

The Relationship between Industry-Expert Team Teaching and Students' Cognition and Learning Attitudes in Tourism Information Courses

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Abstract

Delivering education that truly connects theory with practice has long been a public expectation, yet universities are often criticized for a theory–practice gap and graduates' weak employability. At the classroom level, instructors' practical expertise therefore deserves close attention. In a tourism-information course, weaving real workplace issues into the curriculum can link learning to students' future career skills, making the course a cornerstone for developing basic labor knowledge. However, the explosion of knowledge, the instantaneous spread of information, and rapidly advancing educational technology have outpaced any single instructor's capacity to stay current. Collaborative teaching has emerged in response: rather than "lone-wolf" teaching, a team of educators augmented by industry experts works together, leveraging collective strengths to raise instructional effectiveness and enhance learning outcomes. This study surveyed undergraduates in southern Taiwan, distributing and collecting questionnaires on-site. A total of 436 valid responses were obtained, representing an 87 percent return rate. The results show that (1) industry-expert team teaching is positively related to students' learning cognition; (2) learning cognition is positively related to learning attitude; and (3) industry-expert team teaching is positively related to learning attitude. The paper concludes with a discussion of these findings and offers practical suggestions for diversifying teaching approaches to spark student interest and, ultimately, improve learning performance.

Keywords: Industry experts, Team teaching, Tourism information course, Learning cognition, Learning attitude

1. Introduction

A long-standing public expectation of higher education is that it should be firmly rooted in real-world practice. Recently, however, universities have been criticized for a widening gap between classroom learning and workplace needs, with graduates allegedly lacking employability skills. These concerns draw attention to instructors' hands-on capabilities. Faculty hiring still hinges largely on academic credentials, so some professors hold doctorates yet possess little practical experience, while others who once had industry know-how have not kept it current. Strengthening both faculty and student practical skills, deepening practice-oriented teaching, and aligning curricula with industry demands are therefore essential for producing graduates who are truly job-ready. One promising approach is industry-expert team teaching bringing professionals onto campus to design courses and co-teach alongside faculty. Such collaboration can sharpen

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instructional relevance, enhance practical competency, and foster mutually beneficial ties between academia and industry.

General-education courses are widely recognized as vital, especially in a rapidly changing society where they nurture humanistic literacy, critical thinking, civic ethics, social awareness, and a broad worldview. To meet these lofty goals, general-education curricula must achieve both depth and breadth while cultivating core competencies. Many undergraduates work part-time or take internships during their studies, yet they often lack adequate knowledge about tourism-related labor issues they may face with employers or peers. Tourism Information is a general-education course that melds workplace topics with theory and current events, linking classroom content to students' future careers and laying a foundation in basic labor rights. Because the course serves students with no prior background in tourism, its scope and rigor must be carefully recalibrated to build labor and human-rights awareness.

The explosion of knowledge, instantaneous information flow, and rapid advances in educational technology have made it impossible for any single instructor to stay fully up-to-date. In response, collaborative teaching models teams of instructors sharing the load have emerged to replace the traditional lone-wolf approach. By pooling expertise, teaching teams can raise instructional quality and amplify learning outcomes.

Against this backdrop, the present study examines how industry-expert team teaching relates to students' cognition and learning attitudes in a Tourism Information course. The goal is to identify diversified teaching strategies that spark greater student interest and, ultimately, boost learning performance.

2. Literature Review

Huang and Rust (2018) argue that the functions of team-teaching with industry experts fall into two broad categories: (1) the student-learning dimension and (2) the professional-development dimension for instructors and practitioners. Because students are the primary audience, they reap the greatest rewards. While teachers and industry experts tailor instruction to individual differences, the real centerpiece is hands-on skill training. Students acquire frontline techniques from practitioners, reinforced by the theoretical scaffolding provided by faculty, giving them both conceptual understanding and practical know-how. At the same time, teachers and experts learn from one another, sharpening their own competencies and strengthening university-industry collaboration. Mansur et al. (2018) likewise contend that students benefit most when experts join forces with instructors. The partnership enlivens the course, blends practice with theory, diversifies learning activities, and accommodates individual learning differences, enabling students to build truly comprehensive knowledge. Dina and Yulia (2019) note that teachers differ in discipline,

expertise, talent, and interests factors that shape their instructional approach. Inviting industry professionals into the classroom connects students with seasoned practitioners who deliver immediately applicable knowledge and convey the latest industry trends. Integrating cutting-edge techniques into coursework allows students to balance theory with practice and cultivate employability skills.

