New Learning Spaces and Transformations in Teacher Pedagogy and Student Learning Behavior in the Language Learning Classroom

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ABSTRACT

Many Malaysian classrooms have been redesigned to include technology and foster the development of twenty first century learning. The availability of this platform and the new learning space created by redesigning the language classroom has opened up new and exciting possibilities for teaching and learning the English language. This paper will investigate if the new learning space has impacted teacher's pedagogical strategies and student's learning behavior and engagement for English language teaching and learning. A qualitative approach employing a multiple case study research design was taken and data was collected using classroom observations, teacher interviews and teacher and student focus group discussions from eight English language teachers and 37 students. Findings reveal significant transformations in teachers' teaching approaches, use of class activities and on students' learning behavior and outcomes. Technology did feature in the learner centric approach with students functioning as facilitators and allowing more student participation and interaction. The use of multimedia and online materials helped make learning more interesting and improved student attention in class. Students in turn were more focused and engaged in the collaborative tasks and also reported developing better peer relationships and learning from each other.

Keywords: redesigned learning spaces; teacher pedagogy; learner behavior; technology; teaching and learning

INTRODUCTION

Higher education learning environments have undergone rapid change with the arrival of digital natives and the inclusion of technology in teaching and learning. Developments like e-learning, blended learning and Massive Open Online Course (MOOC) have resulted in a reevaluation of the transmission based system where the teacher serves as the source of knowledge. There is an increased interest in helping to facilitate learning and helping learners construct and personalize learning. Oblinger (2006) calls for a better link between learning and learning environments and this need is also increasingly visible in schools today.

Schools across the globe have embarked on significant measures to relook the traditional classroom design to cater to youth who are increasingly independent, self- directed and looking to produce and create knowledge rather than simply memorizing facts. Today's classrooms need to be "arenas for innovative teaching practices that are not easily implemented in more traditional classrooms" (Hall 2013, p. 5). As McGregor (2003) posits learning spaces are nestled within virtual and real environments today. A key consideration

when redesigning classrooms is to focus on the specific learning behaviours that the school wants to foster (Bennett 2011).

A Polish study highlights how a traditional classrooms with desks in rows tend to influence teaching styles with teachers opting to be didactic rather than facilitative (Sztenjnberg & Finch 2006). Lippincott (2009) found that most American students were more satisfied when they had experienced new learning spaces while a University of Minnesota study (Walker, Brooks & Baepler 2011) revealed that students taught in a new learning space outperformed those taught in the traditional classroom. Finland recently undertook an ambitious school redesign project to incorporate flexible and informal open plan layouts to foster positive emotional experiences, collaborative working and interaction as well as creativity. In many schools the "familiar rows of wooden desks, chalkboards and overhead projectors are gone, replaced by a variety of seating and room division options as well as electronic smart boards."(Uutiset August 10 2017). In Australia removing desks from classrooms has helped to foster better creativity among students and higher levels of engagement. (The Daily Telegraph 2014).

In Thailand the NIST International School has provided spaces for collaborative learning and social development together with study pods and larger teaching rooms to help students develop better experiences. The Shekou International School in China has refurbished the classrooms to promote thinking and accommodate different learning experiences (Learning Innovation@Shekou International School 2014). Closer to home Singapore has also initiated spaces that facilitate engaged learning to help promote experiential learning among students (MOE 2009).

Malaysian classrooms have also taken the grand move to transform their learning environments to facilitate better learning and the learners themselves. In a partnership with Yeoh Tiong Lay Foundation, a business conglomerate some 150 classrooms both at the primary and secondary levels throughout the country have been redesigned for participatory social learning for the 21st century. The blueprint for the classrooms is generally the same with colourful walls, eye catching images and motivational messages. Each classroom is also personalized with the addition of a feature like a mirror, a punching bag, a drum set and even bean bags. The desks are arranged in an arc and students are allowed to doodle on them. Students sit facing one another and the teacher occupies the central position, having access to each student. The room is air-conditioned, has Wi-Fi connectivity, an LCD projector and Chromebooks. Besides providing an attractive and conducive learning space, these classrooms aim to facilitate the integration of technology into teaching and learning. An image of one such classroom is shown below.

