

## Creative Meaning-Making in Students' Team Interaction: Insights from Classroom Discourse Analysis

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### Abstract

Current perspectives of creativity in education view it as a socially constructed phenomenon that is created collaboratively rather than a cognitive attribute of individuals. This study uses a conversational analysis (CA) approach and looks at naturally occurring classroom discourse collected from team-based classrooms of 24 Iraqi EFL learners enrolled at the university level, using audio- and video-recorded data from five team-based classroom sessions. Interaction episodes were transcribed according to established conversational analytic conventions and analyzed in detail on an individual turn-by-turn level. This analysis yielded the identification of four distinct interactional practices that facilitate the creation of new knowledge through creative meaning-making in team interactions: invitational questioning, reformulations, productive disagreements and exploratory talk. These practices provide the opportunity for students to work together to build, elaborate upon, negotiate and build on their ideas through multiple turn-taking opportunities. These results illustrate that creativity arises from interaction among members of a group. Thus, the results of this study provide insights into how instructors can set up their classroom interaction to support the collaborative development of creativity by providing them with ways to structure their instruction to foster collaborative creativity in their EFL learning environments.

**Keywords:** *creative meaning-making, team interaction, classroom discourse, Conversation Analysis (CA), collaborative learning*

صناعة المعنى الإبداعي في تفاعلات العمل الجماعي لدى الطلبة: رؤى مستمدة من تحليل الخطاب  
الصفي

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### ملخص

تعتبر وجهات النظر الحالية حول الإبداع في التعليم ظاهرة مُنتجة اجتماعيًا، تُطور بشكل تعاوني بدلاً من أن تكون سمة معرفية فردية. تستخدم هذه الدراسة منهج تحليل المحادثة (CA) وتبحث في المناقشات الصفية الطبيعية التي تم جمعها من فصول دراسية قائمة على العمل الجماعي تضم 24 طالبًا عراقيًا يتعلمون اللغة الإنجليزية كلغة أجنبية في المستوى الجامعي، باستخدام بيانات مسجلة صوتيًا ومرئيًا من خمس جلسات دراسية. تم تفرغ حلقات التفاعل وفقًا للأنظمة المعمول بها في تحليل المحادثة وتحليلها بالتفصيل على مستوى كل تفاعل. أسفر هذا التحليل عن تحديد أربع ممارسات تفاعلية متميزة تسهل خلق المعرفة الجديدة من خلال تكوين المعاني الإبداعية في تفاعلات الفريق: الأسئلة الداعية، إعادة الصياغة، الخلافات البناءة، والحديث الاستكشافي. توفر هذه الممارسات الفرصة للطلاب للعمل معًا لبناء وتوسيع

والتفاوض على أفكارهم من خلال فرص متعددة لتبادل الأدوار. توضح هذه النتائج أن الإبداع ينبع من التفاعل بين أعضاء المجموعة. وبالتالي، فإن نتائج هذه الدراسة تقدم رؤى حول كيفية إعداد المعلمين لتفاعلاتهم الصفية لدعم التطور التعاوني للإبداع من خلال توفير طرق لتنظيم تعليمهم لتعزيز الإبداع التعاوني في بيئات تعلم اللغة الإنجليزية كلغة أجنبية.

**الكلمات المفتاحية:** التكوين الإبداعي للمعاني، تفاعل الفريق، المناقشة الصفية، تحليل المحادثة (CA)، التعلم التعاوني

## 1. Introduction

Collaborative learning and peer interactions have become critical components of how learning takes place in schools. As a result, there is a growing body of research focused on the idea that learning occurs socially through relationships and communication between learners (Lopez & Estremera, 2025). In this context, team-based activities are seen as a means by which students can participate in discussions/negotiations regarding ideas, and construct knowledge. Studies have demonstrated that working together to create or develop products gives students more opportunities to engage deeply in their work, as well as encourage students to express themselves when working with others to challenge and refine their thinking (Ghavifekr, 2020).

