

Integrating inquiry-based learning in vocational English classrooms

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Introduction

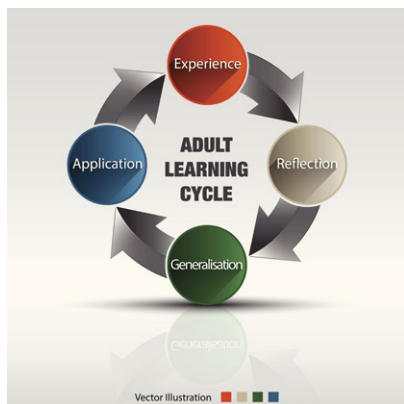
How can English language teachers make their lessons practical, relevant, and engaging to learners while also addressing academic learning goals? This question is particularly pressing in vocational settings, where some students doubt the relevance of English to their future professions, especially when classroom activities appear disconnected from vocational practice. As an alternative way to address this concern, the author of this article suggests integrating inquiry-based elements into

existing teaching materials through small-scale, easily adaptable strategies. Based on a project carried out at the Norwegian National Centre for English and Foreign Languages in Education, the article highlights how teachers can make small adjustments to existing classroom materials and familiar teaching routines to promote work-related language use in English lessons.

Vocational students tend to be highly pragmatic and are likely to invest effort in what they perceive as useful for their

future work (Skarpaas, 2024, p. 1401). During the author's school visits as part of the project, students also expressed their desire for more vocationally relevant English teaching, specifically through engagement with trade-specific language use. Vocational English teaching covers both general and domain-specific language, where vocabulary serves as a core element of communication practice in vocational contexts. As such, vocabulary is not treated as being isolated from other aspects of language (Skarpaas & Hellekjær,

2021, p. 5). The significance of vocabulary is also evident in the English curriculum, where one of the competence aims is to “listen to, understand and use terminology appropriate for the trade, both orally and in writing, in work situations”. Therefore, vocabulary plays a central role in students’ ability to demonstrate work-related and interdisciplinary competence through meaningful language use (Norwegian Directorate for Education and Training, 2020).



The experiential and Inquiry learning cycle.
Source: Yuni Nurhamida/Getty Images.

This article argues that these aims – relevance, meaningful language use, and interdisciplinarity – can be supported by integrating inquiry-based elements into tasks and learning activities in the prescribed teaching materials. Learning becomes “inquiring” rather than the passive “acquiring” characteristic of traditional education (Dewey, 1903, p. 201). Inquiring becomes possible when tasks and activities include

first-hand practical work-related learning scenarios and encourage students’ active participation. Through interaction and guided participation, students can also develop language within what Vygotsky (1978, p. 88) describes as the Zone of Proximal Development.

Integration of inquiry-based elements

As Dewey (1903) argued, inquiry-based learning involves the attainment of solutions through questioning, exploration, and active reasoning rather than simply reproducing what is pre-defined. In terms of classroom learning, tasks and activities guided by an inquiry-based orientation encourage students to investigate questions, interpret situations, and prepare responses rather than reproduce predetermined answers. In vocational English classrooms, inquiry-based elements can be integrated through scenario-based activities relevant to the vocational field. Students may, for example, be asked to explain a familiar work process, solve a workplace-related problem, or communicate with others in a professional context. In these situations, language is not only introduced, but also actively used to solve problems and communicate meaning, requiring students to clarify, adapt, and extend their language in response to real communicative demands. These forms of language use can be supported through small, manageable changes to existing tasks and classroom routines.

The approach also addresses a concern frequently raised by English teachers in vocational programs: their limited vocational subject knowledge. Rather than requiring teachers to become experts in vocational subjects, the approach makes them facilitators of communication. Students contribute vocational knowledge gained through their vocational subject lessons and work experience, while teachers help them to express that knowledge clearly, accurately, and appropriately in English.

A key step in the process was identifying adaptable tasks in the *Skills* textbook series (Langseth et al., 2020; Lokøy et al., 2020), which was still used by several of the participating teachers and was therefore selected as the basis for task adaptation¹. A selection of tasks across the Restaurant and Healthcare programs was reviewed to identify activities that already contained relevant vocational content but provided limited opportunities for active language use. These tasks were structured around matching, repetition, or closed comprehension and were selected because they were reminiscent of conventional learning approaches focused on passive acquisition and identification of predefined correct answers. Because the tasks were based on vocationally relevant texts, the adaptation focused on reformulating the activities to incorporate inquiry-based elements. This way, the revised tasks maintained the existing vocational content that was relevant to the vocational discipline in question,

¹ Inquiry-based tasks – Fremmedspråksenteret – Høgskolen i Østfold.

while encouraging greater explanation, reasoning, and communication.

To guide the revision process, a set of criteria was developed, inspired by Dewey's learning through experience (Dewey, 1903) and Vygotsky's learning through social interaction and guided participation within the Zone of Proximal Development (Vygotsky, 1978). These theoretical perspectives support an inquiry-oriented view of learning as students actively construct meaning through their engagement with tasks. Tasks were assessed and adapted to support four fundamental aspects of inquiry. They were: i) activating prior knowledge; ii) introducing a problem or scenario; iii) requiring explanation or reasoning; and iv) allowing multiple possible responses. These aspects served as criteria and were supplemented through concrete adjustments such as reframing instructions, adding a workplace context, and extending tasks with follow-up questions.

