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The IAFOR Journal of Education

Volume II – Issue II – Summer 2014

Edited by Bernard Montoneri

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Journal of Education Editors

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Introduction

It is my great pleasure and honour to introduce Volume 2, issue 2 of the IAFOR Journal of Education. This issue is mostly a selection of papers submitted during:

1. The fourth annual Asian Conference on Education (ACE 2012), 'Learning and Teaching Through Transformative Spaces', held in Osaka in October 2012. ACE attracted 450 registrants and invited speakers from more than 40 countries; it was IAFOR's biggest conference to date. 130 papers were submitted online in December 2012.
2. The inaugural European Conference on Education (ECE 2013). The First European Conference on Education was held alongside the Inaugural European Conference on Technology in the Classroom (ECTC 2013). The two conferences were held in Brighton, UK, in July 2013. The event attracted 350 delegates from over forty countries.

The Future of Education

This journal is proud to introduce scholars from all over the world. Most of the studies presented in this issue discuss the benefits of using Information and communications technology (ICT) in the classroom, notably for students with special learning needs (Balmeo et al.). The recent development of ICT has brought rapid and profound changes in the fields of Teaching and Education. Millions of users, including a large number of teachers and students, are engaging on social networks such as Facebook (Shaila Shams) and using technology to connect with people from all around the world. A growing number of studies demonstrates that 21st century technology supports educational activities by notably allowing participation, interaction, resource and knowledge sharing, distance education (Smidt et al.), as well as local and international collaboration (Spante et al.).

The first paper is authored by Steve R. Entrich. This is a fascinating study into higher achievement rates in Japan compared to Germany when examining PISA-results. The outcome that shadow

education is the most important factor in higher achievement is an incredibly interesting and informative conclusion which demonstrates that ways that Japan overcomes any disadvantage in their family background. This study is relevant to more than just the Germans (or indeed as a commendation for Japanese education), it will allow other countries who do not achieve as highly as Japan to consider this factor in their students' lives. The graphs and tables are clear and illustrate the data in a scientific and compelling way. This is a persuasive and impressive study.

The second paper by Maria Spante, Asgjerd Vea Karlsen, Anne-Mette Nortvig, Rene B. Christiansen uses Technological Pedagogical Content Knowledge (TPACK) model to analyze classroom observations, students' video productions, texts and photos distributed and shared on a mutual blog, real-time interaction and teachers' communication in the subject of history in elementary schools in Denmark, Sweden, and Norway. Spante et al. show that the number of students working together should preferably be limited when dealing with complex tasks, and all involved users need to know how to use the chosen technological tool to support communication and collaboration. Spante et al. suggest to provide support to both students and teachers so that technical and organizational issues do not overshadow the added value offered by cross-border collaboration.

Greg Chung-Hsien Wu touches upon an interesting sphere of English education as it attempts to explore different genre of writing while assessing them using Cooperative Principles. Wu's six-week study of five undergraduates voluntarily recruited in a university located in central Taiwan concludes that *Cooperative Principles* can successfully be implemented in L2 writing instructions and can effectively sharpen learners' awareness in rhetorical and discoursal aspects of L2 writing. L2 writing instructors are advised to encourage students to prepare collaborative dialogues during the classroom and to give them written feedback either randomly or regularly.

The next paper, written by Shaila Shams, investigates the effect of using Facebook in language classrooms at tertiary level in Bangladesh. Participants of this study were first year first semester university students doing a foundation course in English focusing to improve their listening, speaking, and writing skills. The participants were divided into two groups. Group 1 was the control group who was taught traditionally and non-digitally without using Facebook. Group 2, along with classroom teaching, received help from the instructor through Facebook and did tasks assigned on Facebook. It works as a motivational platform which encourages, liberates from fear and introversion and engages students into the practice of collaborative learning and therefore increase of skill in the language. However, it appears that when teaching students with already advanced skills in the language, this method will not help the students to increase their skills much further.

The next paper is co-authored by Marilyn L. Balmeo, Erika Mae A. Nimo, Aubrey M. Pagal, Stephanie C. Puga, ArisDafQuiño, Jaleen L. Sanwen. In this study, the respondents included 53 teachers from the different schools offering special education in Baguio City. They answered to a self-made questionnaire consisting of 43 named hardware technologies and 13 named softwaretechnologies. Whiteboard resulted to be one of the most available technologies in teaching students with special learning needs, followed by Multimedia Software and electronic dictionary.

Esther Smidt, Brian McDyre, Jennifer Bunk, Rui Li, and Tanya Gatenby uncover faculty attitudes about distance education in the context of a mid-sized mid-Atlantic state university. Data sources consist of posts from two of six discussion boards written by 21 faculty participants during an Online Faculty Development Program. The findings of this study suggest that faculty are concerned about the conversion of face-to-face courses to online courses. They are also sensitive about anonymity issues, specifically about whether student photos should be optional and discussion comments should be anonymous. The study suggests that online courses should offer authentic, meaningful, and long-

term learning. Faculty should be trained in various learning tools as well as how to use them to create meaningful and authentic learning environments.

Finally, Roopa Nagori and Matthew Cooper discuss experiences from four implementations of 'Peer assessments' in a MBA program in the United Kingdom. Results from these implementations demonstrate the benefits and challenges involved in peer reviews as a feedback strategy for international students studying on postgraduate programs. The researchers realized that low levels of engagement with feedback needed to be addressed in time for students to modify their own thinking and behavior to improve learning. Findings show improvements in summative scores for the higher ability students were observed; all the learners agreed that the peer feedback should be made a permanent feature of the program, with adequate tutor planning and student preparation. The main barriers in giving feedback were lack of experience and hesitation in critiquing peer's work.

Please note that we welcome original research papers in the field of education submitted by teachers, scholars, and education professionals. They may send their manuscript even though they did not participate to one of the conferences held by IAFOR. We also welcome book reviews, reviews of the literature in the field, and contributions introducing key educational scholars. The next issue scheduled for February 15, 2015 will also be a selection of papers submitted during the above mentioned conferences. IAFOR publications are freely accessible on the website (Open Access). Moreover, there is no publication fee for authors. Please find the guidelines at this end of this issue. Follow the new guide for authors if you wish to submit your paper. Finally, do not hesitate to join us on LinkedIn via the group entitled *IAFOR Journal of Education*.

Best regards,

Bernard Montoneri

German and Japanese Education in the Shadow - Do Out-of-School Lessons really contribute to Class Reproduction?

Steve R. Entrich

Abstract

Considering the great impact the first PISA-results caused in Germany and Japan, this study seeks to provide an explanation for the continuous higher achievement rates of students in the PISA-winner country Japan compared to their German peers. Another great difference between the two participants that was detected in PISA is the correlation between students' social origin and educational achievement, which is still very strong in Germany but not in Japan. The author assumes the reason for these differences lay outside the formal school system, in the sector of shadow education. The so called juku-industry in Japan provides out-of-school lessons that seem to enable all Japanese students to achieve top results regardless of their social origin. In Germany the increased use of Nachhilfe is seen as an indicator for the downfall of the compulsory school system and a problem that seem to widen the gap in education levels all the more. If in Japan almost every household regardless of its social status sends its children to out-of-school classes, the assumption that people do invest in further education in terms of extra classes at juku believing this will have a neutralizing effect on disadvantaged family background suggests itself. Consequently the author intends to refute the prevailing assumption of researchers in Germany and Japan stating that out-of-school lessons just contribute to the reproduction of class structure. Using secondary data as well as PISA-data the author wants to show that shadow education helps to counteract educational disadvantages through the provision of various educational opportunities.

Keywords: Shadow education; Comparative education; Out-of-school education; Social disparities; Germany, Japan, PISA 2009.

Introduction

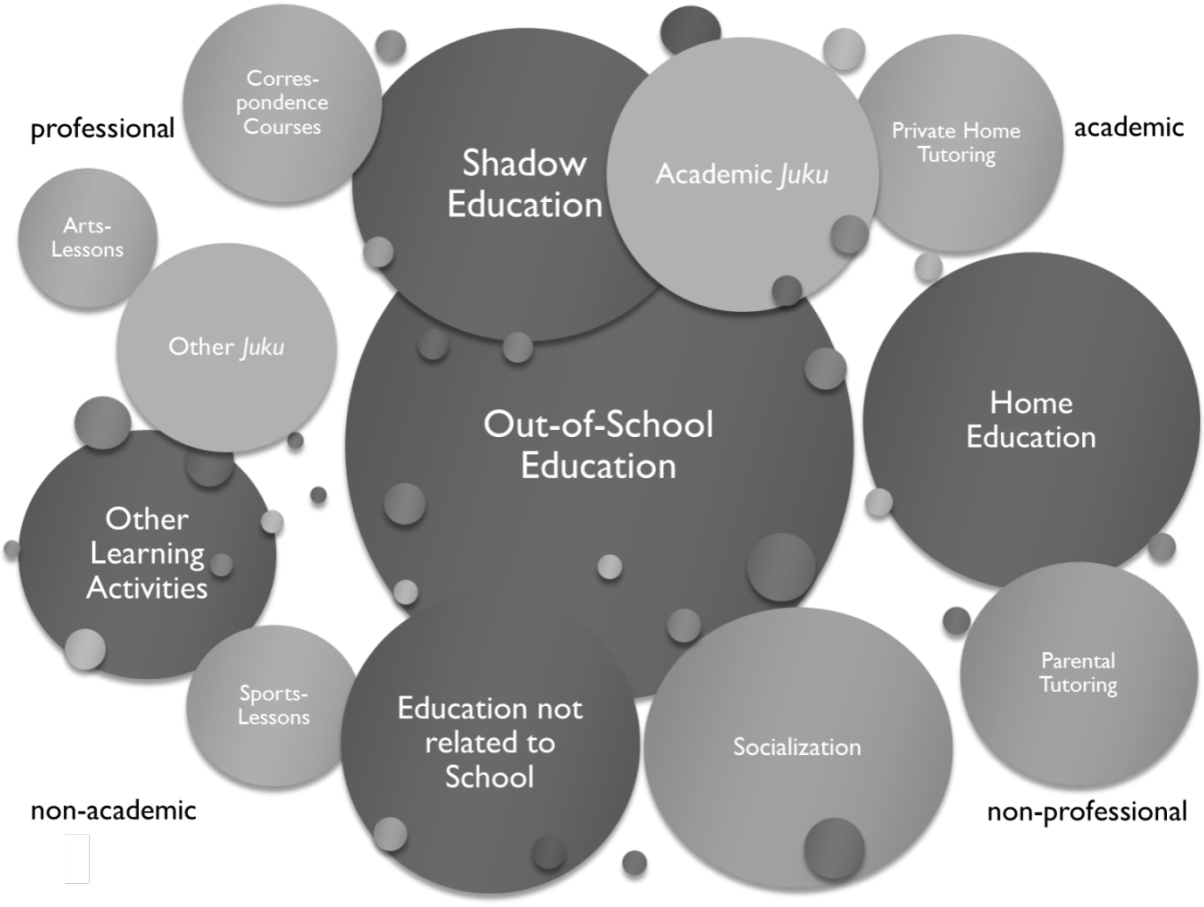
The publishing of the first results of the Programme for International Student Assessment (PISA) caused a public, political and scientific debate about education in Germany. Germany's hope for a top position was unfortunately not a reality. Instead, the OECD certified that German students show at best mediocre performance within the study. In addition, students' social origin correlated strongly with educational achievement in Germany (Stanat, Artelt, Baumert, Klieme, Neubrand, Prenzel, Schiefele, Schneider, Schümer, Tillmann, & Weiß, 2002, p.12). German researchers began to ask how Germany's educational system could have performed so poorly amid other OECD countries and what was done differently in PISA winner countries such as Japan? Not only were Japanese students able to achieve top results. The influence of students' social origin on the performance in PISA was the lowest in Japan amid the participants (ibid., p.12). The Japanese seem to have found a way to neutralize disadvantaged family background through education enabling all students to achieve a high level of education regardless of the wealth of their parents. Considering that the formal school system possesses no apparent significant differences that could clearly explain the Japanese success over Germany (von Kopp, 2000, pp.181-82) another explanation had to be found. Not only can the formal school system be held responsible for the success of its students. Also education outside of school has to be acknowledged to understand the Japanese success (Schümer, 1999, p.46). These responsible out-of-school lessons are called shadow education.

Shadow Education and its Implications

A shadow education system is an educational system of private institutions and organizations operating alongside the formal school system. Stevenson and Baker (1992) defined shadow education as *"a set of educational activities that occur outside formal schooling and are designed to enhance the student's formal school career"* (p.1639). Also shadow education is supposed to

"improve student's chances of successfully moving through the allocation process [while it is] firmly rooted within the private sector" (pp.1640-42). Based on this definition, Bray (1999, 2010) identified three main points of essence: (1) shadow education is academic in nature, clearly excluding all non-academic forms of out-of-school education, like arts or sports lessons, from this definition; (2) shadow education is used as a supplement, and is therefore not covering classes outside the school spectrum, like language classes for children with migratory background; and (3) shadow education is private, meaning all non-professional forms, such as parental help with homework, or unpaid remedial classes at school are excluded from this definition, since shadow education is commercial in nature and always fee based (Bray, 2010: 4).

Figure 1. Different Types of Out-of-School Education



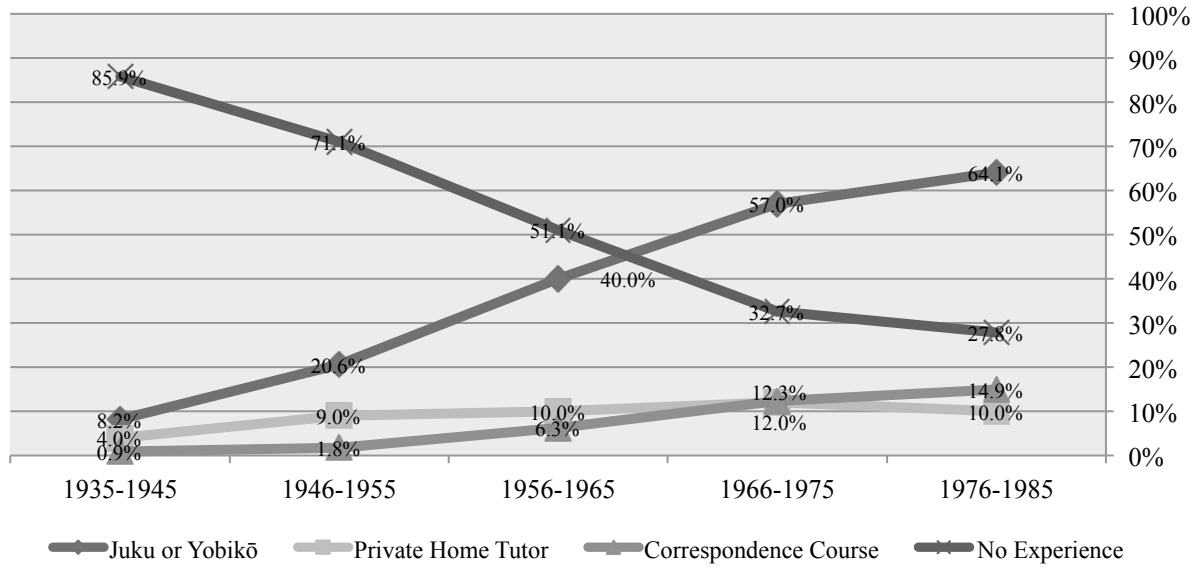
In conclusion, only these types of out-of-school education are characterized as shadow education which are professionally organized by private providers (professional) and school subject related (academic) (Figure 1). As recent research indicates, these out-of-school lessons show a positive effect on academic achievement (e.g. Baker, Akiba, LeTendre & Wisemann, 2001; Guill & Bonsen, 2011; Haag, 2001, 2007; Hosenfeld, 2011; Konakayama & Matsui, 2008; Mimizuka, 2007; Ojima & von Below, 2010; Southgate, 2009; Streber, Haag & Götz, 2011; Tomura, Nishimaru & Oda, 2011).

Today shadow education can be found all around the globe (Bray, 1999; 2010). Particularly in Japan the use of out-of-school classes has a long tradition. The main providers are private schools, the academic *juku* (*gakushūjuku*) - often referred to as cram schools (e.g. Roesgaard, 2006). After the great *juku*-boom (Rohlen, 1980) in the 1970s as a result of the extraordinary high increase of educational aspirations of the Japanese population in the course of educational expansion, the Japanese shadow education system expanded steadily (Haasch, 2000, p.195; Dierkes, 2010a, p.26), as illustrated in Figure 2. Instead of the Japanese government, which did not meet the educational needs of worried parents, private operators promised help through the provision of supplementary classes at their *juku* (Haasch, 1979, pp.43, 45-46; Drinck, 2002, p.263). A *juku* is a private for-profit school offering all sorts of instructions in academic as well as non-academic fields. While non-academic *juku* are concerned with *naraigoto*[1], academic *juku* are school subject related and offer private tutoring, enrichment as well as remedial classes or the preparation for tests and (entrance-)

[1] *Naraigoto* are afternoon activities often organized in clubs (*bukatsudō*) directly taking place on school grounds or at *juku*. Whereas many students come together to build teams and train with each other in sports such as baseball or soccer, other students explore their musical and artistic skills in singing and dancing classes or take piano lessons. Also, classes are popular, where students learn to use the Japanese abacus (*soroban*), learn calligraphy or are instructed in martial arts (*būdō*) (von Kopp, 2000: 180; MEXT, 2008: 15).

exams. Besides, the variety of supply ranges from simple help with homework to courses that let students expand their knowledge beyond their peers' education level (Dierkes, 2010a, pp.26-27; Komiyama, 1993, pp.82-87). Besides *juku*, lessons given by private home tutors and correspondence courses are the most popular shadow education types in Japan. Currently almost every Japanese student is taking or has taken lessons at *juku* (Konakayama & Matsui, 2008, p.131).

Figure 2. SSM 2005 'Use of shadow education in Japan by birth cohort' (at least half a year, in %)



Source: Social Stratification and Mobility Survey (SSM) 2005, own calculation.
The data for this secondary analysis, "German and Japanese Education in the Shadow" was provided by the Social Science Japan Data Archive, Center for Social Research and Data Archives, Institute of Social Science, The University of Tokyo.

Consequently the so called *juku*-industry, as this national supplemental private tutoring entity external to the formal education system is entitled, provides one possible explanation for Japanese students' high performance in international large scale assessment studies, such as PISA.

Nowadays the phenomenon of rising demands for private supplementary education has also increased in most western countries, such as Germany. In Japan, *juku*-owners promote that shadow education will lead to the superior results of the Japanese youth compared to compulsory school

education (Dierkes, 2010a, p.25). In Germany, comparable programs are provided by *Nachhilfe*-schools, whose heads make the same promises which operators of private educational institutions make all over the world: they lure students with the promise for better pedagogical concepts that give parents a way out of an educational misery – successfully as it seems. Particularly since the 1990s the use of professional out-of-school lessons in Germany has strongly increased (Guill & Bonsen, 2011, p.307; Mayr, 2010, pp.10-11). The German *Nachhilfe*-system has expanded and became an influential factor educationally as well as economically. Various conservative estimates suggest that around 1.1 million German students yearly use *Nachhilfe.* This industry has approximately already a turnover up to nearly 1.5 billion Euros a year (Klemm & Klemm, 2010, p.20). Although these numbers may seem impressive, the German *Nachhilfe*-system with its approximately 3.000 to more than 4.000 *Nachhilfe*-school branches is still in an early stage of development compared to the Japanese *juku*-system that generated approximately US$15.2 billion in 2012 (Yano Research Institute, 2013).

