



# Empirical Research on Academic Acculturation of Sino-Foreign Double-Degree Chinese Undergraduates in the Modern Education Times

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**Abstract.** To investigate the academic acculturation of students in Sino-foreign double-degree programs in the Information Age, the current study developed an analytic framework based on Ward's previous model. Ten mobilized students in a Sino-UK Science program were interviewed, and the qualitative data were coded and analyzed by the Grounded Theory technique. The research found that mobilized students encountered acculturation challenges in the blended classroom and ICT-assisted instruction, despite their participation in articulation courses prior to departure. These challenges may result from disparities in teaching arrangements under diverse methodologies and technologies. The current study proposed that strategies to incorporate ICT components into articulation courses should be considered.

**Keywords:** Academic Acculturation · Double-Degree Students · ICT-Assisted · Classroom · Modern Education

## 1 Introduction

With the advancement of international cooperation, transnational collaborative programs in technology-driven higher education have evolved significantly. The current study focuses on a double-degree program (e.g., 2 + 2) meaning that the enrolled students complete the first two-year study in China, and then mobilize to the partner university to continue the remainder. When graduate, they receive two diploma certificates. To improve students' academic acculturation after departure, a number of China's partner universities have established articulation courses, which introduce professional courses from overseas. The credits acquired can be transferred to the credit system of the partner university for articulation study.

There are numerous hidden cultural gaps between the Confucian countries of Asia and the affluent nations of the West; hence, acculturation concerns for sojourners, of particularity within the group of international students, have emerged as an important topic [1]. Carol [2] and Bronwen [3] found that international students who acquaint with the academic culture of the host country can minimize the burden of cross-cultural

adaptation and improve academic performance. However, there are strong debates as to whether or not articulation courses delivered in Chinese-foreign cooperative programs may help students acquire initial acculturation competence before departure. To cover the possible research gaps, the overarching topic of the present study is what academic acculturation challenges cross-border students of the double-degree program face. Several sub-questions are followed, including: in modern education, what differences in teaching arrangements bilateral partner universities likely had; how did the involved students perceive these differences?

## 2 Analytical Framework and Research Methodology

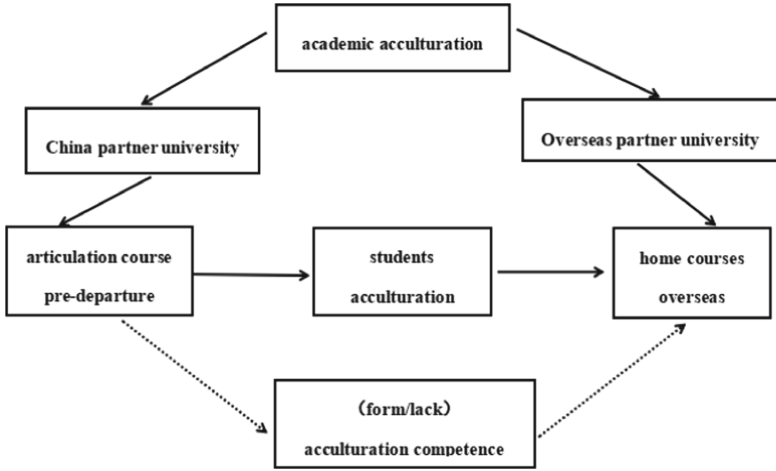
The Acculturation Model by Ward and colleagues was chosen as the theoretical foundation for creating the analytical framework [4] in order to assess the preceding hypothesis. Acculturation refers to a series of changes produced by continuous social interaction between a sojourner and different cultural groups after the one left the origin country to the host country. When expatriates are conscious of psychological pressure and a lack of social skills, they frequently alter their affective, behavioral, and cognitive reactions. The researcher developed a flexible analytic model (Fig. 1). The logical route is as follows: articulation courses provided in China can assist mobilized students in acquiring acculturation skills, hence reducing the number of barriers they experience.

A qualitative empirical case study was utilized to undertake a comprehensive inquiry within a confined system. A qualitative technique may support the research in constructing a reality acknowledged by both parties and achieving an explanatory consensus. Sampled was a combined double-degree program hosted by W Institute in England and S Institute in China. Participants were ten third- or fourth-year students mobilized in March of 2022. In May 2022, the first author conducted a 60-min online interview in Mandarin with each respondent. The interview transcripts were coded and analyzed using the NVivo software, and the three-level coding procedures of Grounded Theory were utilized to examine the internal consistency of the proposed themes and the obtained codes.

