The implications of active blended learning for English teaching in a Chinese university

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Abstract

Blended Learning (BL), which is usually defined as a combination of face to face (F2F) and online instruction, has attracted considerable interest in recent years and has been increasingly adopted within the higher education sector. In this research, a thematic inductive analysis was conducted to explore how the practice of Active Blended Learning (ABL) at a British university, University of Northampton (UON) might inform the BL College English teaching curriculum design at a Chinese university, Henan Normal University (HNU), so that students may enjoy a more enhanced learning experience in both online and F2F contexts. In the study, 10 teachers from different disciplines at UON and 10 College English teachers from HNU were interviewed for between 45 and 60 minutes. The findings of this study suggest that the implementation of BL in College English courses at HNU should be supported by the institution in terms of pedagogical design, policy, staff development, technical infrastructure and small class size.

Keywords: college English teaching; active blended learning; blended learning; pedagogical design

Introduction

In recent years, the demand and popularity of BL in higher education has increased and has become a common teaching phenomenon, particularly in the wake of the COVID-19

pandemic, which prompted many universities to use BL as a means of delivering academic programmes, whilst at the same time minimising the spread of the virus. Although there is no universally accepted definition of BL in previous research, most definitions focus on combining two components: F2F and online instruction (Garrison and Kanuka, 2004; Graham, 2013).

Based on the two components of BL, higher education institutions around the world have adopted different BL models for the development and implementation of their courses. For example, Henan Normal University (HNU) in China, has delivered BL courses in different subjects. At HNU, College English is a compulsory course for all non-English major undergraduates. College English courses use Unipus as the delivery platform, which is an English Language learning application offering learning resources and exercises for each unit, automatic marking of exercises and statistical analysis. Students and teachers can use Unipus via mobile phones and the website. Each unit of the College English course is divided into three stages: pre-class, in-class and after-class. During the pre-class stage, students access Unipus and complete tasks according to the teacher's instructions. The in-class stage includes two steps. The first is a series of F2F lectures delivered by HNU teachers, which mainly explains the difficulties in the learning content. Then the classroom is flipped, with students actively engaged with learning activities and teachers offering guidance. Students present the outputs they completed in the pre-class period and receive feedback and comments from the teacher.

During the after-class stage, students use Unipus to complete exercises, and teachers develop teaching plans for the next unit.

Meanwhile, the University of Northampton (UON) in the UK developed the ABL model, which has been defined as

'a pedagogical approach that combines sense-making activities with focused
student interactions (with content, peers and tutors) in appropriate learning settings
– in and outside the classroom. ABL focuses on engaging students in knowledge

construction, reflection and critique, in developing learner autonomy and in achieving learning outcomes.' (Padilla Rodriguez and Armellini, 2021)

ABL is composed of 3 stages: pre-session, real-time session and post-session. (see Figure 1).

Figure 1. An active blended learning framework (Padilla Rodriguez and Armellini, 2021)



During the pre-session stage, tutors release learning resource material to the virtual learning environment (VLE) platform and assign the students' pre-session tasks. Students are asked to go through the learning resource on the VLE platform in their own time. Following this, students work individually or in groups to complete pre-session tasks assigned by the tutors in their own time and then upload the output of the pre-session task to the VLE. Tutors are available to guide and moderate students' online work. The real-time stage is F2F. Based on the students' performance in the sense-making activity, the tutor makes use of this F2F session to explain difficult points. Finally, during the post-session stage, students complete the post-session task set by the tutor to consolidate their understanding of the topic.

UON staff have successfully used ABL to improve their pedagogical design and teaching practices, creating more engaging interventions for UON students. While the ABL model has much in common with the College English BL of HNU, such as in the learning sequence guided by the two models, there are differences in how learning activities are designed and supported at different stages. For example, there is the lack of tutor's presence, intervention and guidance on students' independent work in the pre-class stage of HNU's BL model. The ABL model emphasises active learning through small group interactions, both online and face to face, synchronously and asynchronously, whereas the group size in HNU is usually quite large, making it more challenging to design group work online. In addition, there are a number of additional advantages to ABL worth exploring, which may enable HNU to implement College English BL more effectively. In this study, semi-structured interviews were conducted with 10 teachers from various disciplines at UON, and 10 College English teachers from HNU to examine how the ABL practices developed at UON can inform the BL design of the College English Teaching curriculum at HNU, thereby facilitating a more active learning experience. both online and F2F. The research findings will provide references for the research and practice of BL in HNU.