Hypothesis 1 (H1): Industry-expert team teaching exerts a significant positive influence on students' learning cognition.

Wang (2017) argues that the single most critical factor shaping students' learning attitudes is the instructor. Scholars who view learning attitude through the lens of teacher effectiveness maintain that effectiveness should be gauged not by a subjective tally of a teacher's knowledge, but by an objective look at the teacher's impact on learners. In this view, learning attitude is reflected in students' outcomes cognitive gains, affective growth, and skill acquisition as well as in their positive feelings about both learning activities and results. Alghofaili and Elyas (2017) report a direct relationship between learning cognition and learning attitude: the higher a student's cognitive grasp, the more favorable the learning attitude, and vice versa. Because modern education aims to develop the whole person, assessments of learning cognition have become a key metric for raising educational quality. Gursoy et al. (2019) add that educators should treat students as customers, continually auditing their own teaching effectiveness. By analyzing students' cognitive feedback, schools can capture learners' opinions, needs, and expectations, informing curricular refinements. Institutions must sustain the quality of areas where cognition scores are strong while targeting weaker areas for improvement, thereby striking a realistic balance with students' needs and in turn boosting learning attitudes.

Hypothesis 2 (H2): Learning cognition exerts a significant positive influence on learning attitude.

Suhaebar and Irokatun (2019) observe that when multiple instructors take part in a course, each contributes unique experience, enabling students to approach problems from varied angles. Because every teacher teaches within his or her area of expertise, students encounter a wider range of guidance and absorb each instructor's strongest material. Exposure to several instructors also offsets any strong like or dislike a student may have for a single homeroom or subject teacher, which in turn fosters a healthier learning attitude. Crafton et al. (2017) add that industry-expert team teaching makes it possible to group students by ability and interest, then match them with instructors whose strengths align with those needs. Such customization respects individual differences and can significantly elevate students' learning attitudes. Kambhampati (2019) further notes that teachers can contribute their own insights while collaborating with industry experts to design lessons, debrief classes, and divide instructional duties according to their respective

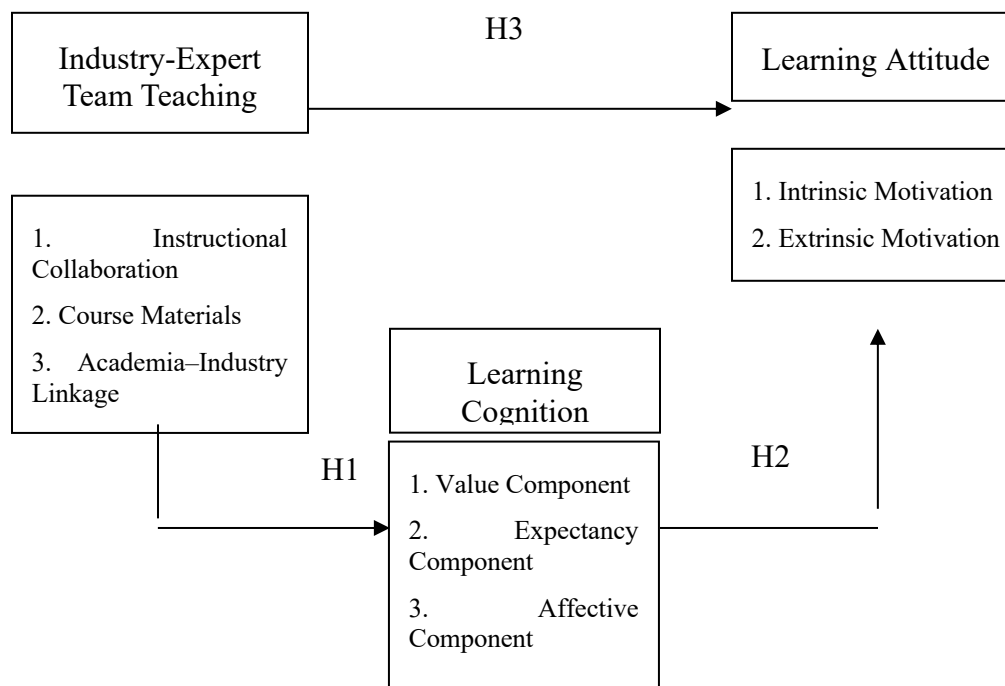
specialties. Inviting practitioners into the classroom breaks the traditional “single-instructor” model, fully leveraging both faculty and industry expertise to boost student learning attitudes. This partnership also strengthens emotional ties between academia and industry, laying groundwork for deeper university-industry collaboration and overall gains in teaching effectiveness.

