Internationalizing cooperative education: Implementing the German DHBW model in Thailand and China

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In response to the high unemployment rates of university graduates, Asian governments are encouraging their universities to develop a more practice-oriented curriculum. The aim is to provide better-qualified graduates, who will meet the needs of industry. The Duale Hochschule Baden-Wuerttemberg (DHBW) supports this development, through internationalizing cooperative education programs at Asian universities, based on its successful study model. This paper focuses on comparing the DHBW with two Asian universities: Walailak University in Thailand and Southeast University in China. Descriptive case studies for the two universities, using a multiple case design, were mapped to the key success factors of the DHBW, in particular achieving practical experience and the role of industry. The data for the case studies originated from semi-structured interviews in a focus group setting with 36 academics, government officials, cooperative education bodies and industry representatives. The aim was to assess the opportunities and limitations for implementing the DHBW model.

Keywords: Internationalizing, cooperative education, Germany, Thailand, China, DHBW

INTRODUCTION

Internationalization has been the subject of study and comment in a range of academic fields, including cooperative education. The relationship between internationalization and cooperative education is both complex and dynamic, as demonstrated by the variety of topics presented and published by the World Association for Cooperative and Work-integrated Education (WACE). The acceleration of globalization in the last decades has intensified debates about internationalizing cooperative education (Graf, Powell, Fortwengel, & Bernard, 2014; Powel & Fortwengel, 2014; Reinhard, 2006; Reinhard, Satow, & Sisco, 2007).

Moreover, within the current era of globalization, market challenges have taken center stage. A variety of important social, cultural, economic, and political developments that affect higher education have intensified. Market forces and corporate management ideas influence the way universities are being operated worldwide (Reinhard, Satow, & Sisco, 2007; Slaughter & Leslie, 1999). One important development is the increased pace of the internationalization of cooperative and work-integrated learning programs at institutions of higher education, particularly in Asia. A well-established German provider of cooperative education degrees, the Duale Hochschule Baden-Wuerttemberg (DHBW), has sought to support this development.

The Duale Hochschule Baden-Wuerttemberg (DHBW) Model

In 1974, a public university of cooperative education in the state of Baden-Wuerttemberg, Germany, was established. This model, now known as the Duale Hochschule Baden-Wuerttemberg (DHBW) was created in response to a lack of graduates with practical experience. It is unique to that of other German higher education institutions offering work-integrated learning programs or work placements (Rennert, 2016). It follows internationally recognized standards for cooperative education on all of its
bachelor and master programs (Reinhard & Pogrzeba, 2016). In order to be enrolled at the DHBW, its 34,390 undergraduates must possess a university entrance qualification and additionally a contract of employment with a partner company of the DHBW for the duration of their studies (Duale Hochschule Baden-Wuerttemberg, 2015). The participants of this cooperative education or work-integrated learning model are thus both students and employees (Purz, 2011). A close network of over 9,000 partner companies forms the basis of industry cooperation at the DHBW. These partner companies are instrumental in shaping learning at the university, providing a close synergy between the DHBW curriculum and practical experience at the company.

The DHBW model has been successfully replicated in the Latin American region, where it has been implemented at eight universities in four countries, namely, Columbia, Ecuador, Peru, and Mexico under the banner Duale Hochschule Latinoamérica (http://www.dhla.org/). This experience has shown the potential of internationalizing the DHBW model.

**Cooperative Education in Thailand and China**

Further work has been undertaken to explore the opportunities and limitations for implementing the DHBW model in the Asia-Pacific region. This paper will focus solely on research in the field of cooperative education conducted by the DHBW, in the context of Thailand and China.

In order to understand how cooperative education models can be implemented in such countries, it is important to understand the political, economic, and cultural background (Kato, 2005). Compared to Germany, for example, Thailand and China are countries in transition to a knowledge economy. Moreover, Thailand is a military monarch society whereas the Communist Party dominates China’s political system.

Regarding graduate employability, Thai universities are typically ranked low, compared to other Asian universities, such as in China, Japan, and South Korea. The highest-ranking Thai university, Chulalongkorn University, achieved position 40 out of 122 Asian universities, in terms of its employability rate (QS, 2019). The infrastructure already exists in Thailand, to enable further development of cooperative education (Khampirat, Pop & Bandaranaike, 2019). Albeit offering practical experiences of a short duration, over 100 Thai universities offer some form of cooperative education to their undergraduates (Reinhard & Pogrzeba, 2016). This is underpinned by the active cooperation of over 13,000 partner companies (Thai Association for Cooperative Education, 2015). Furthermore, the cooperative education system is divided into nine regional cooperative education networks that work with the institutions and industry in their respective regions to enhance the profile of cooperative education as a best practice model. These networks demonstrate an effective means of collaboration between government and industry.