Classroom interactions play a critical role in enabling students to learn, engage with one another (by supporting or challenging), and construct their own knowledge. Learning occurs as students take turns interacting with one another (asking questions/ answering them), working on tasks together, and working through challenges together (Mishra, 2023). Rather than just passively receiving instruction from their teachers, students are active participants that shape the focus and content of classroom activities via their own unique forms of participation. Additionally, research into classroom language has found that engaging in peer interaction helps students create an understanding together, and that this understanding is continuously generated through the language produced by the participants and the social context in which they were producing this language (Jacknick, 2021). Thus, examining the interaction that occurs in classrooms gives insight into how learning happens in real-time.

Meaning revolves around and drives how learners create meaning within the classroom, i.e., as they are in the act of creating meaning together as a group, learning happens socially, through groups, based on everyone working together and with one another (to the same degree or not). Recent studies have looked at the interaction of learners during the interaction, and the impact of this, in the classroom setting (Woroniacki et al., 2024). Through conversation, gestures, and activities, learners negotiate meaning and come to build a common understanding of what is expected and how to work together on specific learning tasks (Toomaneejinda & Saengboon, 2022). This relational perspective presents an essential viewpoint for understanding the social processes of learning in the classroom (Woroniacki et al., 2024).

Collaborative classroom interactions provide an opportunity for students to engage in collaborative creativity, to develop, elaborate, and transform ideas through discussion, rather than through isolated acts of originality. As outlined by Valqueresma (2024), rather than looking at a single act of originality, we should consider how groups create, reshape, and repackage knowledge through teamwork. Negotiating meaning may also be a part of creative collaboration. Kaufman (2018) discussed this process, while Elisondo (2016) described how creativity can take on new dimensions as students work together to clarify and reconcile different points of view when developing a concept or idea.

Creativity can happen in different ways when students participate in collaborative activity. For example, students may negotiate meaning, working together to solve a common problem and bring an idea to fruition (Kaufman, 2018). Students can also share, reshape, or consider an idea from multiple perspectives (Elisondo, 2016). Through moments of agreement or disagreement with the views of their peers, students can express their own ideas and opinions in relation to what they have learned from each other (Carnevale, 2006). Exploratory talk creates an environment where learners can ask open-ended questions and collaboratively test their understanding, allowing them to create insights and meanings jointly (Cremin & Reedy, 2022). Thus, creativity does not represent an individual quality, but rather an interactional outcome of coordinated actions (Elysia & Sarah, 2024).

Collaborative learning has gained increased attention as a valuable way for students to learn from each other and create new meanings collaboratively. However, despite this increasing value and understanding of collaborative learning, there are many limitations in the research that has been conducted regarding teamwork or group work. The majority of studies have been focused primarily on student outcome measurements or assessments of students' learning (or teacher performance, etc.) without adequate attention to the learning and interactional processes that actually create student outcomes (Hamilton, 2019). Many other studies have utilized survey or experimental study designs to produce generalizable statements about what occurs when students work collaboratively, yet such research provides a very limited understanding of the dynamic, moment-by-moment processes of student-to-student interactions (Zhan et al., 2021). Furthermore, many times, interactions are viewed as a background condition, not as an important primary component of interest (Becker & McElvany, 2018). Because of these limitations, there continues to be very little research that provides specific details about the creative processes of students as they are involved in team interaction as they develop new meanings in collaboration with each other in the classroom.

To fill this gap, this research uses classroom discourse analysis as its primary tool. Classroom discourse analysis looks at the natural interaction that

happens in the classroom and gives researchers the ability to look at how students and teachers use language and symbols to create meaning within the context of the interaction (Gee, 2025). Using an analytical approach to the analysis of spoken language in classrooms, classroom discourse analysis can identify how a variety of interactional events occur during student talk, such as how students take their turns in conversation, address misunderstandings in conversation, negotiate for agreement in conversation, align themselves with others during conversation, and create shared meaning in conversation (Johnstone & Andrus, 2024; Gee, 2025). These types of analytical tools offer an opportunity to closely examine how students make creative meaning as a result of interacting with one another and to repeat that process multiple times during their learning process instead of simply assuming that such creative meaning-making is an outcome that exists prior to a student's learning process.

This study is methodologically based on an interactional and sociocultural approach to understanding/investigating how students form meaning and develop creativity using/through interactions and dialogue with their team members. When students use talk to collaborate or work together on projects, they engage in a process of negotiating meaning and creativity with each other. In this way, the purpose of this research is to explore how the collaborative process of meaning-making takes place during students' dialogue interactions within their teams; and to provide discourse-based evidence regarding the processes involved in the development of learning and creativity in the context of classroom collaboration.