PICTURE 1. Redesigned school classroom in Malaysia

All 10,000 Malaysian schools are connected via the 1BestariNet. project to teach English using 4G connectivity that allows the schools to use a single online learning platform – the Frog Virtual Learning Environment (VLE). Kamalludeen, Hassan and Nasaruddin (2016) posit the Frog VLE "replicated world learning by integrating virtual equivalents with conventional concepts of education. Teachers can deliver lessons, assign tasks and conduct

assessments virtually while students can submit homework and view their grades through this web-based learning system (p. 87). This suggests students' English language learning experiences are enhanced with the leverage on technology and they are encouraged to be self-directed and independent while being in a borderless learning environment.

The availability of this platform and the new learning space created by redesigning the language classroom has opened up new and exciting possibilities for teaching and learning the English language. This paper will investigate if the new learning space has impacted teachers' pedagogical strategies and students' learning behaviour and engagement with English language teaching and learning.

TEACHING AND LEARNING SPACES

The social setting has a great influence on learning and social constructivists promote flexible spaces that stimulate learning and active experimentation. The transmission based classroom design with teacher's desk in the front and neat rows of desks and chairs for students is not suitable for 21st century learning and the new breed of Gen Z students found in classrooms today. Kozinsky (2017) opines that this group of learners is not interested in attending class, listening to a lecture and memorizing for exams but they want to be challenged and engaged in the learning process. The reality is most of them learn by doing, enjoy group discussions, and working in collaborative and interactive environments using digital learning tools. They need to be able to connect their academic world with their personal world and this is where the iPad, laptop, tablet, smartphone, and smartwatch all come in. They ~~don't~~ do not believe learning can only take place in a formal learning environment but are constantly learning anytime and anywhere.

In the social constructivist approach (Vygotsky 1962) the main activity is on learning through social interaction and problem solution. Knowledge is seen as a dynamic entity that is constantly changing how the world is viewed and constructing this meaning is a continuous and personal process to the learner. The challenge in a new learning space is to provide opportunities for learners to think through problems, have group collaborations and arrive at innovative solutions using technology and still remain open to other options and alternatives. That is why it is important to understand how teacher's pedagogical strategies have adapted to the new learning space.

The 21st century has brought about a need to rethink the knowledge and skills being taught in schools and to evaluate if students are engaged and challenged by the instructions and tasks they are given. It is pertinent to understand how the Gen Z learn and as Prensky (2008) advocates move from a teacher centric pedagogy to a new pedagogy of kids teaching themselves. The 21st century classroom should showcase students at work brainstorming ideas, doing projects or constructing models. They could be emailing experts for ideas, using technology to present their findings and harnessing Web 2.0 tools to enhance their learning. Thus the teachers' role is to show students how to use their learning space to create an innovative, integrated and collaborative environment (Jamieson et al. 2009). It is clear that when teachers adapt their pedagogy to the learning space by including more student centered activities, learning improves (Walker, Brooks & Baepler 2011, Blackmore et al. 2011, Gislasen 2009, Sztenjnberg & Finch 2006).

Research on how new learning environments can impact teaching and learning is still in its infancy despite the many advocates for redesigning learning spaces. Davies et al. (2013) reviewed 210 school projects on creative environments for learning and claim the physical environment is key to better creativity and communication in the classroom. They found

evidence that a creative environment does impact pupil performance and teacher professionalism.

Byers et al. (2014) found that new spaces not only impacts students attitudes, level of engagement and learning experience but also lead to better academic performance. They studied Australian students to assess the impact of new learning spaces on teaching and learning over a period of one year. While they found that students' academic performance was better in the new space they were not able to make a link between technology and student learning experience or between pedagogical practices and teachers.

