Analysis of Collaborative Elements in Temporary Teams Based on the Interview Method

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Abstract: As a primary organizational form in the flexible labor market and agile organizations, temporary teams have become a widely adopted team type. This study employed literature analysis and expert surveys to design the "Interview Outline for Research on Temporary Team Collaboration Mechanisms", which was further optimized using AI tools to form the final interview protocol. Through purposive sampling, six interviewees with extensive experience in temporary teamwork were selected for pyramid-style in-depth interviews. The collaboration processes of temporary teams were examined from the perspectives of both team members and managers. The collected interview records were quantitatively analyzed, ultimately identifying five primary elements and 26 secondary elements in the collaboration process of temporary teams. The findings provide a reference for developing questionnaires in subsequent empirical research and offer insights for managers of temporary teams.

**Keywords:** Interview method; Temporary teams; Collaboration process; Quantitative analysis

1. Introduction

According to statistics from QYResearch, the global flexible employment market is projected to reach $3.9 trillion by 2025, with an annual compound growth rate of approximately 14% [1]. As the primary organizational form in the flexible employment market, the number of temporary teams has grown rapidly in recent years. Concurrently, the application scenarios of temporary teams have expanded. Both large-scale group corporations and small-to-medium-sized enterprises are increasingly adopting temporary teams to undertake tasks such as project development and technological innovation, aiming to adapt to complex and dynamic market environments and achieve agile management. Consequently, understanding the collaborative processes of temporary teams and optimizing their collaboration models has become particularly important. This paper primarily employs in-depth interviews with members of temporary teams to explore key stages and critical factors in the operation of such teams. The findings aim to support subsequent empirical research and provide recommendations for the management of temporary teams.

2. Research design

This study aims to comprehensively utilize methods such as literature analysis, the Delphi method, and AI-aided techniques to design an interview protocol. Semi-structured interviews, behavioral event interviews, and pyramid-style interviews were conducted to carry out in-depth interviews. The collected interview records were then systematically organized and quantitatively analyzed to extract key elements in the collaborative process of temporary teams. The findings are intended to support the construction of theoretical models and the design of questionnaires for subsequent empirical research. The specific research technical roadmap is illustrated in **Figure 1**.
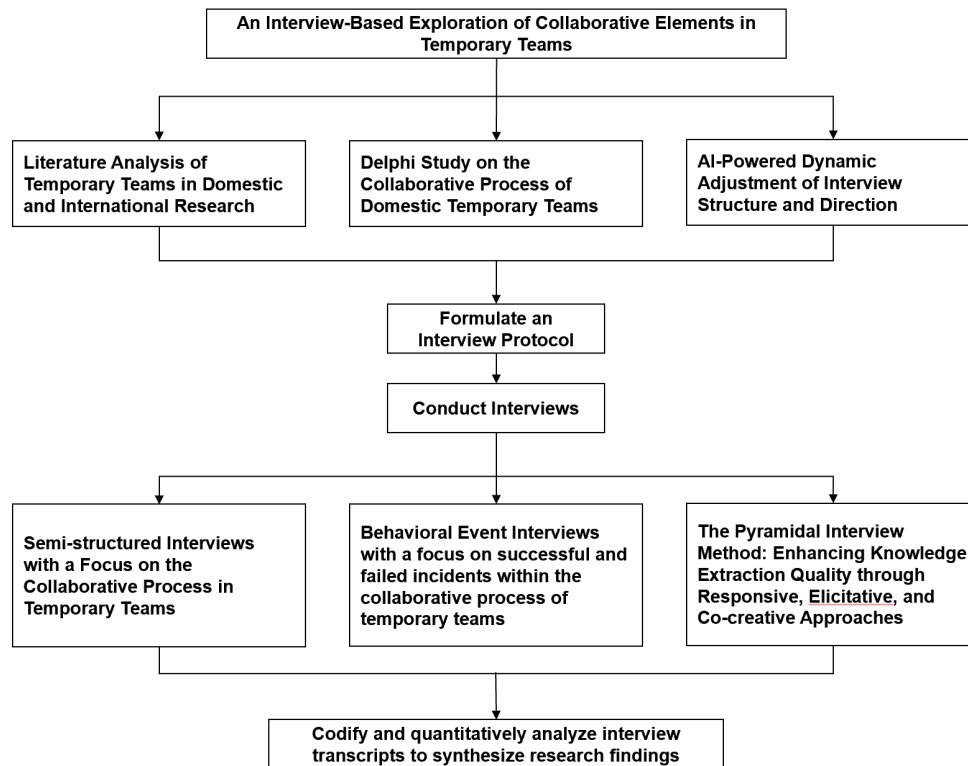
Figure 1. Technical route of the research

