



Impact of multimodal task-based teaching method on group collaborative learning skills : Qualitative research based on semi-structured interviews with students

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ABSTRACT: The aim of this study is to explore the impact of multimodal task teaching on the group collaborative learning ability of vocational college students. In quasi-experimental research, qualitative data of experimental group students were collected through semi-structured interviews. Researchers selected 10 representative student respondents through simple random sampling to analyze their impact on group collaboration ability in multimodal task teaching. The results show that multimodal task teaching can significantly promote students' group collaborative learning ability, manifested in enhancing communication efficiency, optimizing role division, and improving collective problem-solving ability.

KEYWORDS: Multimodal task teaching, Group collaborative learning skills, Semi-structured interviews.

I. INTRODUCTION

Multimodal task teaching combines multimodal teaching resources (such as text, images, audio, video, actions, etc.) with Task Based Language Teaching (TBLT). It emphasizes that in the process of completing specific tasks, students acquire, process, and output information through multiple sensory channels and symbol systems, thereby more efficiently mastering knowledge or skills.

Multimodal task teaching has been applied in the field of education, but there is still a significant lack of research on its promotion of group collaborative learning skills in vocational English teaching. To fill this research gap, this study adopts a quasi-experimental research method and takes a vocational college in China as the research object to systematically explore the impact of

multimodal task-based teaching method on students' group collaborative learning ability.

II. INTERVIEW RESEARCH DESIGN

During the quasi-experimental research, after a 14 week teaching intervention, semi-structured interviews were conducted with students in the experimental group. Through student interviews, explore how multimodal task-based teaching method specifically affects group cooperative learning ability. This study adopts semi-structured interviews, which can help reveal participants' subjective experiences and capture details that are difficult to cover in quantitative research, such as emotional attitudes, interactive processes, etc.

RQ: Exploring how multimodal task teaching affects group cooperative learning ability?

The instrument employed in this study was a qualitative research instrument: the semi-structured interview. An interview is an inter-subjective enterprise to obtain research-relevant information from the interviewees to learn their perceptions (Merriam & Tisdell, 2015). Compared to other types of interviews, semi-structured interviews may be more potent as they permit interviewers to ask questions flexibly based on a list of open-ended questions and give interviewers a certain degree of control over the interview process (DeJonckheere, 2019).

To guarantee in-depth individual interviews, the researcher selected ten learner respondents from the experimental group by simple random sampling, which ensured that each learner had an equal chance of being selected (Baltes & Ralph, 2022). Furthermore, the interviews were conducted in a semi-structured format and face-to-



face. The SPSS descriptive statistics showed that the ten interviewees' speaking performance could represent the entire experimental group. Therefore, the ten learner interviewees guaranteed the depth of the interview and the representativeness of the experimental group in terms of cooperative learning performance.

III. INTERVIEW DATA ANALYSIS

The interview protocol for learners comprises eight questions addressing six primary areas, namely:

- Does TBL facilitate the implementation of group work learning activities?
- In what ways does TBL promote the development of group work learning activities?

After thematic analysis, emergent themes were extracted from their responses, including engagement, accountability, and satisfaction.

Engagement

The practicality of group tasks has increased students' enthusiasm for participation. The built-in "role binding" mechanism in task design, such as recorder, timekeeper, spokesperson, specifies that group members take turns to participate in speaking. The information gap design requires members to exchange information, and the Zone of Proximal Development (ZPD) task encourages members to actively seek assistance within the group.

The task requires the participation of our team members. The task of last week's International Product Promotion Conference 'left a deep impression on me. Our group is going to design an English promotion plan for Chinese tea brands. I am responsible for the market analysis section, which forces me to proactively collect data and discuss with my team members in English. Compared to traditional classroom exercises, this real-life task has greatly increased my participation (EG12).

Our group has completed 5 tasks together and has formed a tacit understanding. The teacher requires each group to come up with a team name, design a slogan, and also set up the 'Best Team Award'. Our group is called 'Global Voices', and we always shout slogans and cheer before each task. These small rituals make cooperation more cohesive (EG 9).

Group tasks allow us to conduct overall task analysis, engage in deep thinking, apply knowledge to solve specific problems in the task, and reflect and improve after the task is completed (EG 22).

Practical team tasks effectively enhance learning engagement and collaboration: By designing real projects, students actively engage in data collection and English discussions, which provides a greater sense of participation than traditional classrooms; The group formed a tacit understanding through multiple collaborations and strengthened cohesion through team naming, slogans, and pre match ceremonies; The task driven complete process (analysis thinking problem-solving reflection improvement) promotes deep learning and knowledge application, reflecting the teaching advantage of "learning by doing".