In China, the Double World Class University Plan launched in September 2017 is a project promoting selected universities, with the aim of furthering previous work on creating world-class universities, to meet international standards (Huang, 2017). By doing so, the politicians have made the relevance of higher education for the labor market a focus. At the China Development Forum in 2014, the Ministry of Education announced a plan to convert 600 universities into polytechnics to offer more practice-oriented study programs (Sharma, 2014). The government hopes that the approach of combined support for research universities, polytechnics and high-quality technical education institutions will provide better-qualified graduates. Indeed, research suggests that students involved in cooperative education programs achieve better employment outcomes (Ferns, Russell, & Kay, 2019; Rowe &
Zegwaard, 2017). It is expected that such students will both meet the needs of the Chinese economy and help reduce the unemployment rate of university graduates.

The research on which this paper is based focuses on conducting a comparison between the DHBW and two universities in Thailand and China respectively, in order to expand the cooperative education element at these universities and identify opportunities for implementing aspects of the DHBW model. These two universities are the Walailak University in Thailand and the Southeast University in China.

Walailak University is a public university in the South of Thailand. It offers a wide range of bachelor and masters degree programs, in addition to doctoral programs. Over 6,000 students are enrolled at the various faculties of the university (Walailak University, 2019). The Walailak School of Management is one of the only faculties to include elements of cooperative education in its curriculum. The Tourism & Hospitality Industry Program of the Walailak School of Management started combining practical experience with its degree offerings, based on the DHBW study model, in 2013 (Reinhard & Pogrzeba, 2016).

The Southeast University is a top-ranked public university, located west of Shanghai in China. The university has a research focus and offers its 30,664 students a variety of bachelor, masters, and doctoral programs (Southeast University, 2019). The university offers cooperative education, in cooperation with German companies in China under the guidance of the DHBW, since 2017, in the field of Industrial Engineering (Duale Hochschule Baden-Wuerttemberg, 2017). This study program combines engineering and management contents. The first student cohort started their dual study program in 2017 with the official opening ceremony of the Sino-German Dual Bachelor Training Program in September 2017. This cooperation was driven by the requirement of German-owned global companies, operating through joint ventures with Chinese companies in Jiangsu province, for a skilled graduate population with the requisite practical experience.

RELEVANT LITERATURE

Terminology

The German scientific council published a positioning paper, detailing the terminology associated with cooperative education (Wissenschaftsrat, 2013). The terminology includes dual studies, cooperative education, accompanied work-integrated learning, and practical integrated learning. Such definitions are commonly used in academic circles in Germany.

The Thai National Qualifications Framework refers to cooperative education as an umbrella term for dual vocational training, dual vocational education, workplace-based internships, work-integrated learning programs, workplace internships and collaborative partnerships (Office of the Education Council, Ministry of Education, 2014). The Thai Association for Cooperative Education (FACE), established in 2011, refers to cooperative education in their literature (Thai Association for Cooperative Education, 2015). Thailand’s Walailak University, on which this paper is based, uses terms such as work-based learning and cooperative education (Srisa-an, 2014; Walailak University, 2013).

Traditionally, China’s focus in higher education has been on increasing the reputation of its universities and on catching up with international academic standards. However, more recently, the Chinese Government has encouraged its universities to move towards more practice-oriented study programs, called technical and vocational higher education (Sharma, 2014). The terminology used is applied
learning or polytechnic education. The latter reflects the objective to produce more technically trained graduates who are urgently needed in the strongly growing economy (Boder, 2016).

**Internationalization**

Internationalization of cooperative education is a focus of many institutions in the tertiary sector globally. International organizations, such as the WACE, were founded to promote the internationalization of cooperative education (Coll & Zegwaard, 2010; Franks & Blomqvist, 2004; Reinhard, Satow & Sisco, 2007). International co-op programming, international co-op placements, international cooperative education, and globalization of cooperative education are frequently referred to in academic literature (Bernard, Graf & Powell, 2013; Bode, Müller & Heinze, 2012; Coll, Pinyonatthagarn & Pramoolsook, 2003; Graf et al., 2014; Hesser, 2016; Powel & Fortwengel, 2014; Powel & Solga, 2008; Reeve, 2004).