## 2. Literature Review

### 2.1. Empirical Studies

Recent studies have been increasing attention to how creative teams should develop solutions for complex problems, which might be beyond an individual's capabilities. Team collaboration across both educational and professional environments is seen as one of the most essential conditions for generating acceptable and novel ideas. Based on the current evidence, van Broekhoven et al. (2025) offers one of the most comprehensive interactional analyses of how creativity occurs within the context of team interactions. The study focused upon university students who were engaged in solving open-ended problems through teamwork and analysed an extensive dataset, totalling approximately 4000 utterances. The authors studied the types of communication and examined the sequence by which they communicate their ideas in order to find out what type of talk can affect a team's ability to develop original and creative ideas. The authors found that communication methods such as 'invitational question' and 'thinking markers' positively contributed to creativity. They found that the combination of consecutive invitational question and irrelevant talk or a process-focused dialog will hinder a team's ability to develop

creative and original ideas. The authors also noted that creativity cannot merely come from team collaboration, but requires attention to how each element can be sequenced within the process of developing creative ideas within the discourse of team interactions.

In addition to having a micro focus, Matjie and Longweni (2025) took a wider view of the relationship between team creativity and developed a conceptual model based on the synthesis of results from 40 studies on team creativity using a systematic review of the literature. The evidence from these studies demonstrated that shared leadership, knowledge sharing and team behaviours that promote creativity are the main factors that affect team creativity. Conversely, ineffective communication, lack of elaboration of information, and conflict within teams were identified as barriers to creative outcomes. Although this review has identified a conceptual model of team creativity, it has only addressed communication and interaction in abstract terms without any detail on how these processes occur during the actual process of communication and interaction. Thus, while this study identified the important components for team creativity, it provided little information regarding how creativity is achieved through interaction.

Within the field of organizational psychology, researchers are emphasizing the significance of group dynamics for both the development of creativity and how it affects individual members on teams. As an example, an article by Van Dijk et al. (2021) examines how team members' collective focus and initiative mediate the relationship between leadership types and their product. Through the use of experimental and survey designs, this research shows that both a team's motivational orientation and its regulatory process has a significant impact on creativity. While this research does add to our knowledge of how teams perform creatively at a structural and psychological level, it does not take into account the interactional elements that comprise the group dynamic and the effect of those processes on an ongoing basis.

The concept of creativity is widely examined in an educational context, specifically for teaching EFL, from the viewpoint of a teacher's practices rather than the interaction of students with each other. For example, Ma & Wang (2025) study how the physical environment impacts on how teachers teach for creativity. This study used mixed-methods research design and showed that both the perceived climate of the school and peers' group interactions had a positive influence on demonstrating creative teaching behaviours; whereas, supervisory relationships had very little influence on demonstrating creative teaching behaviours. Furthermore, the qualitative data showed that the interaction between teacher and student was also important to developing creativity in the ELT classroom. However, although these findings highlight the social nature of creativity and language teaching practice, the study's main focus is on teachers'

perceptions and behaviours in relation to the topic. There has been little research to date that directly examined the social nature of students' interaction in language learning environments.

These studies have begun to illustrate how collaborative and social creativity is, as it is shaped by team dynamics, leadership, and the nature of interaction. Nevertheless, in addition to these important findings, there are still several limitations associated with them. The majority of current research presents a macro-level perspective (i.e., looking at leadership, climate, and/or outcomes); therefore, many studies of creativity either use surveying and experimental methods that simply represent the process of interaction as measurable variables or acknowledge the importance of communication in many studies, without examining the process of this interaction as it occurs in real time.