Nik Mohd Hasrul Hashim et al. (2014) suggest a learning environment that takes into account physical surroundings can help elevate learning and interest in learning. They propose providing classrooms equipped with facilities that will promote successful student learning. Akhyar et al. (2016) examined teaching and classroom management strategies in an Indonesian setting and expound the importance of good infrastructure and facilities in the classroom. They found that when this is made available lessons can be made more interesting especially with the appropriate use of technology. This study will therefore show how the new learning space does impact both teacher pedagogy, student learning behaviour and the role of technology in this.

CONCEPTUAL FRAMEWORK

The conceptual framework used to understand the impact of the new learning space is developed from the findings of the Innovative Learning Environments (ILE) project (ILE 2013) in the Organization for Economic Cooperation and Development (OECD) initiative. The ILE project analyzed the conditions and dynamics that allow young learners to learn better and proposed design principles that should be present for schools to be effective learning environments. These were centered on the physical layout of the teaching and learning environment, teaching and learning approaches and teaching and learning outcomes. The teaching and learning environment focused on the physical layout of the classroom, the ambience and inclusion of technology. The teaching and learning approaches focused on the integration of technology, innovation and learner centeredness. The teaching and learning outcomes in turn focused on the nature of activities carried out in class and student behaviour. These constructs were used to design the instruments for the study and to guide the analysis.

RESEARCH DESIGN AND METHODOLOGY

A qualitative approach employing a multiple case study research design was taken to provide a holistic picture of the phenomenon and to capture the emergent and essential features of the phenomenon in different sites (Yin 2009). By conducting classroom observations, teacher interviews and student focus group discussions it was possible to elicit salient teacher pedagogy and student learning behaviour.

Form four classes in four secondary schools in Selangor were selected based on convenient sampling as case study sites and these schools were also easily accessible to the researchers. Three types of data elicitation procedures were used and these were 8 class observations followed by an interview with the teachers concerned and focus group discussions with 37 students. Only English classes were observed in each school followed by interviews with the teachers concerned and focus group interviews with about seven to eight students from each class. Data was collected from different perspectives to help provide a

comprehensive picture of how the redesigned space was being used by the teachers and students.

Observations were carried out in Form 4 classes and two main categories - teaching approach and student behavior - were the focus in the observation checklist. Immediately after the observation the teacher was interviewed on 4 themes – the design of the room, teaching approach, class activities, and student behavior. The interviews were audio taped and then transcribed verbatim.

The notes in the observation sheet, responses from the student and teacher interviews were read and re read to arrive at a holistic account of the research and supervisory process. Drawing on the main themes, which were guided by the ILE findings (ILE 2013), the data were analyzed according to the interpretations of the themes as shown below (Table 1).

TABLE 1. Classification of themes and sub themes

Themes	Sub Themes
Opinion on new design	- Learning environment
	- Relationships
	- Inclusion of technology
Teaching and learning approaches	- Integration of Technology
	- Innovation
	- Student Centeredness
Class activities	- Types
	- Peer assisted
Student behaviour	- Engagement
	- Motivation
	- Discipline.

RESULTS

The findings will be discussed along the following themes: Opinion on new design, Teaching and learning approaches, Class activities, and Student behaviour. The subthemes for each theme will be discussed and substantiated with quotes from teachers and students.

OPINION OF NEW DESIGN

A close scrutiny of the data revealed three points raised by both teachers and students and these are the English language learning environment, the nature of relationships between the teacher and the student and between the students and the availability of technology.