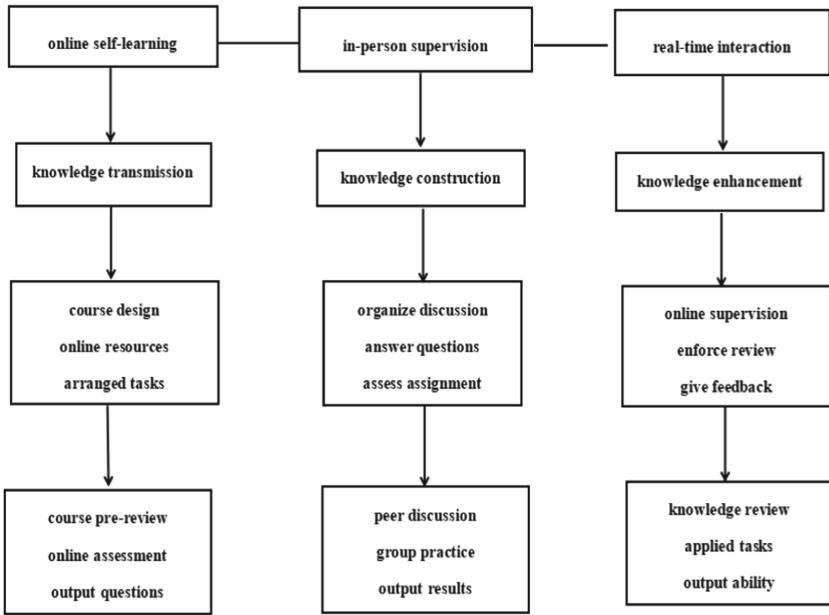
## 3 Findings and Discussion

### 3.1 Acculturation of Teaching Pattern: From Lecture-based to Blend Classroom

At the initial stage, the majority of respondents adapted well to the traditional lecture-based teaching pattern, but they were unfamiliar with the blending modes of instruction, in particular online pre-review and offline seminars (as shown in Fig. 2). With the support of Intelligent Tutoring Systems, real-time interactions between teachers and students in British classrooms highlighted group-based conversations. In addition, online courses and an electronic support platform were used to help students personalize their study processes and tasks, and students were required to thoroughly review learning materials before to offline seminars. According to a student, every student in the seminars and workshops needed independently operate the engineering software; nevertheless, there were few equivalent activities at China side.



**Fig. 1.** Analytical Model for Acculturation of Mobilized Double-Degree Students Source: WARD C & KENNEDY A. Coping with cross-cultural transition[J]. Journal of Cross-cultural Psychology, 2001(05):636–642.



**Fig. 2.** A case of blended teaching framework based on constructivist Source: Horn B & Heather S. Blended: using disruptive innovation to improve schools. San Francisco, CA: Jossey-Bass, 2014.

**Table 1.** Components of ICT-assisted teaching at the case partner university

Components	arranged tasks	proportion	data sources
online learning scores (40%)	courses viewing	30%	Blackboard platform
	discussions in Blackboard	50%	Blackboard platform
	chapter tests	20%	Blackboard platform
off learning scores (60%)	classroom discussions	30%	mixed assessment
	hands-on group tasks	30%	mixed assessment
	case study report	40%	teachers' assessment

Source: Summarized from the interviewees' descriptions and the admission information on the University's website

### 3.2 Acculturation of Teaching Method: From One-Way Acceptance to ICT-Assisted Learning

The majority of respondents were mindful of bilateral gaps in teaching methods and were unable to adjust to the ICT-assisted heuristic teaching methods that needed to build self-learning skills through the Internet. When it comes to the teaching process, Chinese lecturers place a great deal of emphasis on the complete transmission of theoretical knowledge and on assessing whether the students have accurately memorized textbook-based contents within the confines of repetitive responses [5]. In contrast, British instructors were adept at deploying AI to immerse students in simulated career scenarios and guide them to autonomously construct knowledge meaning. This was not a random collection of electronic materials, but rather a set of carefully crafted collective tasks inside students' zone of proximal development (as shown in Table 1). Most interviewees stated that they preferred ICT-assisted learning to that in China because widespread usage of Moodle contributed to a bridge for information exchange between peers and a boost to broaden scholarly horizons, all of which may result in a transition from dependent to the independent learner.

### 3.3 Research Discussion

When considering the academic acculturation of Chinese students in double-degree transnational programs, the prior study reported by a few scholars paid little attention to the topic of teaching patterns. This paper argues that the small-scale blend classroom effectively shortens the physical distance between teachers and students, and more importantly, that real-time interactive supervision can be attained frequently to alleviate the students' cognitive gaps between previously acquired and newly constructed knowledge. In addition to the above difference, a possible conflict may emerge between behaviorist and constructivist pedagogical perspectives at the operational level. In the ICT-assisted classroom, constructivists believe that a student is no longer a passive learner but an active agent of constructing meaning and meaning systems; the primary teaching tasks are not limited to directly delivering textbook contents, but also to providing an appropriate scenario to guide the student to step out of the zone of proximal

development, and to look for strategies to solve problems in future careers. Congruently, constructivist epistemology holds that knowledge is an explanation or assumption of the objective world rather than a final response that must be continuously revised and expanded [6].

## 4 Conclusion

Despite completing two years of articulation courses, the current study finds that double-degree students have not built the consistent competencies necessary for academic acculturation before departure. When students moved to the partner university in the UK, they perceived academic pressure and hurdles in terms of teaching methods and approaches. Further analysis shows that these perceptions may stem from the gaps in the teaching arrangements under varied methodologies and technology, and the innovation of ICT-assisted learning at the UK side has been highlighted. In order to maximize the benefits of double-degree articulation courses in fostering students' academic acculturation, this study proposes that curriculum designers and practitioners should incorporate ICT elements into classroom instruction, introduce more digitally teaching modes such as online-offline hybrid teaching, and take effective steps to popularize online assessment and evaluation.

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