## 2.2. Purpose of the Study

This article focuses on investigating how students interactively construct creative meaning through collaborative interaction. The research employs a discourse-analytic approach that examines the students' natural discussions to identify the interactive strategies used to collaboratively create, dispute, and re-create meaning in peers' interactions. This study views creative meaning making as a collaborative process (an emergent accomplishment) rather than as an end product of individual cognitive development, and it illustrates how creative learning emerges from collaborative interaction in teams. Therefore, the purpose of this study was to address the following research question:

**RQ:** *What interactional practices contribute to creative meaning-making in students' team interaction?*

## 3. Methodology

### 3.1. Design

Using a qualitative research design anchored in Conversation Analysis (CA), this study examines how students in team-based classrooms create meaning through interaction. The CA approach is based on analysing naturally occurring talk (in interaction) and systematically uncovering how participants must engage socially. Rather than using pre-established codes or categories determined by the researchers, the author analysis the interactions of the students as they happen (i.e., moment to moment) and thus examines more closely the process of taking turns, how sequentially processes are being developed, how one person work together with another (and), the ways in which participants respond and/or distract each other. This design allows for an in-depth examination of creativity in the ways students engage with their classmates when creating new ideas or responding to or changing ideas. An example of this is through the use of conversation to develop an idea from initial

proposal to finalised product; ideas are created collaboratively, (taken up by other students), and eventually become modified or resisted through discussions amongst the group.

The study is framed per the principles of CA and identifies and analyzes naturally occurring interactions that were created during the activities conducted in teams. This approach is void of manipulation of the tasks assigned to students, nor does it manipulate the tasks to determine how they performed prior to or during interactions. The analytical focus is placed on the student's interpretation of the task and how they developed a collaborative understanding of their respective tasks via their conversations. Through the process of viewing the recordings, creating transcripts, and conducting a sequential analysis of their interactions, the practices associated with creativity can be identified inductively from the collected data. By adopting a CA-informed design, the study aims to provide fine-grained, data-driven insights into the interactional processes through which creativity emerges in students' team interaction, thereby addressing the limitations of outcome-focused or survey-based research in this area.

### 3.2. Participants

In this research, there were 24 Iraqi EFL learners who were enrolled in one course at Baghdad University. This undergraduate course was taught by one male instructor and consisted of both male and female students between the ages of 19 and 26. All the participants were Arabic speaking, as their first language was Arabic, and they were studying English as a foreign language academically. The learner's involvement in the study was conducted during the learners' typical classroom instruction, so the interaction data reflects genuine instructional interactions. The students were divided into groups of four, where they participated in group activities throughout this specific course since this method was part of the course's typical structure and not created specifically for this investigation. The small-group interaction enabled the researcher to study peer interaction in depth, creating an environment for examining interaction patterns where creativity appeared through collaboration.

### 3.3. Instruments

#### 3.3.1. Audio Recorder

Six mobile phones were utilized as audio recorders to track the natural interactions that occurred while students were working together as teams, with one phone allocated to each group of students. Phones were situated in an appropriate central location of each group's work area so that all participants would be heard clearly when they were collaborating. All participants' voices would then be recorded in a manner that produced high-quality audio data but did not disrupt the normal process of the interaction in the classroom.

Furthermore, using mobile phones as recording devices is consistent with conversation analytic studies, which emphasize the naturalness of the conversation seizure instead of the formal control required in a laboratory environment. Each team being recorded allowed for a detailed analysis of turn-taking, sequencing, and the various practices that occur during interactions, both within a team and between teams. Thus, the recording of audio data for each group provided a reliable audio archive that could be used to examine discourse at very fine levels.

### 3.3.2. Video Recorder

Audio recordings were complemented by capturing participant interactions using two video recorders, which provide an enhanced documentation of non-verbal (gestural, spatial, and contextual) components of classroom communication that cannot be captured with audio data alone. By positioning the cameras at different sides of the classroom, the two cameras provided additional vantage points on how students in teams communicate with one another in relation to their teammates' gestures, body position, gaze direction, and physical artifacts used during collaborative activities. Video recordings provided a second source of evidence to the researcher in identifying and interpreting the same interactional phenomena that would not otherwise have been identifiable through audio recordings due to potential biases, i.e., the tendency for audio-recorded data to produce ambiguous representations of multimodal communication (see below). Video recordings also aided in the development of a detailed pattern of interaction by enabling the identification and clarified representation of participants' creations during the collaborative process. In keeping with the principles of CA, video recording enabled the researcher to conduct a more detailed analysis of how participants create meaning during collaborative activities and to corroborate their findings through both comprehensive analysis and the recording of the participants' explanations of their creative process.