Literature review

BL has many advantages which makes it popular among both teachers and students. One of the key benefits is the greater flexibility it affords students. BL allows students to work at their own pace and work from home, which enables them in turn to better balance family, work and academic commitments (Vaughan, 2007). BL contributes to improved learning outcomes for students (O'Toole and Absalom, 2003; Dziuban et al., 2006; Lim and Morris, 2009, Woltering et al., 2009) and student motivation and satisfaction (Woltering et al., 2009). In English Language teaching, BL can be used effectively to develop the language skills of learners (Ghazizadeh and Fatemipour, 2017). Positive findings have also been reported by López-Pérez et al. (2011), who found that BL raised students' exam marks. Vaughan (2007), meanwhile, suggests that BL increases student engagement and enhances opportunities for teacher-student interaction.

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In a BL environment, tutors can adopt a range of active learning strategies to promote students' learning. For example, role playing can increase motivation (Wishart et al., 2007), enhance collaborative learning (De Wever et al., 2008) and stimulate greater problem-solving (Clark and Sampson, 2008) when implemented in online learning. Problem-based and project-based learning have been shown to have improved students' critical thinking (Mergendoller et al., 2006), deepened their understanding of the learning content, prolonged their memory of the learning content (Penuel and Means, 2000), and improved their problem-solving skills (Mergendoller et al., 2006). The use of ice-breaking activities in online classes facilitates student participation and interaction, thus building a sense of community (Conrad and Donaldson, 2004). The use of videoconferencing as a tool can promote students' active learning (Rodrigo et al., 2010) and increase student satisfaction (Kliger and Pfeiffer, 2011) in a BL environment. Meanwhile, incorporating peer assessment using Facebook with BL can be interesting and effective for college-level English writing classes (Shih, 2011).

Although the potential benefits of BL are widely recognised, there are challenges when implementing this approach, perhaps the most important of which is student participation (Alebaikan and Troudi, 2010; Lotrecchiano et al., 2013). For example, students' difficulties in terms of self-discipline (Alebaikan and Troudi, 2010) and poor time management (Kenney and Newcombe, 2010) may also have a negative impact on participation in BL. Increasing tutor workload has been identified as another issue within BL as tutors have reported spending more time in redesigning the modules, preparing BL materials, and moderating and assessing student's online work (Alebaikan and Troudi, 2010; Gedik et al., 2013). In addition, technical and internet problems are considered a challenge for the successful implementation of BL (Al Zumor et al., 2013). Poor internet connection and lack of technological skills may inhibit students' online discussion and interaction (Al Zumor et al., 2013) and cause considerable frustration (Hara and Kling, 2000), which may in turn have a negative impact on learning.

The successful implementation of BL cannot be achieved without the support of institutions, which primarily comes in the form of staff development and infrastructure. Staff development is regarded as critical by researchers and practitioners because, as Owens (2012) notes,

many tutors need to develop new technological and pedagogical skills to teach in a blended format. Tutors must have the necessary technical skills to design and maintain an online component of each course (Toth et al., 2008). When institutions do not provide sufficient opportunities for professional development, many tutors will be unlikely to adopt a BL approach, but instead replicate traditional teaching methods (Garrison and Vaughan, 2013). Successful BL implementations require a flexible and robust technological infrastructure to support them (Niemiec and Otte, 2009; Graham et al., 2013; Moskal et al., 2013; Castro, 2019). These technical requirements are determined by the availability of server, bandwidth and accessibility, security, infrastructure, hardware and software (Singh, 2003).

Moreover, digital literacy of staff and students is also a key factor in the successful implementation of blended learning. Hanson and Carlson (2005) believe that teaching staff must have digital literacy in order to maximise the use of technology and must have a high degree of understanding of how technology supports teaching in an online environment. Tang and Chaw (2016) provided evidence that digital literacy is a prerequisite for students to learn effectively in a BL environment.

In conclusion, very few studies have been found that compare the use of different BL models in different universities. This paper seeks to explore the implications of ABL for College English BL at HNU. The conclusion from this study will contribute to the pedagogical design of College English blended learning and provide some suggestions for institutional policy regarding BL at HNU.

Methods

Research question

To achieve the research purpose, the research question of this study is: what are the implications of ABL for English teaching in a Chinese University?

Data collection method

To answer the research question, qualitative methods were employed in this research. Data were collected through one-on-one interviews with 10 UON teachers and 10 teachers of HNU who teach College English.

