NowComment: A collaborative document annotation tool

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Title	NowComment
Publisher	Paul Allison
Contact Information	www.nowcomment.com
Type of Product	Web-based application for document sharing and annotation, online discussion, teacher/peer feedback, and AI Thinking partners
Document Input types	Microsoft Word/Excel/ PowerPoint, PDF, image/photo, webpage (HTML) content (text, images, & video)
Platform	Online Website
Minimum Hardware Requirements	Internet-equipped devices and a browser
Price	Free

Introduction

With the advancement of technology and its advent in education, various document annotation tools have been developed and widely implemented in educational contexts. Even though annotation might be considered an individual activity in some cases such as applications that provide individual readers with commenting and highlighting features, social annotation, as a genre of learning technology, enables learners to annotate digital resources through social interactions, information sharing, and knowledge construction (Novak et al., 2012). In other words, online social annotation tools provide social platforms in which readers interact with resources and each other, share knowledge, and make meaningful discussions (Cohn, 2019; Kalir et al., 2020). NowComment is a free online platform designed for collaborative document annotation. It provides a digital space where a wide range of users including teachers, educators, learners, researchers, and professionals can interact with different types of documents, share insights, and engage in discussions directly in the context of the document. Although NowComment is not specifically designed for language learning, its interactive and collaborative nature makes it a valuable tool for language teachers, learners, and researchers. It aims to enhance communication skills, critical analysis, and collaborative learning by enabling users to interact with documents and each other in a dynamic and interactive way.

Detailed Description of Nowcomment

Within the initial interface of NowComment users can easily create a free account using a valid email address. After creating an account, it is possible to upload documents in different types