Hypothesis 3 (H3): Industry-expert team teaching has a significant positive influence on students’ learning attitudes.

3. Research Method

Drawing on the foregoing literature review, the study proposes the conceptual framework shown in Figure 1.

Figure 1. Conceptual framework of the study



2. Operational Definitions

(1) Industry-Expert Team Teaching

Drawing on Tang (2018), this variable contains three dimensions:

- a. Instructional Collaboration: University faculty and industry professionals co-teach, modeling reciprocal learning and coordinating seamlessly in class.
- b. Course Materials: Development of learning resources that suit students' needs and abilities.
- c. Academia–Industry Linkage: Interaction that blends practitioners' hands-on know-how with faculty members' disciplinary expertise.

(2) Learning Cognition

Based on Huang et al. (2019), students' cognitive experience of learning comprises three components:

- a. Value Component: The importance and worth students assign to a learning activity.
- b. Expectancy Component: Students' confidence in their ability to complete learning tasks and reach intended outcomes.
- c. Affective Component: Feelings and emotional reactions regarding their competence during the process and after results.

(3) Learning Attitude

Adapted from Ching et al. (2019), learning attitude is divided into two facets:

- a. Intrinsic Motivation: Drives rooted in personal needs, desires, impulses, emotions, or the satisfaction of mastering the task itself.
- b. Extrinsic Motivation: Drives linked to external incentives, goals, interests, or aspirations such as pay, praise, or directives that are not inherent to the task.

3. Participants

Undergraduates from universities in southern Taiwan served as the study sample. Paper surveys were distributed and collected in person, yielding 436 valid responses and an 87 percent return rate.

4. Analytical Method

Regression analysis was employed to examine the relationships among industry-expert team teaching, learning cognition, and learning attitude.

4. Finding and Discussion

4. 1. Reliability and Validity Analysis

(1) Industry-Expert Team-Teaching Scale

After exploratory factor analysis, three factors were extracted: Instructional Collaboration (eigenvalue = 3.455, $\alpha = .83$); Course Materials (eigenvalue = 2.682, $\alpha = .85$); Academia–Industry Linkage (eigenvalue = 2.177, $\alpha = .81$), These three factors jointly explained 73.194 % of the total variance.

(2) Learning Cognition Scale

Exploratory factor analysis yielded three factors: Value Component (eigenvalue = 2.691, $\alpha = .87$); Expectancy Component (eigenvalue = 2.873, $\alpha = .82$); Affective Component (eigenvalue = 1.942, $\alpha = .84$), Together, they accounted for 77.266 % of the variance.

(3) Learning Attitude Scale

Two factors were extracted: Intrinsic Motivation (eigenvalue = 4.283, $\alpha = .92$); Extrinsic Motivation (eigenvalue = 3.641, $\alpha = .94$), These two factors explained 82.579 % of the total variance.

4. 2. Relationship Between Industry-Expert Team Teaching and Learning Cognition

The results of the regression tests for Hypothesis 1 (H1) are summarized below. All three dimensions of team teaching Instructional Collaboration, Course Materials, and Academia–Industry Linkage show significant positive effects on every facet of learning cognition (Value, Expectancy, and Affective components). Therefore, H1 is supported.

Table 1. Effects of Industry-Expert Team-Teaching Dimensions on Learning Cognition

Learning Cognition							
Value Component				Expectancy Component		Affective Component	
Industry- Expert Team Teaching	Beta	t		Beta	t	Beta	t

Instructional Collaboration	0.213	2.233**	0.204	2.168**	0.226	2.321**
Course Materials	0.227	2.342**	0.235	2.436**	0.207	2.183**
Academia– Industry Linkage	0.237	2.452**	0.241	2.539**	0.218	2.273**
F-value	26.438		31.572		37.845	
p-value	0.000***		0.000***		0.000***	
R ²	0.243		0.286		0.351	
Adjusted R ²	0.227		0.262		0.334	

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$.