While in Japan most shadow education has been professionalized and is mostly taking place at *juku*, in Germany other forms of shadow education are still predominant. Only about 30% of all shadow education in Germany takes place at *juku*-like institutions, the *Nachhilfe*-schools (Dohmen, Erbes, Fuchs, & Günzel, 2008, p.53). In comparison, in Japan there are even more *juku* (almost 50.000) today than formal schools combined (about 39.000) (BERD, 2007, p.2). This indispensable addition to the public compulsory school system has become influential in such a way, that it is perceived the Japanese formal school system alone cannot prepare students for their later life course in a proper way anymore (Sato, 2005). In promotion with this belief, local officials have advocated for the *juku*-schools as positive alternatives and actually pursue partnerships with those institutions to improve their learning opportunities (Dierkes, 2010b).

The fear compulsory schools will not be able to sufficiently educate children anymore is already present in Germany, too. In general, in Germany students needing *Nachhilfe* is seen as a problem and an indicator for the downfall of the compulsory school system. The idea the compulsory school system is no longer able to equip students with the needed armamentarium to succeed in school and thereafter is a national issue of concern. In fact, the high costs for private lessons seem to intensify social disparities and widen the gap between rich and poor all the more, as some studies indicate (Schneider, 2004, 2006). While in Japan all social classes seem to be able to use expensive out-of-school education, this is not the case in Germany. Whether it really is the costs that some German parents cannot afford, the unwillingness to pay for supplementary education for their child, or it is the nescience about what shadow education can possibly offer, has not been sufficiently researched yet.

As social scientific research on education has proven, the socioeconomic background and parents' educational aspirations in conjunction with the students' academic achievement are decisive for the making of educational decisions. The difference in educational prerequisites at the beginning of a students' school career (primary effect) and parents' different cost-benefit considerations based on their educational aspirations (secondary effect) result in educational as well as social inequality (Becker & Lauterbach, 2010; Boudon, 1974; Breen & Goldthorpe, 1997; Esser, 1999). Hence, these primary as well as secondary effects of social origin exert great influence on educational pathways. Parents tend to invest in the educational trajectory of their child as long as the expected returns to education exceed the costs (Becker & Lauterbach, 2010, pp.15-19). If in Japan almost every household sends its children to *juku*, parents might indeed think that an investment in supplementary education will pay off for their children. This provides a reasonable explanation for the attested low achievement range between Japanese students with high and low social origin in PISA.

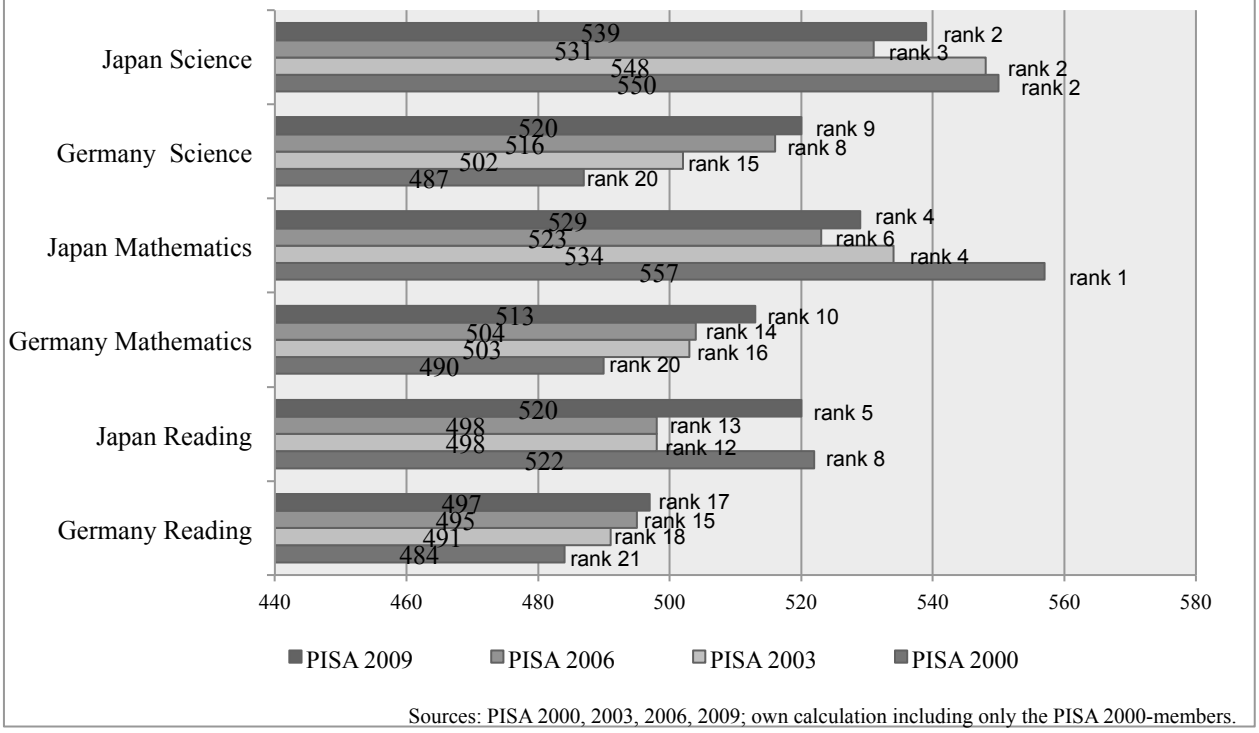
The Cause of the Achievement Gap: The Use of Professional Shadow Education

Before the question if out-of-school lessons contribute to the reproduction of class structure or if shadow education may in fact counteract educational disadvantages through the provision of various educational opportunities can be discussed, the theoretical framework of such a thesis has to be determined. Of greatest interest for this work is to first prove if Japanese students are constantly achieving better results compared to their German peers. Therefore, in the following some results of the most popular international student achievement study PISA will be presented.

Educational Achievement in International Comparison

After Germany has been absent from its participation in international student assessment studies for nearly 30 years, the empirical educational research in Germany was rediscovered as a powerful means for educational policies in the late 1990s (Arnold, 2001, pp.161-63). Unfortunately, the hoped for top-position within the PISA study of the year 2000 remained a dream. On the contrary, a comparatively low performance was attested (Figure 3). As we can see, it seems that Japanese students achieve always significantly higher results in all fields of performance within the PISA study than their German peers. Over the last decade, German students never reached the competency levels of their Japanese opponents. In the PISA survey of the year 2000 Japanese students achieved rank 1 in mathematics, rank 2 in science and rank 8 in reading literacy, showing nearly equally good results in 2009 (ranks 4, 2 and 5 respectively). German students on the other hand did not achieve comparable results. With rank 20 in mathematics and science as well as rank 21 in reading, Germany made it barely to the lower middle field in international comparison. Although the results for Germany were getting better over the years (2009: mathematics rank 10, science rank 9, reading rank 17) ranks within the PISA top field could not yet be achieved.

Figure 3. PISA 2000 to 2009 'Positioning of Germany (BRD) and Japan within the different competency fields (test scores and ranking)'



Sources: PISA 2000, 2003, 2006, 2009; own calculation including only the PISA 2000-members.

Taking into account the limitations of the PISA study, such as cultural patterns, the questionnaires' item style, and sample variations between countries (Hamano, 2011, pp.3-4); the significant differences between the performance score means of German and Japanese students are still evident and need further explanation.

Since PISA attempts to measure literacy, also described as 'application ability' (Hamano, 2011, p.2), meaning the ability to achieve skills and knowledge instead of measuring the actual achieved knowledge and skills of students; the differences between Japanese and German students' PISA performances are not found in the regular schooling system of each country only. Additional educational opportunities have to be taken into account as well.

Quantity and Quality of Instruction in both Countries

One could assume that the higher achievement rates of Japanese students may be mainly caused by longer study hours at school or better teaching quality. As will be shown in the following, this is not the case.

The quantitative learning time of students in Germany and Japan today does not differ very much or, at least, in Japan the time spend in school is not significantly higher than in Germany. Table 1 shows the medians of the number of class periods in both countries, also considering the three performance fields of the so far conducted surveys of the PISA study.

Table 1. PISA 2000 to 2009 'Number of weekly class periods per subject'

Country			native language	mathematics	science	all subjects
Germany	PISA 2009	valid	659798	656892	637595	636625
		missing	107194	110100	129397	130367
		median	4	4	**5**	**32**
	PISA 2003	valid	-	791269	-	707022
		missing	-	93089	-	177336
		median	-	4	-	30
	PISA 2000	valid	740064	738005	771749	-
		missing	86752	88811	55067	-
		median	4	4	4	-
Japan	PISA 2009	valid	1074149	1073655	1073630	1081283
		missing	39253	39748	39772	32119

		median	**4**	5	**3**	**31**
	PISA 2003	valid	-	1162943	-	1054582
		missing	-	77111	-	185472
		median	-	4	-	30
	PISA 2000	valid	1221428	1228372	1210646	-
		missing	225168	218224	235950	-
		median	5	5	4	-

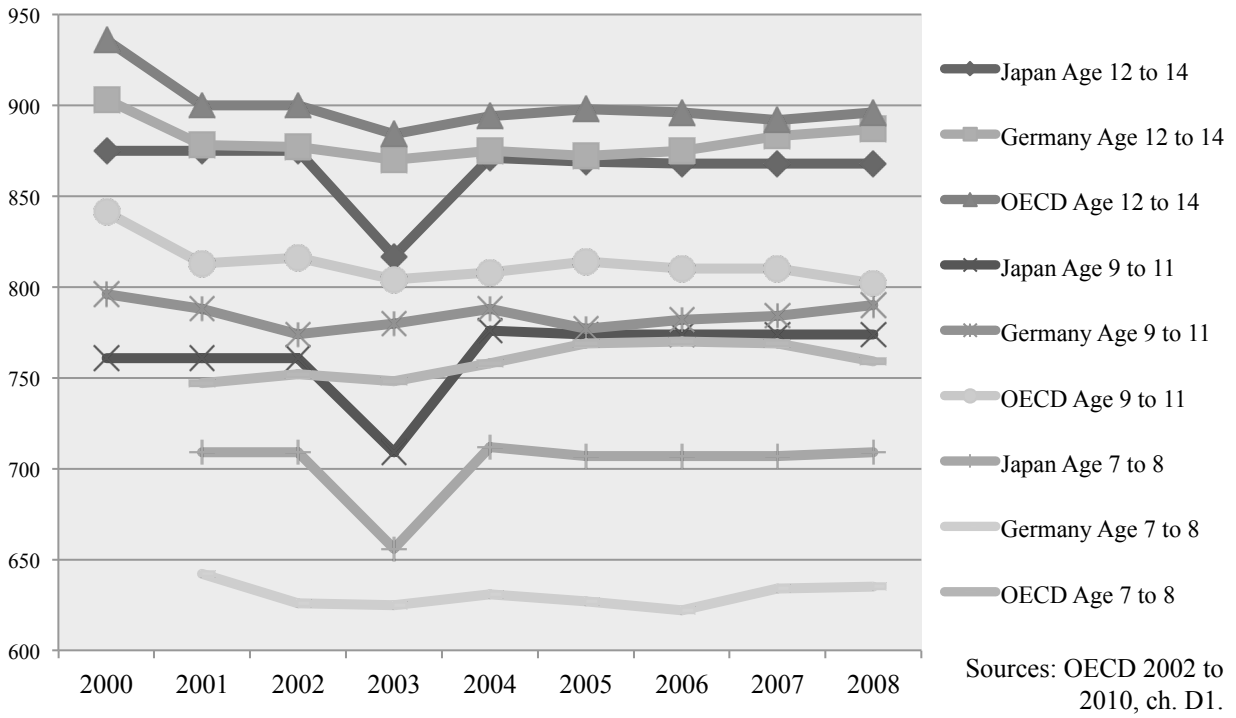
Sources: PISA 2000, 2003, 2009, own calculation.

One class period is equal to 45 minutes for Germany and 50 minutes for Japan.

The data of PISA 2006 is not considered, because no clear categories were defined.

Here a development in school learning time from PISA 2000 to PISA 2009 can be found. While in Germany the learning time increased in general from 30 (2003) to 32 (2009) class periods per week and in the field science from 4 (2000) to 5 (2009) weekly class periods, it decreased in Japan in native language as well as in science about one class period from 5 (2000) to 4 (2009) and 4 (2000) to 3 (2009) respectively. Further data as conducted by the OECD might show if the learning time in Japan differs very much prior to 9th grade or not (Figure 4).

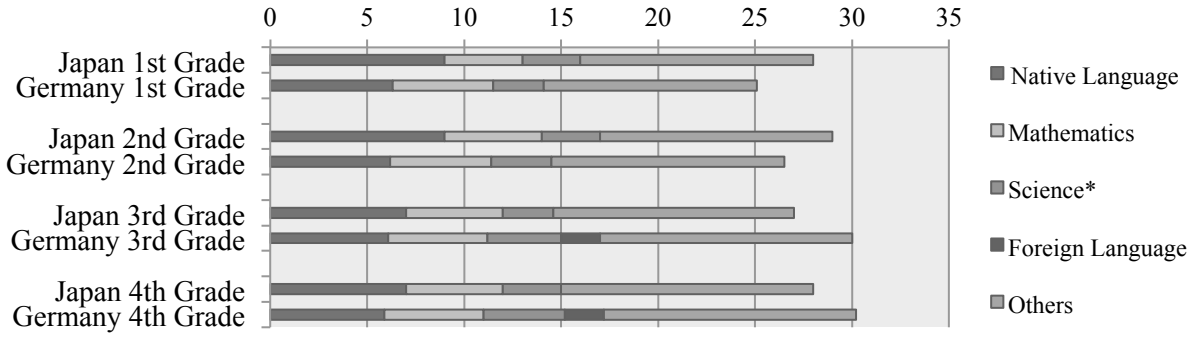
Figure 4. OECD 2000 to 2008 'Compulsory instruction time in public institutions, several age groups (in hours per year)'



Although the overall instruction time seems to even be slightly higher in Germany for 9- to 14-year olds, a real difference in instruction time can only be detected for students of the age 7 to 8. Even the comparison of instruction time in the three subjects related to the three performance fields of PISA reveals no great differences between German and Japanese students aged 9 to 14 (own calculation on the basis of OECD, 2002 – 2010, ch. D1).

A glance on public primary schools in both countries shows that there is a difference in the total number of school hours, but no huge differences in the time spend for the PISA related subjects. Only in native language real differences seem visual (Figure 5).

Figure 5. Instruction time 2011 'Compulsory instruction time in public primary schools per subject and number of class periods'



Sources: Numano, 2011 (for Japan); primary school regulations of the 16 different federal states of Germany.
One class period is equal to 45 minutes in Germany as well as in Japan.
*The subject science includes "Living Environment Studies" for Japan and "*Sachkunde*" for Germany.

Due to the reformation of primary education in Japan as initiated in 2008, the time for instruction in school has increased for the first time in 30 years, since the gradual implementation of the *yutori kyōiku* (no-pressure education) reforms in the 1980s. Especially for native language and science more time is now invested (Numano, 2011, p.8). On the other hand, the curricula in Germany have also been reformed since the implementation of curriculum and school structure reforms after the great PISA-shock in 2001 (Ertl, 2006). In conclusion it has to be stated that the differences between the amount of instruction time in German and Japanese schools in the three above mentioned PISA-related subjects are not convincing enough to serve as an explanation for higher achievement rates. The pure quantity of lessons is not that different in both countries, so a clear explanation for the much higher achievement rates in Japan is still missing.

Against the prevalent view of researchers and politicians across the world, who tended to praise the Japanese education system for its high academic standards and quality (e.g. Akiba, LeTendre, & Scribner, 2007; OECD, 2012; Stevenson & Stigler, 1992; Stigler & Hiebert, 1999; Stigler & Stevenson, 1991) or even tried to emulate Japanese education, like the United States did back in the

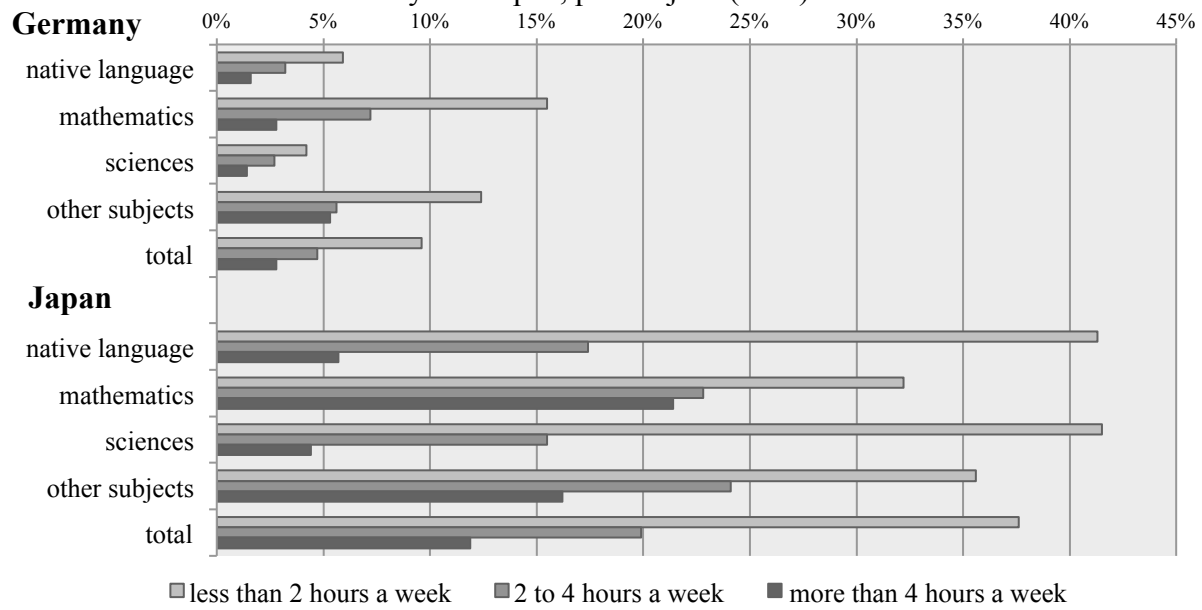
1980s due to the 'A Nation at Risk' report (Fujita, 2010, p.21); the quality of Japanese schooling needs actually to be viewed critically. In fact, the higher quality of teaching is mostly found in primary schools rather than in middle or high schools (von Kopp, 2000, p.181f.). This was again verified by a recent study carried out by Peter Cave (2011). Despite a number of education reforms over the last 20 years, Cave found that Japanese middle schools continue teaching practices, which can hardly be characterized as quality instruction. On the contrary, 'exploratory thinking and independent learning' are maybe found at the primary school level, but not so thereafter (Cave, 2011, p.149).