including Microsoft Word/Excel/PowerPoint, PDF, image/photo, webpage (HTML) content (text, images, & video). After uploading the documents, teachers can set various settings and invite learners for commenting on the documents. As shown in Figure 1, teachers/instructors can visit their shared documents and groups through *MY LIBRARY & GROUPS* and they can see the latest comments on the latest document through the *COMMENTS*. It is also possible to set notifications for a document to be informed of the comments on that document s through email. There is no user or document number limit for NowComment. Moreover, detailed video instructions about the various functions of the platform are available through the *HELP* page. Although most NowComment documents are private and require invitation, there are some public collections and study groups available for everyone to see and comment on within *PUBLICATIONS & COLLECTIONS* page.
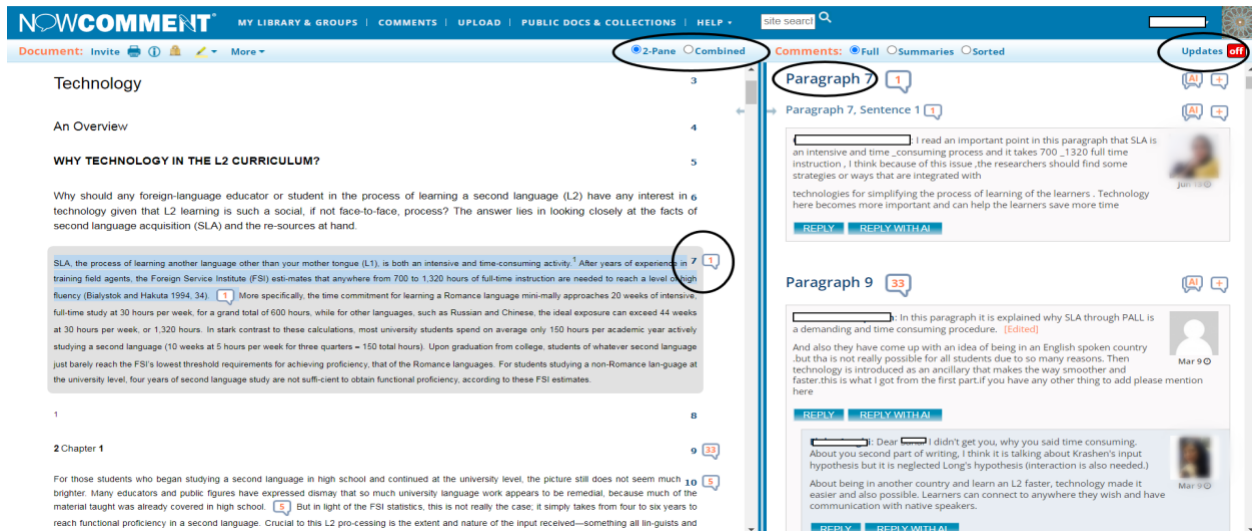
Figure 1
*The initial interface of* NowComment *when logged in*
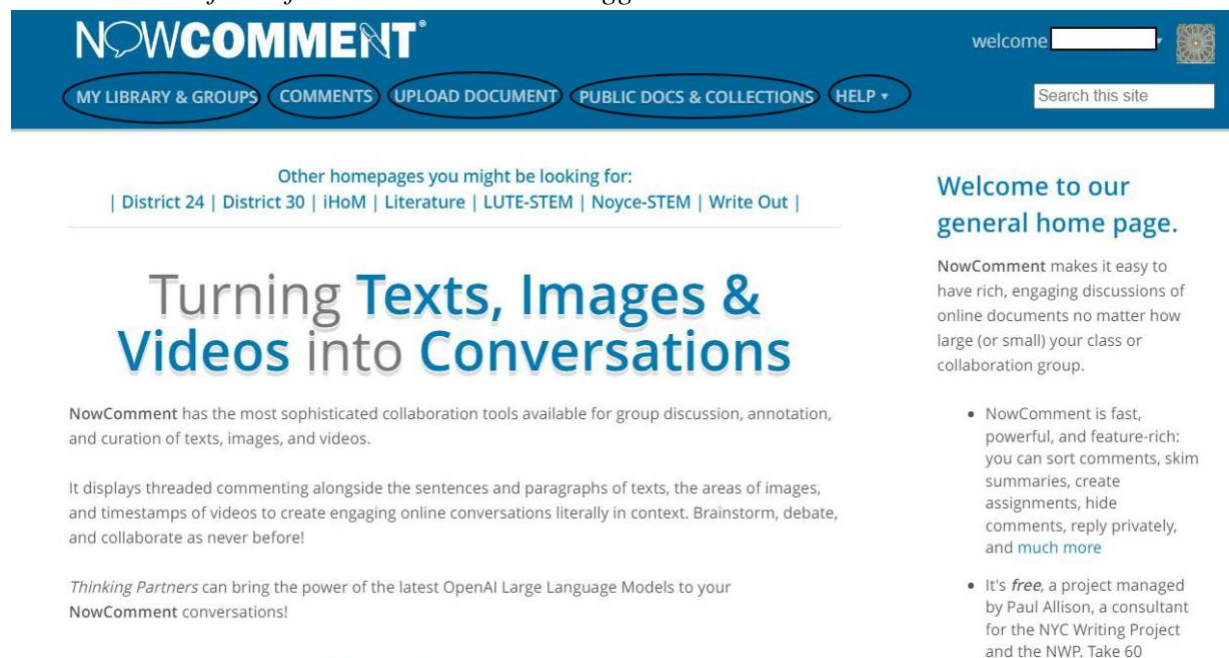
When uploading the documents, the user interface is intuitive and well-organized, making it easy for users to navigate and engage with the documents. It is designed with a prominent document display area and a sidebar for comments, annotations, and discussions (Figure 2). Learners can view the interface in two forms, 2-Pane view (document on the left and comments on the right), or Combined view (comments in-line with the document). Each paragraph is numbered and a balloon on the top right side of it indicates the number of comments on that paragraph (Figure 2). Additionally, by turning on the updates (on top right of the page), teachers can receive comments on the documents through their emails. Comments can be added to the document as a whole, a specific paragraph, a specific sentence, or even a specific expression or word. Users can easily select the section they want to comment on and add their comments by clicking on the + balloon in the comments' pane and start a new conversation (Figure 3). They can

also use the *Reply* option to generate a discussion thread. In terms of photo and video documents, it is possible to add comments to a part of a photo, and time-stamped comments on the video just as they do for the text documents by clicking on the + balloon. The whole document and the comments can be then saved and printed, exported, or embedded in other web pages.