2.1. Research methods and tools

In the process of designing the interview protocol, this study first developed a preliminary draft based on existing literature and research findings related to temporary teams, incorporating the STAR principle. The draft was then sent via email to experts in relevant research fields for consultation and feedback. Based on the experts' suggestions for revision, the interview protocol was further optimized using the AI tool Deepseek, ultimately forming the *Interview Protocol for Research on Temporary Team Collaboration Mechanisms*. The STAR principle is a commonly used method in behavioral event interviews, where:

    S (Situation) refers to the specific context in which the event occurred,

    T (Task) pertains to the tasks and what actually happened at the time, including how the interviewee addressed them,

    A (Action) describes the actions taken by the interviewee in response to the situation, including their role and approach,

    R (Result) focuses on the outcomes of the event [2].

Interview questions designed following the STAR principle enable respondents to recall their behaviors and feelings during the event as accurately as possible, thereby enhancing the quality of knowledge extraction.

During the implementation of the interviews, this study conducted one-on-one online video interviews with respondents via Tencent Meeting. Tencent Meeting offers real-time transcription functionality, which automatically generates interview texts with high accuracy. Additionally, its built-in AI tools can simultaneously analyze ongoing interview content, helping interviewers identify gaps and adjust their questioning direction promptly, thereby further improving the comprehensiveness and systematicity of the interviews. During the interviews, the interviewer primarily adopted the pyramid-style interview strategy proposed by Wei Jun and He Yani. This strategy integrates three questioning approaches: responsive interviewing, stimulating guidance, and co-creative construction. Based on the interview protocol, semi-structured interviews and behavioral event interviews were conducted. The pyramid-style interview strategy is characterized by its goal of extracting comprehensive knowledge through multi-dimensional questioning, efficiently uncovering tacit knowledge. This approach effectively addresses challenges such as respondents' reluctance to share, interviewers' lack of expertise, and difficulties in judging the value of content, thereby enhancing the quality of knowledge extraction [3].

In the process of organizing and analyzing interview records, this study primarily used the qualitative analysis software NVivo 12.0 to conduct word frequency statistics on the coded interview text data. This facilitated the extraction of key elements in the collaborative process of temporary teams and supported the drawing of conclusions.

2.2. Research sample

The research subjects of this study are members of project-based temporary teams. Considering the representativeness of the subjects and the operational feasibility of the research, a purposive sampling method—commonly used in qualitative research—was adopted for sample selection. This method involves selecting research subjects who can provide the most information relevant to the research questions based on the study's objectives [4]. A total of six participants were selected for in-depth interviews. **Table 1** provides the basic information about the interviewees.

Table 1. Basic information of the interviewees

No.	Sample ID	Gender	Age	Education	City	Years of Work Experience	Temporary Team Work Experience (Years)	Role/Tasks Undertaken in the Team
1	A	Female	35	Master's Degree	Zhuhai	10	8	Temporary Team Manager, Project Management, Documentation
2	B	Male	38	Doctoral Degree	Wuhan	8	5	Data Analysis, Documentation
3	C	Female	30	Master's Degree	Shenzhen	4	3	Research Analysis, Management Consulting
4	D	Female	28	Bachelor's Degree	Beijing	5	5	Visual Design, Video Editing
5	E	Male	33	Master's Degree	Guangzhou	8	4	Project Management, Requirements Communication
6	F	Male	25	Bachelor's Degree	Shanghai	2	2	Visual Design

3. Research process

3.1. Design of the interview protocol

Keywords such as "临时团队" (temporary teams), "temporary teams", and "团队协作" (team collaboration) were searched on CNKI. A total of 75 Chinese and 43 foreign language literature sources were collected. Relevant literature was then reviewed and analyzed. Based on this analysis and incorporating the STAR principle from the behavioral event interview method, a draft interview protocol was designed. This draft was subsequently revised based on expert feedback and optimized using AI tools, resulting in the finalized *Interview Protocol for Research on Temporary Team Collaboration Mechanisms*. This protocol primarily consists of six sections: Pre-interview Introduction, Background and Formation of the Temporary Team, Collaboration Process and Interactions within the Temporary Team, Support and Challenges for the Temporary Team, Team Effectiveness and Reflection, and Closing Remarks. The structure is outlined in **Table 2**.