As Schümer (1999) noted, a possible higher quality of instruction and thus effectiveness is made possible by an investment in extra classes outside of school (Schümer, 1999, pp.50-52). Nevertheless, until today the Japanese *juku*-industry has not been acknowledged for what it is: an indispensable addition to the public school system (e.g. OECD, 2012, p.202). Even though in Japan everybody seems to know that *"[e]ducational achievement is prompted by a broad societal and educational infrastructure, of which formal schooling is just one part"* (Tanabe, 2000, p.125), the major role of shadow education is rarely accounted for.

A possible explanation for the higher achievement rates of Japanese students in PISA is found in the far greater investment in out-of-school education in comparison to German students. Consequently, Japanese 10th graders have to receive longer instruction times by generally attending significantly more out-of-school classes than their German peers (Figure 6). Taking into account existing research on the effectiveness of shadow education in both countries, we can assume that lessons in the shadow education sector are of considerable high quality since these lessons were found to contribute to students' educational achievement (e.g. Guill & Bonsen, 2011; Haag, 2001, 2007; Hosenfeld,

2011; Konakayama & Matsui, 2008; Mimizuka, 2007; Streber, Haag & Götz, 2011; Tomura, Nishimaru & Oda, 2011). A generally higher investment in professional outside of school lessons in Japan thus provides an explanation for the higher achievement rates of Japanese students compared to German students.

Figure 6. PISA 2009 'Weekly investment in of out-of-school lessons in Germany and Japan, per subject' (in %)



Source: PISA 2009, own calculation.

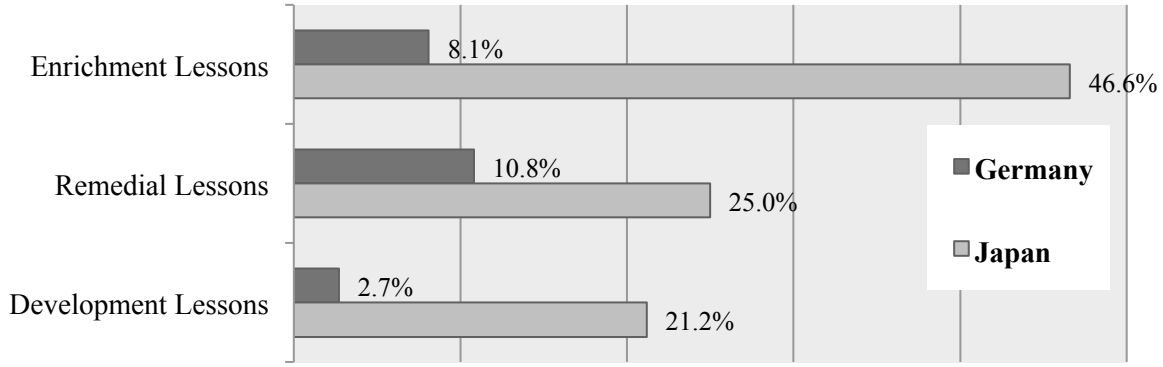
According to PISA 2009 data, Japanese PISA-participants did generally use shadow education more often. As we can see, especially in the three PISA-related subjects native language, science and mathematics (!) classes outside of school are attended to a high degree. However impressive these participation ratios may seem, they only partly reflect reality. Due to definition inaccuracies it is not clear whether 'out-of-school time lessons' as mentioned in the PISA questionnaires are attended in the private or public sector, nor whether or not they have to be paid for. Out-of-school lessons were simply defined as "given at […] school, at […] home or somewhere else" (PISA 2009 questionnaire: Q31, Q32). The extraordinarily high participation ratios in out-of-school lessons in PISA 2009 are

thus due to definition inaccuracies. Here not only shadow education was included into students' responses, but unpaid and paid lessons in and outside of school, too. Contrary to this, the items in German were more accurate.

Nevertheless, these data show that Japanese students are extensively engaged in extracurricular education, whereas this seems not to be the case in Germany.

Whether an investment in out-of-school lessons shows effects on the performance in large scale assessment studies such as PISA depends somewhat on the type of lesson the students attend (Mimizuka, 2007). In PISA 2009, three different types of out-of-school lessons were defined: enrichment, remedial, and lessons to improve students' study skills (development lessons). Whereas enrichment lessons are used with the purpose to enhance the individual academic achievement level above the school class level, remedial lessons are used by students with learning deficits. Development lessons provide techniques to increase the students' individual learning ability. As Figure 7 shows, Japanese students use more out-of-school supplementary education of all types.

Figure 7. PISA 2009 'Participation in different Types of Out-of-School Lessons in Germany and Japan (in %)'



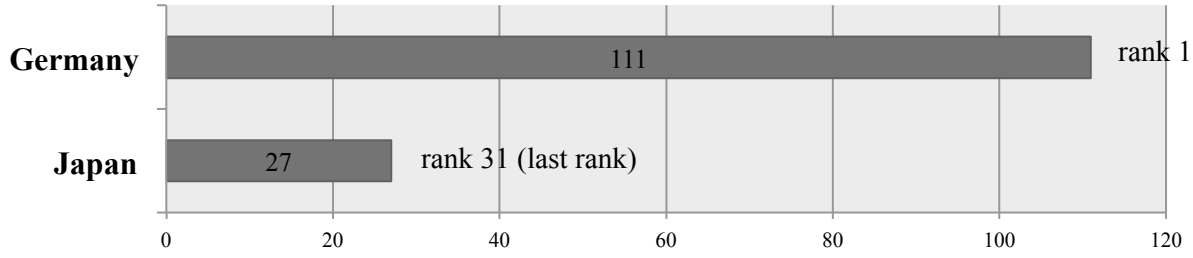
Source: PISA 2009, own calculation.
Enrichment lessons were defined as *'Zusatzunterricht für leistungsstarke Schüler*' in the German PISA 2009 questionnaire and as '*Gakuryoku o kōjōsaseru tame no benkyō*' in the Japanese version. Remedial lessons were defined as '*Förder-/ Nachhilfeunterricht*' in German and '*Hoshū jugyō*' in Japanese, whereas development lessons were translated as '*Kurs zur Verbesserung deiner Lern- und Arbeitstechniken*' in German and '*Hatten jugyō*' in Japanese.

In general, the demand for remedial lessons is slightly higher in Germany, whereas Japanese students favor enrichment lessons. Especially the high percentage of Japanese students participating in enrichment lessons (46.6%) compared to German students (8.1%) supports the argument that shadow education contributes to the Japanese success in PISA, since enrichment lessons are mainly used by students without learning deficits who aim at enhancing their academic achievement level above the original requirements of regular school class.

Social Origin and Educational Achievement

Besides the only mediocre results of German students in PISA 2000, it became clear that the social origin of a student plays a significant role for the level of educational achievement in Germany. In Japan the correlation between social background and educational achievement was comparably low (Figure 8).

Figure 8. PISA 2000 'Differences between the average reading literacy of 15 year olds from the highest and lowest quarter of social structure'



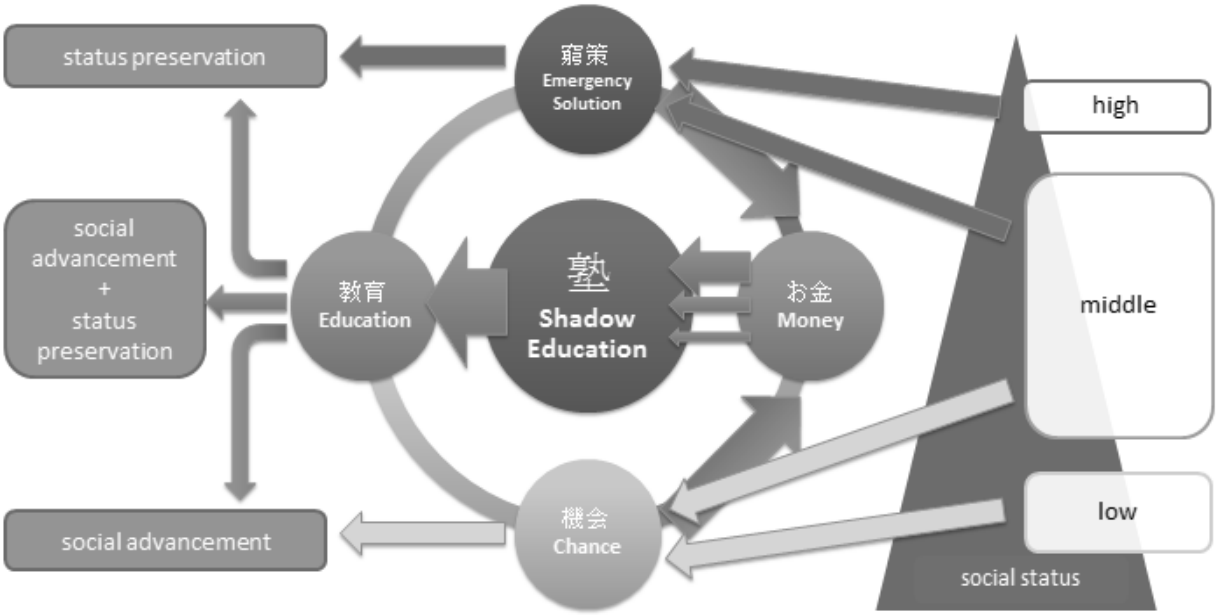
The figure above shows the differences between the means of the performance of those 25% youths from families with the highest social status of a nation compared to the performance of those 25% youths from families with the lowest social status.

Source: Stanat, et al., 2002, p. 12.

Here the range between the performance of students of the highest and lowest social quartile of society was the lowest in Japan (27 points), but highest in Germany (111 points) in 2000. Even though Japanese education is believed to have become more unequal recently (Fujita, 2010), Japan is still one of the countries in which the impact of social origin on student performance remained considerably low in international comparison. For the German case, the influence of social background on performance in PISA 2009 seems was not as strong as it used to be in 2000, but there still remains a big difference in comparison to the Japanese case. In Japan about 11% of resilient students can be found among the 25% of those youths from families with a low social status. Germany still belongs to the countries where students' learning outcomes are strongly determined by their social origin (OECD, 2012, p.49). The reason for the nevertheless apparent improvement in Germany may be a result of reform measures undertaken in the different federal states of Germany. Also the increased use of shadow education may play a great role here. The lower range of performance in Japan may be caused by the higher use of shadow education in all social quartiles. Especially students with disadvantaged social origin may indeed be the ones to use out-of-school education as a means to counteract their family background. Following leading sociological theories,

Figure 9 illustrates what causes may underlie the motivation of different social classes to invest in shadow education.

Figure 9. Social Status and Shadow Education



In Figure 9, possible causal relationships are visualized theoretically before they will be translated into our data analysis. Following decision theory based on Boudon (1974) and further developed by Esser (1999) and Breen and Goldthorpe (1997), families with a high social status are trying to preserve their status. To achieve this goal a high level of education has to be guaranteed for their children. Whether the school seems to not prepare their children enough for a successful life course or the children's grades are not what they ought to be, parents may be concerned in one way or the other. Therefore measures have to be taken to assure a high status. Here shadow education, although it may seem as some kind of emergency solution, can serve as possible guarantor for educational success. The expenses for this supplementary education seem to be tacitly approved by those parents. In comparison, families with a low social status have the greatest opportunities in education.

However, those families may not realize the importance of a high level of education, because they might just not realize the chance of social advancement. But even if they realize how important education can become for their children, they might not have the financial resources to take the opportunity that shadow education may provide for them. Whether shadow education is accessible for all social strata will be discussed in the following chapter.

In contrast, middle class families have to worry about status preservation so they will not slide down the social ladder on the one hand or grab the opportunity to climb the social ladder on the other. Again education is the crucial factor for both scenarios. It becomes clear, how influential primary as well as secondary effects of social origin are for educational pathways. Here shadow education can advance to become a chance to at least preserve the social status or even climb the social ladder. Of course parents are also measuring if further investments in education will pay off in the end (Becker & Lauterbach, 2010, p.15ff.).

To make conclusions about the ability as well as the willingness of parents to invest in shadow education in Japan and Germany, similarities and differences in Japan and Germany regarding the investment in shadow education have to be taken into account. The research questions are: Does the social origin play a role in who utilizes out-of-school classes in the two countries? Are all Japanese students able to utilize out-of-school education regardless of their social origin? Some answers shall be given in the next chapter.

Shadow Education as a Means to Counteract Social Disadvantages?

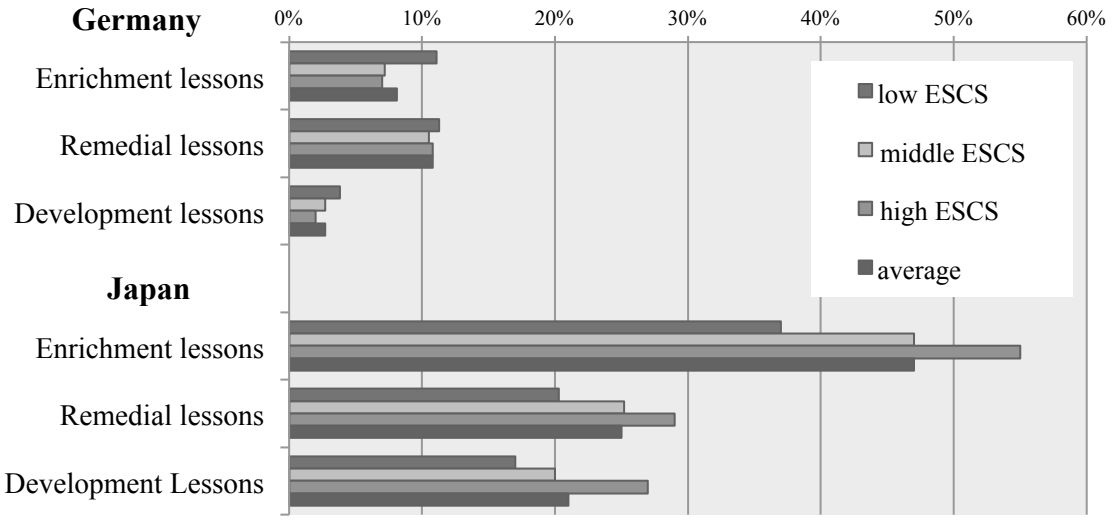
To verify my theoretical assumptions, I will use PISA data of the year 2009. In order to carry out my analysis, besides the dependent variables concerning the participation in shadow education, suitable

covariates to describe the socioeconomic background of German and Japanese students will be introduced in the following.

PISA includes a great variety of background data, such as the index of the economic, social and cultural status (ESCS). The ESCS index was derived from PISA variables which are all related to family background: the highest parental education in years (PARED); the highest parental occupation (HISEI); as well as the number of home possessions (HOMEPOS). The variable HOMEPOS was used as an approximate measure of family wealth (OECD, 2006, p.316). For our further research all data was weighted to get unbiased estimates of population parameters. To categorize the ESCS variable, it has been subdivided into three social classes: lowest 25% (lower class), highest 25% (upper class), and the 50% in between (middle class).

Figure 10 shows the distribution of German and Japanese students who are participating in out-of-school lessons according to social strata. Surprisingly, the greatest differences in the participation in out-of-school education for different social strata are detected for Japan (Figure 10). Although all Japanese students use shadow education far more than German students, it seems as if an investment in shadow education increases with higher socioeconomic status of students. In comparison, in Germany more lower class students attend *Nachhilfe*-classes. Especially enrichment lessons are attended by more low class students (11.1%) than high class students (7%) in Germany. In contrast, remedial lessons are nearly equally used by all students (about 11%).

Figure 10. PISA 2009 'Use of out-of-school lessons in Germany and Japan, per ESCS' (in %)



Source: PISA 2009, own calculation.

Although a high percentage of Japanese students is able to use shadow education, it seems as if social strata have a greater impact on who uses shadow education in Japan than in Germany.

To get reliable results, I carried out several logistic regression analyses using the three different types enrichment, remedial and development lessons in mathematics as dependent variable, as shown in Tables 2 and 3.

First of all, model 1 (Table 2) only includes the ESCS of students as explanatory variable. In general, both countries show similar results: students with a high ESCS have much higher chance to participate in out-of-school lessons of all types, except for remedial lessons in Germany – the participation in these lessons is only marginally affected by students' socioeconomic background. German students with a high ESCS are even less likely to receive extracurricular remedial teaching. However, the pseudo R square of these models is far from satisfactory, meaning that there are several other influences of greater importance than the socioeconomic status of a student.

Table 2. PISA 2009 'Logistic Regression Analysis predicting Students' Participation in Different Types of Out-of-School Lessons in Mathematics (Odds Ratios)' *Model 1*

	Enrichment Lessons		Remedial Lessons		Development Lessons	
	Exp(B)	Prob	Exp(B)	Prob	Exp(B)	Prob
	GERMANY					
ESCS						
High	1.766	***	.866	***	1.611	***
Middle	1.238	***	1.093	***	1.233	***
Low (ref.)						
Constant	.093	***	.231	***	.020	***
N (weighted)	628560		628679		625884	
R^2: Cox & Snell	.004		.001		.001	
Nagelkerke	.008		.002		.003	
	JAPAN					
ESCS						
High	2.081	***	2.069	***	2.296	***
Middle	1.518	***	1.478	***	1.374	***
Low (ref.)						
Constant	.586	***	.351	***	.288	***
N (weighted)	1102710		1103432		1103015	
R^2: Cox & Snell	.017		.015		.019	
Nagelkerke	.022		.020		.027	

***P<0.001; **P<0.01; *P<0.05

Source: PISA 2009, own calculation.

To increase the model fit of my analysis, further influential variables have to be considered, which determine the access to shadow education. Following Ojima and von Below (2010), students' currently attended type of school is considered as one of the most influential covariates besides ESCS.

In Germany basically we find a tripartite tracking system, consisting of the three secondary school tracks *Gymnasium*, *Realschule* and *Hauptschule*. While the *Gymnasium* is the only track that traditionally provides the opportunity to get access to universities through the *Abitur*, *Realschule* graduates have access to white collar jobs and other higher education fields. *Hauptschule* students nowadays do not have as much access to higher education, well paid or prestigious jobs (Ojima & von Below, 2010, p.277). Today the number of comprehensive secondary schools, the *Gesamtschule*, is also increasing. At a Gesamtschule students also have the opportunity to get an *Abitur* and therefore access to universities. Nevertheless, this school type is not yet a competitor for the tripartite system (Maaz, 2006, pp.85-87).

In Japan a single track secondary school system is found. Here all senior secondary school graduates have the opportunity to access all different higher education institutions. However, two major tracks can be divided though: a general academic (*futsūka*) and a vocational track (*senmongakka*). But, the Japanese academic high school system is also highly stratified through the prestige high schools have gathered according to the percentage of students that enter high ranked universities (Ojima & von Below, 2010, p.277). To access these universities, solely performance counts, since entrance examinations remain the deciding factor for entering (Takeuchi, 1997, p.184). Following Taki (2011), the performance of students was used as a proxy for schools' ranks due to a lack of data about the advancement ratio of students to higher education. Academic high schools were classified into three

different ranks: General A, General B and General C high schools. Besides, we find a vocational school track.

For the German case, a dummy variable concerning the current grade (1=10th grade; 2=9th/8th grade) of the students has also to be included in the analysis. Unlike Japanese students not all 15-year old German students were already in 10th grade at the time of the survey.