Figure 2

NowComment*: Document review interface*

Figure 3
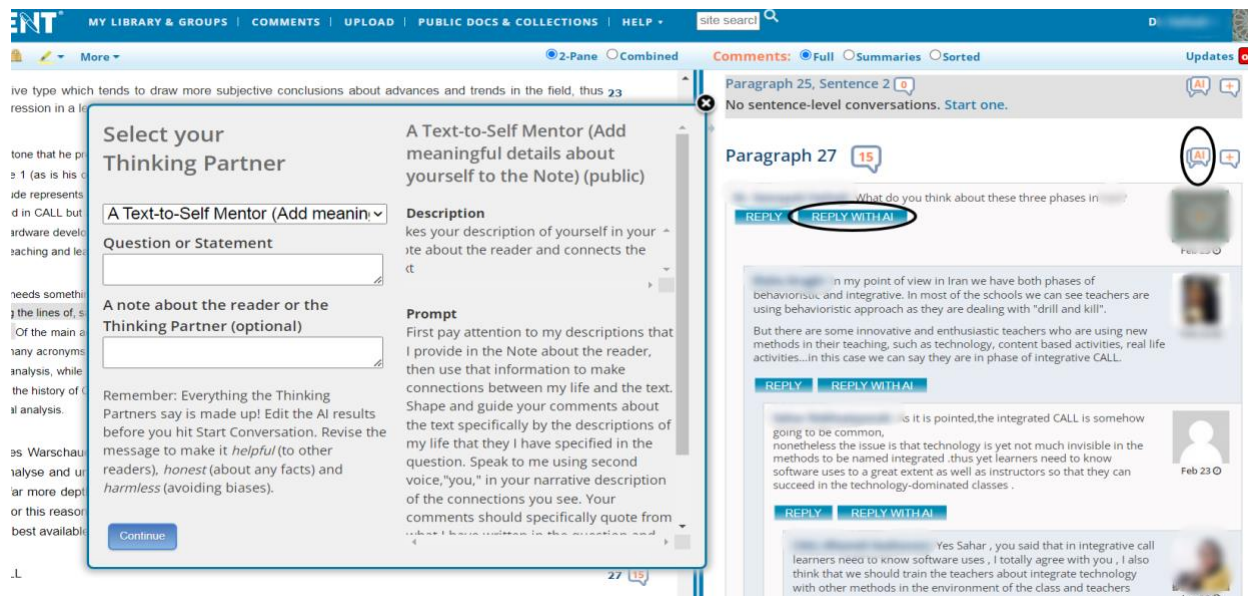
NowComment*: Adding comments to documents*
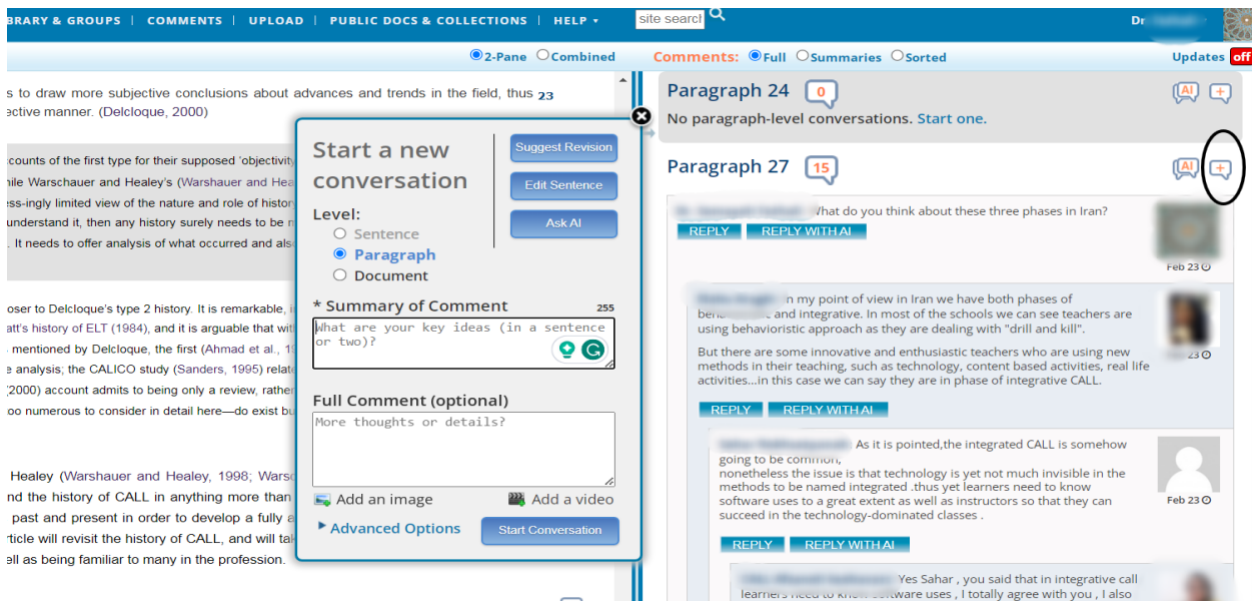
More importantly, NowComment is powered by AI to facilitate engaging in collaborative AI discussions and responses through *Thinking Partners*. Users can select a sentence, paragraph, or the entire document and then click the AI balloon or *Reply with AI*. Then the *Thinking Partners*