Interview participants from HNU were recruited from the Faculty of International Studies at HNU. There are 27 teachers in the College English Teaching and Research Section, and an email invitation was sent to all of them to participate in a personal interview with the researcher. Before the one-on-one interviews with HNU teachers, they were introduced to the ABL approach through documents, publications, presentations and videos, which were sent to them via email. At the beginning of the interview, the researcher provided further opportunities for the interviewees to ask questions before conducting the interview.

Interviewees from UON come from a variety of disciplines. An email invitation was sent to the potential interviewees to invite them to participate in a personal interview with the researcher. One-on-one interviews were conducted online using tools such as Webex, Collaborate or other online tools agreed by the participants.

The interviews were conducted in September 2020, lasted between 45 and 60 minutes, and was recorded.

Data analysis method

Audio recordings of the interviews were transcribed for analysis. Data were then analysed by data-driven inductive thematic analysis. The steps of data analysis in this research follow Braun and Clarke's (2006) proposed six-phase framework:

 Familiarising yourself with data. Interviews with 20 teachers were recorded and transcribed into text, and the interview data were read and re-read until the content of the data had been assimilated. At this stage, the researcher took notes and jotted down early impressions.

- Generating initial codes. Manual coding was adopted in this study. Coloured pens were used to make notes on the text to make it easier to identify repetitions and these were then encoded. For example, active learning, student engagement, advantages of ABL, issues of ABL, institution support.
- 3. Searching for themes. Putting the same coded material together and searching for potential themes. Different codes were integrated into broader themes.
- 4. Reviewing themes. Potential themes identified were reviewed and improved. Some of the potential themes were not related to the research question, while others were combined into broader ideas or divided into separate themes.
- 5. Defining and naming themes. A detailed analysis of each theme was conducted and a name was selected for each theme. In this study, three major themes and seven sub-themes were defined and named.
- 6. Producing the report. The three themes and seven sub-themes were analysed, and an analysis report was written up.

Results

Encoding, analysis and theme naming of interview data resulted in three themes and seven sub-themes (Table 1).

Major Themes	Sub-themes
Promote active learning through	Apply a range of teaching methods and strategies to
ABL	promote active learning
	Use of technology and tools to promote active
	learning
Issues of ABL	Students' non-engagement
	Tutor's workload
The importance of institutional	Provision of staff development training
support	Provision of a robust technical infrastructure

Table 1. Major themes and sub-themes.

Providing resources for small group teaching

Promote active learning through ABL

Data suggested that ABL enabled UON tutors to adopt a range of teaching methods and strategies to promote student active learning.

Apply a range of teaching methods and strategies to promote active learning One tutor used group-based tasks in his Computing course to engage students with active learning. For example, in one group-based task, students were required to design a lunch box as a pre-task and then each group was required to present their design during the F2F session of the ABL course. The same tutor also used project-based tasks in his Artificial Intelligence course to promote active learning. For example, a technical engineer was invited to one F2F session to talk about problems he had encountered in practice. Following that session, as part of a post-session task, students were asked to engage in a project-based task in which they come up with solutions to the problems identified by the engineer, requiring them to apply knowledge and theory to resolve real-world problems.

Peer feedback has been used by a number of UON tutors to promote active learning within ABL courses. In one management course, the tutor used Peergrade as part of a pre-task to engage students with active learning. Students were asked to provide a summary of the key concept in Peergrade. As part of the pre-task, students were also asked to score each other's summary and provide feedback to justify the score they have given.

Increasing student choice in the learning process has been used as another strategy to engage students with active learning within ABL. For example, in a Computing course, one UON tutor designed different forms of post-session tasks within an ABL course. Students were able to choose one form of task which allowed them to demonstrate their strength, such as an analysis, a discussion or a practical application. Course redesign in alignment with ABL has encouraged the UON tutors to make active learning the top priority of student learning and enabled them to apply a range of teaching approaches and strategies in the design and delivery processes to promote student active learning.

Use of technology and tools to promote active learning

A variety of tools, such as Microsoft Forms and Perusall were used to promote active learning to take place at different stages of ABL. A number of examples are illustrated below.

One UON tutor used Microsoft Forms to design quizzes, questionnaires and polls for the presession tasks. For example:

'I uploaded the presentation and videos related to the topic on Blackboard VLE and gave the students one week to preview. I then designed a quiz on Microsoft Forms to test if students had understood.' (MR)

In an Introduction to Management course, the UON tutor used Perusall in the F2F stage to evaluate students' collaborative learning and classroom engagement. The tutor uploaded the courseware, texts and video link to Perusall. The students were then divided into groups of five for collaborative learning. Each member of the group was required to read the courseware, texts and watch the video. After reading and watching, each student can take notes, ask questions and make comments on the courseware, texts and video. After that, each student can see the notes, questions and comments made by other group members, make comments on other group members' notes and critical ideas, and answer questions from other group members. The tutor summarised the advantages of Perusall as follows:

'Perusall records and grades students' performance in collaborative learning and classroom engagement, for example, how many notes they took, how many questions they asked. So, it is a very useful tool in F2F stage.' (SS)

Other tools such as Whatsapp and Skype were also widely used by UON tutors to communicate with the students.