### 3.4. Data Collection Procedure

In an EFL course at Baghdad University over the course of six classes held as part of an on-going course, data were gathered. Data collection was approved by the instructor for the course before the start of the study. Students participating in the study received an explanation of the purpose and method of the study including recording audio and video for data collection purposes. All students who participated provided informed consent and were free to withdraw their participation at any time without any further obligation to the researcher or instructor. Data were collected while students were participating in their normal class work, allowing the researcher to collect data based on natural patterns of interaction.

Students were placed into six teams of four and participated in team activities associated with the course during all six classes. All conversations of each of the teams were recorded using a smart phone recorder placed in the middle of each team's work area and additional recordings were made using two video camcorders located at opposite ends of the classroom. The recording setup enabled the researcher to capture both verbal communications occurring within each team as well as non-verbal features such as body posture, eye contact, and gestures that may have been relevant to conversation analysis.

Results from each of the six recorded sessions were included in the analysis as an initial step. The first recorded session was excluded from analysis because it was primarily intended as a familiarization session for the participants to become comfortable using the recording equipment and thus, minimizing the impact of potential observer effects on the way that the participants interacted with each other. As a result, only the last five recorded sessions were considered part of the primary data set for analysis. Each of the recorded sessions involved securely storing the recordings and then conducting quality checks to select segments that demonstrated instances of sustained interaction within teams for detailed transcription and conversation analysis.

### 3.5. Data Analysis

Data analysis was guided by CA principles and focused on how students created meaning through their collaborative interaction in their teams. Five sessions were selected for detailed examination, based on the sustained peer interaction that occurred during these meetings in relation to the finding of this research. Rather than transcribing the entire corpus of recordings from these meetings, only those segments of interaction during which collaborative meaning construction was evident were transcribed and examined using the principles of CA.

The selected segments of interaction were transcribed according to the transcription conventions developed by ten Have (2007) and included attention to elements such as pauses, overlaps, intonation, and attempted repairs in addition to turn-taking. Following transcription, the segments were re-analysed in detail for a second time using a fine-grained approach to identify the re-occurrence of interactional practices through which the participants proposed, negotiated, elaborated and transformed ideas. The inductive coding method of categorisation developed from the data led to the discovery of new analytic categories. Throughout the analytic process of creating the transcripts of the selected segments, there was consistent alignment between the audio and video data and the transcriptions to preserve the validity of the analysis.

## 4. Results

Based on the Foundations of CA principles, this finding highlights how students experience creativity through social interaction when they create their responses during the conversation through the ways in which participants view the different participants' actions. The extracts provided below represent proof from an empirical perspective of how the students construct and create creative thoughts at the same time as they are communicating through team collaboration with each other.

### Extract 1: Invitational Questions

Four students are engaging in a group discussion about possible solutions to a problem that they were assigned as a class project. They use the information they have gathered thus far to formulate a plan of action. Right now, all they know is what area to focus on; they have not yet come up with an actual solution.

- 01 Ali: maybe we can talk about social media?  
 02 (0.6)  
 03 Sara: how do you mean?  
 04 Ali: like how it affects students  
 05 Omar: what kind of effects?  
 06 Sara: maybe positive and negative both?  
 07 Ali: yeah, like learning and distraction

The example provided demonstrates that invitational questions serve as tools for encouraging more creative means of producing meaning during a first phase of working together creatively. Ali proposes a topic for discussion (social media) with a tentative design through the use of a modal marker ("maybe") and interrogative intonation, indicating that it is open to discussion, rather than being authoritative. The use of the word "maybe" establishes this proposal as an idea that will be subject to discussion and negotiation. The brief pause after Ali's proposal (0.6) may represent a period when both Sara and Ali are not aligned with each other and are transitioning to a further development of the proposal.

Sara's response (how do you mean?) functions to request an open-ended clarification instead of evaluating Ali's topic. In this case, Sara is not asking Ali to justify or evaluate the relevance of social media to students; rather, she is asking for clarification regarding the scope and meaning of the proposal. As a result, Sara indicates that the initial proposal is worthy of future development and is therefore expandable. Ali's response (like how it affects students) further develops Ali's initial topic into a narrower focus from broad topic (social media) to narrow domain (effects on students).