Table 2. Interview protocol for research on temporary team collaboration mechanisms

Module	Purpose	Specific Questions
Part I: Pre-Interview Introduction	To introduce oneself, explain the research purpose, obtain consent for recording, help the interviewee settle into the interview, and establish trust.	Hello, I am conducting a study on collaborative elements within temporary teams. This interview aims to gain an in-depth understanding of your collaborative experience in a past temporary team, with the goal of identifying key factors for enhancing team effectiveness. The interview content will be kept strictly confidential and used solely for academic purposes. This interview is expected to take 60-100 minutes. To facilitate subsequent analysis, I would like to audio-record our conversation and will also take notes. Do you consent to this? First, please briefly recall a recent temporary team you participated in that left a strong impression on you (e.g., a short-term project group, an emergency response team, a cross-departmental task force, etc.). We will use this team as a specific case for our discussion.
Part II: Background and Formation of the Temporary Team	To understand the basic context, objectives, and composition of the temporary team, establishing the interview backdrop.	1. Please briefly describe the basic situation of this temporary team: What was the team's main task or objective? Approximately how many members were there? From which departments or backgrounds did the members come? What was the team's lifespan? 2. How did you join this team? What role did you play within it? 3. At the initial formation stage, was there a clear kick-off meeting or goal presentation? In your opinion, was the team's goal clear and consistent for all members?
Part III: Collaboration Process and Interactions within the Temporary Team	To delve into the specific collaborative behaviors, communication methods, decision-making, and conflict resolution mechanisms during the team's operation.	1. What were the primary communication methods within the team? (e.g., daily stand-ups, WeChat groups, email, project management tools, etc.) 2. Did you find the flow of information within the team to be smooth? Were there information barriers or delays? 3. Did team members proactively and promptly share work progress, encountered problems, and newly acquired knowledge? 4. Were the roles and responsibilities of team members clearly defined? Were they assigned beforehand or did they evolve during the process? 5. In a rapidly formed team, how did members quickly establish trust? What incidents facilitated or hindered the building of trust? 6. How did the team typically make key decisions? (e.g., leader's decision, democratic voting, expert opinion-driven?) 7. When disagreements arose, how did the team usually handle them? Could you provide a specific example? 8. During collaboration, did any task-related or interpersonal conflicts occur? How did the team respond to and resolve them? 9. Do you think the approach taken was effective?
Part IV: Support and Challenges for the Temporary Team	To understand the internal and external factors influencing the team's collaboration, as well as its adaptability and response capabilities.	1. Did the team receive sufficient time, budget, technical tools, and support from senior leadership? 2. Which tools or resources do you think were most helpful for the team's collaboration? 3. Looking back on the entire process, what do you consider was the biggest challenge the team faced? (e.g., unclear goals, time pressure, team integration, insufficient resources, remote collaboration, etc.) 4. How did the team overcome these challenges? 5. Did the team have a clear leader or coordinator? What role did he/she primarily play? 6. In your opinion, what constitutes effective leadership within a temporary team?

Table 2 (Continued)

Module	Purpose	Specific Questions
Part V: Team Effectiveness and Reflection	To assess the final outcomes of the temporary team and extract lessons learned and suggestions for improvement.	1. How do you evaluate the team's final outcome? (Were the preset goals achieved? What was the quality like?) 2. What was your single biggest personal takeaway from this experience? 3. Based on your firsthand experience, what do you believe are the three most critical elements for successful collaboration in a temporary team? 4. If you were to participate in a similar temporary team in the future, what changes would you make in your collaborative approach? Or, what suggestions do you have for the organization in forming temporary teams?
Part VI: Interview Conclusion	To ask follow-up questions based on the interviewee's responses and express gratitude.	1. Have I missed any details or perspectives that you consider very important? 2. Thank you very much for taking valuable time out of your busy schedule to share your insightful experiences. Your input is of great value to my research! Thank you again!

3.2. Formal interviews

Following the aforementioned *Interview Protocol for Research on Temporary Team Collaboration Mechanisms*, this study conducted one-on-one in-depth interviews with the six respondents via online video calls. The duration of each interview was generally controlled between 60 and 100 minutes. During the interviews, the sequence and wording of questions were flexibly adjusted based on the respondents' answers, with in-depth follow-up questions posed as needed. Upon completion of each interview, the content was promptly transcribed. The transcripts and notes were then compiled into written manuscripts in a timely manner to facilitate subsequent coding and analysis. Specific details of the interview data are presented in **Table 3** [5].