When including the school type into our analysis, the impact of students' ESCS decreases heavily (Table 3).

Table 3. PISA 2009 'Logistic Regression Analysis predicting Students' Participation in Different Types of Out-of-School Lessons in Mathematics (Odds Ratios)' *Model 2*

	Enrichment Lessons		Remedial Lessons		Development Lessons	
	Exp(B)	Prob	Exp(B)	Prob	Exp(B)	Prob
	GERMANY					
ESCS						
High	.899	***	.895	***	.919	***
Middle	.886	***	1.095	***	.934	**
Low (ref.)						
School Type						
Gymnasium	.244	***	1.071	***	.361	***
Realschule	.495	***	1.172	***	.700	***
Gesamtschule	.659	***	1.095	***	.572	***
Hauptschule (ref.)						
Class	.680	***	1.096	***	.482	***
Constant	.291	***	.203	***	.051	***

N (weighted)	628560		628679		625884	
R^2: Cox & Snell	.031		.002		.006	
Nagelkerke	.062		.003		.032	
	JAPAN					
ESCS						
High	1.521	***	1.521	***	1.756	***
Middle	1.291	***	1.224	***	1.206	***
Low (ref.)						
School Type						
General A	2.256	***	2.484	***	2.392	***
General B	1.569	***	2.867	***	1.472	***
General C	1.030	***	1.847	***	1.273	***
Vocational (ref.)						
Constant	.521	***	.214	***	.235	***
N (weighted)	1102710		1103432		1103015	
R^2: Cox & Snell	.035		.045		.034	
Nagelkerke	.047		.062		.048	

***P<0.001; **P<0.01; *P<0.05

Source: PISA 2009, own calculation.

A high ESCS has no impact on the participation in either one of the three types of out-of-school lessons in Germany anymore. In comparison, even though the chance that Japanese students participate in out-of-school lessons has decreased also, there is still a 1.5 times (enrichment and

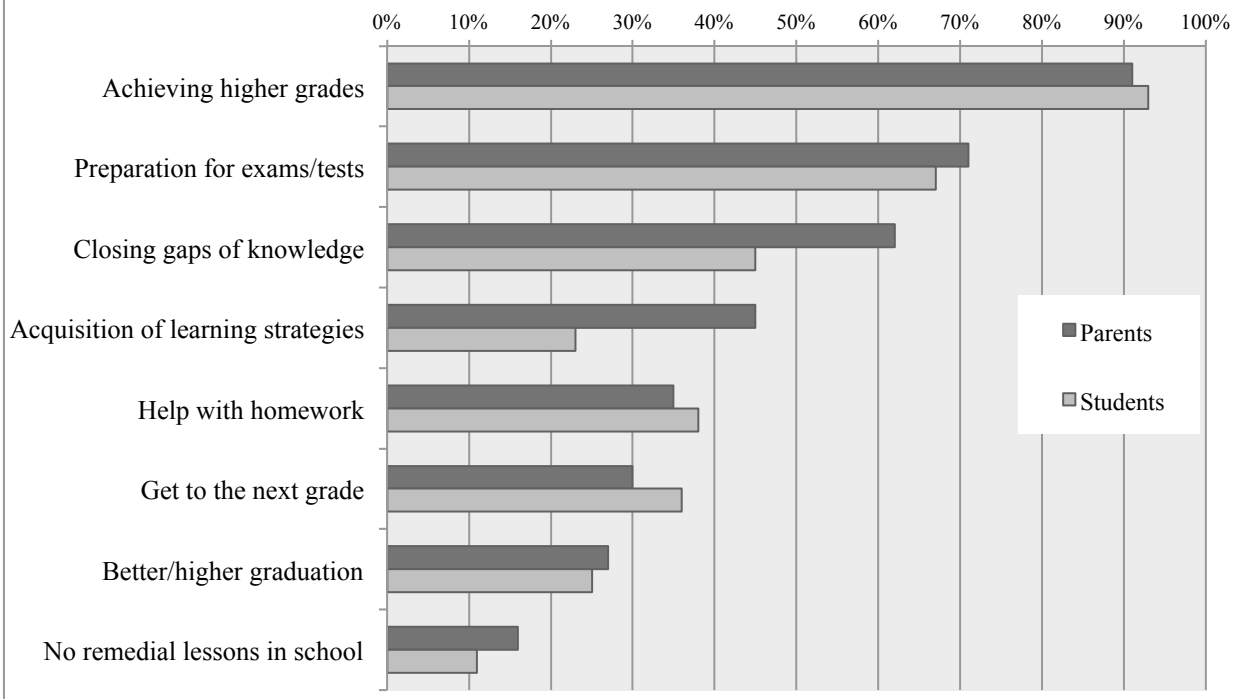
remedial lessons) to 1.8 times (development lessons) higher chance of students with a high ESCS to participate in shadow education compared to students from the lowest social quartile.

In conclusion, we have to acknowledge these first results. The German shadow education is functioning more as an instrument to neutralize disadvantaged family background than Japanese shadow education. Although this would also be a very positive result of this investigation, there are other factors we have to consider before jumping to final conclusions.

Discussion

An explanation for the great class specific differences in the use behavior regarding shadow education between the two countries can be found in the different motives why out-of-school lessons are attended (Figures 11 and 12).

Figure 11. Studienkreis 2003 'Students' and parents' motives regarding the attendance of *Nachhilfe*-center in Germany' (in %)

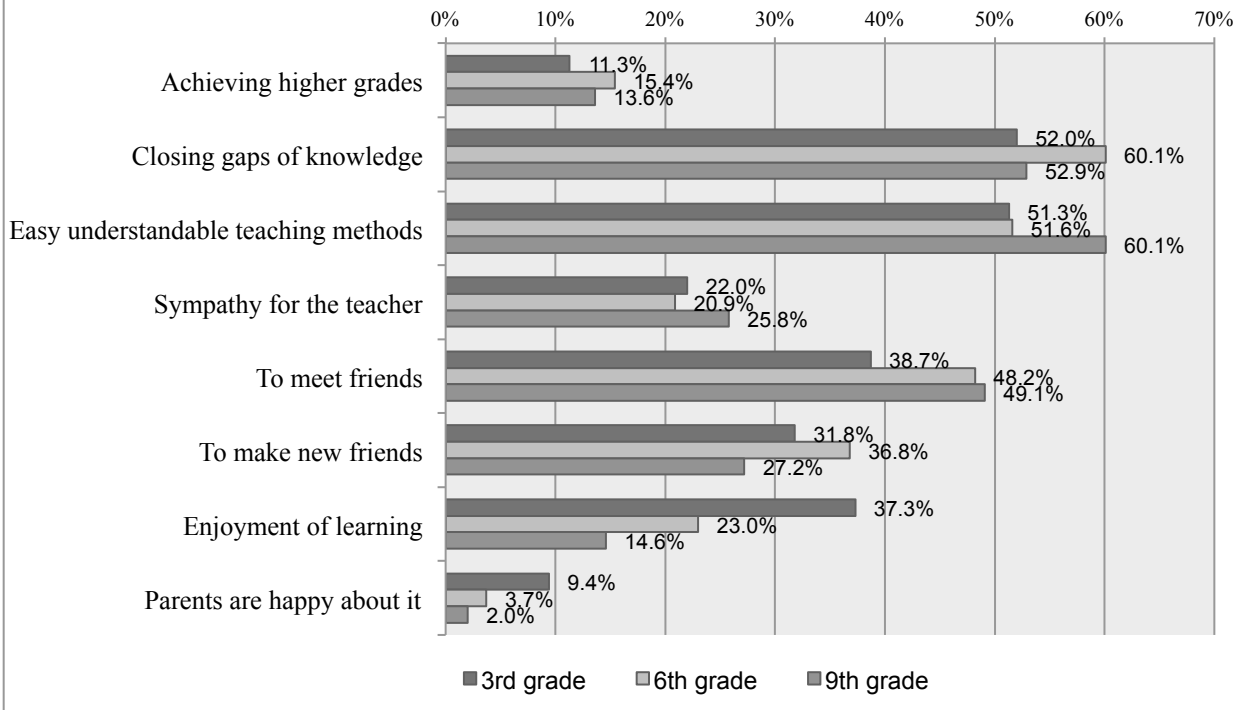


Source: Jürgens & Diekmann, 2007, p. 31.

Following the data of a survey conducted by one of the two biggest German *Nachhilfe*-providers, the *Studienkreis*, which owns more than 1.000 *Nachhilfe*-center in Germany, it is the foremost objective of German parents as well as students to get better grades. Most German students seem to attend out-of-school lessons because they have a certain problem at school. Besides getting better grades, they seek to close gaps of knowledge or get help with preparations for school tests or with homework.

In Japan it is entirely normal for a child to go to a *juku*. Especially in middle school (7th to 9th grade) nearly everybody goes to a *juku* in the afternoon or evening. As the next Figure (12) shows, Japanese students have also very different reasons to attend a *juku*.

Figure 12. MEXT 2007 'Students' motives regarding the attendance of *juku* in Japan' (per grade, in %)



Source: MEXT, 2008, p. 34.

In comparison to German students, where nearly everybody uses shadow education to get better grades (91%), just a mere 11% to 15% of Japanese students use out-of-school lessons to achieve

higher grades in school. It is of nearly equal importance to close gaps of knowledge. Besides, particularly the better teaching methods play a role for attending a *juku*. In addition, more social aspects seem important to Japanese students, too. Almost every second student (6th and 9th grade) intends to meet friends or make new ones (up to 37% in 6th grade) by attending a *juku*.

Based on sociological cost-benefit-assessments the assumption that those motives are also determined by social origin make a lot of sense (Becker & Lauterbach, 2010, pp.15-17). While wealthier parents can easier afford to send their children to *juku* the more disadvantaged families may not. Considering the nevertheless high attendance ratio of lower class students in Japan, it becomes clear that lower class students will not be able to attend a *juku* because they want to meet their friends or something like that, but because they need a certain kind of education. Here, parents decide to send their children to a *juku* because they assume that this is an investment worth being given (secondary effect of origin). This would also explain the low achievement gap between students of higher and lower social status in Japan, which was verified by PISA (OECD, 2012).

Conclusion

Although comparable school instruction time is found in Germany and Japan, Japanese students achieve constantly higher results than their German peers. The assumption that the reason therefore lays only within quality differences between the school instructions in the two countries is not sufficient enough. Here the Japanese shadow education system provides a reasonable explanation for those higher achievement rates. As could be shown, Japanese 10th grade students are much less influenced by their family background in achieving educational success than their German counterparts. Also, Japanese students of all social classes invest in shadow education to a high degree. This means, shadow education may indeed be used to counteract disadvantaged family background – although with some restrictions.

On first sight, the influence of the social origin of a student seems to be much stronger in Japan than in Germany. Different educational aspirations of social classes as well as financial resources also play a role for the shown differences between low and high ESCS groups in Japan. When it comes to quantity, students of low ESCS cannot compare with those of higher ESCS. But it seems as if lower class students just invest in essential classes to get an education as good as the more advantaged students. This would explain the high percentage of resilient students in Japan (about 11%). From this perspective, shadow education can indeed function as possible instrument to counteract social disadvantages. In Germany the social origin of a student does not seem to play a great role in who uses shadow education and who does not. Students from lower classes do even invest slightly more for supplementary education. Nevertheless, the small difference in the amount of use as well as the comparatively low attendance ratio is not yet sufficient enough to be a cause for a decrease in disparities.

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Cross-border collaboration in history among Nordic students: A case study about creating innovative ICT didactic models

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Abstract

Gränsöverskridande Nordisk Undervisning/Utdanelse (GNU, meaning Cross-Border Nordic Education), the larger Nordic project, under which this case study was carried out, aims at developing innovative, cross-border teaching models in different subject domains in elementary school, including mathematics, language, science, social studies and history. This paper provides an in-depth description and analysis of how four social science and history elementary school teachers and their 70 students (5th–7th grades) worked together between November 2011 and December 2012. Previous research regarding the use of information and communication technology (ICT) in history education in elementary schools is limited, thus calling for contemporary investigations in this particular subject domain.

The Technological Pedagogical Content Knowledge (TPACK) model, enhancing the combination of teachers' pedagogical, content and technical competence, was used as the analytical framework, together with nation-specific curricula and the European Union's recommendations regarding students' skills for lifelong learning. A range of empirical materials was analyzed, such as classroom observations, students' video productions, texts and photos distributed and shared on a mutual blog, real-time interaction and teachers' communication. The teachers tried out two ICT didactic models. In the asynchronous model, the major focus was on the form and content of the video productions being shared, whereas work with the synchronous model concentrated on the content and quality of the communication. Notwithstanding obstacles, cross-border collaboration provided added value. The nation-specific differences triggered curiosity and motivation to produce digital presentations of history content to be understood by the students in the three nations, facilitating goal fulfillment in communication skills and digital competence. However, achieving subject-specific goals in history remained challenging. Keywords: E-learning; Collaborative learning; Cross-border; TPACK.

Introduction

The need for educational innovations in several Nordic countries in Europe has become increasingly pressing, since a number of studies have shown unsatisfying performance rates among Scandinavian students (Programme for International Student Assessment [PISA] 2012). Various voices have called for institutional changes, control over the curricula and increased documentation of students' performances. At the same time, there is a need for local innovations and experiments in the classroom, where the teachers create learning designs that are close to the requirements of their own students and local contexts. Such dual challenges at different levels, institutional as well as local, created the backbone for the Scandinavian collaborative project named Gränsöverskridande Nordisk Undervisning/Utdanelse (GNU, which means Cross-Border Nordic Education). It is a European Union (EU)-funded undertaking that involves cross-border collaborations for educational purposes, supported by information and communication technology (ICT), among Danish, Norwegian and Swedish schools dealing with similar problems of unsatisfying performance rates among students, according to international comparative studies (PISA 2012).

The project began in 2011 and extends to 2014. It aims to develop innovative, cross-border teaching models in a range of subjects by means of user-driven, practice-based, co-design processes between practitioners and researchers (Johansson-Svensson, Rustand, Steffensen, & Sofkova Hashemi, 2013; Pareto, Gynther, Lindhart, Vejbæk, & Wølner, 2013; Spante, Karlsen, Nortvig, & Christiansen, 2013; Svedäng & Spante, 2014) in order to create supportive learning models suitable for local school contexts, as well as cross-border collaboration situations in the Nordic countries. The research question that drove the initiative was: *In what way and form could cross-border collaboration models, supported by information and communication technology, enhance motivation and learning for students as well as teachers in the Nordic countries?*

One key feature in the GNU initiative is that all project participants (students, teachers and researchers) are required to communicate in their own Nordic mother tongue, since the three languages are related, and the various Nordic curricula emphasize training in the Nordic languages. Therefore, communicating in the mother tongue has become an important prerequisite for driving the project that aims to enhance learning. This situation has quite a unique setting, suggesting that these neighboring languages, different but still related, can be used to collaborate due to communicative prerequisites that are absent in other settings, when foreign languages become crucial for communication.

In the first year of the project, the participants comprised 18 classes from 13 schools in the Öresund-Kattegatt-Skagerak region of Denmark, Norway and Sweden. The teachers and students were organized into Nordic class-match groups (consisting of students and teachers from one class in each country). In these class-match groups, new cross-border teaching models were co-created, tested and evaluated using iterative processes, as pointed out in design-based research (Kali, 2008). Several subject domains, namely, mathematics, language, science, social studies and history, were selected, since students in the three countries have shown their need for improvement in these areas, and mutual efforts in the search for new learning models were set in motion by the GNU project initiative. In this paper, we report findings from the work with the subject of history, covering studies not only about past events and ideas but also how these historical events might influence actions and ideas in the present time.

The structure and content of the paper are presented in the following manner. First, we discuss issues related to the subject domain of history in general and the use of ICT for motivation in such learning situations, then present the aim of the work reported in this paper. This is followed by the theoretical

framework that has guided the analysis of the activities performed by teachers and students during the project period. Next, we provide the project methodology and how the empirical material was collected and interpreted.

In the result and discussion section, we present the empirical material that has been structured and analyzed in relation to the theoretical framework, that is, the TPACK model by Mishra and Koehler (2006), together with our findings and the problems in the cross-border setup. Finally, we offer the conclusion and suggest some benefits of cross-border collaboration (notwithstanding its difficulties) that could be generalized to a broader spectrum beyond dealing with Nordic cross-border settings in the subject of history.

Literature Review

Previous research on the use of digital tools in history classes

This paper focuses on project activities linked to the subject of history in Nordic cross-border settings, including a range of new learning situations and challenges. Recent research shows that history is often among the least favorite subjects of many students (Turan, 2010). They find history simple, irrelevant and boring (Turan, 2010), but studies have found that the use of ICT increases student motivation in active participation, recall rate and achievement (Haydn, 2001; Turan, 2010).

Different studies show that the use of technologies in history education in elementary school has a positive effect on students' historical and critical thinking and their understanding of various historical subjects (Brown, 2001; Haydn, 2001; Taylor, 2003). However, problematic issues have also been identified, such as finding out how to improve the subject of history when using ICT (Hayden, 2001), as well as difficulties in planning for and using suitable ICT tools to support rather than distract students' learning goal achievements in the subject (Hofer & Swan, 2008; Lipscomb, 2002).

Questions remain regarding when and how to use which types of digital technologies to support and enhance students' learning in the subject of history in elementary schools. It becomes essential to focus on teacher competence, since previous research has shown that didactic situations become even more complex when digital tools are used in elementary history classes (Hofer & Swan, 2008), and when teachers and students work together in a cross-border setting, the complexity increases further.

Cross-border collaboration in educational practice has been regarded as one of the major shifts that will permeate educational institutions in the near future (Lee, 2012), highlighting the need for research in actual cross-border teaching situations. Such research becomes crucial because potential promises of a new pedagogical setup do not necessarily reflect the actual possibilities and particularly so when ICT is used; previous research has demonstrated that access and use are often problematic in learning situations in schools (Cuban, 2009; Jedeskog, 2007).

Purpose

This paper describes and analyses how four social science and history elementary school teachers and their 70 students (5th–7th grades) worked together from November 2011 to December 2012. The research question was how to didactically work with and improve history education via cross-border collaboration using various digital technologies. The purpose was to find solutions to the specific challenges the Nordic history class-match groups encountered during the different activities in which they were engaged while trying to reach specific goals for historical learning.

Within the framework of the research question, we present the learning designs that were created and evaluated in the GNU project and linked to activities in history classes. We discuss the findings concerning technology and language that shift attention from content to technology as such. Moreover, in the project, we found a need to specifically focus on not only the teachers' technological, pedagogical and content knowledge, but also on their ability to create clear learning

designs in order to inform the students more precisely than in the traditional classroom how their collaboration and individual work are supposed to take place. The work contributes to the knowledge about what possibilities and constraints teachers need to consider in cross-border learning situations, where group work and student participation are major concerns for the pedagogical setup, before spending time and effort to arrange for such learning models. The paper provides empirically grounded information about important issues to address, linked to the new pedagogical landscape of increased collaboration among students and teachers across national borders for mutual learning and enhanced understanding.