Accountability

Sense of responsibility is an important dimension of group collaboration, as it directly affects the quality of task completion, trust among members, and overall team effectiveness (Katzenbach&Smith, 2015). In addition, teams with a strong sense of responsibility are more likely to achieve their goals on time and actively seek solutions when faced with problems (Bandura, 1997).

Regarding the accountability in group work, some students shared their perspectives:

In group tasks, the quality and time schedule of the tasks one is responsible for can affect the overall progress of the group tasks. Therefore, there will be intangible motivation or pressure to urge oneself to do well (EG 25) .

When we view group tasks as 'our project rather than' teacher's assignment ', a sense of collective responsibility becomes a stronger driving force for learning than grades. Under this sense of belonging, language practice shifts from "asking me to speak" to "I want to speak", and team members share the same goal and support each other to complete tasks (EG 35).

The most special feature is the 'group progress score' - the teacher will compare the initial draft and final draft, and if the overall improvement of the team is significant, everyone will receive additional points. This directly leads to the formation of a culture of 'not abandoning any teammates'. For example, if the art student Xiao Zhang who makes PPT has weak English, we take turns helping him revise his speech because his visual design can benefit the entire group. " (EG 33).

In team tasks, the quality and progress of individual work directly affect the overall process, and this intangible pressure or motivation will encourage members to be more proactive in their involvement. When a group considers tasks as "our project" rather than "homework assigned by the



teacher", a sense of collective responsibility goes beyond grades and becomes a stronger driving force for learning, driving language practice from "forced speech" to "active expression", and members supporting each other to achieve common goals. The most distinctive feature is the "group progress rating" mechanism, which gives extra points by comparing the improvement of the initial and final drafts, thus forming a team culture of "not giving up on any teammates". For example, PPT designers with weaker English will receive rotation from team members to assist in modifying the speech, as their visual design can bring benefits to the entire team.

Satisfaction

Satisfaction is an important dimension of group collaboration as it directly affects member engagement, team cohesion, and overall performance (Forsyth, 2019). When members are satisfied with the collaborative process, they are more willing to contribute ideas, actively communicate, and maintain long-term collaboration (Mathieu et al., 2019). In addition, high satisfaction can reduce conflicts, enhance trust, and thus improve task completion efficiency (Tannenbaum et al., 2012).

When doing the task of "the Belt and Road Cultural Promotion", the final work of our group was taken by the business school as the recruitment publicity material. The sense of achievement that the collective wisdom was recognized was far more than the sense that individuals scored high (EG 1).

In the group cooperation task, our group had a good working atmosphere, and each member's speech achieved a good communication effect, successfully solving the difficult problems in the group task (EG 5).

After continuous practice of group cooperation tasks, I feel that I have made great progress in my knowledge and ability of English speaking, and my confidence has gradually increased (EG 9).

In the task of "the Belt and Road Cultural Promotion", our team's achievements were used by business schools as recruitment publicity materials. This sense of achievement of recognition of collective wisdom is far more than the satisfaction brought by high personal scores. In group cooperation, a good working atmosphere enables effective communication among members, successfully solving task difficulties. Through continuous group task practice, my English-speaking ability and confidence have significantly improved.

IV. Findings

Thematic Analysis

The qualitative data from semi-structured interviews were analyzed using Braun and Clarke's (2006) six-phase thematic analysis approach: (1) familiarization with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. NVivo software was employed to assist with data organization and coding. To ensure reliability, an independent researcher reviewed a subset of the coded transcripts, and inter-coder agreement was established through discussion and consensus.

To ensure in-depth individual interviews, the researchers selected 10 learners from the experimental group through simple random sampling, ensuring that each learner had an equal chance of being selected. In addition, the interviews were conducted in a semi-structured and face-to-face format.

Through thematic analysis of the interview content, the following core findings were found:

Theme 1: Participation is motivation driven by real tasks

Real task scenarios will enhance our motivation for group collaboration, and everyone will actively contribute their opinions and suggestions to solve difficult problems in the task. (EG1)

Real tasks make us feel the importance and necessity of learning English, with more focused attention and higher learning efficiency. (EG5)

Solving problems that arise in real tasks can give us a greater sense of achievement and drive us to collaborate in solving them. (EG9)

Group tasks transform learning objectives into team projects by creating real situations (such as "International Product Promotion Conference", "the Belt and Road Cultural Promotion", etc.). This sense of belonging to 'our project' is more effective in stimulating learning motivation than grades, encouraging students to actively collect information and discuss in English, achieving a transition from 'You want to speak' to 'I want to speak'.