window will pop up (Figure 4). Users can simply choose their *Thinking Partner*, pose their question, optionally introduce themselves, and then await the outcomes. As shown in Figure 5, NowComment includes more than 30 *Thinking Partners* which are classified into seven AI approaches: AI as Mentor (providing feedback), Tutor (providing direct instruction), Coach (increasing metacognition), Teammate (increasing collaborative intelligence), Student (the power of teaching others), Stimulator (creating opportunities for practice), and Tool (extending performance).
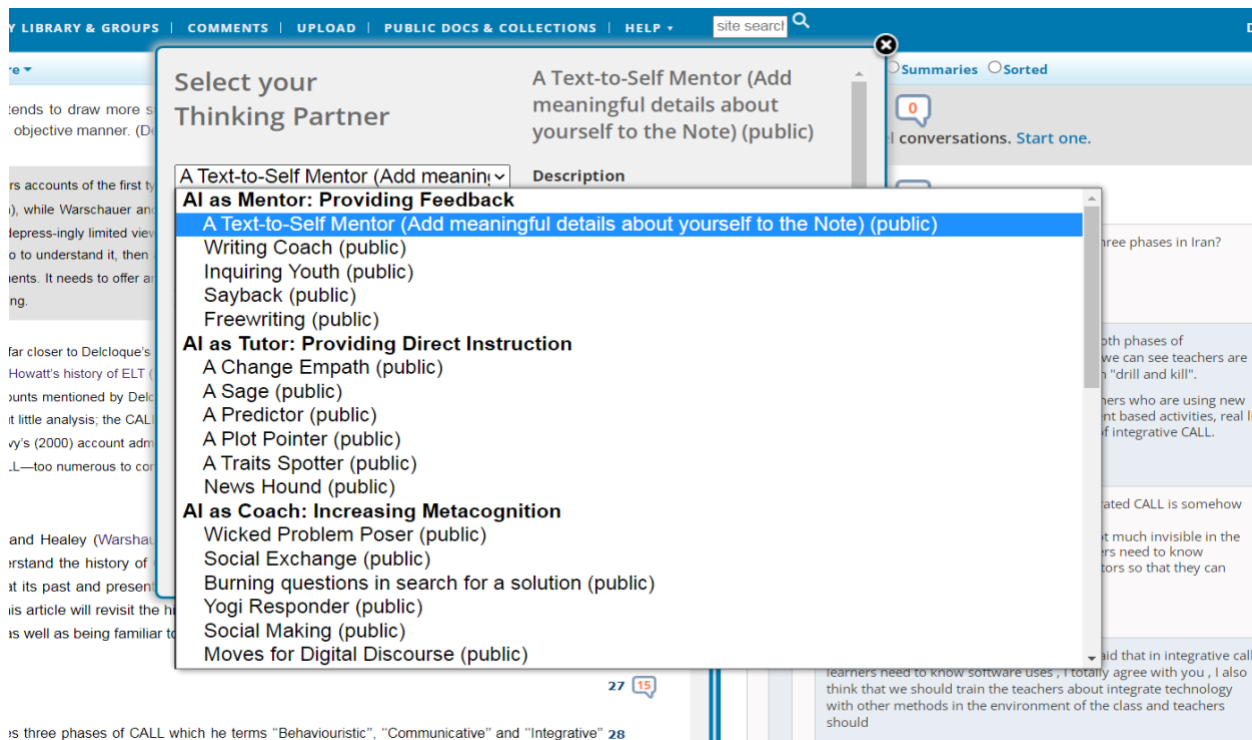
NowComment's AI operates through prompt-based interactions, where users create prompts that directly influence the output generated by OpenAI's GPT-4 Turbo model. This prompt-driven approach distinguishes NowComment's AI from conversational AI tools like ChatGPT, focusing on stimulating and challenging users' thinking rather than general conversation. Each interaction with a GPT Thinking Partner renews the prompt in a new context. This means that the themes and goals you set in the prompt stay the same but change slightly to match your questions or input. Figure 4 represents the description and prompt explanation for the AI thinking partner as Mentor. It should be noted the responses generated by the AI are influenced by the specific prompts provided by users, but the user's comments do not become part of the AI training data. Additionally, users' interactions with OpenAI remain free and anonymous on NowComment. No additional login is necessary, and no personally identifiable data is transmitted to OpenAI.