Teachers and students were mostly positive about the enhanced learning environment in the new classroom. One of the schools visited was located close to the sea and the traditional classrooms which faced the sea received the hot afternoon sun and warm breezes making the environment stuffy and unbearable. The cool environment in the new classroom made learning more comfortable and helped students learn better. In other schools the air conditioned room was also welcomed by teachers who teach in the afternoon as they claim students are more attentive and not as inclined to feel sleepy. To quote teachers:

> *The environment is really good as the weather is really hot.*
> *If we bring students over here, they are happy as it is more comfortable.*

Students mentioned feeling 'very nice', 'very comfortable' and 'calm' studying in the cool room. The overall ambience of the new design was also the focus of many of the comments from teachers and students. Teachers and students appreciated the vibrant colours of the walls, wooden floors and flexible furniture. They claimed the cheerful and bright

colours were a welcome change from their whitewashed traditional classrooms while the wooden floors were comfortable and allowed students to sit on the floor. Having light and flexible desks and chairs meant they could be rearranged easily and quickly for group work or even pushed to the corners to create a stage. What was especially revealing were comments from both teachers and students on how there was better eye contact and focus as everyone was visible. In the traditional classroom students could sit at the back of a row and not concentrate on the lesson but this was not easily done in the new classroom. Some of the comments from the teachers (T) and students (S) are illustrated below.

> *...beautiful, it helps to open up the students' minds. Because the students are happy here they read the saying and proverbs in the class and they come out with ideas we have never heard before (T)*
> *And the colour is much more creative and it feels much more vibrant instead of in the class like 6 hours straight like that, very tiring.(S)*
> *Since they can sit on the floor their learning is more collaborative.(T)*
> *Good for group work as we can sit anywhere in a group (S)*
> *In the normal classroom, we need to arrange the desks in 4 for group of 4. However, the table is already arched in here. (T)*
> *The learning is more intimate so you'll get better understanding towards everything because you can fully pay attention to the teacher and teacher can pay full attention to all the students.(S)*

The nature of relationships between the teacher and students and among the students was also discussed with teachers stating they could see all the students and this meant they had better control over classroom management.

> *They will teach their friends. The good ones will teach the others. They like to be mentor and sometimes, they teach the teachers too". (T7).*
> *Due to its structure I can ask those who wouldn't listen to sit at the front row. (T)*

Students mentioned having good camaraderie with their peers unlike the normal class where they rarely knew one another and did not even talk to some students. According to them,

> *Can walk about the room to talk and discuss and all are helpful in this class (S)*
> *The environment does change how I think because during group work, the classmates share their ideas and opinions. (S)*

The availability of Chromebooks and the Internet was welcomed by both teachers and students. The availability of online language materials was a boon to these overworked teachers who could now simply direct their students to read online and then carry out activities in groups. This meant less preparation in terms of selecting, typing out materials, and photo copying for students as activities could be done online. For these digital students it meant less focus on the English textbook and more interesting topics to deal with in class.

> *Usually I would have uploaded something already. Depending on the situation they would have seen it at home or watched it or read it and then we discuss and so group activities and answer questions (T).*
> *And the using of laptop itself, it is much more fun and holistic and it helps us to interact with each other instead of just listening to the teacher (S).*

TEACHING AND LEARNING APPROACHES

The data on teaching and learning approaches will centre on the integration of technology, how innovative and creative the approaches were and evidence of student centeredness in the new classroom.

Interestingly while Chromebooks were available there were some issues as in some schools connectivity was an issue and when all 20 Chromebooks were logged in, buffering was an issue. Many teachers opted to bring laptops to class and teach using the LCD projector. They would actually prepare for their English lessons by downloading videos from YouTube and this helped them use class time effectively. They claimed students would become restless and noisy while waiting for Chromebooks to operate so they preferred to prepare in advance. So it is clear that these experienced teachers are working around the technology issues and still integrating technology to help make their lessons more relevant to students.

Students believe that teaching and learning is more effective because of the availability of the Internet which allows them to check online if they do not understand. They preferred to source the knowledge themselves instead of having to ask the teacher. The responses from the teachers and students are shown below.