The use of technology and tools within ABL environment has increased both teacher-student and student-student interactions, as well as the convenience and levels of interest in the learning process, so as to foster students' active learning.

Issues of ABL

Data also suggested that there have been some inevitable issues when using ABL.

Student non-engagement

Students' non-engagement is a major problem in the pre-session stage. For example, in an International Marketing course, students only completed the pre-session task when it was linked to assessment. The UON tutor summarised:

'The idea of designing pre-session tasks is perfect, but students have not been engaged well unless you grade or test them. If you go to a class and rely on students to complete pre-session tasks, your class will be destroyed.' (MR)

In addition, in an Education course, the students did not engage in the pre-session stage due to poor time management. The tutor described the students as follows:

'In my class, there are many mature students who have to balance family affairs and academic studies. As they are not good at time management, they do not always get enough time to go through the online content. They just go to the F2F class and listen.' (CD)

Furthermore, in the Introduction to Management course, the tutor delivered preview content and tasks on the platform, but fewer students completed the pre-class tasks due to the lack of technical skills and self-discipline. Student engagement in the pre-session stage matters because it is the basis of the F2F learning. In the ABL environment, students' non-engagement in the pre-session had a negative impact on F2F learning, so this may be considered as a major challenge for the successful implementation of ABL.

Tutor's workload

The tutor's increased workload is another challenge when using ABL. BL can place a physical burden on the tutors, in the sense that tutors' workload has increased to accommodate an increase in time dedicated to preparation and post-session feedback. A tutor commented on his heavy workload as follows:

'I have been very busy since the preparation of the course. In the pre-session stage, it took a lot of time to redesign the models and upload documents. In the post-session, I also need to give feedback to each student, which also takes a lot of time.' (MM)

Also, tutors have to repeat the same lectures two or three times, because a large class was divided into smaller classes. One UON tutor summarised:

'The class size is small in the ABL environment. I have more classes of the same module in a week. I have to repeat the class twice or even three times a week, increasing my workload.' (MC)

In short, the data indicate that course redesign in alignment with ABL required a high level of effort in terms of course preparation, course delivery and homework evaluation, thus posing a challenge for the tutors.

The importance of institutional support

Successful implementation of ABL also requires support from the institution. The data revealed that institutional support should be provided in the following three ways:

Provision of staff development training

Setting up workshops is a commonly accepted approach to provide staff training. Digital technology is a prerequisite for successful implementation of ABL, which requires tutors to constantly improve their digital literacy based on knowledge reserve and teaching skills. Workshops or seminars are important ways for tutors to acquire digital technologies. One HNU tutor suggested:

'Producing learning materials, interacting with students, and maintaining a BL environment all require a high level of technical skills that many tutors lack. As a result, tutors need to obtain technical training through workshops, seminars or regular training.' (YJ)

Workshops are helpful in improving tutor's pedagogical strategies and teaching skills, but also, most importantly, in establishing a friendly relationship between tutors. Through communication and cooperation, tutors can conduct peer observation, gain psychological support, share successful experiences and problems, and derive inspiration from their peers to generate new ideas.

In addition, 'the change of tutor's role' is another key aspect of staff training. Tutors not only transmit knowledge, but also engage in unique and creative work. Tutors therefore need to be transformed 'from sage on the platform to guide on the side' (King, 1993) and became professionals with multiple identities (facilitator, initiator, collaborator, service provider, supervisor, and so on.). One HNU tutor summed up the role change of tutor as follows:

'Teachers should change from 'a person who teaches' to an 'organiser', 'facilitator', 'guide' and 'assistant' to classroom activities and discussions, inspiring and encouraging students to form their own opinions through independent thinking.' (HY) Staff development training can help tutors improve their technical competence, enable them to receive support from their peers and establish long-term connections with each other, and help them to better achieve the transformation of roles.

