

Supplemental Material

Questionnaire on the scientific research and innovation ability

(2022 Edition)

Dear Students,

You are now taking the Undergraduate Research Innovation Ability Questionnaire conducted by Health Science Center, Ningbo University. The survey is anonymous and the information obtained is for teaching and research purposes only and is strictly confidential. Please choose the appropriate answer according to your actual situation.

----Research group on students' scientific research and innovation ability

2022/12/16

For Undergraduates Only

1. What grade are you in ? ()
 - (A) First-year
 - (B) Second-year
 - (C) Third-year
 - (D) Fourth-year
 - (E) Fifth-year
2. Do you understand the requirements of the Chinese Medical Education Quality Standards for graduates in terms of scientific and academic competence (e.g., basic knowledge of natural sciences, humanities and social sciences, medicine, etc., and mastery of scientific methods, which can be used to guide future study and medical practice; Able to apply common scientific methods to formulate and discuss corresponding scientific questions) ()
 - (A) Understand
 - (B) Do not understand
3. Do you think early scientific training will benefit academic ability ()
 - (A) Yes
 - (B) No

4. Which of the following research capabilities do you think you need (multi-choice) ()

- (A) Reading literature
- (B) Raising problems
- (C) Analyzing problems
- (D) Solving problems
- (E) Writing papers
- (F) Independent research
- (G) Communication skills
- (H) Coordination & balance
- (I) Stress tolerance
- (J) Self-discipline

5. Do you know research ? ()

- (A) Know very well
- (B) Know
- (C) Do not know

6. Are you interested in research ? ()

- (A) Very interested
- (B) Interested
- (C) Not interested

7. Whether research is beneficial to learning ? ()

- (A) Very helpful
- (B) Helpful
- (C) Not sure
- (D) Harmful

8. Are you willing to participate in research ? ()

- (A) Very willing
- (B) Willing

- (C) Generally willing
- (D) Unwilling
- (E) Very unwilling

9. Factors influencing your participation in research ()

- (A) Individual interest
- (B) University recognition
- (C) Enough knowledge
- (D) Faculty advisor
- (E) Research conditions (instruments/equipments, etc.)
- (F) Research projects

10. When did you firstly participate in the research ? ()

- (A) High school or before
- (B) First year of college
- (C) Second year of college
- (D) Third year of college
- (E) Fourth year or above
- (F) Not involved

11. Ways to participate in research (multi-choice) ()

- (A) SRTP
- (B) Contest
- (C) Invention/innovation
- (D) Other
- (E) No

12. Your research projects come from ()

- (A) Advisor funded
- (B) Advisor consulted
- (C) Self-designed
- (D) Other
- (E) No

13. How many research projects you received ()

- (A) 0

(B) 1

(C) 2

(D) ≥ 3

14. The total time you have been engaged in scientific research up to now ()

(A) < 1 m (month)

(B) 1-3 m

(C) 3-6 m

(D) 6-12m

(E) ≥ 12 m

(F) 0

15. Motivations for engaging in research (multi-choice) ()

(A) Personal interest

(B) Innovation credit

(C) Awards/Honors

(D) Graduate entrance

(E) Other

16. Your research objects ()

(A) Purposeful

(B) No specific goal

(C) Purposeless

(D) Hard to say

17. Your advisor's guidance is ()

- (A) Frequently
- (B) Constantly
- (C) Occasionally
- (D) Hardly ever
- (E) Hard to say

18. Your rewards from research (multi-choice) ()

- (A) Increased awareness of medicine
- (B) Improved ability of team cooperation
- (C) Increased independence of research
- (D) Recognized individual limitations
- (E) Gained friendship
- (F) No gains
- (G) Hard to say

19. The research hardware conditions are ()

- (A) Good
- (B) Fair
- (C) Poor
- (D) Hard to say

20. The research cultural conditions are ()

- (A) Good
- (B) Fair
- (C) Poor
- (D) Hard to say

21. Up to now, do you have research achievements (papers/patents/awards)? ()

- (A) First author-
- (B) Non-first author-
- (C) First author - in preparation
- (D) Non-first author- in preparation
- (E) None of above

22. Overall satisfaction on your research experience ()

- (A) Very satisfied
- (B) Satisfied
- (C) Average
- (D) Dissatisfied
- (E) Very dissatisfied
- (F) Hard to say

23. What are your suggestions for undergraduate scientific research?

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2022/12/16

For Postgraduates Only

1. What grade are you in ? ()

(A) First-year

(B) Second-year

(C) Third-year
2. Your cultivation type is ()

(A) Academic

(B) Professional
3. Do you know research ? ()

(A) Know very well

(B) Know

(C) Do not know
4. Are you interested in research ? ()

(A) Very interested

(B) Interested

(C) Not interested

5. Which of the following research capabilities do you think you need (multi-choice) ()

(A) Reading literature

(B) Raising problems

(C) Analyzing problems

(D) Solving problems

(E) Writing papers

(F) Independent research

(G) Communication skills

(H) Coordination & balance

(I) Stress tolerance

(J) Self-discipline

6. Which of the following research capabilities do you think you have (multi-choice) ()

(A) Reading literature

(B) Raising problems

(C) Analyzing problems

(D) Solving problems

(E) Writing papers

(F) Independent research

(G) Communication skills

(H) Coordination & balance

(I) Stress tolerance

(J) Self-discipline

7. Have you engaged in research during your college life ? ()

(A) Yes

(B) No

8. When did you firstly participate in the research ? ()

(A) First/second year of undergraduates

(B) Third to fifth year of undergraduates

(C) First year of postgraduates

(D) Second year of postgraduates

(E) Third year of postgraduates

(F) Not involved

9. Your research projects come from ()

(A) Advisor funded

(B) Advisor consulted

(C) Self-designed

(D) Other

10. Your research objects ()

(A) Purposeful

(B) No specific goal

(C) Purposeless

(D) Hard to say

11. Your advisor's guidance is ()

- (A) Frequently
- (B) Constantly
- (C) Occasionally
- (D) Hardly ever

12. The Most important Factor influencing your achievements ()

- (A) Advisor' ability
- (B) Lab conditions
- (C) Personal efforts
- (D) Other

13. The greatest difficulty you have encountered in scientific research is ()

- (A) Unfamiliar with project
- (B) Insufficient guidance
- (C) Inadequate lab conditions
- (D) Unqualified advisors
- (E) Unbalance of work and life
- (F) Other

14. Your rewards from research (multi-choice) ()

- (A) Increased awareness of medicine
- (B) Improved ability of team cooperation
- (C) Increased independence of research
- (D) Recognized individual limitations
- (E) Gained friendship

(F) No gains

(G) Hard to say

15. Your advisor's level is ()

(A) High

(B) Medium

(C) Low

(D) Hard to say

16. The research hardware conditions are ()

(A) Good

(B) Fair

(C) Poor

(D) Hard to say

17. The research cultural conditions are ()

(A) Good

(B) Fair

(C) Poor

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18. Up to now, do you have research achievements (papers/patents/awards)? ()

(A) First author-

(B) Non-first author-

(C) First author - in preparation

(D) Non-first author- in preparation

(E) None of above

19. Overall satisfaction on your research situation ()

(A) Very satisfied

(B) Satisfied

(C) Average

(D) Dissatisfied

(E) Very dissatisfied

(F) Hard to say

20. What are your suggestions for postgraduate scientific research? ()