

Semi-structured Interview

Demographic information

1. Could you please provide the following information about your experience in the industry:

- Number of years in the industry.
- Types of projects you are currently involved in.
- Job roles you have held.
- Types of companies you have worked for.
- Have you ever used personas in your software projects?

Interview questions:

Advantages and Disadvantages:

Could you list the advantages of using personas in requirements engineering?

What are the potential disadvantages or limitations of employing personas in this context?

Influence on Quality & Software Phases:

How do personas contribute to enhancing the quality of user needs?

Can you elaborate on how the use of personas can impact the software design and development phases?

Value and Applicability:

If you have experience using personas, could you shed light on their value in software development and requirements collection? Alternatively, if you haven't utilized them, could you provide insights into why they might not be favored, especially in small and medium-sized Internet companies?

Integration in RE Phases:

In which requirements engineering phases do you believe personas can be most effectively integrated? For instance, are they more useful in requirement elicitation, requirements analysis, or other phases?

Future Prospects:

Based on your experience and insights, what suggestions would you offer for the future direction of persona utilization in requirements engineering?

Additional Comments:

Do you have any other comments or insights regarding the use of personas in the software development lifecycle?

Practitioner Survey

Demographics:

1. Are you familiar with user personas? [Select one that applies]
 - Yes
 - No
2. Where is your company?. [Select one that applies]
 - Australia
 - U.S.
 - U.K.
 - China
 - Other Country
2. The size of your company? [Select one that applies]
 - Large company
 - Small & Middle company
 - Startup
 - 45 and above
3. What is your role in the company? [Select one that applies]
 - UI/UX designer
 - Software developer
 - Business analyst
 - IT project manager
 - User researcher
4. Total experience in the industry. [Select one that applies]
 - Less than 1 year
 - 1-4 years
 - 5-9 years
 - 10-14 years
 - More than 15 years
5. How often does your department or company use personas in software projects? [5-point Likert scale, Never, Rarely, Sometimes, Often, Always]
6. In your company, which departments have been using personas in software projects? [Select more that apply]
 - Technical department
 - Design department
 - Product department
 - User research department
 - Other department
7. How often use persona in software projects by yourself? [5-point Likert scale, Never, Rarely,

Sometimes, Often, Always]

8. In the software project, who participated in the development of the persona? [Select more that apply]

- UI/UX designer
- Software developer
- Business analyst
- IT project manager
- User researcher
- Others

Main questions

9. Personas should be appropriately employed for all types of software projects (e.g., to Business Projects). [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

10. Personas should be appropriately employed for all types of software projects (e.g., to Customer Projects). [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

11. Personas should be appropriately employed for all types of software projects (e.g., to Government Projects). [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

12. Personas should be appropriately employed for all types of software projects (e.g., to VR/AR/MR or Video games projects). [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

13. Personas can be better descriptions and summations of the user requirements in software projects. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

14. Persona is a key tool to define the human factors or information of human aspects in software projects. - A key tool. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

individual-related human aspects

15. In the process of creating user personas, personality is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

16. In the process of creating user personas, emotion is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

17. In the process of creating user personas, motivation is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

agree]

18. In the process of creating user personas, human value is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

19. In the process of creating user personas, culture is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

20. In the process of creating user personas, gender is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

21. In the process of creating user personas, attitude is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

22. In the process of creating user personas, the physical issue is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

23. In the process of creating user personas, age is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

24. In the process of creating user personas, adaptation/negotiation is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

technical-related human aspects

25. In the process of creating user personas, task workload is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

26. In the process of creating user personas, domain knowledge is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

27. In the process of creating user personas, accessibility is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

28. In the process of creating user personas, human Error is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

29. In the process of creating user personas, human error is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

team-related human aspects

30. In the process of creating user personas, communication issue is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

31. In the process of creating user personas, geographical dist/time zone is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

32. In the process of creating user personas, knowledge sharing is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

33. In the process of creating user personas, team maturity is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

34. In the process of creating user personas, self-management is often considered. [5-point Likert scale, Strongly disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Strongly agree]

34. Have you encountered the following challenges when using user personas? [Select more that apply]

- Lack of time and costs
- Insufficient professional knowledge
- Not meaningful for VR and gaming
- Not meaningful for startups
- Not priority
- Increase ambiguity requirements
- Data privacy issues
- Low accuracy and authenticity
- Difficult creation for special user / needs

36. In your company. Is there a data-driven persona platform? [Select one that applies]

- Yes
- No

37. In your company, which method of user needs analysis is predominant? [Select more that apply]

- Quantitative/qualitative analysis method
- Data visualization techniques
- Machine learning/data mining or other data analytics techniques