Provision of a more robust technical infrastructure

The successful implementation of ABL depends on a robust technical infrastructure. It may be observed that, up to now, HNU has not provided sufficient technical infrastructure so far. One tutor talked about her experience:

'We sometimes encountered network glitches at the F2F stage, which made the classroom activity unable to proceed. I believe that high-quality servers and sufficient bandwidth are both essential for the successful implementation of ABL.' (LJ)

Reliable multimedia equipment is also crucial. In a College English Listening and Speaking course, multimedia equipment problems frequently arise, which seriously affect the classroom effectiveness in the F2F stage. One HNU tutor mentioned:

'Some of the multimedia equipment of HNU is old and often breaks down in the F2F stage. The university should provide high-quality audio equipment, headphones and microphones for English Listening and Speaking classes.' (YJ)

All stages of ABL require technical infrastructure as essential, hence, institutions ought to endeavour to support the technical infrastructure.

Providing resources for teaching small groups

Large classes are a typical feature of English classes in Chinese universities, which leads to less teacher-student interaction and difficulties in carrying out classroom activities. In a class debate, for example, the tutor divided 100 students into many groups and asked them to conduct a debate between two groups. Due to the large number of students, the tutor was unable to monitor the task or gauge the specific problems. The tutor noted that:

'The class size is so large that many interactive tasks can be carried out but cannot be facilitated effectively. If we redesign our course adopting ABL, we should reduce class sizes to 20 or 30, making it much easier to design and organize in-class activities.' (DL)

As noted above, large classes also lead to less interaction between teachers and students. If the large class is divided into smaller classes, the tutor will be able to provide support to each student. One tutor stated the advantage of small classes:

'If there are 20 students in a class, each student will have more opportunities to speak in the F2F stage and the teacher will be able to pay attention to each student in all stages.' (HY)

Another way to solve the large class problem is to increase the number of tutors. Large classes can be divided into smaller classes or groups, depending on the student's learning level, and additional tutors assigned to each small class or group. In this way, the teacher can adopt a teaching method that is appropriate for each class or group. One tutor suggested:

'Every student is different. We should consider the students' ability to acquire knowledge. For example, divide a large class into small groups (classes) according to the level of study of the students. That means increasing the number of teachers and assigning different teachers to guide different groups (classes). Every teacher should design tasks and activities that are appropriate to the level of the students.' (LJ)

Smaller classes can thereby increase the interaction between students and teachers at the three stages of ABL and enhance the students' performance at the F2F stage. Furthermore, smaller classes support students at different levels of learning, thus improving each student's performance and achievements.

Discussion

In an ABL environment, UON tutors applied various teaching methods and strategies to promote active learning, such as designing various tasks, peer feedback, competitions, and increasing student choice. In addition, they have deployed a range of technologies and tools, for example, Peergrade, Kahoot, Microsoft Forms, Perusall, WhatsApp, and Skype within the ABL environment. In a previous study by Cummings et al. (2017), it has been observed that strategies, such as project-based tasks and peer feedback, can advance a tutor's skill in engaging students in active learning. By using a range of methods, strategies, and tools, it can be seen that ABL may successfully facilitate active learning. This finding is consistent with studies that have shown how blended learning has helped increase student motivation (Vaughan, 2007; Woltering et al., 2009) whilst also enhancing teacher-student interaction opportunities (Vaughan, 2007).

At the same time, however, the present study indicates that there are issues which may hinder the successful implementation of ABL. One of the problems identified by UON tutors is students' non-engagement during the pre-session stage, which may be caused by lack of self-discipline, poor time management skills or a lack of technical skills. This finding echoes a recent study by Rasheed et al. (2020), who note that the key challenges facing students are the challenges of self-regulation and the challenges of using learning technology. The increase in tutors' workload is considered another challenge within ABL, because tutors have to devote a lot of time to F2F classroom teaching, evaluating students' homework, course redesign, preparing blended learning materials, and interacting with students online. This finding is consistent with earlier studies by Gedik et al. (2013) and Alebaikan and Troudi (2010), who found that increasing the tutor's workload is a problem in terms of taking a lot of time developing digital content, learning new techniques and skills, and interacting with students when implementing blended learning.

The role of institutional support is also crucial in facilitating ABL and includes provision of staff development training, provision of a robust technical infrastructure and providing resources

for small group teaching. Staff development training can assist tutors in terms of improving their digital competence to ensure successful implementation of blended learning. This finding aligns with Owens (2012), who advised that, if this approach is to be powerful, explicit educational and technological staff improvement is indispensable. All phases of BL require a technology infrastructure to support them, so institutions should work to strengthen this aspect of the institution's infrastructure. In accordance with this finding, previous studies have demonstrated that adequate infrastructure is the foundation of an institution's ability to conduct blended learning (Niemiec and Otte, 2009; Graham et al., 2013; Moskal et al., 2013). Another finding of this paper is the value of providing additional resources for teaching small groups. By dividing a large class into smaller groups for instruction, or by introducing additional teachers to a large class, it is possible to increase student-teacher interaction in blended learning. It should be noted, however, that this finding has not been identified by tutors at HNU because large classes are a specific feature of College English teaching in Chinese universities.