> *Yes we prepare a lot but only for one time. I get the materials from the best university –*
> *YouTube another one is learning site and images. Sometimes students share sites with us*
> *and we can monitor if it is safe to use (T).*
> *If we are just studying, we won't understand. So we just have to look for it, the videos, or*
> *something like, it is much easier for the students (S).*

Undoubtedly the data revealed teachers are more innovative and creative in planning their English lessons as they have access to technology and the physical space is flexible. Teachers' pedagogical approaches are similar in that they are a repetition of a sequence of explanation and exercise; explanation and exercise. The difference is the use of video lessons from Bistari.net or slides which replaced the English textbook. The delivery via technology is making the instruction more appealing to the students. Also, students can view the lesson repeatedly until they understand. To quote,

> *So I would use power point if I have any audio clips or things like that. That is the main*
> *attraction with the students over here I would say. When they want to listen to something*
> *that will catch their attention. So in terms of the difference between what I do here and*
> *the classroom, is definitely the technology. In terms of teaching aids, I don't have to print*
> *out paper, and use blue tags on it and stick it there. I just have the power point (5).*
> *I put them in groups and each group to find from the internet then they discuss and each*
> *group because its google drive they present using LCD and they will ask the other group.*
> *Ok from house A to house B how do you go, give me all the landmarks. For weaker class.*
> *I will give clues (T).*
> For students the new design made it possible for learning English more enjoyable as they
> could walk around and discuss with their friends to find alternative solutions to
> completing class activities.
> *I can learn from my friends when they share their ideas and opinions (S).*
> *Just now the teacher taught us, she just upload a video and ask us to listen to the song*
> *and answer the question. (S).*

It is also clear that teachers are making their English lessons very student centered. They are allowing students to learn at their own pace by uploading information and materials earlier for the students to view before coming to class to carry out activities in the form of group work and information sharing.

CLASS ACTIVITIES

The layout of the classroom was found to be suitable for language activities like group work, activity stations and presentations as students could walk around to discuss with their friends or even sit on the floor to work on tasks given. In addition, the availability of technology also provided teachers and students with a borderless learning platform. Materials are uploaded

online and lessons were interactive with music and multimedia features that appealed to the students. Class activities centred on collaborative learning and cooperation and products of student learning are shared with other students using technology. A teacher uploaded materials from the lesson online and reminded students to complete their tasks and email their answers to her. Another teacher created a crossword puzzle as a bonus activity for students who finished their work earlier to keep them engaged.

Students were also asked to search for information online as a teacher asked them to search for certain landmarks online and write out directions on how to get to these places. This sort of activity can be carried out individually, in pairs or as group work. The interesting thing was that students could share with their peers what they had found and then present their findings to the class. To quote a teacher,

> *I put them in groups and each group to find from the internet then they discuss and each group because its google drive they present using LCD and they will ask the other group. Ok from house A to house B how do you go, give me all the landmarks. For weaker class. I will give clues (T).*

Students were also required to participate in online forums where they shared their responses with their peers. For instance, a teacher asked her students to share their essays with their peers using a document sharing application and then pointed out the strengths and weaknesses of the essay to help students learn from them.

> *I think Google drive is very effective in sharing. When I ask them to do group work they will produce certain type of work. After they have presented, I will use theirs, with their permission to show to the very weak class (T).*
> *Students can work on presentations and share with their group members and see who is doing which part. At the end of it you will see all kinds of creativity (T).*

Clearly technology is central to many class activities as students can explore and find facts for themselves while teachers are slipping in and out of their role as provider of knowledge and facilitator. A teacher uploads lessons from software to the online learning portal and students view the lesson individually. To test their understanding they are then required to explain what they have learnt. This sort of self-learning is very empowering for the learners as they develop confidence in their abilities.

> *I had one lesson we were doing description of pamphlet. I brought in samples and told them to make their own in groups. They managed to get nice ideas from the internet and uploaded it onto Frog VLE. This was a good activity for them (T).*

It is pertinent to note that a variety of different activities were being carried out in the language classroom and students were evaluating the products of the activities and this provided an ideal learning scenario for them.

STUDENT BEHAVIOUR

An accurate measure of how successful a learning space is can be seen from student behaviour. Students who are more engaged in the lesson, have high levels of motivation and are less disruptive can suggest they are more invested and interested in learning. The data shows that students are more motivated, focused and appear to pay better attention in the new learning space.