The term export education can range in its meaning from agencies consulting students while studying abroad, to establishing partnerships with universities and companies in the area of vocational training (Gerloff & Reinhard, 2019; Schreiterer & Witte, 2001). Export education also refers to educational services that are offered on a commercial basis in other countries, with students studying within a cooperative education program either in their home university or at a university abroad (Reinhard, Satow & Sisco, 2007).

In an article written by Coll, Pinyonatthagarn and Pramoolsook (2003) exploring Thai student perceptions of international placements, the authors explain that one of the primary benefits to students from international cooperative education was the improvement of their communication skills, “specifically their English language skills” (p. 3). In addition, the Thai students acknowledged a better understanding of cultural differences and how those differences can impact workplace practices. Interpersonal skills were also cited as benefiting from the international placement.

The Chinese government acknowledges the benefits of international academic collaborations. Despite official attempts to restrict the use of imported textbooks that promote Western values (Levin, 2015), there are many initiatives that support the international exchange students and faculty and establish relations between Chinese and foreign universities. In the U.S., for example, Chinese students constitute by far the largest group of international students, totaling approximately 350,000 students in the academic year 2016/17, which is about one third of all international students (Institute of International Education, 2017).

Moreover, the Chinese government-initiated programs for three different types of international cooperation between national and foreign academic institutions: joint venture universities, the establishment of legally dependent institutions at Chinese universities and joint study programs (Jiangsu Provincial Department of Education, 2014).

Foreign universities cannot offer degrees on their own in China, whether direct or via a Chinese subsidiary. Strict regulations are imposed and monitored by the Chinese Ministry of Education. A Chinese partner institution is a mandatory component of international academic activity in China. A joint-venture university is a legally independent academic entity and possesses the highest level of institutional independency from the Chinese government. An example of this international collaboration is the Chinese-British Hi’an Jiatong Liverpool University in the city of Suzhou.
An alternative organizational approach is one that establishes a legally dependent institution at a Chinese university. The Sino-German University for Applied Sciences at Tongji University is an educational project that falls under this category (Chinesisch-Deutsche Hochschule für Angewandte Wissenschaften, 2018).

Joint study programs offer study abroad experiences or double degrees as part of the academic program or curriculum. This type of collaboration is the standard approach of international cooperation without specific institutional interrelations (Gerloff & Reinhard, 2019).

In this paper, the term internationalization of cooperative education is used to cover all of the various activities mentioned above.

**METHODOLOGY**

The methodology on which the research is based serves to enable a comparison between the DHBW university and two universities in Thailand and China, respectively. The ultimate aim of this research is to further develop cooperative education at the Walailak University and Southeast University and provide recommendations for implementing elements of the DHBW model.

**Qualitative Data Collection**

Data for the research was derived from a mix of qualitative methods. Firstly, documentation, relevant to the target institutions was collected and reviewed by the research team, during a so-called desk research phase. The documentation was sourced from Walailak University, Southeast University, TACE, the Chinese Ministry of Education, Jiangsu Provincial Department of Education, and the President’s office of the DHBW university. The content was reviewed and clustered according to the following categories: country reports relating to existing cooperative education models in the three countries, policy documents at the national level relating to cooperative education, information on the role of partner companies and the type of practical experience offered, and the current structure of cooperative education models at the Walailak and Southeast universities.

The resulting output from the desk research phase served to provide the research team with the required thematic parameters for the second phase, the semi-structured interviews. These interviews were undertaken with focus groups at the Walailak and Southeast universities in 2015, 2017 and 2018. The groups comprised of, in total 36 academics from the respective German, Thai and Chinese universities, government education officials, members of the respective cooperative education bodies and industry representatives. The Thai academics and industry representatives work in the field of tourism and hospitality, whereas their Chinese counterparts work in industrial engineering. The participants were selected based on their proximity to the decision-making process for the further development of cooperative education at the two universities. The following themes were discussed by the focus groups: views on the current state of cooperative education at the Walailak and Southeast universities, strategic goals, requirements (qualifications, skills, and competencies), and opportunities and challenges for the future. The themes were determined, according to Mayring’s (2016) methodology of qualitative content analysis. The output of the focus groups was captured in written form and structured in alignment with the themes stated above.