The above findings have important implications for the provision of College English at HNU in the following ways: 1) At HNU, College English BL is still based on lecture-based blending in which tutors impart knowledge. To improve students' engagement in class, tutors should add various active and meaningful classroom activities so that BL can transform from lecturebased blending to task-based blending. 2) The existing policy of HNU lacks support for BL delivery of College English. HNU should consider providing incentives to BL adopters (Porter et al., 2014), which may include increasing the weight of BL courses in workload calculations, allowing tutors to hire teaching assistants (Garrison and Vaughan, 2013), and providing funding for BL. 3) Professional development is an important factor in promoting BL. Hence, HNU administrators should organise staff workshops to enhance communication between tutors, and conduct tutor training and encourage them to use teaching strategies to promote BL teaching, so as to promote students' learning development. 4) In terms of infrastructure, the deployment of the necessary technical infrastructure, such as quality servers, sufficient bandwidth, is critical to the effective adoption of BL. Therefore, it is imperative for HNU to provide tutors and students with the centralised technical infrastructure necessary to adopt BL effectively. 5) The delivery of lectures to large numbers of students is a typical problem in the

delivery of BL in College English in China, which inevitably creates a distance between students and tutors. HNU should therefore reduce class sizes or increase the number of tutors for large classes to facilitate the interaction between tutors and students thereby ensuring that tutors can better meet students' personalised needs.

Although this study has achieved its aims, there are some limitations. The first limitation is that the study was based on interviews with 20 teachers, 10 from UON and 10 from HNU, which might not represent the majority of the tutors in the two universities. Therefore, the data might not be sufficiently generalisable. Another limitation is that interviewees are College English teachers in HNU and general teachers in UON. This led to a decrease in meaningful data, which increased the difficulty of data analysis. It is suggested that future research should: (1) increase the number of interviewees in order to obtain more adequate data; (2) recruit interviewees who teach the same or similar subject as far as possible.

Conclusion

The purpose of this paper is to explore how the ABL practices developed at UON can guide the BL design of English Teaching curriculum in HNU to enable a more active learning experience in both online and F2F learning. The implication from the findings reported in the study is that, if BL is to be implemented successfully in College English Courses in HNU in a way that promotes student motivation, the university needs to provide support in 5 areas: pedagogical design, policy, staff development, technical infrastructure and small class sizes.

In order to promote students' learning development, institutions and teachers should strive to provide blended and student-centred learning opportunities for students. The research findings provide guidelines on the design and implementation of College English BL practice in HNU. Moreover, it is anticipated that the findings of this study may shed light on some issues relating to BL in other disciplines at HNU, such as business, education, management, Chinese literature, and provide references for future research.

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References

- Alebaikan, R. and Troudi, S. (2010) 'Blended learning in Saudi universities: challenges and perspectives'. *ALT-J*, 18(1), pp.49-59. <u>https://doi.org/10.1080/09687761003657614</u>
- Al Zumor, A.W.Q., Al Refaai, I.K., Eddin, E.A.B. and Al-Rahman, F.H.A. (2013) 'EFL Students' Perceptions of a Blended Learning Environment: Advantages, Limitations and Suggestions for Improvement'. *English Language Teaching*, 6(10), pp.95-110. <u>https://doi.org/10.5539/elt.v6n10p95</u>
- Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology'. *Qualitative Research in Psychology*, 3(2), pp.77-101. <u>https://doi.org/10.1191/1478088706qp063oa</u>
- Castro, R. (2019) 'Blended learning in higher education: Trends and capabilities'. *Education* and Information Technologies, 24(4), pp.2523-2546. <u>https://doi.org/10.1007/s10639-</u> 019-09886-3
- Clark, D.B. and Sampson, V. (2008) 'Assessing dialogic argumentation in online environments to relate structure, grounds, and conceptual quality'. *Journal of Research*

in Science Teaching: The Official Journal of the National Association for Research in Science Teaching, 45(3), pp.293-321. <u>https://doi.org/10.1002/tea.20216</u>