> *I realised it is not about teaching but to give them opportunity, let them focus. For weaker classes they depend on you and they are so into it and they are proud to get 100% but they may have tried 16 times of more. It motivates them to want to succeed (T).*

> *So yea, there is kinda like extrinsic motivation in this classroom and there are also other ways we teachers use to get work done. And like what I said for that class, they are more responsive I would say in terms of the writing task lesson they were more eager to ask, questioning and participating compared in the normal class (T).*

Teachers commented that students who play truant would be present if they know that they would be using the new classroom. Students who generally did not participate in class were more active when they were in the new classroom.

> *They do not listen when I speak. They do not want to do anything. But when we asked them to do something interesting, they will do and send it to us. We will see drastic changes in a few of them. They participate! (T)*

Teachers reported that students, particularly the weak ones are more focused on learning and better engaged with the task they have to complete. Even some of the students claimed that the boys are better behaved and less noisy in the new classroom.

> *Like me teaching the end classes, they are more focused. They usually can't focus ... we teach them step by step and ask them to focus on the slides. They can. That is we teach them to focus. If in the normal class, it is definitely difficult (T).*
> *I think you see the change in weaker classes. It is almost one to one teaching, they can watch video again. For example you play and listen to the vocabulary you can actually see them repeat, they are willing to learn (T).*

Being able to work with a computer did mean students were keen to look for information online and as such there was less noise in the class. As a teacher explains,

> *..... whenever I bring them here (new classroom), They are quiet (T).*

Many of these students do not have internet facilities at home so they are keen to maximise their use of their online time and sat quietly completing the tasks set for them.
Teachers also claimed it was easier to enhance positive and responsible behaviour by assigning students specific roles as this helped motivate them. Generally teachers were of the opinion student discipline was less of an issue in the new classrooms. In some schools where discipline was an issue, teachers have laid out clear rules to exercise better class control and penalise errant students by not allowing them to enter the class. These have definitely helped mitigate issues of student misbehaviour as most students do not want to be deprived of the opportunity to use the new classroom.

DISCUSSION

It is evident that when there is any change in the classroom it will impact the teacher, learner, teaching and learning as these are the key players in the classroom. The dynamics of the multi relationships that exist in the classroom – teacher with students, teacher with other teachers and student with student will be affected. This chain of events will in turn impact on the process of teaching and learning (Washor 2003). Since the redesigned spaces are equipped with technology in the form of Chromebooks and 4G Wi-Fi, teachers are also engaged in different ways of teaching that integrate the use of the Internet and online resources.

The constructs from the various instruments (Table 1) provide a comprehensive view of how the redesigned language classroom is impacting and interacting with teacher pedagogy and student learning behaviour. The physical change in the classroom layout provided an impetus for teachers to plan their lessons to include the students. Teachers were

definitely more creative and innovative in their teaching pedagogy and approach (Davies et al. 2013, Jamieson et al. 2009). Teachers were resorting to YouTube, and various internet sites to source materials like songs, poems, videos and images they could use to build language learning activities around. Students responded eagerly to these materials and English lessons became more meaningful as a result. The sharing sessions with teachers revealed that they were excited to find materials they could use on the Internet and try to create challenging lessons. While this was time consuming, they also recognized that once they had a collection it was simply a matter of adjusting the activities for different classes and they could use it for the next few school years.

Teacher pedagogy further benefitted when teachers set up little communities of practice for better teacher professional development and practice. Teachers who found a particular lesson worked well would talk about it with other teachers and this led to a sharing of lesson plans and ideas on how to incorporate technology into the language classroom. Akhyar et al. (2016) posit when technology is made available in the classroom there is better creativity and innovation in teaching and learning. The focus group discussions with the teachers revealed that teachers were happy and keen to share their lessons and sources with each other. Teachers no longer see themselves as the sole transmitter of knowledge and recognize it is so easy to direct students to available sources in the World Wide Web and they only had to help them understand what they were reading. Teachers were shifting into the role of facilitators and helping keep students interested and keen in the classrooms (Prensky 2008).