The acquired information from the semi-structured interviews provided the necessary data to form two descriptive case studies for the Walailak and Southeast universities, namely the third phase of the qualitative data collection.
Case studies can be focused on gathering explorative, forecasting, descriptive, and explanatory characteristics (Heimerl, 2007). In the context of this paper, a descriptive case study was developed, to establish the current state of cooperative education at the two target institutions. Yin (2009) refers to single- and multiple case design. The paper focused on the latter, in order to produce two comparable elements to the case study, drawing on the experiences of the Walailak and Southeast universities.

Analysis of the Data

By capturing the wide range of cooperative education practices in a descriptive multiple case study design, the authors of this paper had the opportunity to create a holistic overview of the current situation at the Walailak and Southeast universities, with regard to the development of their respective cooperative education models.

In order to analyze the level to which the German DHBW model could be implemented at the Walailak and Southeast universities, the data from the case studies was mapped manually to a framework of defining features of cooperative education, as outlined in research conducted on the key success factors of the DHBW model (Reinhard & Pogrzeba, 2016; Reinhard, Pogrzeba, Townsend & Pop, 2016), as set out in Figure 1.

![Figure 1: Framework of defining features of cooperative education.](image-url)

The 2015/2016 research concluded that eight aspects, specific to the DHBW model, contributed to the success of the university in Germany. With a graduate employment rate of 90%, the original aim of...
providing skilled graduates with practical experience, to meet industry needs, was achieved (Duale Hochschule Baden-Wuerttemberg, 2017).

The mapping of the case studies to the key success factors showed a clear emphasis on the themes “achieving practical experience” and “the role of industry”, in terms of what could be realistically achieved through implementing the DHBW model at the Walailak and Southeast universities. The data analysis phase focused, therefore, on assessing the possibilities and limitations for implementing and adapting the German DHBW model, based on these two key success factors. This was undertaken with the aim of producing recommendations for adaptation and implementation (Schögel & Tomczak, 2009). These possibilities, limitations, and recommendations will be set out in more detail in the following results and conclusions sections.

RESULTS AND DISCUSSION

Achieving Practical Experience

The same partner company employs DHBW students for the duration of their studies. This ensures a constant relationship between the student, their partner company and the DHBW. The enhanced level of commitment required by such a relationship impacts positively on the quality and depth of cooperative education provided (Purz, 2011). The acquisition of practice and theory is achieved through an alternating model of semesters at the university and the partner company. The supporting curriculum seeks to link the content of the academic element to the role that is undertaken during practical semesters. This ensures the highest possible level of synergy between the theory and practical elements of the DHBW study model.

The situation in Thailand varies insofar that students of cooperative education programs participate in periods of practical experience with different partner companies over the course of their studies. The Walailak University works closely together with associations, companies, government organizations and local communities to provide cooperative education programs for its students. Its partners support all the cooperative and work-based learning trimesters. Students gain theoretical knowledge and work-related experience, which enables to develop their skills in the tourism and hospitality industry from entry to supervisory level. The experiential element is a compulsory part of their degree studies. Although the level of professional experience achieved is not as extensive as the DHBW study model, this model, nonetheless, facilitates their entry into their chosen industry at the end of their studies (Ferns, Russell, & Kay, 2019; Khampirat, Pop & Bandaranaike, 2019; Purz, 2011). The nature of the practical experience in the second year mirrors the parallel method, in that the activities are part practical, part academic.

Work-based learning projects are also a component of the third study year, in addition to three paid cooperative education trimesters, in the third and fourth study years, where the students work full-time at their partner companies. This element of the program mirrors the alternate method of cooperative education, similar to the DHBW study model, whereby students spend part of their time exclusively at their partner company and part of their time at the university (Pinpetch & Baum, 2009; Walailak University, 2013).

At the Southeast University, the DHBW model was established in the field of industrial engineering, because the Chinese subsidiaries of German companies needed highly skilled young workers. They wanted to be able to train their own young professionals on an academic level in combination with practical work-experience, to provide a pipeline of young qualified talent (Boder, 2016). As most of the
partnering companies from industry involved know the DHBW model from their headquarters in Germany, they requested the same format at the Southeast University in China (Duale Hochschule Baden-Wuerttemberg, 2015). Therefore, students have employment contracts with one company for the entire three-year Bachelor program. However, as the Chinese educational system requires a Bachelor program to comprise of four years, the students spend their first study year in a traditional academic setting. During the first year of their studies, the students are selected by the industry partners to complete the study years two, three and four in the newly created cooperative education program. These three years mirror the DHBW model with three-month academic semesters followed by three-month practical training at their partner company.