Figure 4
NowComment*: Reply with AI*

Figure 5
NowComment*: Different Thinking Partners*

Select your
Thinking Partner

A Text-to-Self Mentor (Add meaningful details about yourself to the Note) (public)

A Text-to-Self Mentor (Add meaning ▾   Description

AI as Mentor: Providing Feedback
A Text-to-Self Mentor (Add meaningful details about yourself to the Note) (public)
Writing Coach (public)
Inquiring Youth (public)
Sayback (public)
Freewriting (public)
AI as Tutor: Providing Direct Instruction
A Change Empath (public)
A Sage (public)
A Predictor (public)
A Plot Pointer (public)
A Traits Spotter (public)
News Hound (public)
AI as Coach: Increasing Metacognition
Wicked Problem Poser (public)
Social Exchange (public)
Burning questions in search for a solution (public)
Yogi Responder (public)
Social Making (public)
Moves for Digital Discourse (public)

Through the *Document Properties* option, users can see the detailed information about the document and its download and export options. This information include document type and size, number of paragraphs, number of comments, date of upload, date commenting began and finished, name of the commenters and the number of their comments, and so forth. Additionally, there are also *Analytic Reports* available for each document that can be downloaded as a comma-separated value (.csv) file. The reports are available as Summarized reports or Detailed reports including comments. The reports consists of the total number of comments on each document, total visits, commenters, the number of each commenter's comments, and so forth.

Technological features of Nowcomment

NowComment is a free web-based document annotation application that aims to enhance collaborative learning by enabling users to interact with documents and each other in a dynamic and interactive way. Having an Internet-equipped device and a browser, teachers, learners, researchers, and professionals can easily access documents and develop collaborative annotation activities.