Theme 2: The multidimensional value of the team collaboration mechanism

In order to achieve higher scores or better performance in the group, everyone actively works hard, supports each other, and the team cohesion is stronger with our own team name and slogans. (EG 35)



In order to improve the team's performance, everyone feels a stronger sense of responsibility. (EG 12)

For example, if Xiaolin has poor spoken English but is good at drawing, the group asks him to teach illustrations, and other members help him practice his lines. 'Progress score' depends on overall completion and number of mutual assistance attempts - now even shy children will proactively ask 'Need help??' 'Got it!' (EG 22)

Building cohesion: Enhancing team identity through ceremonial activities such as forming team names, slogans, etc

Responsibility-driven mechanism: Individual task quality affects overall progress, creating intangible pressure and motivation

Mutual aid culture: The "group progress score" system promotes members to help each other (such as helping students with weak PPT production improve their English speech)

Theme 3: The composite effect of capability development

Some students have the following views on the development of their comprehensive abilities:

Through real task requirements such as English reports and customer communication, I have been forced to improve my English skills, express myself more fluently, and master more vocabulary in tasks. (EG 11)

Although the team collaboration was a bit difficult at the beginning, after discussion and adjustment, it became increasingly efficient. (EG22)

When our group's performance is praised by the teacher or applied in practical activities, the sense of achievement is greatly enhanced, even exceeding our personal sense of achievement. (EG 25)

Through practical tasks such as English reports and customer communication, students can improve their English proficiency, express themselves more fluently in tasks, and master more vocabulary. Despite initial difficulties in team collaboration, efficiency has significantly improved after discussion and adjustment. When a group's performance is praised by the teacher or applied in practice, the sense of collective achievement far exceeds individual achievement. This indicates that task driven collaboration can promote individual ability growth and enhance team effectiveness through integration, while external recognition further strengthens team cohesion and sense of achievement.

V. Discussion and implications

Applying ZPD Theory in TBL Group Work

The findings align closely with Vygotsky's (1978) concept of the Zone of Proximal Development, where learners achieve higher performance through guided interaction with more capable peers. The rotation of roles (e.g., spokesperson, timekeeper) served as scaffolding mechanisms, enabling weaker learners to build confidence while observing and mimicking more fluent peers. This support was gradually withdrawn as learners internalized both linguistic patterns and collaborative norms, demonstrating classic "fading" in scaffolding.

From a Sociocultural Theory perspective, the dialogic interactions in group tasks created opportunities for the co-construction of meaning, where language learning was embedded in social negotiation and shared cognition. Students built understanding not individually, but through collaborative dialogue and whether planning, problem-solving, or revising.

Broader Implications for Curriculum Design, Teacher Training, and Vocational Education

The findings of this study carry important implications for EFL curriculum design, particularly in vocational college contexts. First, curriculum developers should prioritize authentic, real-world tasks that mirror workplace communication demands. Tasks such as product promotion or cross-cultural dialogue not only build language proficiency but also foster soft skills like teamwork, initiative, and problem-solving qualities essential in the modern workforce.

For teacher training, the results highlight the need to equip educators with facilitation skills for managing group dynamics and scaffolding diverse learners. Teachers must be trained not only in designing tasks but also in mediating interactions, assigning equitable roles, and responding to group imbalances. Professional development should include strategies for dealing with uneven participation, peer conflict, and learners' resistance to collaborative modes.

Finally, in the context of vocational education, the successful integration of TBL suggests a pedagogical shift is needed: from teacher-centred grammar instruction toward learner-centred, performance-based learning. This shift can bridge the gap between classroom learning and workplace communication, thereby enhancing students' employability and confidence in using English for practical, career-oriented purposes.



Future research could extend this study longitudinally to examine the sustainability of collaborative learning gains. Comparative studies across different cultural or educational contexts would also help assess generalizability. Investigating moderating variables such as learner personality, language anxiety, or gender may further refine understanding of TBL's differential impact.

VI. Conclusion

This study explored the impact of multimodal task-based teaching on the collaborative learning ability of vocational college students through semi-structured interviews. The results showed that multimodal task teaching, driven by practical tasks, significantly promoted students' group collaborative learning ability, manifested in increased participation in group cooperation, enhanced sense of accountability, and satisfaction. Enhanced students' multidimensional value and enhanced their comprehensive abilities.

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