effectively in writing.	5	4	3	2	1

Section D: CAP Perceived Learning Scale

Instruction: Carefully read each statement and then place an X in the appropriate column to the right of each statement to indicate how much you agree with the statement, where lower numbers reflect less agreement and higher numbers reflect more agreement. There is no right or wrong response to each statement and your course grade will not be influenced by how you respond. Do not spend too much time on any one statement but give the response that seems to best describe the extent of your learning. It is important that you respond to all statements.

SN	Using the scale to the right, please respond to each statement below as it specifically relates to your experience in this course.	Very much so						
		0	1	2	3	4	5	6
1.	I can organize course material into a logical structure.							
2.	I cannot produce a course study guide for future students.							
3.	I am able to use physical skills learned in this course outside of class.							
4.	I have changed my attitudes about the course subject matter as a result of this course.							
5.	I can intelligently critique the texts used in this course.							
6.	I feel more self-reliant as the result of the content learned in this course.							
7.	I have not expanded my physical skills as a result of this course.							
8.	I can demonstrate to others the physical skills learned in this course.							
9.	I feel that I am a more sophisticated thinker as a result of this course							

Thank you