- Conrad, R. M., and Donaldson, J. A. (2004) 'Engaging the online learner: Activities and resources for creative instruction'. San Francisco, CA: Jossey-Bass.
- Cummings, C., Mason, D., Shelton, K. and Baur, K. (2017) 'Active learning strategies for online and blended learning environments'. In *Flipped instruction: breakthroughs in research and practice* (pp. 58-82). IGI Global. <u>https://doi.org/10.4018/978-1-5225-1803-7.ch006</u>
- De Wever, B., Schellens, T., Van Keer, H. and Valcke, M. (2008) 'Structuring asynchronous discussion groups by introducing roles: Do students act in line with assigned roles?'. Small Group Research, 39(6), pp.770-794. <u>https://doi.org/10.1177/1046496408323227</u>
- Dziuban, C., Hartman, J, Juge, F, Moskal, P, and Sorg, S. (2006) 'Blended learning enters the mainstream', pp.195–208, in Bonk, C.J. and Graham, C.R. (eds.) *The handbook of blended learning: Global perspectives, local designs*,. San Francisco, CA: Pfeiffer Publishing.
- Garrison, D. R. and Kanuka, H. (2004). 'Blended learning: Uncovering its transformative potential in higher education.' *The internet and higher education*, 7(2), pp. 95-105. https://doi.org/10.1016/j.iheduc.2004.02.001
- Garrison, D.R. and Vaughan, N.D. (2013). 'Institutional change and leadership associated with blended learning innovation: Two case studies'. *The internet and higher education*, 18, pp.24-28. <u>https://doi.org/10.1016/j.iheduc.2012.09.001</u>

- Gedik, N., Kiraz, E. and Ozden, M.Y. (2013). 'Design of a blended learning environment: Considerations and implementation issues'. *Australasian Journal of Educational Technology*, 29(1). pp. 1-19. <u>https://doi.org/10.14742/ajet.6</u>
- Ghazizadeh, T. and Fatemipour, H. (2017). The effect of blended learning on EFL learners' reading proficiency. *Journal of Language Teaching and Research*, 8(3), p. 606. <u>https://doi.org/10.17507/jltr.0803.21</u>
- Graham, C.R. (2013). 'Emerging practice and research in blended learning', pp. 333-350, in Moore, M. G. (ed.), *Handbook of distance education.* London: Routledge.
- Graham, C.R., Woodfield, W. and Harrison, J.B. (2013). 'A framework for institutional adoption and implementation of blended learning in higher education'. *The internet and higher education*, 18, pp.4-14. <u>https://doi.org/10.1016/j.iheduc.2012.09.003</u>
- Hara, N. and Kling, R. (2000). 'Students' distress with a web-based distance education course: An ethnographic study of participants' experiences'. *Information, Communication, and Society*, 3(4), pp. 557–579.
 https://doi.org/10.1080/13691180010002297
- Hanson, K., and Carlson, B. (2005). 'Effective access teachers' use of digital resources in STEM teaching', *Education Development Center, Inc.*
- Kenney, J., and Newcombe, E. (2010). 'Adopting a blended learning approach: Challenges encountered and lessons learned in an action research study'. *Journal of Asynchronous Learning Networks*, 15(1), pp. 45-57.
 https://doi.org/10.24059/olj.v15i1.182
- King, A. (1993). 'From sage on the stage to guide on the side'. *College teaching*, 41(1), pp.30-35. <u>https://doi.org/10.1080/87567555.1993.9926781</u>

- Kliger, D. and Pfeiffer, E., 2011. Engaging students in blended courses through increased technology. *Journal of Physical Therapy Education*, 25(1), pp.11-14. <u>https://doi.org/10.1097/00001416-201110000-00003</u>
- Lim, D.H. and Morris, M.L. (2009). 'Learner and instructional factors influencing learning outcomes within a blended learning environment'. *Journal of Educational Technology and Society*, 12(4), pp.282-293. <u>https://www.j-ets.net/collection/published-issues/12_4</u> (Accessed: 28 February 2022)
- López-Pérez, M.V., Pérez-López, M.C. and Rodríguez-Ariza, L., 2011. Blended learning in higher education: Students' perceptions and their relation to outcomes. *Computers & education*, 56(3), pp.818-826. <u>https://doi.org/10.1016/j.compedu.2010.10.023</u>
- Lotrecchiano, G.R., McDonald, P.L., Lyons, L., Long, T. and Zajicek-Farber, M. (2013). 'Blended learning: strengths, challenges, and lessons learned in an interprofessional training program'. *Maternal and child health journal*, 17(9), pp.1725-1734. <u>https://doi.org/10.1007/s10995-012-1175-8</u>
- Mergendoller, J.R., Maxwell, N.L. and Bellisimo, Y. (2006). The effectiveness of problembased instruction: A comparative study of instructional methods and student characteristics. *Interdisciplinary Journal of Problem-based Learning*, 1(2), p.49-69. <u>https://doi.org/10.7771/1541-5015.1026</u>
- Moskal, P., Dziuban, C. and Hartman, J. (2013). 'Blended learning: A dangerous idea?'. *The Internet and Higher Education*, 18, pp.15-23. <u>https://doi.org/10.1016/j.iheduc.2012.12.001</u>
- Niemiec, M. and Otte, G. (2009). 'An administrator's guide to the whys and hows of blended learning'. *Journal of Asynchronous Learning Networks*, 13(1), pp.19-30. <u>https://doi.org/10.24059/olj.v13i1.1674</u>

