

KSA Scale

1. Informed Consent Form

Dear Participant,

Thank you for taking the time to participate in this survey. To evaluate the effectiveness of this innovative educational course, we kindly ask you to complete this questionnaire carefully so that we can better understand your feedback and experiences.

Before you decide whether to participate, we would like to explain the purpose, methodology, content, potential risks, and benefits of this study. Your opinions and suggestions are valuable sources of information for your participation. We sincerely thank you for your support and cooperation.

This project evaluates educational outcomes using the Knowledge–Skills–Attitudes (KSA) model, which assesses participants from three dimensions: **Knowledge**, **Skills**, and **Attitudes**. The KSA assessment system used in this questionnaire was developed through a scoping review and two rounds of expert consultation using the Delphi method. The instrument comprehensively evaluates the effectiveness of the new teaching model across these three domains. A total of 19 indicators were established and assessed using a five-point Likert scale.

The questionnaire includes items regarding your competencies and professional development throughout the course, as well as your self-assessment of psychological attributes. One potential risk associated with participation is the unauthorized disclosure of personal information. To protect your privacy, identifiable information such as student ID numbers will be pseudonymized and replaced with unique study codes prior to analysis. Your real name will not be used in any published or reported data. Data entry and management will be conducted solely through secure computer-based procedures.

If you agree to participate, the confidentiality of your identity will be protected. Any information that could potentially identify you will not be disclosed. When the study results are published, only aggregated group-level findings will be reported; no individual demographic information or personal results will be disclosed.

Participation in this study is entirely voluntary. You may refuse to participate or withdraw from the study at any time without penalty, loss of benefits, or email address will be provided to facilitate communication and to address any questions you may have.

Email address 22pxlin@stu.edu.cn

I have read the above information and have been given the opportunity to ask questions. I understand that participation is voluntary and that I may withdraw at any time without penalty. I confirm that I have received a signed and dated copy of this Informed Consent Form.

After careful consideration, I voluntarily agree to participate in this study.

Participant Signature: _____

Date: _____

(Signed consent forms are stored separately from research data.)”

2. Demographic Information

Please indicate your demographic information by checking (✓) the appropriate box or filling in the blank.

Item	Response
Participant ID	_____
Date of Completion	____ / ____ / ____ (YYYY/MM/DD)
Grade / Class / StudentID	_____
Gender	☐ Male ☐ Female

3. Questionnaire Items

(Please read the following statements carefully, select the answer that best reflects your opinion, and place a check mark (✓) in the corresponding box.)

Through participation in this project, to what extent do you think you have developed or achieved the following outcomes?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Part I Knowledge					
1. Understanding healthcare system	1	2	3	4	5
2. Utilizing medical resources	1	2	3	4	5
3. Mastery of medical English terminology	1	2	3	4	5
4. Acquiring and applying medical knowledge (training clinical reasoning)	1	2	3	4	5
Part II Skills					
5. Application of critical thinking	1	2	3	4	5
6. Ability to use medical English in clinical scenarios	1	2	3	4	5
7. Capacity for systematic collection of patient disease information	1	2	3	4	5
8. Proficiency in selecting laboratory tests	1	2	3	4	5
9. Retrieving, organizing, and analysing medical information	1	2	3	4	5

10. Applying information technology	1	2	3	4	5
11. Structured oral presentation skills for clinical cases	1	2	3	4	5
12. Narrative competence in Narrative Medicine	1	2	3	4	5
13. Leadership	1	2	3	4	5
Part III Attitudes					
14. A1-Empathy-driven awareness of doctor-patient communication	1	2	3	4	5
15. A2-Commitment to patient-centred ethical decision-making	1	2	3	4	5
16. A3-Adherence to teamwork principles	1	2	3	4	5
17. A4-Commitment to lifelong learning	1	2	3	4	5
18. A5-Maintenance of integrity and self-discipline	1	2	3	4	5
19. A6-Maintenance of psychological well-being	1	2	3	4	5