The Role of Industry

The DHBW model attracts companies from a wide range of industry sectors, both in private and state ownership, from a variety of locations in Germany and abroad. The size of the partner company also varies from multinational corporations to small and medium-sized enterprises. The DHBW brand is known regionally, nationally, and internationally for this reason (Rennert, 2016).

Partner companies from industry at the DHBW enjoy a close relationship with the university in three areas. Firstly, they recruit and train undergraduates enrolled at the university. Secondly, they actively participate in developing the DHBW study model to meet industry requirements in the future. Industry partners are represented in nearly all decision-making bodies at the university, working with the university to produce curricula, which meet internationally recognized standards, while providing industry with the skills it needs to succeed commercially, thus improving graduate employability (Rowe & Zegwaard, 2017). Thirdly, lecturers from industry are employed to bring real world practical experiences to the classroom. This level of involvement from industry is motivated by the need to recruit and retain young employees with professional experience (Boder, 2016). It has the effect that partner companies have a greater sense of emotional commitment and are, therefore, better integrated with the DHBW network (Boder, 2016).

Partner companies from the tourism industry play a different role at the Walailak University, compared to the industry partners of the DHBW. Several representatives are involved in the curriculum evaluation and revision processes. The management and/or representatives of partner companies, associations and clubs in the tourism industry are encouraged to provide feedback, discuss improvements, and engage in additional activities, both directly and indirectly, related to the cooperative education initiative. There are pre-, during and post-meetings with the top and senior management from the partner companies. Industry provides a supporting role, through financial sponsorship in providing facilities and services during the cooperative education trimesters, i.e. classrooms, meeting rooms, management dormitory, and kitchen and restaurant facilities. Industry representatives perform site inspections, with the aim of ensuring quality standards are met (Reinhard & Pogrzeba, 2016).

The Tourism and Hospitality Industry Program at the Walailak University places great importance on the role of industry, such as hotels, resorts and travel and tour companies, in shaping the practical experience of their students. This was achieved in 2013 through the incorporation of work-based learning projects into the curriculum, where industry sponsors work with academic staff from the university to impart the up-to-date and industry relevant skills and experience in the tourism industry. As with the DHBW, the role of industry is to nurture young talent, which has the benefit for students
that the resulting skills set increases their employment chances on graduation (Pinpetch & Baum, 2009). Nonetheless, the interfaces between the hospitality and tourism industry and the university are limited.

At the Southeast University, in contrast to the DHBW, four parties are involved in the project to achieve a successful implementation. The local municipal authorities provide the required infrastructure and coordinate the academic project. The main stakeholders are the companies and the Southeast University offering the program. More than 200 German companies have founded Chinese subsidiaries in the municipality. These companies and the university jointly develop the curricula of the cooperative education programs. They are based on study programs offered at the DHBW university and adjusted to meet the local legal requirements and the educational demands of industry for specific practical skills. The continued expansion of German companies in China requires a growing labor force of skilled workers (Duale Hochschule Baden-Wuerttemberg, 2017). The DHBW university is also involved in a train-the-trainers program, which will enable professionals from partner companies to provide lectures on their areas of expertise. This consulting role ensures that the accredited quality standards of the DHBW study model are replicated for the purposes of this educational initiative.

The key elements of the results section are summarized in Table 1.

**Limitations and Implications of the Research**

The level of success experienced in implementing aspects of the DHBW model at the target universities in Thailand and China cannot be generalized. Further research, drawing on the experiences of a wider focus group of universities in the two countries, would be needed to test the suitability of the DHBW model on a national level. On a regional level, the experiences acquired in analyzing and implementing parts of the DHBW study model at the target universities in Thailand and China may help to examine whether the model of the DHBW university can be introduced at universities in other Asian countries. At the same time, there is an opportunity for the DHBW to reflect on how best practice at the target universities can impact on the future development of the DHBW study model. In addition, comparisons between the DHBW and other study models with a practical element, such as those in Australia and New Zealand, for example, would provide a wider range of options for internationalizing cooperative education.