As shown in Figure 6, although the interface language is English, NowComment uses a character encoding standard that encompasses a vast array of characters, including those used in non-Roman scripts such as, Arabic, Persian, Chinese, Japanese, Korean, and many others. This means that users can input, view, and discuss text in languages using non-Roman characters or right-to left scripts without encountering issues related to character display or encoding.

Figure 6

NowComment*: Character Encoding Support*

NowComment is a very user-friendly tool since detailed instructions accompanied by videos about the various functions of the platform are available through the *HELP* page. One of the noteworthy features of NowComment is its compatibility with a wide range of document types. Teachers can hardly access a free online annotation tool that supports different types of documents, especially PowerPoints and videos.

Analytic reports and history are essential aspects of collaborative annotation activities, and NowComment does not disappoint in this aspect. Users can access the document's revision history, the total number of comments on each document, total visits, commenters, comments' date and time, the number of each commenter's comments, and so forth through detailed analytic reports. It should be noted that the detailed reports can be downloaded as a comma-separated value (.csv) file easily imported into Excel and other applications for quantitative or qualitative data analysis. Additionally, the document download and export options enable the whole document and the comments to be saved, downloaded, printed, exported, or embedded in other web pages.

Moreover, privacy and security are paramount concerns for any collaborative platform, and NowComment takes it seriously. The software offers options for both public and private documents, ensuring that sensitive information remains confidential. Access controls, such as document permissions and user roles, allow document owners to manage who can view, comment, or edit documents. This level of control helps maintain the privacy of shared content.

On the other hand, NowComment, like any other platforms, has its limitations and shortcomings. One common concern is that NowComment lacks offline functionality, which can be inconvenient for users who need to work on documents without an internet connection. Additionally, while NowComment is suitable for small to medium-sized groups, it may encounter

performance issues or limitations with large-scale collaborations, and managing extensive discussions and annotations within a single document.

Furthermore, NowComment is accessible to users with moderate technology literacy, requiring basic computer skills, internet navigation, and familiarity with collaborative online tools. Strong language proficiency is essential for effective communication, including reading comprehension, writing skills, and understanding communication etiquette. While there's no strict age limit, NowComment is generally suitable for users who have the maturity, digital literacy, and necessary skills to engage meaningfully in text-based discussions and annotations on the platform.

Pedagogical features of Nowcomment

Nowcomment as a social annotation tool fits well within the sociocultural theory of learning (Vygotsky, 1978) in general, and communicative language teaching (CLT, Canale & Swain, 1980) in particular. The sociocultural theory of learning emphasizes the idea that learning is situated in a social context, and knowledge is co-constructed through interactions with others. This theory is particularly relevant in education and instructional design, focusing on how teachers can create environments that support collaborative learning such as NowComment. Moreover, CLT is an approach to language teaching that emphasizes communication as the primary goal of language learning. CLT encourages learners to engage in real-life, meaningful communication using the target language. NowComment supports CLT by providing a platform for authentic communication through document annotation, discussions, and feedback.

Teachers can easily create an account at no cost and start their feature-rich learning management system. The document sharing-capability of NowComment promotes distant learning and ensures that learners can access course and teaching materials from anywhere within an internet-connected device. The platform can act as a learning management system for remote/flipped learning. Moreover, by allowing learners to add annotations, comments, and highlights directly within the documents, NowComment encourages active reading and deeper interaction with the course materials even if it is a video-recorded lesson. NowComment helps learners to engage with the material in a more dynamic and personalized manner, leading to improved comprehension and critical thinking (Wang et al., 2013).

Learners can benefit from NowComment for both independent learning and collaborative learning. The platform's annotation feature facilitates collaborative learning, as learners can comment on each other's annotations, engage in discussions, and share insights. This collaborative process enhances peer learning and the exchange of diverse perspectives. Learners co-construct knowledge by engaging in discussions, giving and receiving contextualized feedback feedback, and collectively exploring language nuances. Learners can experience a feature-rich collaborative platform and engage in discussions easily with little technology competency. Discussion threads provide a platform for collaborative problem-solving and critical analysis. Threaded discussions

enhance learner engagement by making the learning process more interactive and social (Kuo et al., 2014). Learners are more likely to retain information and participate actively when they can contribute to discussions and learn from their peers (Kuo et al., 2014). In general, learners engage in meaningful interactions using the target language, express their thoughts, and respond to others, fostering language proficiency in real-life contexts.