Theoretical framework

The teachers' role is crucial for learning (Hattie, 2008) to be successful, they would have to confront and combine both content and pedagogy simultaneously (Shulman, 1986). For didactic innovations and evaluations of their pedagogical benefits, it becomes imperative to address different perspectives. When the didactic situation has added complexities such as collaboration with external partners and communication via technical systems, models for such a complex analysis are needed. One such analytical model initiative has been proposed by Mishra and Koehler (2006), who expanded on the Shulman (1986) framework and presented the TPACK model that incorporates technology, pedagogy and content knowledge into a coherent whole. The TPACK framework has been extensively used in a range of subject domains. Since all aspects of the model are present in the actual situations in the GNU project among the history teachers, the model has become a sense-making analytical framework in which to analyze the complex, cross-border collaboration in pedagogical settings in order to present suggestions for cross-border educational setups. Enhancing the combination of pedagogical content and technical knowledge of teachers in learning situations, the Technological Pedagogical Content Knowledge (TPACK) model (see Figure 1) was used as an

analytical framework to position the teacher teams' activities with the students, detecting where ICT didactic strengths and difficulties could be found. This model has been successfully used in previous studies in the subject of history in elementary schools (Hofer & Swan, 2008; Schul, 2010; Swan & Locascio, 2008). The TPACK model separates three specific skills of teachers, linked to pedagogical (PK), content (CK) and technical knowledge (TK) in learning situations within given contexts. These three specific skills can be combined in various ways, such as pedagogical and content knowledge (PCK), pedagogical and technical knowledge (PTK) and so forth.

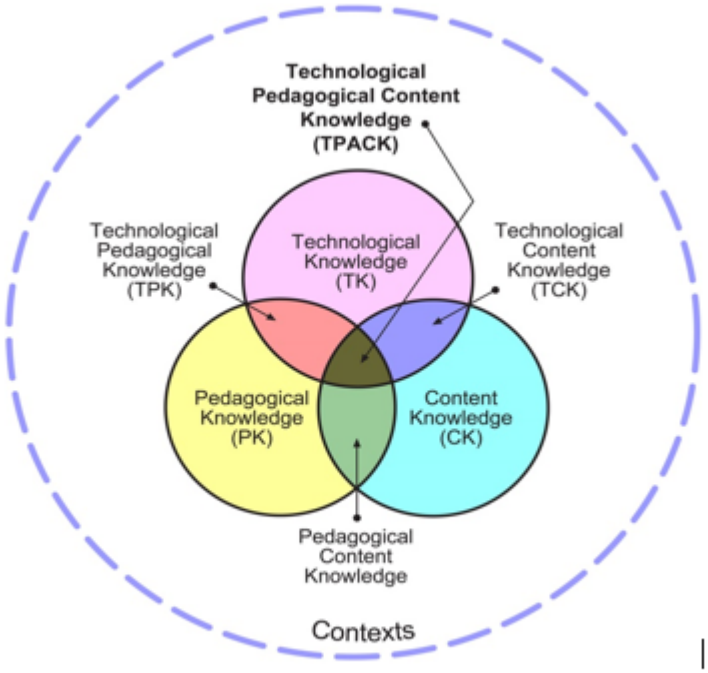

Figure 1. The TPACK model (Koehler & Mishra, 2006)

When all three skills are present in a given learning situation, they reflect the TPACK combination. The TPACK is a complex competence to achieve but possible to develop. In combination with the analytical model, we also used nation-specific curricula from the three countries and the EU recommendations regarding students' skills for lifelong learning, enhancing digital competence, collaboration, and collaborative and analytical skills (Recommendation 2006/962/EC) (EU, 2006).

Methodology

Aiming for sustainability in novel teaching models (Wang & Hannafin, 2005), the combination of design-based research (Kali, 2008) and action research, as a methodology for stimulation and support of innovation in learning and teaching models, has proven to be robust (Majgaard, Misfeldt, & Nielsen, 2011). During this collaborative process, a range of actions and documentations emerged. The empirical material consists of students' productions of videos, texts and photos distributed and shared on a mutual blog, teachers' communications via e-mail and Google Docs documents, as well as wikis, video uptakes from students' real-time interaction on a digital system supporting video, voice and texts (Adobe Connect [AC]). There were also documentations of classroom observations by the researchers, as well as interviews with teachers and students from the three Nordic nations. The material was analyzed by all researchers and focused on the activities of the teachers and the students and their expressed experiences.

Results and Discussion

A series of activities were conducted during the 2011– 2012 period. For each specific activity that the teachers planned and performed with their students, the researchers were also involved, following the process from planning through performance and evaluations. The close collaboration with and participation of these diverse actors (teachers, students and researchers) provided deep insights into the various complex processes of collaboration in the cross-border setup for learning.

The activities presented in this paper are linked to the two general models put forward by the teachers – the asynchronous and the synchronous types. These models built on the teachers' insights into their restrictions and possibilities in each school such as schedules and availability of technology, as well as in the curriculum in each Nordic country. We present the learning models in relation to the

timeline of each activity performed by the teachers and students. First, the asynchronous models are discussed and analyzed in relation to the TPACK framework, followed by the synchronous model.

The asynchronous model

In the first activity, the Nordic teachers collaboratively planned to let the students produce a film that was organized in national student groups with the main purpose of saying hello to the students in the other two countries. Each video was then uploaded on a shared blog, and the students from the other countries posted comments about the produced videos. This task was done so that the students could start in a safe environment (as expressed by the teachers), get the chance to know one another and read texts presented in the three Nordic languages.

The second activity involved making a video presentation of their school, their town and the specific part of the country where they lived. During the third activity, they were supposed to answer questions from the students of the other countries about local historical persons, buildings, etc. The answers had to be in the form of a video. This last activity was carried out such that the students posed questions to one another and then responded in filmic language in order to awaken interest not only in the presentation of their own country and culture, but also in the neighboring countries.

Danish students addressed their queries to Swedish students, who did the same to Norwegian students, who in turn posed questions to their Danish counterparts. Each group provided their responses via video production (see Figure 2). The students were encouraged to reflect on the historical aspect and cultural identity of their familiar surroundings and were confronted with (missing) knowledge about their Nordic neighbors (Nortvig & Christiansen, 2013).

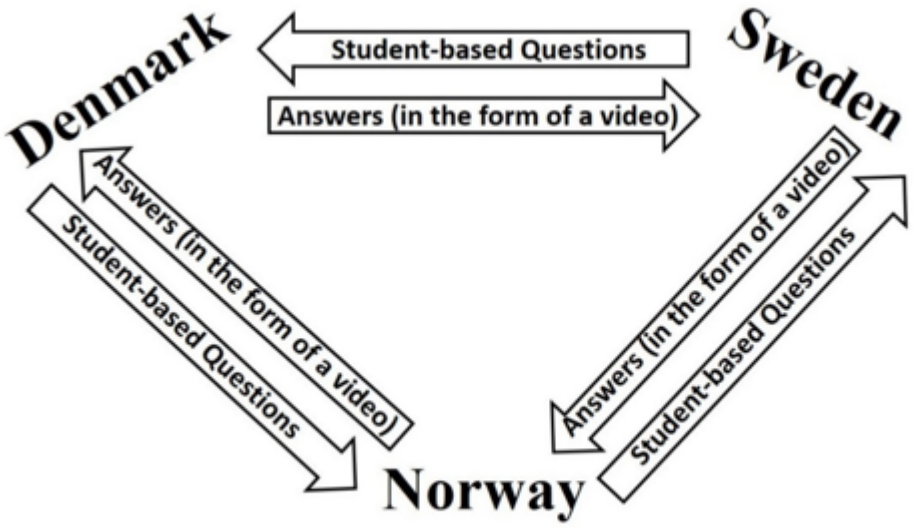

Figure 2. Model for exchanging questions and video answers in the Nordic collaborative work

The students worked in groups in their respective schools, planning and producing the videos to be shared later on the common blog. Some of the students' questions that would be answered as videos were:

Tell us about one important historical person from your town.

Tell us about an important historical building.

Tell us about an important historical person, the most important king in Norway.

What did Denmark do in the Second World War?

During the classroom observations, it was noted that the students concentrated on preparing the videos. The videos – alongside the questions – were uploaded on the common blog so that the teachers and students were able to comment on them. Classroom activities were also shared on the mutual blog where they presented activities linked to the GNU project. Below is a written sample blog post of the Swedish participants about the questions from Denmark, how they first translated

these questions from Danish to Swedish and reflected on how to answer them and organize the work of presenting the answers in video format:

"*Hello everybody, Mölndal calling*
Today we started to work with the questions from Roskilde. We translated the questions to Swedish and worked in groups in order to answer the questions and figuring out how to move on to the next stage. How can we make videos of our answers?:)"

Typically, the students made an oral presentation and showed some still pictures of a historical person. Some ambitious work was also created, such as one student group that used the local museum's historical interior as a scene for the dramatized setup that answered the question of how the city got its current name. For a presentation about a historical building, the students usually found a local building and shot the video on-site. (for the blog where their content is uploaded in Swedish, Danish and Norwegian, visit http://gnu-historia.blogspot.se/p/glasbergsskolan.html). The students searched for information about historical persons and buildings, primarily from open-source online sites such as Wikipedia.

One key component of the asynchronous learning model was to have the students comment on one another's work. Typically, the students made general remarks about the videos, as well as how they experienced the language and presentation, for example:

> "*You speak quite quietly and not so clear, but the video was otherwise good.*"
>
> *"You talked very clearly, and we understood everything you said. Good pictures and videos too :)*"
>
> *"Hello, just talk more clearly; all the rest is good."*

"We received very good answers on the third video, and it was very nice. You also talked very clearly!"

In the first phase of the GNU project, the collaborative activities that were planned and executed by the teachers and students were all organized according to various asynchronous setups. These activities are positioned in this case study in relation to the analytical framework of the TPACK model presented by Mishra and Koehler (2006) and Koehler and Mishra (2009).

Technological skills are important when a task requires creating a video. A lot of the students already knew and liked to use Microsoft Movie Maker or iMovie to produce the video, and they used the schools' digital cameras to take photos. Even though many students were familiar with different types of digital tools and information and communication systems, others still needed their teachers to guide and support them during their production activities, such as how to save pictures, make videos with Movie Maker/iMovie, use Audacity and Wikipedia, etc. Nonetheless, the students' overall competence in using these types of technical tools for video production was high at each Scandinavian school involving the particular class-match groups.

The group of teachers had initially planned to let the students discuss and comment on the videos via Skype. However, it proved too difficult because of technical problems, primarily because the school in Norway was not allowed to download and use Skype due to restrictive rules in that particular municipality. The students were a bit frustrated because they wanted to talk and collaborate with one another in real time and see their peers; they asked several times if we could solve these problems. Our observations revealed their high level of motivation to collaborate across national borders. An asynchronous way of working did not fulfill this need to a full extent. Nonetheless, the asynchronous model involved the use of a range of technologies, particularly those linked to the tools and systems

needed for video production. Generally, the four Nordic teachers demonstrated skillfulness in using these various tools and systems while guiding their students in their work. Accordingly, we describe the participant teachers as very competent in TK, following the TPACK model (Mishra and Koehler, 2006; Koehler and Mishra, 2009).

In this part of the asynchronous period, the plan was that the students should discuss the videos' historical content. This discussion took place among their respective classmates in each nation. However, we observed in the students' feedback to one another that they were more focused on how they generally experienced the videos and understood (or not) one another's spoken language than on the relevant content of the videos (see citations above).

Our empirical work showed that the students had difficulties in understanding what was said in the videos. They became aware of the importance of speaking slowly and clearly, which could help them in the synchronous meetings that would follow. The asynchronous period made them ask for a closer encounter with the students from the other two countries, which eventually led to a synchronous period where the students could interact in real time. The strong focus on student-driven question formulation and video presentation as group work was evaluated as activities, following the recommendations on the development of collaborative and communicative skills that are found in both national curricula (Denmark: Fælles Mål 2009 Samfundsfag (Faghæfte 5), Sweden: Kursplan i samhällskunskap för gundskolan, Norway: Læreplan i Samfunnsfag) and EU recommendations (Recommendation 2006/962/EC) (EU, 2006). The focus on group work in the assignments was also evaluated as a sign of the teachers' high competence in PK, facilitating and supporting project-based learning (Grant, 2002).

However, the rather superficial presentation of the historical content in the videos, as well as the lack of focus on the content in the discussion of the videos (i.e., students commented on language and their general opinions of the pictures rather than the local historical content that each video supposedly presented), were interpreted as signifying a rather low score for the teachers in this particular activity linked to CK. However, it is noteworthy that this critical evaluation is only based on the actual content of the videos produced in this situation and says nothing about the general CK. The teachers also said in follow-up interviews that the time devoted to the specific GNU assignment became more of a technical focus when they were helping the students, rather than guiding them towards a more insightful historical content focus, thus highlighting the necessity for content focus in the next phase of the GNU project.

The synchronous model

The teachers wanted more focus on the content in the cross-border collaboration after working with local history in the asynchronous setup. They also wanted to address the students' wishes to work in real-time situations with one another.

Due to different municipality regulations in the three nations, as well as varying school IT policies (Lundh-Snis et al., 2012), finding an acceptable, real-time communication system proved to be a challenging task. In order to work synchronously at all, AC turned out to be the only option, since the overall GNU project could guarantee secure and free access to this particular program. The AC system allows users to communicate via chat, voice and video. It is possible to present PowerPoint and PDF documents, pictures and movies, as well as cooperate with common notes and the whiteboard. Additionally, users can share a common view of screens and programs. It is also possible to divide students into different breakout rooms and to record meetings.

The four teachers collaborated on the basis of their respective national curricula to find a common denominator with which to work together. Children's conditions in the 20th century were part of each country's curriculum in the subject and became the content focus. The teachers focused their planning on these questions: *How did the children live their lives in the previous century? What similarities and differences could be identified in the three Nordic countries during this period? What events had been significant in improving children's lives in the Nordic countries during the 20th century?*

The three classes worked on these issues with the idea that cross-border cooperation would help the students connect major historical events with children's everyday conditions during the 20th century, with special focus on the conditions for children in school. Students worked in class-match teams, comprising a number of students from each school. Each group consisted of students from Norway, Denmark and Sweden. The idea was that students would present and compare their findings to learn from one another and draw conclusions based on one another's presentations. Each group consisted of about 12 students (approximately 4 from each country, with some variations), and there were 6 groups in total, with 2 groups for each assigned time period – early, middle and late 1900s. The ambition was to work actively with the understanding that the subject of history is not just about a number of events without connections but also linked to experience and everyday life.

The three Nordic teachers designed the tasks for the students in a three-step sequential model:

Task 1) Students should find out how the situation was in their own country, with emphasis on schooling. Inspired by the flipped classroom model, teachers posted presentations about parts of the content on the common blog, where students could take part in each country's presentation.

Task 2) Students would connect in AC to share what they found in their respective class-match groups in the different breakout rooms.

Task 3) Students should identify similarities and differences based on the information they received.

Students' activities

Before the students met in AC, they prepared their work in their respective nation classrooms with their group members doing task 1. Then they teamed up in their respective breakout rooms in AC to share and discuss their findings for tasks 2 and 3.

First AC meeting

During the first time in the AC setup, it was apparent that the students had received different instructions on what the task would involve and how they should have prepared for the first meeting. The Danish students had prepared to talk about their own school day at the present time. The Norwegian students had prepared PowerPoint presentations with statements regarding the conditions of children in each period of the 20th century. The Swedish students had prepared for a conversation on their investigation about their designated time period, with handwritten notes as reminders of what to say to the other students. Although the students found it difficult to deal with these variations, they made their best efforts to work with their tasks, while struggling with echo problems in the system and managing their online turn taking, so they could talk one at a time instead of all at once.

"*We have not made a presentation, but we would like to tell you about it, if it's okay with you.*"

The preceding quote illustrates that they had received different instructions on how to prepare for the task of presenting and sharing their information. So does another example below:

"*We will tell you about the skammekroken,*" *say the students in Norway.*

"*What it that?*" *the Swedish students ask.*

The Norwegian students start telling about the disciplinary method where disobedient students were put in a corner of the classroom. In explaining the method, the Norwegian word 'slemme' is used, which is unfamiliar to the Swedish students, who immediately ask, "*What does 'slemme' mean?*"

"*It means mean,*" *the Norwegian students reply.*

While the two student groups in Sweden and Norway are having this conversation, the Danish students are posting in the chat, "*We have mathematics, Danish, English, domestic science, sports.*"

The preceding quote implies that the Danish students had prepared to share information about their own day at school, as well as how they dealt with a sound problem in the AC system by using chat instead of voice communication. They also had trouble following the line of conversation between the Norwegian and Swedish students who were talking about a special disciplinary method that was used in 1950, as well as providing language clarification when the Swedish students heard a Norwegian word they did not understand. The students demonstrated both patience and motivation to connect as best as they could and share the information they had prepared, despite troubles with the communication channels in AC.

"*Now let's write what we have learnt about the schools in the beginning of the 20th century.*"

The preceding quote indicates how they needed to deal with the sound problem and find new ways to share information, turning to the chat function in the AC system and still focusing on the task at hand.

The students also commented afterwards about their misunderstanding of the task:

> "*Denmark did not understand the task. They thought they should write about when we started and what subjects they had.*"
>
> "*Denmark talked about their schedule in school today, and Norway talked about the school, how it was before.*"
>
> "*Denmark did not say much, but Norway made a Keynote presentation, but Denmark could not get in, or rather, they did but said nothing.*"
>
> "*I thought we should discuss what we had to say and not make PowerPoints.*"
>
> "*I think we should be allowed to speak English because it is so hard to understand each other.*"

Second AC meeting

The second time, all groups had prepared PowerPoint presentations about the conditions for the school children in each country during the designated time period, to be shared in AC. In spite of the improved and combined activities, various problems continued for the students. All groups experienced difficulties in how to present and share written text in AC. Due to this lack of knowledge, it became almost impossible for them to read one another's presentations. They were loudly complaining about how their fellow students were moving their text on screen in AC. The echo problem from the first time was still a major issue, and the difficulties in having a well-functioning, turn-taking model for communicating were also hard to surmount this time. The students tried to overcome the echo problem and the turn-taking issues by using the chat function in AC instead. For example, they commanded one another, as indicated in the chat: *"One country*

speaks at a time." They also tried to guide the focus to the task at hand, involving each group in each country to participate and contribute with comments such as: *"Can you from Denmark tell something about what happened in the 50s?"* However, their enthusiasm to be in contact with one another seemed to have diminished, compared to their first AC meeting, when the enthusiasm was interpreted as high despite the obstacles.

Below are some examples about how they struggled in the AC system to upload and share their prepared documents, making them lose focus on the content about children's conditions at school during the 20th century. At 11 minutes and 14 seconds in the video, the following series of actions happen:

> *Norway uploads their document, it disappears, it then comes back but is taken away again.*
>
> *The correct presentation is uploaded.*
>
> *The Swedish and the Danish students are reading the document. The Swedish students are struggling with the text. Their teacher assists them.*
>
> *Norway repeats the question,* "*What should we talk about?*"
>
> *One Danish boy tries on the headset but quickly returns it to his classmate.*
>
> *The uploaded document is scrolled up and down the screen, so it becomes very hard to read.*
>
> *All student groups seem to concentrate on the activities at their respective ends; no extensive collaboration is going on.*
>
> *The Norwegian document is taken away; the Swedish document is uploaded and starts to be scrolled up and down the screen.*

The above sequence from an AC meeting was quite typical. Students were struggling with turn taking, language issues and how to share prepared documents, but they tried to overcome these obstacles. However, since they became more and more oriented towards the activities in their respective classrooms rather than collaborating in the AC system, we interpreted these observations as decreasing enthusiasm for cross-border collaboration in the real-time setting due to the problems with technology and rules for collaboration across borders.