The authors also focused on only two of the eight defining features of cooperative education, as defined by Reinhard and Pogrzeba (2016). Further analysis of the remaining six features would provide the study with more breadth. Comparing the three universities based on other available frameworks, for example the WIL Partnerships for Employability Framework, would form an interesting contrast to this study (Ferns, Dawson, & Howitt, 2019).

The study underlying this paper is nonetheless providing the reader with an opportunity to understand the application of cooperative education at three specific universities, located in three contrasting countries and cultures, with different economic and political systems. The paper also illustrates the comparison between the DHBW study model, the Chinese model, which is based on the DHBW model, and the Thai model, which exists independently from the DHBW model. In essence, the study contributes to the further development of the discipline of comparative cooperative education research.
TABLE 1: Comparison of achieving practical experience and the role of industry.

<table>
<thead>
<tr>
<th>Defining Feature</th>
<th>DHBW</th>
<th>Walailak University</th>
<th>Southeast University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving practical experience</td>
<td>Students employed by same partner company (all of the three years)</td>
<td>Students placed with different partner companies (years three and four)</td>
<td>Students employed by same partner company (years two to four)</td>
</tr>
<tr>
<td></td>
<td>Alternating model of semesters (three months at the university – followed by three months at the partner company)</td>
<td>Three practical trimesters in 3rd and 4th study years</td>
<td>See alternating DHBW model (in 2nd, 3rd, and 4th study year)</td>
</tr>
<tr>
<td></td>
<td>Curriculum linked to practical element</td>
<td>Curriculum linked to practical element</td>
<td>Curriculum linked to practical element</td>
</tr>
<tr>
<td></td>
<td>Practical element is compulsory and recognized (14% of credit points awarded)</td>
<td>Practical element is compulsory and recognized (5% of credit points awarded)</td>
<td>Practical element is compulsory and recognized (14% of credit points awarded)</td>
</tr>
<tr>
<td>The role of industry</td>
<td>Partner companies recruit and train their DHBW students</td>
<td>Companies provide placements</td>
<td>Partner companies recruit and train their students</td>
</tr>
<tr>
<td></td>
<td>Participation in all decision-making bodies and assessment of students</td>
<td>Participation restricted to curriculum evaluation and revision</td>
<td>Participation restricted to curriculum evaluation and revision</td>
</tr>
<tr>
<td></td>
<td>Wide range of industry sectors</td>
<td>Tourism and hospitality industry</td>
<td>Industrial engineering sector, German companies with a Chinese subsidiary or joint venture</td>
</tr>
<tr>
<td></td>
<td>Lecturers from industry deliver theory, parallel to full-time professors</td>
<td>Industry sponsors work with academic staff on work-based learning projects</td>
<td>Lecturers from industry (trained by the DHBW) deliver theory, parallel to full-time professors</td>
</tr>
<tr>
<td></td>
<td>Monthly salary paid to students (also during theory semesters)</td>
<td>No salary, but provided with material compensation, e.g. accommodation, food, uniforms</td>
<td>Monthly salary paid to students (also during theory semesters)</td>
</tr>
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<td></td>
<td>Prime industry sponsors from industry – provision of facilities and quality control in industry</td>
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</table>

CONCLUSIONS

In the case of the Thai Walailak University and the Chinese Southeast University, the study emphasized the importance of practical experience and the engagement of industry partners, as factors essential to the successful implementation of elements of the DHBW study model on the Asian continent.

The close coupling of practical work-based experience with the corresponding academic content ensures that newly acquired theories can be applied in a practical setting. The Walailak University seeks to introduce the practical element through professionally based project work and provides its students with a learning environment, which offers both theoretical and professional opportunities.

The practical element offered by the Southeast University is broadly similar to that of the DHBW, whereby students undertake semesters of study and work in rotation. This was enabled through the establishment of the Sino-German Dual Bachelor Training Program. That the phases of practical experience at partner companies at both the Thai and Chinese universities are not undertaken in all years of study is offset by the variety and quality of practical industry-driven interfaces (Smith, Ferns, & Russell, 2019). Nonetheless, it is recommended that repeated professional experience be expanded through all years of the study program, as provided by the partner companies of the DHBW. This allows students to develop skills over a longer timeframe, which are optimally suited to their chosen industry or branch of business, thus improving their employability.