Omar's next question regarding the effects of the intervention on those participants creates another layer of complexity as Omar's follow-up question provides an opportunity for Ali to become more specific in their response. On this occasion, rather than simply stating that there were effects from the

intervention, Omar prompted Ali to move to more detailed categories with respect to the effects. Sara's next turn is also particularly important in creating a contrast between the two categories of effects because she provides both a positive and negative perspective to the discussion regarding the effects of the intervention on participants. In at least this instance, this test of the framing of Ali's previous statement adds a different dimension, thereby creating an expanded understanding of the topic discussed here. On this occasion, Ali's last turn of agreement with both of the very different categories of effects is an indication that this idea had been developed through collaboration.

### Extract 2: Reformulation

This part comes later in the same task, when students are trying to make an idea better before they share it with the class. One student suggests an idea that doesn't seem clear at first.

- 01 Lina: students depend too much on phones  
 02 (0.4)  
 03 Hassan: you mean they stop thinking for themselves?  
 04 Lina: yeah, they don't try to solve problems  
 05 Mariam: so it's like phones replace effort?  
 06 Lina: exactly, that's what I mean

The quotation demonstrates how reformulation is viewed in the interaction as a key component of generating creative meaning via idea creation. Lina's opening comment ("students depend too much on phones") is generalized but somewhat vague. A brief pause follows her statement (0.4), creating an opportunity for other participants to expand on or question the comment.

Hassan transformed Lina's original statement from a generalized and descriptive format to a more abstract and interpretive form when he replied ("you mean they stop thinking for themselves?"). This change in emphasis drew attention away from the physical act of having dependence on a mobile phone to the cognitive effects of being reliant on it. The nature of Hassan's response is that it was framed as an alternate way to understand Lina's comment ("you mean..."), thus providing Lina with the opportunity to confirm or clarify Hassan's interpretation. When Lina confirmed Hassan's understanding by saying, "yeah, they don't try to solve problems," she added greater clarification to Hassan's interpretation and linked the concept of dependence to the way they approach problem-solving.

Mariam introduces a metaphorical frame ("so it's like phones replace effort?") as a means to move up in abstraction. This is more than re-state the idea; it is a way to define an idea in terms of a conceptual understanding. Mariam's definite and affirming response ("exactly, that's what I mean") shows a strong agreement with and endorsement of the reformulated understanding.

From this example, the meaning of the original statement changes. First, the statement is based on a concrete observation, then it becomes an analysis of the broader meaning of the observation. Thus, creativity does not simply mean new ideas, but also the way the participants are working together to refine and improve on the idea. This example demonstrates that reformulation allows students to co-formulate a deeper meaning for an idea than a participant can when they originate or first express the idea.

### Extract 3: Alignment

This excerpt is from a conversation in which students are arguing about whether a proposed solution is possible. The group has come up with an idea, but cannot all agree on whether or not it can be done.

- 01 Yasin: this solution is good but not realistic  
 02 Noor: why not?  
 03 Yasin: because students won't follow the rules  
 04 Ahmed: but if teachers explain it well, maybe they will  
 05 Noor: yeah, it can work with motivation  
 06 Yasin: okay, maybe with motivation

It is clear from the extract that productive disagreement can provide a resource to create new meanings and not merely be seen as an obstacle. Yasin, for instance, demonstrated partial agreement with the initial suggestion of “**this solution is good but not realistic**”, however, at the same time, indicated that this idea was unrealistic (the resistance). Yasin's comment indicates he did not want to “face threaten” the group, but rather wanted to challenge the group's emerging consensus.

The first opportunity for interactional progress after Yasin made his comment was the immediate follow up question from Noor, “why not?” Rather than defending Yasin's comment or dismissing it as irrelevant, Noor used her follow-up question to ask why Yasin believed the problem was unrealistic and not dismiss it prematurely. Yasin's explanation of his reasoning for making the comment about student behaviour sets up a concrete reason for his resistance.