Third AC meeting

The third time, they tried again to present the same prepared presentation as that of the second meeting. They still encountered difficulties when trying to share the presentations, and this time there were clear signs that the students' patience was being challenged. They paid more attention to their classmates than to those they worked with in the Nordic class-match group setting, yet still trying, but seemingly more driven by duty than by motivation. Below is a typical situation in this third AC meeting, which manifests their difficulties and signs of diminishing motivation (their focus is drifting away from the actual task by doing other things; they are increasingly disconnected but still in sight of one another in the AC system, with video, sound and chat channels running):

> *The Danish students are asking why it is not possible to paste text into the document.*
>
> *In the background, a Norwegian student is writing on the blackboard with big letters.*
>
> *The Norwegian students reply that they do not know how to copy and paste text into the document. Meanwhile, there is a constant echo sound in the system.*

"*Isn't Justin Bieber just great!*" *the Norwegian student says. 'Justin Bieber' is written with big letters on the blackboard. The Danish students are gesturing with their thumbs down, and the Norwegian girl cannot believe her eyes.*

The Norwegian students write in the chat, "*We love him!!*"

The Swedish students log on and wave to the other participants.

"*Are you longing for Christmas?*" *the Norwegian students ask.*

The Swedish students upload their presentation. The Norwegian presentation is uploaded again.

"*It's William's birthday today!*" *a Swedish student says and points to a classmate.*

"*Congratulations*" *is written in the chat.*

The Swedish students start to sing to their classmate.

The lessons learnt from this synchronous phase and the model of synchronous cross-border cooperation demonstrated that the assignment ended up being too difficult for the students. There were too many (technological, communicative and language-based) obstacles to overcome, so instead of working with their common assignment, they started chatting and trying to get to know one another in a different way than the one the teachers had planned.

The selected real-time communication and collaboration tool was not really suitable to support the complex task that was supposed to be accomplished by the students. Relating such analysis to the TPACK model, we claim that the techno-pedagogical knowledge (TPK) using AC was evaluated as

fairly inaccurate and revealed areas for improvement of all involved parties in future project activities.

The idea to have students work in groups, be given themes to work with, select relevant information, as well as try to diagnose differences and similarities in the historical events and impacts for children in the 20th century, closely aligns with parts of the national curriculum in each country calling for the development of communication, collaboration and analytical skills. However, what looked like a structured yet creative plan turned out in reality to be far too complex in execution. An additional burden in working with the pedagogical plan was the teachers' initial misunderstanding of what the task was really about. This situation came as a total surprise for all involved parties (teachers as well as researchers), since the three teachers had established good relations, experienced previous co-planning sessions before and were all keen on communicating using e-mail, Google Docs and wikis to plan and agree on the activities and schedules. In this regard, we suggest that PCK that followed TPACK (Mishra and Koehler, 2006; Koehler and Mishra, 2009) was evaluated as fairly high, but planning turned out to be too difficult for the students in the cross-border setting. In the interview with the teachers after the performed activities in the synchronous model, they all admitted being too ambitious and learning the importance of designing tasks that challenge their students more moderately, while retaining the idea of communication, collaboration and analysis, but perhaps not necessarily in real-time setups for all activities in AC.

Judging from the experiences in both the asynchronous and synchronous models in this cross-border collaboration setting, we realize that the so-called TPACK proved to be quite a challenge for the teachers. The challenge entailed successfully combining pedagogical planning with technical affordance and subject content.

Regarding the synchronous mode, the added complexity planned for and used in this particular setup suggests that the level of ambition needs to be carefully managed. In this case, the learning content was defined but still not supported with a pedagogical model that ensured that cross-border collaboration could provide structure and guidance in the learning process. It has become clear that it is essential to invest time in carefully preparing what content to present and how to present it, as well as identifying a collaborative model that supports rather than distracts from the focus of the subject. The aim to enhance motivation and learning with cross-border collaborative efforts was difficult to achieve despite hard work from all involved actors (teachers and students); thus, they departed from the history content and became preoccupied with or distracted by technology in the didactic situation, as reported in previous research (Hofer & Swan, 2008; Swan & Locascio, 2008).

These questions remain: "*How can our understanding of TPACK support collaborative work in the subject of history? How can we think about the connections and interactions among the knowledge of content, pedagogy and technology with respect to teaching history in elementary school? How can technological tools help scaffold the students' development in historical consciousness with cross-border collaboration?*" It is important to emphasize that the use of ICT in education needs an understanding and reflection about what is sound teaching in relation to both pedagogy and content. Pedagogical knowledge also refers to the ability to determine how ICT can support content and improve the learning outcome, based on the TPACK model that calls for an integrated competence among teachers, combining the skilful use of ICT, pedagogy and subject content.

Digital technology plays a role as a multimodal facilitator of the students' communication and collaboration. When the neighboring languages – even if they are both phonetically and grammatically close – are difficult to understand, the students find it a bit easier if 'the neighbors'

express themselves both orally and in writing. On the other hand, digital technology poses obstacles too; the students often experience sound issues, such as echoes, noise or silenced microphones. The students are extremely patient with these technical challenges, but when the sound is poor and the neighboring languages are hard to understand, they start addressing their classmates instead of the students in the other countries, and the added value of cross-border collaboration then diminishes as a formal learning approach. However, in the midst of technological and linguistic challenges, we also find that cross-border learning is flourishing, although in a more informal manner.

Conclusion

Different challenges should be addressed in the asynchronous and synchronous models. Starting with the asynchronous model, we conclude that since video production has become a focus, the students need their teachers' guidance to integrate content into their productions. When productions are made and shared, the historical content needs to really be discussed and analyzed in order to support learning; otherwise, they pose the risk of students paying more attention to form than content. Students seem eager to engage in real-time communication; thus, the asynchronous model needs to be clearly promoted and encouraged as a complementary cross-border collaboration model. Due to the students' difficulties in understanding one another's spoken languages, it is good for communication and future collaboration to use text in combination with voice in video productions.

Turning to the synchronous model, based on the observed activities and the outcome, tasks in such a setup need thorough preparation and explicit limitations in order to provide added value to the learning situation. The number of students working together should preferably be quite limited when dealing with complex tasks, and all involved users need to know how to use the chosen technological tool to support communication and collaboration.

Notwithstanding the obstacles, the major conclusion is that added value has been identified with cross-border collaboration, because the differences have triggered curiosity and motivation to produce presentations for and work with 'the neighbors'. Thus, we perceive clear indications of goals being attained in both communication skills and digital competence, as written in the three nations' respective curricula and formulated in EU recommendations. However, further work remains in order to achieve the subject-specific goals more precisely in cross-border collaboration. We note the Nordic teacher team's competency in technical, pedagogical and content knowledge, despite difficulties in combining these skills with the specific content in the subject of history, according to the TPACK model in the cross-border setting. The collaboration among the three classes could not have been possible without technology, although technology issues and occasional language problems sometimes dominate the scene over pedagogy and the subject of history. Increased efforts are required to determine how technology can be used to support teaching history in elementary schools when it is carried out in both asynchronous and synchronous learning environments. Our study has contributed with some detailed, empirically driven recommendations, but these examples are still limited and strongly connected to the collaborative efforts among the Nordic teacher and student participants in the cross-border, co-design project.

Additionally, cross-border collaboration imposes an extra workload. Therefore, it becomes of utmost importance to provide support to both students and teachers so that technical and organizational issues do not overshadow the added value offered by cross-border collaboration. However, it becomes crucial to work actively *with* the emerging obstacles, that is, to engage vigorously in overcoming the barriers as a learning experience. We can also observe how these hurdles reveal differences that make learning about 'the other' possible in richer and real situations, providing

authentic learning, compared to reading about these disparities in textbooks or other types of material used for learning purposes in the subject of history.

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Teaching the Genres of Comparison and Contrast in English Writing: From the Perspectives of *Cooperative Principles*

Greg Chung-Hsien Wu

Abstract

This pilot study aims at integrating a socio-pragmatic concept, Cooperative Principles, into an experimental writing project on the genres of comparison and contrast. It reports on a six-week study of five undergraduates voluntarily recruited in a university located in central Taiwan. In surveying their writing momentum before and after the instilments of relevant knowledge needed for these genres of English writing, the researchers conformed to the qualitative paradigm, collecting the Pre-test and Post-test writing products, distributing B2- and C1-leveled CEFR self-assessment questionnaires over the first and last class sessions, conducting a self-reflection questionnaire survey at the last session, and keeping a reflexive journal to trace the learning momentum of each of the five participant. The instructional process was not entirely lecture-oriented; the participants were encouraged and guided to construct knowledge in each of the class-based activities.

With content analysis and constant comparative method, the results indicated two primary facets of issues essential for teaching the genres of comparison and contrast in a L2 writing setting. In addition, constructs for teaching such writing genres were pointed out, and learners' momentum was transparently manifested by means of the established CEFR can-do statements. Other pedagogical suggestions were also included in this study and they were anticipated to inform future practitioners of diversified aspects in teaching the comparison and contrast genres linguistically, semantically, and pragmatically.

Keywords: Comparison and contrast; English writing; Cooperative principles.

Introduction

As globalization progresses, English education at the tertiary level has been highly addressed in Taiwan. Most EFL learners acknowledge the value of learning second language (henceforth, L2) writing, but they may have difficulties transferring L2 reading to L2 writing, using appropriate strategies or mastering the process of writing (Chen, 2001; Liu & Tseng, 2013; You, 1999; You & Joe, 2001; Wang, 2008). For L2 writing instructors, some may regrettably dawdle their time away and intuitively find their learners' writing capacity far behind their expectations. In response to L2 learners' difficulties, some scholars suggest leading learners to critically think, read, and write (McCarter & Jakes, 2009; Vermillion, 1997), whereas others focus on university L2 writing in view of the genre-based approach that advocates the targeted readership or discourse community in L2 writing (see, for example, Johns, 2003; Swales, 1990). Still others conduct empirical studies that examine the Chinese use in English composition process (Mu & Carrington, 2007; Wang & Wen, 2002). To be more specific, Mu and Carrington's (2007) study concluded that, except for the rhetorically organizing and cohesive strategies, "most of the metacognitive, cognitive, and social/affective strategies can be transferred across languages positively, at least from Chinese writing to English writing" (p.15).

Despite all these aforementioned contentions, the process of writing entails a variety of cognitively demanding activities that occur as a result of rhetorical situations, where various rhetorical appeals have to be perceived, utilized or assessed. As learners initiate the processes of "planning (prewriting or prereading), drafting (initial writing or reading), revising (modifying and extending), and editing (correcting or rereading)" (Johns, 1997, p.12), they may simply draw on spoken forms of the target language into writing. Eventually their instructors may be daunted by the inconsistency of stylistic features, not to mention other problems such as loose organization or the lack of cohesion.

Shifting from the sole emphasis on linguistic competence in the early 1980s, the teaching of L2 writing nowadays foregrounds the composing process and has developed itself into some interdisciplinary field of inquiry in accordance with functionalism or discourse analysis (Leki, 1996; Matsuda & Silva, 2010). Such a concern was brought to attention by McNamara (2003), who asserted that "the context of use is increasingly understood theoretically as a social arena, as in virtually all current work in discourse analysis (p.468)". It is of higher significance that L2 writers should be nurtured to deepen their awareness to balancing the elements of audience, purposes, processes, and context in their own writing. That is to say, L2 writing concerns not only the structural accuracy but also contextual appropriateness. Hence, the researcher cannot help but wonder in what way L2 writing instructor can assist learners in composing a text that reflects learners' awareness in both linguistic well-formedness and contextual appropriateness.

In order to discover the aforementioned phenomenon, the researcher initiated a small-scale experimental project, whose duration was a total of six weeks, and each session lasted for 1.5 hours. This research took place in a private university located in central Taiwan. The researcher served as the instructor of this series of courses, an there were five undergraduate students participating in this study, three of whom were one-semester-long exchange students from Mainland China, and they voluntarily signed up for this experimental series. Since this series aimed to incorporate the concept of functionalism and discourse into this L2 writing instruction, the researcher relied heavily on pragmatic functionalism as the heuristic subject matter knowledge in his writing instructions. He focused on the genres of comparison and contrast initially in light of these two genres' close liaisons in everyone's daily lives and, furthermore, because of the possibility of which L2 writers might be given an opportunity to justify their ground by means of ample and well-chosen supporting details for the issues of writers' interests (Reinking, Hart, & Osten, 2002).

Considering the discoursal aspects of L2 writing and the divergences the comparison and contrast genres might bring about, the researcher employed Grice's (1975) *Cooperative Principles*, originally postulated to analyze the verbal language in the field of pragmatic functionalism, as the underlying framework for delineations of this study. Through this pedagogical undertaking, the researcher posed two research questions:

(1) How do *Cooperative Principles* assist L2 learners in their own writing?

(2) What is the essential construct needed for these two genres of writing, comparison and contrast?

Review of Literature

Writing is a representation of a language user's thought, belief, competence, and linguistic knowledge, and it involves the construction and end-product of a written text. Differentiated from spoken language, writing entails different aspects such as purposes to fulfill, contexts to use, or discourse communities to address to (Hinkel, 2006; Matsuda & Silva, 2010). Silva's early study (1993) clearly indicates that, despite certain similarities between L1 writing and L2 writing, salient discrepancies exist ranging from composing processes to the features of written texts, and that L2 writing process is strategically, rhetorically, linguistically different from L1 writing process.

To cope with demanding challenges in L2 writing, strategy use seems inevitable for some learners, for strategies may serve as effective ways of organizing or developing writing. Comparison and contrast, among all the strategies, assist learners in choosing among possible alternatives. They also allow learners to acquaint themselves with something less familiar or connected to prove a particular point (Donald, Morrow, Wargetz & Werner, 1996; Reinking, Hart & Osten, 2002). In order for L2 writers to strategically identify and associate the lexis that enable them to maintain their objectives

and communicate with their intended readers while still conforming to writing conventions, the concepts of discourse community may come into play (Johns, 1997; Swales, 1990). On top of that, Leech (1983) contends that the language use transcends the linguistic forms per se; the appropriate use of these linguistic forms in a wide variety of contexts and situations should also be in focus. Phrased by Grice (1975), the *Cooperative Principles* depicts the dynamics of interacting among individuals and enables effective communication in conversation that can be achieved in social undertakings. Inspired by the socio-pragmatic use of natural language, Grice proposed four principles, the first two of which are mainly relevant to the amount of information needed and processed by the hearer and the speaker (Grice, 1975, p.308; Cited by Leech, 1983):

(1) Maxim of Quantity:

1. Make your contribution as informative as is required (for the current purposes of the exchange).
2. Do not make your contribution more informative than is required.

(2) Maxim of Quality:

1. Do not say what you believe to be false.
2. Do not say that for which you lack adequate evidence.

(3) Maxim of Relation: Be relevant.

(4) Maxim of Manner:

1. Avoid obscurity of expression.
2. Avoid ambiguity.
3. Be brief (avoid unnecessary prolixity/verbosity)
4. Be orderly.

Resembling the scheme for the *Cooperative Principles*, Leech (1983) proposes a scheme for the *Textual Rhetoric* that consists of the *Processibility Principle*, the *Clarity Principle*, the *Economy Principle*, and the *Expressivity Principle* to embrace the stylistic preference in language use. These proposed pragmatic principles cover a wide range, from those which are highly social in nature such as Leech's *Politeness Principle*, to those which specifically cope with the form of sentences such as Leech's *End-weight* and *End-focus* maxims.

Echoing with the socio-pragmatic facets of the aforementioned principles, the Common European Framework of Reference for Languages (henceforth, CEFR) has successfully proven itself to promote the concept of 'plurilingualism' (Council of Europe, 2001) in conjunction with the cultural and linguistic diversities across Europe. Through six distinct scales composed of a compendium of ascending level descriptors, the CEFR has made a great impact in learning to learn, teacher education, course and curriculum design, and assessment across borders (Morrow, 2004; O'Sullivan & Weir, 2011).

Taking on an supporting role in this study, the CEFR provides a set of guidelines within which learning/teaching objectives and achievement standards are identified and through which both teachers and learners can thus make informed choices (Mariani, 2004; Newby, 2011). It also provides learners with practical skills or strategies that demand cognitive and metacognitive operations. The former ones entail making inferences, noticing, formulating grammatical rules, or classifying items into meaningful categories, whereas the latter counterparts include the skills of reflecting, evaluating, or even self-assessing (Mariani, 2004). Acknowledging abundant advice for language practitioners, however, criticism arises on the issue of comparability and false assumption of equivalence between descriptor scales (North, 2002; North, 2004; Weir, 2005). Despite the

deficiency to develop comparable tests from the CEFR, however, the CEFR is still believed to be "a heuristic device rather than a prescriptive one, which can be refined and developed by language testers to better meet their needs (Weir, 2005, p.298; Cited by Shaw & Weir, 2007, p.1)." These underlying features of the CEFR are deemed consonant to the research and pedagogical design of this study.

Research Design and Implementation

Qualitative researchers, according to Denzin and Lincoln (2000), "study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them (p.2)". Aiming to explore the effect of *Cooperative Principles* on L2 learners' writing through the genres of comparison and contrast, the researcher conformed to the qualitative research paradigm (Janesick, 1991; Merriam, 1998; O'reilly, 2005), selecting five "information-rich cases for study in depth (Patton, 1990, p.169)". Each participant's demographic information is provided in the following table.

Table 1. Demographic Information of the Participants

Participant	Gender	Grade	Major	Nationality
Lynn	Female	Junior	English	Taiwanese
Vanessa	Female	Senior	International Trade	Taiwanese
Eleanor	Female	Junior	Sociology	Mainlander
Lily	Female	Junior	English	Mainlander
Tracy	Female	Junior	Information Science	Mainlander

In addition to the selection of participants, the researcher utilized ethnographic techniques (Merriam, 1998; Nunan, 1992; O'reilly, 2005; Patton, 1990) to penetrate this study. The raw data collected for this study included:

(A) Pre-test and Post-test writings, whose question remained identical:

> "*Do you agree or disagree with the following statement? Face-to-face communication is better than other types of communication, such as letters, email, or telephone calls. Use specific reasons and details to support your answer*."

(B) Participants' self-evaluation of the differences emerged on both writings from the Pre-test and the Post-test

(C) CEFR Self-Assessment Checklists (Level: B2 and C1), focusing on three categories only: strategies, language quality, and writing. [see Appendix I]

(D) Self-reflection Questionnaire

(E) Instructor's Reflexive Journals

Over the first week, the researcher borrowed the CEFR Self-assessment Checklists for both Level B2 and Level C1 for the purpose of pinpointing the existing strengths and deficiencies of these five participants. Immediately following that, each participant was required to complete the Pre-test writing within the maximum length of 40 minutes. Four participants used up the full duration of 40 minutes, while it took less than 30 minutes for the only participant, Lily, to complete the Pre-test.