- O'Toole, J.M. and Absalom, D.J. (2003). 'The impact of blended learning on student outcomes: Is there room on the horse for two?'. *Journal of Educational Media*, 28(2-3), pp.179-190. <u>https://doi.org/10.1080/1358165032000165680</u>
- Owens, T. (2012). 'Hitting the nail on the head: The importance of specific staff development for effective blended learning'. *Innovations in Education and Teaching International*, 49(4), pp.389-400. <u>https://doi.org/10.1080/14703297.2012.728877</u>
- Padilla Rodriguez, B. C., and Armellini, A. (2021). *Cases on Active Blended Learning in Higher Education*. IGI Global. <u>https://doi.org/10.4018/978-1-7998-7856-8.ch001</u>
- Penuel, W.R. and Means, B. (2000). 'Designing a performance assessment to measure students' communication skills in multi-media-supported, project-based learning'.
 In Annual Meeting of the American Educational Research Association, New Orleans.
- Porter, W.W., Graham, C.R., Spring, K.A. and Welch, K.R.(2014). 'Blended learning in higher education: Institutional adoption and implementation'. *Computers & Education*, 75, pp.185-195. https://doi.org/10.1016/j.compedu.2014.02.011
- Rasheed, R.A., Kamsin, A. and Abdullah, N.A. (2020). 'Challenges in the online component of blended learning: A systematic review'. *Computers & Education*, 144, p.103701. <u>https://doi.org/10.1016/j.compedu.2019.103701</u>
- Rodrigo, C., Delgado, J.L. and Vega, J. (2010). 'Using interactive videoconference to promote active learning in a blended learning environment'. In *2010 10th IEEE International Conference on Advanced Learning Technologies* (pp. 658-662). IEEE.
- Shih, R.C. (2011). 'Can Web 2.0 technology assist college students in learning English writing? Integrating Facebook and peer assessment with blended learning'. *Australasian Journal of Educational Technology*, 27(5). <u>https://doi.org/10.14742/ajet.934</u>

- Singh, H. (2003). 'Building effective blended learning programs', *Educational Technology*, 43(6), pp. 51-54. <u>https://www.jstor.org/stable/44428863</u> (Accessed: 4 March 2022)
- Tang, C.M. and Chaw, L.Y. (2016). 'Digital Literacy: A prerequisite for effective learning in a blended learning environment?'. *Electronic Journal of E-learning*, 14(1), pp.54-65. <u>https://academic-publishing.org/index.php/ejel/article/view/1743</u> (Accessed: 28 February 2022)
- Toth, M., Foulger, T.S. and Amrein-Beardsley, A., (2008). 'Post-implementation Insights about a Hybrid Degree Program'. *TechTrend*, 52(3), pp.76-80.
- Vaughan, N. (2007). 'Perspectives on blended learning in higher education'. *International Journal on E-learning*, 6(1), pp.81-94. <u>https://www.learntechlib.org/primary/p/6310/</u> (Accessed: 28 February 2022)
- Wishart, J.M., Oades, C.E. and Morris, M., 2007. 'Using online role play to teach internet safety awareness'. *Computers & Education*, 48(3), pp.460-473. <u>https://doi.org/10.1016/j.compedu.2005.03.003</u>
- Woltering, V., Herrler, A., Spitzer, K. and Spreckelsen, C. (2009). 'Blended learning positively affects students' satisfaction and the role of the tutor in the problem-based learning process: results of a mixed-method evaluation'. *Advances in Health Sciences Education*, 14(5), pp.725-738. <u>https://doi.org/10.1007/s10459-009-9154-6</u>

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