In addition, a set of supporting resources in the form of instructional videos, audio materials, and reflective tools² was developed to facilitate teachers' use of the activities, and to help them integrate inquiry-based elements into their teaching. Instructional videos model how lessons can begin with a question, demonstration, or simple challenge that prompts students to explain what is happening and why. These lesson openings demonstrate how to create an immediate need for

language, as students must explain what they observe or respond to a problem before key vocabulary has been introduced.

Audio resources³ focus on questioning techniques, illustrating how small changes in phrasing can shift classroom

Table 1: Safety equipment task.

ORIGINAL TASK			INQUIRY-ENHANCED TASK	
When do we need safety clothing? Combine the equipment below with the correct situation and photo...			Below are situations where safety equipment is needed. Your job: 1. Figure out what safety item fits each situation 2. Find or take a photo of each item Explain: • Why is this item important? • What could happen if you don't use it? • Give 1 real-life example	
Gloves	a	to protect your feet from sharp objects on the floor	a	To protect your feet from sharp objects on the floor
Hairnet	b	to protect your eyes from smoke or dangerous liquids	b	To protect your eyes from smoke or dangerous liquids
Hardhat	c	to protect your clothes from blood and frying oil stains	c	To protect your clothes from blood and frying oil stains
Goggles	d	to avoid head injury from falling objects	d	To avoid head injury from falling objects
Safety boots	e	to avoid breathing in dangerous chemicals	e	To avoid breathing in dangerous chemicals
Apron	f	to avoid burning or cutting your fingers	f	To avoid burning or cutting your fingers
Skills, restaurant- og matfag, 2nd., 2020. Practice Task 2.7, chap. 2, p. 58.				

² Inquiry-based teaching in vocational programs – Fremmedspråksenteret – Høgskolen i Østfold.

³ Asking even more inquiry-based questions – Fremmedspråksenteret – Høgskolen i Østfold.

interactions from short, closed responses to extended explanations. Reflective checklists⁴ help teachers to evaluate their own practice. The checklists focus particularly on questioning, scaffolding, and student participation, prompting reflection on how classroom activities support explanation, collaboration, and the use of English.

During the project, the inquiry-integrated lessons were implemented by the author in various vocational classrooms. Following implementation, feedback was collected from students and teachers. The feedback elicited pupils' experienced engagement, perceived relevance, and challenges encountered.

The following sub-sections present and elaborate on the development of tasks and support materials with concrete examples.

Development of tasks and support materials

The project involved two main strands of material development: task redesign and teacher support resources.

Task redesign formed a central strand of the project. The following table presents examples of how tasks were modified to include more inquiry-based elements while maintaining the original vocational content.

In the original task shown in Table 1, students are asked to match safety equipment with definitions, such as linking the word "goggles" to its definition, "protect your eyes from smoke or dangerous liquids" (*Skills*, p. 58). This task focuses on recognition, with a single correct answer and limited opportunity for language use beyond selecting the correct option.

Table 2: Table setting task.

ORIGINAL TASK	INQUIRY-ENHANCED TASK
Study the illustration below and take turns explaining how to set a dining table. Work in pairs. <i>Skills</i>, restaurant- og matfag, 2nd., 2020. Speak Task 5.82, chap. 5, p. 241. 	Study the illustration below. In pairs, explore the table setting by discussing: • What do you think each item's purpose is? • Why might it be arranged this way? • What else might you include on the table for decoration or function? Consider how the table setting might change for different cultures or occasions (different types of meals, guests, customs). 1. Create your own table setting for a specific meal or occasion (formal dinner, casual brunch, wedding, business lunch). 2. Research what is expected for this setting, what is typically included, and why. 3. Explain how your choices reflect the occasion, the guests, or any relevant cultural traditions.

(AI-Generated Image developed for the project materials and designed to resemble the original textbook illustration).

⁴ Inquiry-based Introduction – Fremmedspråksenteret – Høgskolen i Østfold.

The task aligns with Dewey's emphasis on learning through experience, as students engage directly with their vocational environment rather than only working with general textbook descriptions (1903, p. 201). It also reflects Vygotsky's concept of the Zone of Proximal Development, particularly when students work together to refine their explanations and move toward more precise language use (1978, p. 131). In this process, students revise and develop their understanding as they articulate and reconsider their ideas.

Another example of inquiry integration, as shown in Table 2, involved moving from passive engagement with texts toward interpretation and decision-making in vocational contexts. For example, in Skills (p. 241), students are asked to explain how to set a dining table based on an illustration.

As shown in Table 2, rather than focusing only on describing the correct placement of items, the task can be extended by asking students to discuss the purpose of each item, explain why the table is arranged in a particular way, and consider how table settings differ across cultures and occasions. Students can then design their own table setting for a specific context, and justify their choices in terms of function, the guests, and cultural expectations. By doing this, students move from reproducing procedural knowledge to evaluating, designing, and explaining vocational practice in English.