Over the following week, the researcher introduced the concepts of the block pattern as well as the alternating pattern, one pivotal set of writing constructs relevant to the genres of comparison and

contrast (Reinking, Hart & Osten, 2002). After the researcher's lecturing, the participants perceived better how to classify or categorize their ideas with better clarity. One week later, the *Maxim of Relation* and the *Maxim of Manner* were firstly instructed and exemplified by means of the following agenda: "*Will you hire a new talent mainly depending upon his/her leadership skills or execution skills*?"

The participants were gradually led altogether to incorporate the patterns instilled over the previous week into these two newly-gained maxims, and they afterwards worked together to meaningfully create, delete and allocate their responses to this given agenda. In the end, all of the six participants agreed upon employing the block pattern to illustrate two of the major theses: leadership and execution, under the former of which they expounded on the significance of delegating and amplifying employees' strengths. For the second thesis, they originated two themes for further elucidation: problem-solving and efficiency.

The next week, the *Maxim of Quantity* and the *Maxim of Quality* were introduced, and the researcher gave a systematic outline of the advantages and fallacies of using each of the four maxims. All of these preliminary instructions were conducive to the last instruction on the concept of analogy over the fifth week. After learning the essences behind analogy, the participants were instantaneously given a task where they all needed to apply analogy in a mind-mapping application.

After five consecutive gatherings, the participants had thus acquired skills to write more relevantly, consistently and concisely. Over the last session, they were firstly required to fill in both levels of the CEFR checklists so as to trace and verify their learning progress. Then they were immediately asked to complete the Post-test within the maximum length of 40 minutes, which was exactly the time constraint on the Pre-test. In comparison, a stark contrast emerged was that each of the five

participants finished the task within 35 minutes and held a firmer attitude towards their processes of writing, including planning, drafting, revising and editing.

With the underlying pragmatic framework of *Cooperative Principles* in mind, the participants found it fairly accessible to offer substantive critiques on their own writing products. More details pertaining to course proceedings and instructions within these six weeks could be found in the following table.

Table 2. Course Proceedings and instructions of the Entire Series

Week	Orientation	Remark
1	CEFR Self-Assessment / Pre-test.	Participants took turns narrating their writing problems and experiences of attending composition classes.
2	Written feedback to each participant / Instruction and illustration on the block and alternating pattern.	The researcher assigned an article, *Let Kids Have Fun*[1], as an extended drill and the first required reading.
3	Analysis of the first reading / Instruction on the Maxim of Relation and the Maxim of Manner.	The researcher assigned another article, *Becoming Helpless*[1], as the second required reading.
4	Analysis of the second reading / Instruction on the Maxim of Quality and the Maxim of Quantity.	The researcher assigned the third article, *Coming Home*[2], as the take-home assignment.
5	Analysis of the third reading /	The researcher reminded participants of

	Instruction and illustration on the concept of analogy.	an in-class writing task on comparison/contrast.
6	CEFR Self-Assessment / Post-test / Verbal feedback on students' writings.	Finale.

NOTE [1]: Both articles, whose major rhetorical modes were centered upon illustration and Comparison/Contrast, were derived from a reader entitled *Pattern and Themes*.

NOTE [2]: This article, whose major rhetorical modes were centered upon illustration and Comparison/Contrast, was selected from a textbook entitled *Strategies for Successful Writing: A Rhetoric, Research Guide, Reader and Handbook*.

On top of the aforementioned information, another research instrument was a qualitative self-reflection questionnaire oriented towards the participants' self-reflection. The questions and essences behind the questions could be observed in Table 3.

Table 3. Questionnaire questions for the participants

No.	Question	Essence
1	What do you think an ideal English Writing Class should teach?	Structural
2	What do you think the most essential elements should be as a writer begins to draft a comparison/contrast essay? Please list some underlying ones in an order of significance.	Structural
3	In what way is this English Writing Class different from the previous one(s)	Contrastive

	that you took, regardless of the length?	
4	Have you gone through any alternations in concepts regarding English writing? What have you gained the most from this short series of English Writing Class?	Descriptive

The construction and corresponding essences of interview questions were based upon by Janesick's (1991) suggestion as the theoretical underpinning. The researcher, in addition to up-close observations of each participant, also kept a reflexive journal noting the undertakings of each session.

All these sets of data were carefully cross-referenced and interpreted by means of content analysis (Patton, 1990), which marked the procedures of coding, categorization, description, and interpretation. Apart from the content analysis, the constant comparative method (Butler-Kisber, 2010; Glaser and Strauss, 1967; Lincoln & Guba, 1985) were additionally used to compare elements and sub-categories emerging during the process.

Findings

In the following section, the results are presented in response to the research questions: "How do *Cooperative Principles* assist L2 learners in their own writing?" and "What is the essential construct needed for these two genres of writing, comparison and contrast?"

Through a closer look at the triangulated sources of data, two primary facets are generated: brand-new pedagogical underpinnings and transparent learner momentums. Details pertaining to each facet are depicted as follows:

Facet One: Brand-new pedagogical underpinnings

From the outset, the participants had indicated that this experimental series of courses seemed to be an entirely different approach to learning English writing. Given congruently correlated and instructions, all of the five participants reported they had learned more diversified ways of developing and expressing their arguments and that they all could immediately come in handy. Among all of their new gains, in addition, they appreciated the concept of analogy the most. One participant from Mainland China expressed clearly her perceptions towards English writing:

> {Quote 1} We were normally educated to simply mimic a [template] of English writing. You demonstrated to us the important constructs on writing, and these constructs were frequently repeated in your writing class, which did help me to remember how to write English compositions in a brand-new way.
>
> (Eleanor; derived from her questionnaire)
>
> {Quote 2} At first, I thought English writing is to write whatever you think is true and [that] what we need to do is follow an existing pattern. Now, I realize that different skills can make writing better. The concept of analogy and the Maxim of Relation are what I gained most from this series of classes.
>
> (Lynn; derived from her questionnaire)

Moreover, thanks to the in-class analysis of all the required readings, the participants appreciated the researcher's elicitation in either exploring the embedded stylistic features or mapping out the potential development of ideas. They accordingly learned how to heed their own writing locally and globally. Two participants, for example, clearly specified the alternations they experienced in writing English compositions in the following remarks:

{Quote 4-3} The teacher started with an overview of the assigned article and allowed us to induce or generalize the specific features of that article. Following that, he made the hidden styles of the article manifest to us, had us cross-check our findings, and pinpointed the pros and cons of our own writing products. Most of his reminders were new to me!

(Tracy; translated by the researcher from her questionnaire)

{Quote 4-4} Analogy is a new concept for me, and totally different ways of expanding and modifying ideas in my own writing are what I truly gained in this short series.

(Lily; derived from her questionnaire)

Overall, the *Cooperative Principles* provided the participants with brand-new perspectives on English writing. It has been evidenced in this study that these pedagogical underpinnings benefited the participants most in globally planning and drafting as well as locally revising and editing their own manuscripts.

Facet Two: Transparent Learner Momentums

From the learners' perspectives, this course planning proved to be innovative and helpful. For the researcher and the participants themselves, the CEFR checklists and Post-test writing served as transparent channels to reflect on their own momentums. As shown on the B2-leveled CEFR checklists, one participant, Lynn, noted her progress in one of the Writing can-do statements: "*I can develop an argument systematically in a composition or report, emphasizing decisive points and including supporting details*." This descriptor has indeed been evidenced in her Post-test writing. She could meaningfully churn out her content and she could even comment on her own progress expressively.

To take another participant, Vanessa, for example, she appeared to be even more indicative of her progress. Majoring in international trade, she bore sufficient English proficiency for conversational purposes. In this regard, her Pre-test writing displayed a great number of informal uses of English, and she apparently organized her argument incoherently. As the entire series approached the end, she evaluated her own improvement on 8 out of 15 can-do statements in total. The most revealing statement, for the researcher, was that "*I can put together information from different sources and relate it in a coherent summary*." In her Post-test writing, she linked the sentences more coherently, showed a greater degree of grammatical accuracy, and paid closer attention to the appropriateness of her language use.

With transparent momentums being observed on the rest of the participants, the researcher also noticed their improvements by examining the benchmarks suggested by the Written Assessment Criteria (Language Policy Division, 2009): range, coherence, accuracy, description, and argument. In addition to the benefits arising from the instructions on the *Cooperative Principles*, it was evidenced that those CEFR descriptors served as substantial self-referenced checklists. Learners could accordingly reflect upon their own language learning and ensure themselves to move towards a better command of language use.

In terms of planning, drafting, revising and editing their own writing, the participants have gained a better control in sorting out their arguments with the aids of either the block pattern or the alternating pattern. As they drafted their own Post-test task, they took heed of the quantity and the quality of their manuscripts. When they attained the final phase of revising or editing their end-product, the maxims of the *Cooperative Principles* facilitated the participants' examination in the relevance of their argument and the manners of their writing style.

Despite the orientation of the *Cooperative Principles* being mainly applicable to speeches and conversations, this study proved how they have been successfully implemented in L2 writing instructions and how they have effectively sharpen learners' awareness in rhetorical and discoursal aspects of L2 writing. With both research question being answered, more thoughts arising from the qualitative analysis will be explicated in the next section.

Discussion and Conclusions

In the previous section, the effects of the *Cooperative Principles* on helping L2 writers to regulate planning/drafting and facilitate revising/editing have been manifested, and the construct of analogy is the most essential one among other forms of input to help L2 writers to fulfill the writing of comparison and contrast genres. Nevertheless, some potential pitfalls were also worth noting.

In contrast with the gains out of these brand-new pedagogical underpinnings, the participants did flesh the content out to a linguistically and pragmatically well-written essay. Admittedly, nevertheless, the teacher written feedback, deemed as a means of advice to facilitate students' improvements by Hyland and Hyland (2006), was not sufficiently provided. Being greatly valued and highly rated by L2 learners (Tardy, 2006), the written feedback was given only in the second week of this series mainly because of the limited instruction time. As essential as the teacher written feedback seemed, it would certainly be better for L2 writing instructors to give written feedback either randomly or regularly, depending upon the changing dynamics of their own course.

In addition, looking back at the instructions on the third week, the researcher led all the participants to work together on a given question: "*Will you hire a new talent mainly depending upon his/her leadership skills or execution skills*?" Despite their obvious lack of working experiences, they collectively brainstormed before they drew up the conclusion by constructing two major theses and

four corresponding themes, as earlier mentioned in the section of Research Design and Implementation. The participants themselves attributed this pleasing result to the collaborative dialogues during the classroom, and they enjoyed the interactive prompts given and triggered by the researcher. The multiple roles the researcher played in this teaching scenario were in conformity with the multi-layered dimensions of a teacher's role in Webb's (2009) study, ranging from preparing students for collaborative work, structuring group interaction to "influencing student interaction through teachers' discourse (p.1)". In this regard, teacher written feedback and collaborative dialogue are advised to be the two pedagogical necessities of such a writing instructional setting.

Lastly, some limitations of this study are noted as follows. For a more comprehensive look at the essences of the comparison/contrast genres, the researcher suggests that an extended in-depth one-on-one interview could have been held in the middle of the series. If the researcher had heard them voice their challenges or perspectives in the process, he might have instantaneously adjusted the course content. In spite of some limitations, this study may serve as a point of departure for integrating the whole set of *Cooperative Principles*, oriented towards pragmatic functionalism, into a process-oriented English writing course. It also provides a range of indications that can be of reference to more instructors or practitioners, particularly those who consider adopting diverse methodologies to sharpen or fortify L2 writers' developing or monitoring mechanisms in their own writing processes.

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APPENDIX I

Level B2

Use this checklist to record what you think you can do in **column 1**, and in **column 2** record what you cannot do yet but feel are important for you. Look at this checklist at regular intervals to update what you can do and what your priorities are. Write the date of when you use the checklist in **column 3**.

If you have over 80% of the points ticked in **column 1**, you have probably reached **Level B2.**

Use the blank spaces to add any other things you can do, or things that are important for your language learning at this level.

Strategies	I can do this **1**	My objectives **2**	Date **3**
I can use standard phrases like ”That’s a difficult question to answer” to gain time and keep the turn while formulating what to say.			
I can make a note of ”favourite mistakes” and consciously monitor speech for them.			

I can generally correct slips and errors if I become conscious of them or if they have led to misunderstandings.			
Language Quality	**1**	**2**	**3**
I can produce stretches of language with a fairly even tempo ; although I can be hesitant as I search for patterns and expressions, there are few noticeably long pauses.			
I can pass on detailed information reliably.			
I have sufficient vocabulary to express myself on matters concerned to my field and on most general topics.			
I can communicate with reasonable accuracy and can correct mistakes if they have led to misunderstandings.			
Writing	**1**	**2**	**3**
I can write clear and detailed texts (compositions, reports or texts of presentations) on various topics related to my field of interest.			

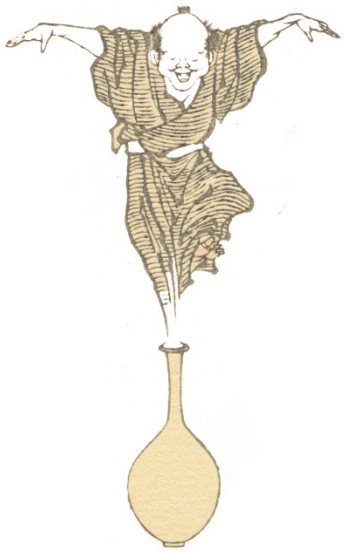
I can write summaries of articles on topics of general interest.			
I can summarise information from different sources and media.			
I can discuss a topic in a composition or "letter to the editor", giving reasons for or against a specific point of view.			
I can develop an argument systematically in a composition or report, emphasising decisive points and including supporting details.			
I can write about events and real or fictional experiences in a detailed and easily readable way.			
I can write a short review of a film or a book.			
I can express in a personal letter different feelings and attitudes and can report the news of the day making clear what – in my opinion – are the important aspects of an event.			

Level C1

Use this checklist to record what you think you can do in **column 1**, and in **column 2** record what you cannot do yet but feel are important for you. Look at this checklist at regular intervals to update what you can do and what your priorities are. Write the date of when you use the checklist in **column 3**. If you have over 80% of the points ticked in **column 1**, you have probably reached **Level C1.** Use the blank spaces to add any other things you can do, or things that are important for your language learning at this level.	I can do this	My objectives	Date
Strategies	**1**	**2**	**3**
I can use fluently a variety of appropriate expressions to preface my remarks in order to get the floor, or to gain time and keep the floor while thinking.			
I can relate own contribution skilfully to those of other speakers.			
I can substitute an equivalent term for a word I can't recall without distracting the listener.			

Language Quality	**1**	**2**	**3**
I can express myself fluently and spontaneously, almost effortlessly. Only a conceptually difficult subject can hinder a natural, smooth flow of language.			
I can produce clear, smoothly-flowing, well-structured speech, showing control over ways of developing what I want to say in order to link both my ideas and my expression of them into coherent text.			
I have a good command of a broad vocabulary allowing gaps to be readily overcome with circumlocutions ; I rarely have to search obviously for expressions or compromise on saying exactly what I want to.			
I can consistently maintain a high degree of grammatical accuracy; errors are rare and difficult to spot.			
Writing	**1**	**2**	**3**
I can express myself in writing on a wide range of general or professional topics in a clear and user-friendly manner.			

I can present a complex topic in a clear and well structured way, highlighting the most important points, for example in a composition or a report.			
I can present points of view in a comment on a topic or an event, underlining the main ideas and supporting my reasoning with detailed examples.			
I can put together information from different sources and relate it in a coherent summary.			
I can give a detailed description of experiences, feelings and events in a personal letter.			
I can write formally correct letters, for example to complain or to take a stand in favour of or against something.			
I can write texts which show a high degree of grammatical correctness and vary my vocabulary and style according to the addressee, the kind of text and the topic.			
I can select a style appropriate to the reader in mind.			



Efficacy of Online Social Networks on Language Teaching: A Bangladeshi Perspective

Shaila Shams

Abstract

It is now an established fact that the use of technology facilitates teaching and learning in language classrooms. With the advancement of technology, social networking websites have emerged too. Social networking sites have been quite popular among various age group users particularly the young users since their invention. Also, they are conceived to be able to motivate (Greenhow, Robelia, & Hughes, 2009) and expose learners to the authentic use of the target language (Baralt, 2011). However, very little research has been done, especially in Bangladesh, on how much these websites can contribute to language learning and teaching though they seem to offer ample opportunities. Therefore, this study aims at investigating the effect of using 'The Facebook', a social networking website, in language classrooms at tertiary level in Bangladesh. Participants of this study were first year first semester university students doing a foundation course in English focusing to improve their listening, speaking and writing skills. The participants were divided into two groups. Group 1 was the control group who was taught traditionally and non-digitally without using Facebook. Group 2, along with classroom teaching, received help from the instructor through Facebook and did tasks assigned on Facebook. At the end of the three months semester a test was taken and the result of both groups was compared. Thus, this study shall try to provide an answer regarding to what extent online social networks can facilitate second language acquisition.

Keywords: Online social networks; Bangladeshi language classrooms; Second language acquisition; Facebook.

Introduction

Today's young generation is referred as the "Z-generation" or "Net-generation" as technology and the World Wide Web are the two most familiar objects to them (Horovitz, 2012).This "Net-generation" has been found to be applying different methods of learning from the earlier generations (Sandars and Morrison, 2007) as they are more "experiential, engaged and constantly connected" (Ramaley and Zia, 2005). It has also been suggested that the Net Generation students prefer independent learning style and take the benefits of technology for better learning (Carlson, 2005).

The innovation and advancement of social networking sites e.g. Facebook, MySpace, Orkut, Twitter, Hi5, etc. has increased further use of technology in this generation's day to day life. These social networking websites have also proven to be useful in language learning as they are more engaging and inspiring for learners to use the target language, and minimizes learners' fear and nervousness and authority of the instructor (Gilbert, Fiske, & Lindzey, 1998; Beauvois, 1998 cited in Millis, 2011). Moreover, the online social networks also provide an opportunity for both instructors and learners to be exposed to the language through authentic activities and materials and thus can promote constructivist learning through meaningful communication (Woo, Herrington, Agostinho, & Reeves, 2007). According to Chartrand (2012), the online social networking sites not only motivate the Net-generation learners to use relevant learning materials, but also let the learner experience the authentic usage of a language in communication. Since students can relate more if online social networks are used for language teaching, this invariably promotes language acquisition to a great extent.

However, the prospects and opportunities of the social networking sites in language teaching and learning are yet to be discovered in the context of a south-Asian country like Bangladesh. Thus with

this trait in mind, it is quite intriguing to understand if using this kind of technology in education and classrooms can be proven to be beneficial. Therefore, the aim of this study is to investigate the role and effectiveness of using the 'Facebook' (a social networking site) in tertiary level English language classrooms in Bangladesh. The paper also attempts to provide theoretical framework to the use of such online social networks and to gain an understanding of further possibilities of the usage of social networking websites in second language acquisition.