Ahmed's counter-proposal of “but if teachers explain it well, maybe they will” set the stage for Noor's support of Ahmed's counter-proposal as well as the other participants, who agreed with Ahmed, viewed the issue as being an implementation issue (not an inherent flaw in the solution). Noor's further alignment that “yeah, it can work with motivation” took Ahmed's counter-proposal a step further and incorporated Noor's perspective on this issue by inserting another facilitating condition for implementation. Finally, Yasin's agreement that “okay, maybe with motivation” indicates the transition from resistance to conditional acceptance of and alignment with the updated version of the proposed idea.

There are interactions, negotiations, and discussion, which cause disagreements to be addressed and change rather than removed; so, as a result, the creative outcome is not a duplicate of the original proposal nor of Yasin's critique, but is a combination of both). Thus, creative meaning is created by creating alignment following disagreements and supports the idea that the interactional tension creates new possibilities.

#### **Extract 4: Exploratory Talk**

This excerpt comes from the beginning of a brainstorming session, when students are instructed to come up with ideas without being evaluated.

- 01 Rami: what if schools had no exams?  
 02 (0.7)  
 03 Dina: then how would teachers assess students?  
 04 Rami: maybe projects instead  
 05 Sami: or group presentations  
 06 Dina: yeah, that could reduce stress

This extract illustrates the purpose of exploratory talk, and after this piece of text is evaluated for the effects of exploratory talking, it is evident that exploratory talk is used to aid in the building of ideas and concepts.

Abyss has presented an idea using exploratory talk whereby she asked, "What if there were no exams in schools?" The way this question is presented indicates that Abyss was only offering a question or hypothetical premise for brainstorming ideas. After Abyss presented her question, there was a pause of 0.7 seconds, which provides an indication that the audience needs to reflect on the question and not just react to it immediately.

Tina did not dismiss Abyss's idea but instead reinforced it by asking a question, which provided a premise for the next part of the exploration process. Her question has shifted the process from an idea to an idea with a logical process. Abyss has now provided a suggestion for a different type of assessment method (i.e., project work).

Sam showed that he was developing another suggestion for alternative assessments. Lastly, Tina's reply will provide an evaluative comment representing a greater advantage in a universally beneficial educational scenario. In the mentioned steps above, together, the group has collaboratively created an innovative proposal for a multi-part solution from a speculative idea.

The example provided above shows how collaborative investigation gives rise to new creative ideas based on previous participants' contributions, as all members work together without any expectation for the final product. This cooperative creative process is about how group members generate meaning

through their interactions with each other, using the finally shared thought. These four examples illustrate that creative meaning construction occurs not as a result of a single individual's ability to be original but is an interaction between people's ideas and thinking skills using oral communication to develop and improve concepts and ideas together.

As shown in all four examples, collaborative creativity will result from the different interactions and practices between group members that invite questions, restate previous comments, have productive disagreements, and allow time for open discussion. Through these practices, students jointly develop, modify, and enhance an idea, illustrating that the social exchange of information will have an effect on the way students think and work together innovative in a collaborative learning environment.

## 5. Discussion

In this research, the goal was to identify how students' interactions in groups help in forming creative thoughts and ideas by looking at how creative thinking occurs while you are talking. Through this study, it became clear that creativity does not exist only as an individual thought but rather is the result of interaction between all group members as they work together to form their ideas. Through the examples contained within the various sections of the report it can be seen that students were able to build, reshape, and/or reframe their ideas effectively due to certain actions and behaviours (i.e., inviting/encouraging questions from fellow students, providing clarification, having constructive disagreement). This perspective is also consistent with sociocultural and discourse-based perspectives on how we learn and create.

One major finding is the effect of the use of invitational questions for promoting creativity through use of collaborative opportunities. Van Broekhoven et al. (2025), also describe this relationship. They found, through analysis of team communications, a relationship between the use of invitational questions and the higher likelihood of generating new and unique ideas throughout team communications. The present research expands upon van Broekhoven et al. (2025) by demonstrating that invitational questions can be used sequentially to develop a vague proposal into a more developed, nuanced concept. In addition, through micro-analysis of dialogue, this research builds upon and substantiates van Broekhoven et al. (2025) by highlighting how invitational questions promote creativity through collaborative interaction.