4. 3. Relationships Among Industry-Expert Team Teaching, Learning Cognition, and Learning Attitude

(1) Industry-Expert Team Teaching → Learning Attitude

As shown in Table 2, the tests for H3 indicate that all three team-teaching dimensions exert significant positive effects on learning attitude. Instructional Collaboration ($t = 2.213$ **), Course Materials ($t = 2.544$ **), and Academia–Industry Linkage ($t = 2.653$ **) each raise students' Intrinsic Motivation. The same pattern holds for Extrinsic Motivation Instructional Collaboration ($t = 2.125$ **), Course Materials ($t = 2.427$ **), and Academia–Industry Linkage ($t = 2.562$ **) are all significant. Thus, H3 is supported.

(2) Learning Cognition → Learning Attitude

Table 2 also reports the results for H2. All three components of learning cognition influence learning attitude in a positive, significant manner. The Value ($t = 2.384$ **), Expectancy ($t = 2.775$ **), and Affective ($t = 2.684$ **) components enhance Intrinsic Motivation; they likewise boost Extrinsic Motivation ($t = 2.751$ **, 2.532 **, and 2.426 **, respectively). Hence, H2 is confirmed.

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Table 2. Regression Results: Effects of Industry-Expert Team Teaching and Learning Cognition on Learning Attitude

Industry- Expert Team Teaching	Learning Attitude							
	Intrinsic Motivation		Extrinsic Motivation		Intrinsic Motivation		Extrinsic Motivation	
	Beta	t	Beta	t	Beta	t	Beta	t
Instructional Collaboratio n	0.212	2.213**	0.205	2.125**				
Course Materials	0.246	2.544**	0.238	2.427**				
Academia– Industry Linkage	0.255	2.653**	0.248	2.562**				
Learning Cognition								
Value Component					0.226	2.384**	0.263	2.751**
Expectancy Component					0.267	2.775**	0.241	2.532**
Affective Component					0.254	2.684**	0.231	2.426**
F-value	33.482		41.697		37.251		46.832	

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p-value	0.000***	0.000***	0.000***	0.000***
R ²	0.317	0.392	0.363	0.447
Adjusted R ²	0.288	0.374	0.346	0.418

Notes: *p < .05; **p < .01; ***p < .001.

Inviting industry professionals to co-teach is intended to deliver hands-on instruction, close the gap between students and real-world tourism-information practice, and forestall the mismatch between classroom learning and workplace demands. With the experts' consent, their teaching materials and in-class content can be digitized and shared via e-learning platforms, allowing colleagues in the same discipline to benefit. Likewise, co-teaching sessions can be treated as professional-learning-community workshops open for other faculty to observe so they can sharpen their own practical skills and improve instructional effectiveness. This approach ultimately reaches students in classes that do not have direct access to industry experts. The primary instructor should prepare well in advance: spending ample time with the expert to align the syllabus, refine materials, and brief the expert on the class profile students' characteristics, backgrounds, and learning needs so the course flow and resources are fully optimized. Faculty should also survey students ahead of time to identify their specific needs for a tourism-information course. Using that input, teachers and practitioners can co-design content that satisfies diverse cognitive requirements, boosts course satisfaction, and enhances students' learning attitudes.

5. Conclusion

The findings reveal that industry-expert co-teaching whether through live demonstrations or narrative accounts of workplace experience offers tourism-information students fresh, highly engaging content. This approach elevates their learning cognition and reinforces their learning attitudes. Organizing students into groups further accommodates both collective dynamics and individual differences, leading to more effective learning. Because industry experts share insights distilled from years of professional practice, students gain a clearer grasp of current industry trends, effectively narrowing the gap between classroom study and real-world application. Faculty, in turn, update their own knowledge by observing the experts' methods, tools, and techniques; these insights then cascade into other classes, benefiting a wider student population. Experts likewise learn about pedagogical strategies lesson planning, instructional techniques, and classroom management thereby enhancing their teaching skills. The result is a genuine win-win partnership that strengthens both academic instruction and professional relevance.

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