The extent of industry involvement, in terms of the provision of opportunities for work-integrated learning, is essential to the development of skilled talent, through a partnership between industry and universities. The pilot project of the industrial engineering program at the Southeast University, meets the specific need of German companies to recruit and retain local talented undergraduates for their Chinese subsidiaries. It allows such foreign companies direct access to the Chinese higher education system, through their joint venture with the Southeast University and the DHBW.

Walailak University seeks to involve industry in the development of both academic and practical curricula, specific to the future requirements of the tourism and hospitality industry. The quality of the practical element can only be assured with the continued commitment of industry. Therefore, the Southeast University and the Walailak University need to focus on intensifying the involvement of industry, for example, in decision-making bodies, the development of curricula and the provision of lecturers.

The successful introduction of elements of the DHBW model, as seen at the Walailak University on the Tourism and Hospitality Industry program and at the Southeast University on the Industrial Engineering program provides a basis for the future application of the DHBW model into other programs of study at the respective universities. Indeed, the DHBW offers the same study model for all of its bachelor’s degrees, whether on traditional programs, such as business administration, creative industries, such as media design or future technical disciplines, such as engineering in the renewable energy branch.

With the rise of the global economy, where business activities transcend national and continental boundaries, the internationalization of the tertiary education sector will continue, as a response to industry demands for qualified educated workers. The successful implementation of the DHBW study model on the Asian continent demonstrates the potential for the expansion of work-integrated degree programs across these national and continental boundaries, in the future (Gerloff & Reinhard, 2019).
ACKNOWLEDGEMENTS

An earlier version of the paper was presented at the third International Research Symposium of the World Association for Cooperative Education (WACE) in Stuttgart, Germany, in June 2018. The authors would like to thank the conference participants for their helpful comments and suggestions.

REFERENCES


About the Journal

The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues dealing with Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE). Since then the readership and authorship has become more international and terminology usage in the literature has favored the broader term of WIL, in 2018 the journal name was changed to the International Journal of Work-Integrated Learning.

In this Journal, WIL is defined as "an educational approach that uses relevant work-based experiences to allow students to integrate theory with the meaningful practice of work as an intentional component of the curriculum. Defining elements of this educational approach requires that students engage in authentic and meaningful work-related task, and must involve three stakeholders: the student, the university, and the workplace". Examples of practice include off-campus, workplace immersion activities such as work placements, internships, practicum, service learning, and cooperative education (Co-op), and on-campus activities such as work-related projects/competitions, entrepreneurship, student-led enterprise, etc. WIL is related to, but not the same as, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal’s main aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, co-op/WIL practitioners, and researchers. The Journal desires to encourage quality research and explorative critical discussion that leads to the advancement of effective practices, development of further understanding of WIL, and promote further research.

The Journal is ongoing financially supported by the Work-Integrated Learning New Zealand (WILNZ), www.nzace.ac.nz and the University of Waikato, New Zealand, and received periodic sponsorship from the Australian Collaborative Education Network (ACEN) and the World Association of Cooperative Education (WACE).

Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL is primarily of two forms; 1) research publications describing research into aspects of work-integrated learning and, 2) topical discussion articles that review relevant literature and provide critical explorative discussion around a topical issue. The journal will, on occasions, consider best practice submissions.

Research publications should contain; an introduction that describes relevant literature and sets the context of the inquiry. A detailed description and justification for the methodology employed. A description of the research findings - tabulated as appropriate, a discussion of the importance of the findings including their significance to current established literature, implications for practitioners and researchers, whilst remaining mindful of the limitations of the data, and a conclusion preferably including suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical and scholarly discussion on the importance of the issues, critical insights to how to advance the issue further, and implications for other researchers and practitioners.

Best practice and program description papers. On occasions, the Journal also seeks manuscripts describing a practice of WIL as an example of best practice, however, only if it presents a particularly unique or innovative practice or was situated in an unusual context. There must be a clear contribution of new knowledge to the established literature. Manuscripts describing what is essentially ‘typical’, ‘common’ or ‘known’ practices will be encouraged to rewrite the focus of the manuscript to a significant educational issue or will be encouraged to publish their work via another avenue that seeks such content.

By negotiation with the Editor-in-Chief, the Journal also accepts a small number of Book Reviews of relevant and recently published books.
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Publisher: Work-Integrated Learning New Zealand