The study also highlights the significant role of reformulating as an interactional process in which students cooperate to create new meanings. By reformulating their original ideas together, students can add more depth of understanding and more abstractness to their ideas. This finding adds a new dimension to the team creativity literature that was reviewed by Matjie and Longweni (2025), which suggested that communication and sharing of

knowledge were the major antecedents of creativity. In contrast to what they found, the findings of this study demonstrate that not all effective communication is based on simply exchanging information; in fact, it is based on the types of interaction processes that the participants engage in (e.g., through the use of reformulation) that support the co-development of new and creative ideas. Thus, this study fills an important gap in understanding team creativity by bringing together two levels of analysis (macro- and micro-level) and demonstrating how these two levels contribute to the production of new ideas and creativity in teams.

Another significant finding from the investigation here is how disagreement can be used positively toward creative thought. While the common justification for why conflicts are negative experiences in teams, by shifting the understanding of how disagreements are handled in the workplace, this research shows that disagreements can foster creative processes when they are handled correctly. For example, Matjie and Longweni (2025) state that conflicts within groups may limit creativity. However, this study has found that not all forms of disagreement lead to conflict. The ways in which participants work together to identify, understand, and ultimately resolve their differences will create new ways of thinking. This idea demonstrates that in order to understand how teams experience disagreement, we must first recognize how they interact with each other to create an organized and systematic approach to problem-solving. This aspect of interactional organization is often neglected within survey and outcome-related work.

The findings reveal that the current understanding of creativity's collective and contextual dimensions is evolving from a focus on leadership and regulation factors to an increased emphasis on how peers interact. Prior research (e.g., Van Dijk et al., 2021) focusses primarily on how collective regulatory focus and leadership styles influence creativity at the macro level of team dynamics; however, this research provides evidence that collective creativity can also occur at the micro level through interactional practices between peers without any formal regulation or the presence of a leader. The emergence of collective states, such as the initiative or regulatory focus, may actually be accomplished through creative exchanges among group members, rather than merely being precursors to collective creativity. Therefore, the results of this study support the use of discourse-based approaches in understanding team creativity alongside existing models of team creativity based on organizational, psychological and relational perspectives.

Finally, the findings of this study have considerable implications for future research on creativity in (1) educational settings generally, and (2) in EFL situations. The findings of this study add to the work of Ma and Wang (2025) on teaching for creativity, with Ma and Wang (2025) focusing on the effects that

environment and Teacher - Student interactions have on creative production, while this study highlights the role that Student - Student interactions play in the production of creative meaning. This study indicates that creative production in the classroom is influenced by more than just the classroom instructional climate and teacher practices but also by the ways that students interact with each other during Collaborative Tasks. By documenting the processes by which Student interactions create new meanings, this study builds on the existing literature in this area by providing evidence that creativity is developed through the shared language of students in the classroom, rather than just through formal instruction. In addition to the implications for future research, these findings indicate that research and practice related to the cultivation of creativity in team-based learning settings must examine more closely the ways that interactions amongst students can support the development of creativity.

## 6. Conclusion

The research examined how students make sense of each other's actions through teamwork using naturalistically occurring classroom conversation from a conversation analysis perspective. The results show that creative meaning-making is the result of a collaborative process that occurs as students engage in certain conversational practices (e.g., invitational questioning, reformulating, disagreeing productively and exploring). Rather than being driven solely by the individual creativity of students, the creation of ideas occurs as a result of the coordinated actions of all students involved throughout each turn of conversation, with students building on what they have created in the moment. This research highlights that the organization of conversational data provides an in-depth understanding of how creativity is manifested within classroom teams.

The study not only provides empirical evidence for advancing theory and pedagogy but it also makes important contributions to research. The findings indicate that in order to support and encourage creativity in the classroom, it will be necessary to support the development of collaborative ideation through not only task design or instructional climate but interactional conditions as well. Through the use of invitational questions, providing opportunities for exploratory talk and using disagreement productively, we may be able to create more opportunities for learners to develop creative meanings. This research reinforces the value of Conversation Analysis as a methodological framework for understanding the micro-processes of how creativity occurs and calls for additional discourse-based research in various educational contexts. For example, future research can build on the existing work by examining how the interactional practices used in various task types, proficiency levels, and instructional contexts vary and how the differences will lead to an increased understanding of creativity as a socially created phenomenon.

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