NowComment also aids scaffolding by teacher-guided discussions (Vygotsky, 1978). Teachers can create reading assignments, facilitate discussions, and provide feedback directly on learners' submissions. CLT activities can be designed to align with the concept of the Zone of Proximal Development (ZPD, Vygotsky, 1978). Teachers can create tasks that are slightly beyond the learner's current language abilities but can be successfully completed with some assistance. This mirrors the scaffolding process in sociocultural theory where learners are supported as they work on tasks that are just beyond their current competence. Teachers can scaffold discussions starting with basic questions and progressing to more complex topics. This gradual approach supports learners in building their understanding. In addition, teachers can direct learners' attention to specific document sections using annotations. This is particularly useful for guiding discussions, highlighting key concepts, and prompting critical analysis.

Teacher feedback on NowComment also serves as a form of formative assessment, helping learners gauge their progress and areas for growth. The feedback provided through NowComment is contextually relevant, as comments can be linked directly to specific sections of the document. This specificity ensures that learners understand the feedback's applicability and can act upon it effectively (Nicol & Macfarlane-Dick, 2006). More importantly, by tailoring feedback to individual learners' needs, NowComment supports differentiated instruction, catering to diverse learning styles and abilities (Nicol & Macfarlane-Dick, 2006). In addition, NowComment offers educators a platform to create assignments with due dates, instructions, and access controls. Likewise, NowComment's ability to manage assignments and track learner progress simplifies the grading process.

NowComment facilitates peer review processes by allowing learners to provide feedback directly within the document, promoting active learning, constructive critique, and collaborative improvement. Peer review fosters a sense of community and collaboration within the classroom, as learners learn from each other's strengths and challenges (Cho & Schunn, 2007). Engaging in peer review requires learners to evaluate their own work critically in order to provide meaningful feedback to others. This self-regulation promotes metacognition and improved self-assessment skills (Nicol & Macfarlane-Dick, 2006).

Above all, NowComment is equipped with AI to enhance engagement in collaborative AI discussions through Thinking Partners. Learners can experience AI as their reading companion or writing assistant. It offers writing support by suggesting improvements in grammar, vocabulary, and sentence structure, helping learners in refining their written communication skills in the target language. Moreover, the AI provides instant feedback and corrections, allowing learners to identify

language errors in real-time, fostering continuous learning and improvement. Learners can craft their own text in any genre and select a sentence, paragraph, or the entire document for discussion with a Thinking Partner. This feature simulates conversational interactions, enabling learners to engage in dialogues and enhance their conversational fluency. Clicking the "Ask AI" button and choosing a Thinking Partner, they can easily pose a discussion question and await the response. In this way, AI can enhance learners' learning by individual tutoring, providing instant feedback, suggesting relevant comments or questions, encouraging engagement with the material, and satisfying their personalized learning experiences.

Conclusion

NowComment is a free feature-rich web-based collaborative document annotation tool that provides a platform for collaboration compatible with various types of documents including, Microsoft Word/Excel/PowerPoint, PDF, image/photo, and webpage (HTML) content (text, images, & video). Its user-friendly interface, compatibility with various document types, robust collaborative tools, and educational integration make it a valuable tool for teachers, instructors, educators, and individual learners looking for efficient and organized document collaboration. The system also supports private discussions between learners and teachers, fostering a conducive learning environment. Additionally, NowComment provides the learners with the opportunity to participate in public collaboration as well as AI-generated discussions. While there is always room for improvement, NowComment's current features and capabilities make it a commendable choice for educational and professional purposes.

Conflict of Interest

The authors of this publication decline there is no conflict of interest.

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