Table 3. Statistics of interview data

No.	Sample ID	Gender	Transcript ID	Interview Duration (Minutes)	Transcript Word Count
1	A	Female	A-1	98	26,084
2	B	Male	B-2	84	22,169
3	C	Female	C-3	71	15,432
4	D	Female	D-4	88	22,359
5	E	Male	E-5	82	21,987
6	F	Male	F-6	62	15,688
Total				485	123,719

4. Research findings

The interviews totaled 485 minutes, yielding 123,700 words of transcribed textual data after transcription. The interview transcripts were imported into the qualitative coding software NVivo 12. Following a thematic coding paradigm, each transcript underwent a three-level coding process consisting of open coding, axial coding, and selective coding. A theoretical saturation test was subsequently conducted. Furthermore, NVivo 12.0 was utilized to perform word frequency analysis on the coded interview text data, calculating the frequency of words for each coding node [5]. The detailed results are presented in **Table 4** [6].

Table 4. Keywords and total frequency statistics of collaborative elements in temporary teams

No.	Open Coding	Text Segments	References
1	Goal Clarity	16	92
2	Information Transparency	15	86
3	Role Clarity	14	83
4	Goal Achievement Level	14	81
5	Task Specificity	13	78
6	Communication Frequency	13	76
7	Communication Channel	12	73
8	Feedback Timeliness	12	71
9	Leadership	11	70
10	Decision-making Mechanism	11	68
11	Trust Building	11	66
12	Tools & Technology	11	65
13	Adaptability / Agility	10	62
14	Coordination Mechanism	10	59
15	Member Satisfaction	10	58
16	Psychological Safety	9	55
17	Conflict Management	9	51
18	Resource Support	8	48
19	Knowledge Sharing	8	45
20	Launch Effectiveness	7	42
21	Process Standardization	6	40
22	Cohesion	5	36
23	External Support	4	30
24	Mutual Assistance	4	27
25	Individual Growth	4	26
26	Team Efficacy	1	10

Finally, content analysis was employed to quantitatively summarize the interview content. Repetitive or semantically similar indicators were consolidated, resulting in the extraction of five dimensions (primary indicators): "Team Leadership", "Team Communication", "Transactive Memory System", "Incentive Mechanism", and "Team Trust", along with 26 secondary elements, as illustrated in **Table 5** [7–9].

Table 5. Classification of collaborative elements in temporary teams

Primary Dimension	Collaborative Elements
Team Leadership	Goal Clarity, Role Clarity, Goal Achievement Level, Task Specificity, Leadership, Decision-making Mechanism, Adaptability / Agility, Coordination Mechanism, Process Standardization, External Support
Team Communication	Information Transparency, Communication Frequency, Communication Channel, Feedback Timeliness, Tools & Technology, Conflict Management
Transactive Memory System	Knowledge Sharing, Resource Support, Launch Effectiveness
Incentive Mechanism	Member Satisfaction, Psychological Safety, Individual Growth, Team Efficacy
Team Trust	Trust Building, Cohesion, Mutual Assistance

5. Conclusion

This study finds that, compared to formal teams or virtual teams, temporary teams exhibit strong similarities in the division of team life cycle stages. However, their collaboration process possesses distinct characteristics that significantly differ from other team types, such as variations in the duration and relative importance of each life cycle stage [10–11]. For temporary teams, the team formation phase is particularly critical, as it directly impacts the smoothness of subsequent collaboration and the achievement of team objectives. Temporary teams also place higher demands on team leadership. Key managerial tasks, including rational role allocation, appropriate member selection, task clarification, fair incentive mechanisms, and external communication, primarily need to be accomplished during the team formation period [12–13].

Based on in-depth interviews, this study systematically identifies and analyzes the elements of the collaboration process within temporary teams, providing a preliminary exploration of their collaboration mechanisms. Future research will involve developing a questionnaire based on the five primary and 26 secondary elements identified above, followed by empirical studies on the collaboration mechanisms of temporary teams. The aim is to offer practical recommendations for the effective management of such teams [14–15].

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Disclosure statement

The authors declare no conflict of interest.

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