The study also revealed interesting developments in student behaviour. Students reported the new layout helped them to learn from their peers, engage in better group discussions and also practice independent learning. They claimed being able to work collaboratively allowed them to learn from their peers and they were more confident to provide responses when called upon by the teachers. The observations revealed there is an increase in problem solving and decision making activities as the layout of the classroom allows teaches to get students to do group work while they can walk around and give feedback and monitor the discussions. This allowed teachers to work with groups of students who needed more guidance and attention.

Students claimed they enjoyed learning in the new classroom as they had a degree of independence, which they did not have in the traditional classroom. In the new room they were allowed to look for information online and discuss what they had found before presenting the information in class. They took pride in being able to complete work in this way as it allowed them to practice self-directed learning. It is clear that having access to technology is a plus point in getting students more involved in learning and making learning individualised. This reflects McGregor's (2003) view on learning spaces situated comfortably within the real world and the virtual world.

There was evidence of more collaborative learning and peer support and coaching in the classroom because of the easy access to one another in the new space. Students reported that being able to exchange ideas with peers gave them more confidence to provide responses in English in class. Students also enjoyed being able to access materials online as they could view a topic as many times as they wished to help internalise understanding. They found this made learning English more individualised and meaningful to them in the new space. Kozinsky (2017), Bennett (2011) and Walker et al. (2011) also highlight the importance of redesigned spaces reflecting the learning behaviours the institution wants to cultivate.

Engaging in peer interaction and collaboration provided students with the opportunity to develop better English communication skills. Students opined they learned better communication and negotiation skills from the group work and projects. The ambience in the class created a safe environment where students were comfortable and less inhibited to

engage in language learning. (Nik Mohd Hasrul Hashim et al. 2014) This naturally meant better confidence and improved motivation in the language classroom.

CONCLUSION

The study has shown that a new learning space for English language does improve teacher pedagogy and student learning behaviour and technology is a key consideration in this triad. As Oblinger et al. (2005) claim it is important to create learning environments that optimise pedagogy and make learning more active, social and learner centered but is especially important to remember that technology is driven by pedagogy. The teacher respondents in this study have demonstrated that they are able to use technology to enhance their approaches and still allow students to have a successful personalised language learning experience. Teachers are using a more learner-centric approach afforded by technology and ask students to search for information pertaining to their English lessons by carrying out a google search, for instance. Teachers are able to function as facilitators and assign students tasks that involve collaboration and group work. The inclusion of multimedia and online materials has definitely made the learning of English more interesting for the students who are now able to visualise topics clearly with the help of videos and online graphics. Students are more focused on learning and more engaged with the task that they are given to complete and reported developing better peer relationships and learning from each other. While the study did not explore the academic performance of these students as this was not the focus it will be interesting to follow up and see if there was any improvement to further lend credibility to new learning spaces.

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REFERENCES

Akhyar, R., Nambiar, R.M.K. & Noraini Ibrahim. (2016). Teaching and Classroom Management Strategies of Indonesian Master Teachers: Investigating a Vocational English Classroom. *3L: The Southeast Asian Journal of English Language Studies. Vol. 22*(3), 93-109.

Bennett, S. (2011). Learning behaviors and learning spaces. *Libraries and the Academy Vol. 11*(3), 765-789.

Blackmore, J., Bateman, D., Loughlin, J., O'Mara, J. & Aranda, G. (2011). Research into the connection between built learning spaces and student outcomes, Department of Education and Early Childhood Development, East Melbourne, Australia.

Byers, T., Imms, W. & Hartnell-Young. (2014). Making the case for space: The effect of learning spaces on teaching and learning. *Curriculum and Teaching. Vol. 29*(1), 5-19. doi: 10.7459/ct/29.1.02.