In addition to integrating inquiry-based elements into textbook tasks, resources for teachers were designed to facilitate classroom implementation of inquiry-based approaches. These included audio resources, instructional videos, and reflective tools.

Audio resources developed as part of the project illustrate three practical questioning strategies:

- Connecting questions to work-related situation
- Presenting problems that require solutions.
- Encouraging students to consider different perspectives.

These strategies can be applied across vocational contexts. For example, the following prompt is suitable for the students in the Healthcare sector:

"You are speaking to a patient who has received a blood test result but is anxious and does not understand medical terminology. Explain the result in simple English and respond to the patient's concerns."

Similarly, the following prompt offers a practical scenario for students specializing in Hospitality:

"A guest arrives at the hotel with a reservation, but the hotel is fully booked and the reservation cannot be found in the system. Explain the situation politely, apologize, and suggest possible solutions."

Instructional videos demonstrate how inquiry-based elements can be incorporated at the beginning of a lesson. One example involves showing students a simple demonstration in which two balanced spoons collapse when a small object is placed on top of them. Students are then asked questions such as "Why did that happen?" or "How would you explain this to someone else?" These questions encourage observation, hypothesis formation, and the use of English to describe what is taking place. As students attempt to explain their ideas, they often reach a point where they need more precise vocabulary and language structures. The teacher can then introduce relevant language and support students in developing more accurate and context-appropriate explanations. Each video is followed by a reflective checklist (introduction, instruction, group work, and assessment), which supports teachers in analyzing how the activity encourages questioning, scaffolding, and student participation.

Reflective checklists help teachers to evaluate their own practice, particularly in relation to questioning, scaffolding, and student participation. The checklists are organized around four areas of practice: lesson introduction, task design, peer collaboration, and assessment. Each area includes guiding questions that support reflection on how students are encouraged to use English for explanation, problem-solving, and interaction. For example, the

checklists prompt teachers to consider whether students are given time to explore problems before explanations are provided, whether they are encouraged to express their ideas in English even when uncertain, and whether they are required to explain their thinking to peers during collaborative work.

Student and teacher perspectives: Engagement, relevance, and challenges

As part of the project, the inquiry-enhanced tasks were implemented in three vocational classrooms at a High School. The classes were attended by students taking Restaurant and Food Processing, Healthcare, and Electrical Engineering and Computer Technology. Each implementation consisted of a single lesson and was followed by feedback through informal group discussions with students and conversations with participating teachers⁵. The feedback was collected to understand how inquiry-oriented adjustments were experienced in classroom practice. In addition, following a presentation of the project to teachers at a High School, discussions with teachers provided further insight into teachers' experiences, time constraints, and concerns regarding their own lack of vocational subject knowledge.

In general, feedback from the students indicated that they found the tasks relevant to their vocational workplaces, which encouraged their engagement. Students



Source: Gemini AI generated.

also stated that they valued tasks connected to their future professions. For example, one student noted that the inquiry-integrated lesson was “more practical, not just reading all the time, but kind of useful”. The students frequently emphasized the importance of learning subject-specific language relevant to their vocational field.

The teachers reported positive changes in the way students participated in tasks during the lessons. Some of them found that even the students who were usually less active contributed more during inquiry-based tasks. One teacher observed that a typically quiet student participated more when the task required students to explain something they were familiar with from their vocational training. Teachers also noted that tasks with a clear goal and a problem to solve encouraged students to take a more active role in the learning process.

In addition, both students and teachers identified challenges. Some students found open-ended tasks demanding, particularly when students were required to generate ideas or communicate in front of others. Others found it difficult to decide what was important when tasks allowed multiple possible responses. One student explained that “the creative part was hard because we had to choose what was important ourselves,” while another commented that “talking in front of people made me uncomfortable”. Teachers also pointed to practical challenges, including limited time to redesign materials and uncertainty about vocational terminology and subject content. Several teachers emphasized that they were not specialists in vocational subjects such as healthcare or electrical work, and that while collaboration with vocational subject teachers was valuable, it was not always easy to organize.

⁵ Teacher and student reflections – Fremmedspråksenteret – Høgskolen i Østfold.

These responses indicate that students benefit from support in deciding what to say and how to organize their ideas. This makes scaffolding essential, as students need guidance when moving from their initial ideas to more structured and precise language. Inquiry-based learning does not remove structure but shifts it toward guided participation and support within the learner's developmental range (Vygotsky, 1978, p. 131). When tasks are connected to familiar vocational contexts, students can draw on existing knowledge while developing language. Teacher support, particularly through questioning and feedback, plays a key role in helping students develop more precise and context-appropriate language.

Conclusion

The project reported in this article demonstrated simple and relatively undemanding strategies for teachers to integrate elements of inquiry into readily available textual materials. By reframing tasks and questions, teachers can create situations where students use English to explain, reason, and communicate within contexts that reflect their vocational training, shifting the focus from identifying correct answers to constructing meaning based on experience. Supported by practical

resources such as instructional videos, audio guidance, reflective tools, and inquiry-enhanced task examples, these adjustments can be implemented without extensive curriculum redesign.

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