Davies, D., Jindal-Snape, D., Collier, C., Digby, R., Hay, P. & Howe, A. (2013). Creative learning environments in education: A systematic literature review. *Thinking Skills and Creativity. Vol. 8,* 80-91. doi: 10.1016/j.tsc.2012.07.004

Gislasen, N. (2009). Mapping school design: A qualitative study of the relations among facilities design, curriculum delivery, and school climate. *Journal of Environmental Education. Vol. 40*(4), 17-34.

Hall, C. (2013). *The Impact of New Learning Spaces on Teaching Practice*. Literature Review Academic Development Group, College of Business. RMIT University.

Innovative Learning Environments (2013). https://www.oecd.org/edu/ceri/The%20ILE%20project.pdf

Jamieson, P, Roberts, J. & Wakefield, R. (2009). *Creating new generation learning environments at RMIT University: Rethinking the design, development and implementation process*. Unpublished discussion paper for RMIT Learning Spaces Advisory Group.

Kamalludeen, R., Hassan, A. & Ahmad Nasaruddin, N. S. (2016). Student usage patterns of VLE-Frog. *Journal of Personalized Learning. Vol. 2*(1), 93-101.

Kozinsky, S. (2017). How generation Z is shaping the change in education. Retrieved 2nd August, 2017 from https://www.forbes.com/sites/sievakozinsky/2017/07/24/how-generation-z-is-shaping-the-change-in-education/#4e73b27a6520

Learning Innovation@Shekou International School (2014). https://www.youtube.com/watch?v=LXbysfFKC2I

Lippincott, J. K. (2009). Learning spaces: Involving faculty to improve pedagogy. *EDUCAUSE Review. Vol. 44*(2), 16-18.

McGregor, J. (2003). Making Spaces: Teacher workshop topologies. *Pedagogy, Culture & Society. Vol. 11(3)* 353-377.

Nik Mohd Hazrul Nik Hashim, Syed Shah Alam & Norazlina Mohd Yusoff. (2014). Relationship between Teacher's Personality, Monitoring, Learning Environment, and Students' EFL Performance. *GEMA Online® Journal of Language Studies. Vol. 14*(1), 101-116.

Oblinger, D. (2006). Learning spaces. EDUCAUSE. Retrieved 20th May, 2017 from http://www.educause.edu/ir/library/pdf/PUB7102b.pdf

Oblinger, D, Oblinger, J. L. & Lippincott, J. K. (2005). *Educating the Net Generation*. Brockport Bookshelf. 272. https://digitalcommons.brockport.edu/bookshelf/272

Prensky, M. (2008). Students as designers and creators of educational computer games: Who else? *British Journal of Educational Technology. Vol. 39*(6), 1004-1019.

Sztejnberg, A. & Finch, E. F. (2006). Adaptive use patterns of secondary school classroom environments. *Facilities. Vol. 24*(13-14), 490-509. DOI: 10.1108/02632770610705275

The Daily Telegraph (2014). Deskfree strategy turns classrooms into creative learning hubs that see student engagement soar. http://www.dailytelegraph.com.au/news/nsw/deskfree-strategy-turns-classrooms-into-creative-learning-hubs-that-see-student-engagement-soar/news-story/24c508729d52a12f349ba142ae35e769

Uutiset. (2017). Finnish schools begin term, many with redesigned buildings. https://yle.fi/uutiset/osasto/news/finnish_schools_begin_term_many_with_redesigned_buildings/9767651

Vygotsky, L. S. (1962). *Thought and Language*. Cambridge: MIT Press.

Walker, J. D., Brooks, D.C. & Baepler, P. (2011). Pedagogy and space: Empirical research on new learning environments. *EDUCAUSE Quarterly. Vol. 34*(4). http://z.umn.edu/eq1.

Washor, E. (2003). *Innovative pedagogy and school facilities*. Retrieved 2nd August, 2017 from http://www.designshare.com/Research/Washor/Pedagogy%20and%20Facilities.pdf

Yin, R. K. (2009). *Case Study Research: Designs and Methods* (4th Ed.) Thousand Oaks: Sage.