Literature review

English Language Teaching and Use of Social Networking Websites in Bangladesh

Bangladesh, being a post-colonial country has always seen the English language to be viewed with high regard socially and economically. Competency in English is seen as an opportunity provider for higher education and it is a requirement for better employment (Sarwar, 2005). Therefore, English plays a very important role in the education system of Bangladesh. It is mandatory from grade 1 and is the medium of instruction for tertiary level education in both public and private universities (Hossain and Tollefson, 2007). Unfortunately, the three types of schooling system prevailing in Bangladesh- English medium, Bangla medium and Islamic education produces students with different level of competency in English (Hossain and Tollefson, 2007). Also, the standard of teaching English varies greatly between urban and rural schools which reflects in the result of public examinations and is the cause of failure for many students in university admission tests (Khan, 2013). All these factors contribute to a class of mixed ability students in tertiary level language classrooms. This 'mixed bag' of students in the tertiary level education system has posed such a great problem in modern Bangladesh, that universities, specially the private ones, have introduced foundation level English courses, just to overcome this language barrier and make the students able to compete with the 'better-language-equipped' students in the technical subjects pertaining to their respective

degrees. Such two courses being taught at the moment in the Independent University, Bangladesh are English 101 and English 102.

English 101 is an elementary course designed to improved students' listening, speaking, writing skill and grammar. The grammar done in this course is of very basic level e.g. present tense, past tense, use of preposition, modal verbs, character/ personality words, describing physical features of people, etc. which are taught at the school level. However, as mentioned before, due to varied proficiency level of students coming from different types of schools, it is pertinent to revise and reinforce their English language skills to operate in the university courses. English 102 focuses extensively on improving students' reading skills.

Thus for the sake of getting a clearer picture of what improvements can be achieved by any new methods or techniques in teaching, this study has chosen one such course, the English 101 as the experiential grounds for the investigation. The selection process of the course students will be elaborated in later sections.

Boyd and Ellision (2008) defined Social networking websites as "web-based services that allow individuals to construct a public or semi-public profile within a bounded system"- where people can communicate with others. Such a social networking website called the 'Facebook' is immensely popular among Bangladeshi youngsters and adults alike. With an approximate number

of over 37 million users of Facebook in Bangladesh and more than 50% of them being within the age range of 18-24 years (www.socialbakes.com), this website enjoys a popularity in the country that by far supersedes any other site in its league.

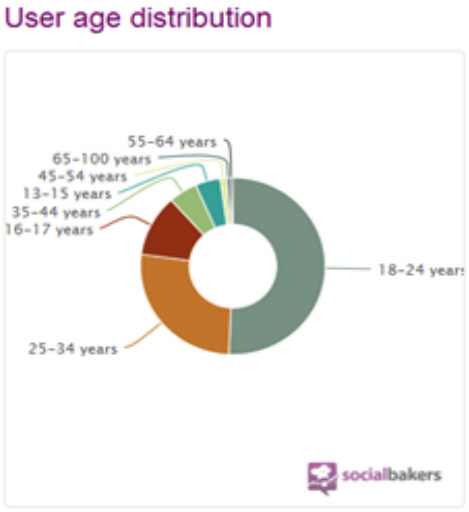


Figure 1. % Facebook user age distribution in Bangladesh (www.socialbakers.com)

A class consensus of two English 101 course batches was also taken and results indicated that every one of the students was familiar with the social networking website: Facebook. Naturally this caused the selection of the said site as grounds for the investigation.

Theoretical Underpinning to the Use of Social Networking Websites in Language Teaching

The aim of this research is to determine whether the online social network, Facebook can facilitate English language learning and teaching for Bangladeshi tertiary level students. The incorporation of social networking websites into language teaching evidently derives support from second language acquisition theories. The theory of Task- Based Language Teaching (TBLT) motivates and provides background to the use of online social networks for language teaching. TBLT is an approach to language teaching which emphasizes on using tasks "as the core unit of planning and instruction" (Richards and Rodgers, 2011). Feez (1998, p.17 cited in Richards and Rodgers, 2011, p.224) pointed out some important aspects of TBLT. He states that the tasks in TBLT focus more on "communication and meaning" where "learners learn language by interacting communicatively and purposefully". According to Ellis (2013, p.16) a task "requires learners to process language

pragmatically" and to be able to communicate the "appropriate content". Nunan (1989, p.10) defines, tasks should be able to "involve learners in comprehending, manipulating, producing or interacting in the target language". Freeman (2000, p.144) suggest that the tasks in TBLT enable learners to use the target language in a "natural context". Considering the above mentioned definition of Task-Based Language Teaching approach and tasks, a clear connection can be drawn with the activities on online social networks.

Along with the support from TBLT theories, the use of online social networks in language teaching relevantly reflects the theory of language socialization. According to Duff (2010, p.427), language socialization is the process where "linguistic, pragmatic and other cultural knowledge" are acquired through social experiences ultimately leading to the development of "cultural and communicative competence". In simple terms, language socialization is the process through which learners explore the underlying and implicit rules of communication and interaction using the language in a society. It is important to be aware of the language practices in a society in order to be able to function in accordance with the norms of a society (Duff, 2010, p.427). In one of her studies Duff (2009) has shown that English language learners from different cultural backgrounds often struggle in classroom interaction and discussion due to the non-existence of the concept of classroom discussion in their own cultures. The inhibitions due to cultural differences pose great difficulty for both teachers and learners in a language classroom even in Bangladesh; where in most cases the class constitutes of non native English language teachers and learners as the traditional classroom setting is mostly teacher dominated with little scope for participation. To reverse this process weakness it requires the ELT teacher to go to great extents, to be able to break the students' inhibitions in a free and frank class participation. The teacher/instructor has to be more open towards a communicative language teaching along with instilling a belief in the students about a more welcoming class environment.

Such a reversal is often time consuming if not futile as class lectures tend to be 'too little and too late' in a language learner's life when such a university course is chosen with students already in a firm belief about non-communication in the class room based teaching. However, because of the rapid growth of technology and internet, online social networks can be used to address this niche in language teaching in Bangladesh. Due to the immense popularity of online social networks which is very common among students from any background in Bangladesh, this research decided to use the online social network "The Facebook" and endeavored to attain usefulness of online social networks in language teaching.

Online social networks can provide a platform for L2 learners "for community participation and identity construction" (Rheinhardt and Zander, 2011). In a study where online social network "Facebook" was used for language teaching, they have found that the use of online social networks in language teaching support in language socialization and hence promotes language acquisition too. Harrison and Thomas (2009) also found in their study that the use of online social networks promotes active language learning as both teachers and learners can participate in a "collaborative learning environment" which provides opportunities for interaction and thereby helps in language socialization.

The online social network, Facebook provides the facility of individual and group interaction to its users. Users can also upload pictures, songs, create groups, sends messages, etc. on Facebook and be therefore exposed to the authentic language (Baralt, 2011). Furthermore, it also provides a platform to the learners to use the target language outside classroom for practical interaction purpose. In these ways, Facebook creates opportunities for learners to understand the social practices embedded in language and apply those in real life interaction. Use of online social networks may motivate (Greenhow, Robelia, & Hughes, 2009) and engage learners more with language practice as the

activities on the social network Facebook, establishes immediate communication and result. Bosch (2009) in the study conducted among 200 undergraduate students of the University of Cape Town of South Africa found that Facebook usage for academic purposes offers potential advantages one of which is reducing the power distance between teachers and students; while the students welcomed the concept of using this social networking site for educational purpose. Eren (2012) echoes similar findings in his study conducted in the University of Gaziantep, Turkey where students expressed positive attitude towards the use of Facebook for language learning along with traditional modes of teaching. A similar view is expressed in a study by Wang, Woo, Quek and Mei Lieu (2012)where it is suggested that Facebook can be successfully used for learning management too. Incorporating Facebook in language teaching may also cater to the preference and need of independent learners of the Net Generation by boosting their autonomous learning style.

The belief of this study was that, since students feel much more comfortable and at ease when using this social networking site, it would be much easier for them to "open up" and effect a language socialization culture. Also due to having mixed ability students in class comprised of students from both rural and urban areas and different schooling backgrounds, it was thought that, students with better English language skills would feel an emotional onus towards their lesser able companions in the class and would correct and help them in the principles of the language during interaction on the website.

Methodology

This research was conducted among two groups of undergraduate university students. These students were all in their first year and first semester with a median age of 18. The university of choice is known as Independent University, Bangladesh and is considered as one of the top five (5) private universities of Bangladesh.

At this university, every student has to go through an admission process of testing and selection through their previous school-leaving results (up to 12th standard). After the selection process, the students are divided into two groups, the first group is considered as the group who can proceed directly to the main course curriculum of their chosen degrees while the second group of students go through a series of compulsory foundation courses. These foundation courses assist the second group of "weaker" students to increase their level of competency to be at par with their counterparts in the first group. Of these foundation courses, emphasis is given mainly on their mathematical and English Language aptitude.

One such course as mentioned earlier is the English 101. Since the number of students taking such foundation courses has traditionally been quite high, the students are then subdivided into smaller "sections" to maintain a class population of average 30 students per instructor at any one time.

This study has been conducted between two such sections of English 101, which were instructed by the same instructor, the author. This course basically focuses on improving students' listening, speaking, writing and grammar skills to enable them to converse in English and to understand class lectures as the medium of instruction and study materials are in English. All the examinations are also conducted in English. This research emphasized more on improving students' writing skill and grammar.

The two sections comprised of a total of 57 Students. The first group has 30 students in it and the second group comprised of a population of 27students. A gender analysis of the population of both groups was conducted and the results showed fairly even distribution of both genders in the group. Thus the first group was taken as the "**Control**" group (33% Female, 67% Male) and the second group was taken as the "**Experiment**" group (15% Female, 85% Male).

To ensure a fair distribution of the ability of students, both groups were subjected to a diagnostic test which measured the level of English Language aptitude of the students. For simplicity purposes, these tests were called as the "**Start**" test. The test contained a series of questions from the English 101 course content which would later be taught over the semester. The results revealed that the Control group were more apt in the Language achieving a class average of 68.31% marks while the Experiment group achieved a lower average mark of 65.42%.

A questionnaire survey was also conducted between both groups regarding their educational background, results in Board Exams- Secondary School Certificate and Higher Secondary School Certificate, location of their schools and colleges, (if in rural or urban area) etc.

An analysis of the groups' School leaving English Language results further confirmed this difference in result between the Experiment group and the Control Group. It is noteworthy to mention here that, the English language test results of school leaving examinations are divided into four broad categories with "A" being the highest and "D" being the lowest before a student fails and achieves an "F" in their exam. Whilst within the control group 77% students had achieved an "A", 74% had achieved the same grade in the Experiment group. On the other hand, 23% of the students in the Control group had achieved a "B" (with none achieving lower grades). In contrasting the Experiment group's populace consisted of 22% students with a grade "B" and the rest 4% having achieved a grade "C" in their School leaving English results.

Thus, the Control group showed a considerably better result in their school leaving examinations when compared with the Experiment group, further supporting their results achieved in the Start test that was conducted.

An analysis of the urban: rural education of both the groups revealed identical results with both groups clocking 70% of their students with urban education and 30% from rural education

backgrounds respectively. Finally a survey of the number of Facebook users in the class revealed that every student was familiar to and a frequent user (more than 3 times weekly) of the social networking website Facebook.com.

When deciding the method of incorporating Facebook into the course instruction of the Experiment group, very close scrutiny was given to the amount of time the students would make contact with the course instructor. A clearer picture of the calculation is given as below:

Table 1. Lecture time calculation

No. of lectures in 12 week period	24
Contact hours per lecture	1.5
Total Contact hours (24x 1.5)	36
Hours lost due to mid-term exam	(1.5)
Hours lost due to diagnostic test	(1.5)
Hours lost due to Class quizzes (6 x 15 min)	(1.5)
Hours Lost due to survey & introductory class	(1.5)
Net contact hours in any group	30.0
EXPERIMENTAL GROUP	
Expected hours gained by each Facebook activity	0.5
Number of Facebook Activities	20
Total Hours Gained	10
Therefore average contact hours each class for experiment group (30-10=20/20=1)	1

As shown above, traditionally there are a total of 24 lectures (or 2 lectures per week) designated for each group in a 12 week semester. Each lecture would last 90 minutes or 1.5 hours. However, with six class quizzes of 15 minutes each to be taken during the semester means that (6x15=90) 90 minutes or 1 lecture worth of actual teaching time is lost each semester. 1 full lecture is used up to conduct a "mid-term" examination, whilst for this study, 2 Lectures were used up for the diagnostic

test, survey and introductory class. This would mean that a total of 4 lectures were lost during the semester leaving a net total of 20 lectures or 30 hours of class contact time for the students. Whilst, this was the case for both the groups, the Experiment group was also subjected to Facebook activities which were considered to add around 30 minutes of contact time each. There were a total of 20 Facebook "activities", which will be explained more elaborately later on, meaning that there would be an extra contact time of almost 10 hours for the Experiment group. This "extra" contact time was however minimized by shortening each of the twenty lectures of the Experiment group by 30 minutes to stand at 1 hour each.

Incorporating Facebook into Teaching

As discussed earlier, it was decided to use the Facebook along with formal classroom teaching with the experimental group whereas the control group would only be taught through traditional classroom teaching. A Facebook group was created for the experimental group at the start of the semester. As Facebook is immensely popular with the young generation, students showed great enthusiasm about this initiative.

The teaching through Facebook with the experimental group followed a method. Every week, a task was posted on Facebook based on the lesson in the class. Students were given tasks on grammar, description of pictures, writing on specific topics etc. These tasks were called 'Contests'. In addition, 'Help Files' were also posted on the same topics to clarify students' understanding and increase their engagement with the topics. Typically each help file would receive students' discussions about the topic of the help file. Students were also encouraged to interact spontaneously in the group. In addition, student used to post status, comments or news freely which maintained the practical life interaction on Facebook. Every student's comments were corrected by the author if there was any spelling or grammar mistake. It was observed that, even students were correcting each other's

mistakes, which re-affirms the notion suggested by Greenhow, Robelia, & Hughes (2009). As mentioned before, the tasks or activities on online social networks are thought to "motivate" and engage the learners to learn the language with less dependence on instructors. The Experiment group members were also able to use the language in "natural context" where the primary focus was on meaningful communication which connects the theory of Task- Based Language Teaching and using online social networks for language teaching. For example, a group member would usually post a status about their day or some unexpected life event whereby other members of the group would give feedback comments on the status. The only rule to be followed in the Facebook group was that each and every member would have to post whatever they liked in English.

The Contest tasks were normally associated with Help posts and were comprised of questions regarding to the topics that were being taught in the classroom. So basically, instead of asking verbal questions in the classroom to re-affirm the understanding of a topic in a traditional setting where only a few students would be able to communicate with the lecturer, these Contests allowed every student equal chance to take part in the communication process. The Contest tasks assigned to the group members had a time limit. Students were given two days' time to finish each task. After two days, the result was announced. Also, the response of each student containing grammatical or theoretical mistakes was corrected and explained to the students either on Facebook or in the classroom.

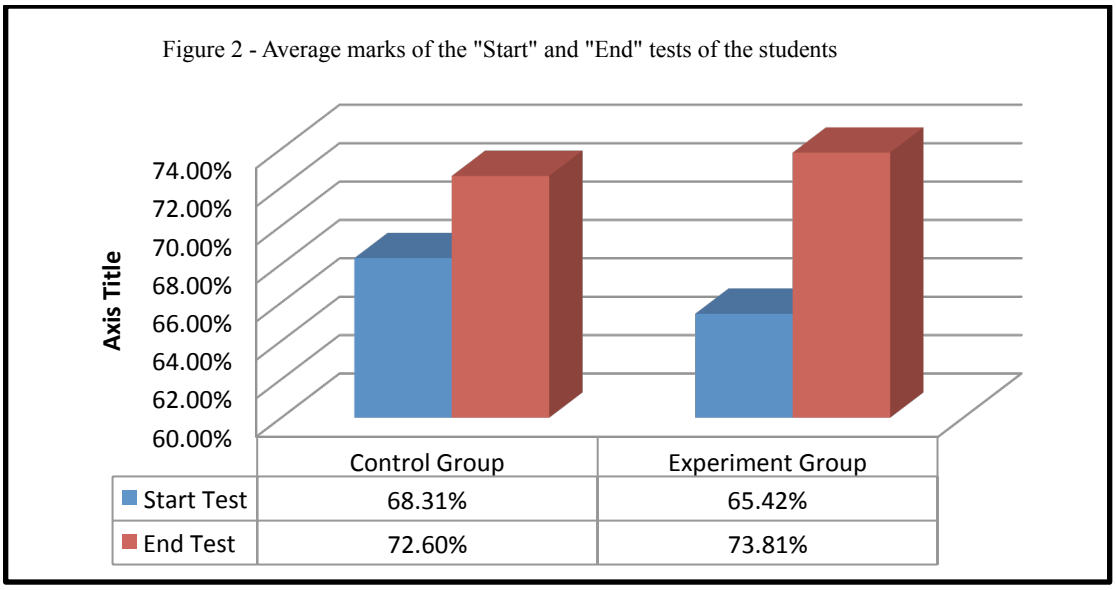
At the end of the three months semester, a total of ten tasks were given to the students. It was announced beforehand in the class that the three top winners will be rewarded with material gifts based on the number of wins. At the end, three winners, who had completed and won the tasks most of the time were rewarded. The first prize was given to the student who had maximum number of wins, followed by second and third position. A sample of the Contest posts, Help posts and winner announcing posts are given in the appendix.

At the end of the three month semester, a final examination was taken with an array of questions styled in the same way as the diagnostic test. This marked test was conducted again to measure the aptitude of the students in both groups and their development in the topics taught during the semester.

Findings and Discussion

As mentioned before, a diagnostic test consisting of items from the English 101 course content was taken in the beginning of the semester with both control and experimental group. A similar test was taken in the end of the semester with both groups again to assess their progress. The average result of both the start and end test of the control and experimental group is shown below in the chart.

Figure 2 - Average marks of the "Start" and "End" tests of the students

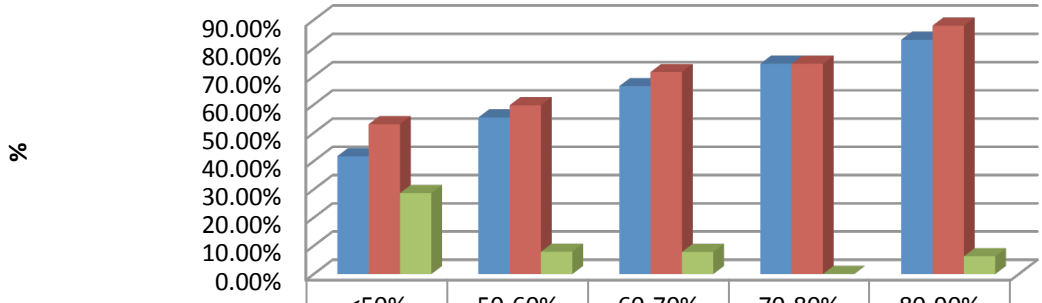


It can be observed that the control group outperformed the experimental group in the first test with an average score of 68.31% whereas the experimental group achieved an average score of 65.42%. However, after three months, in the end test, the control group achieved a score of 72.60% whilst the experimental group is seen to have improved slightly more and outperformed the control group with

an average score of 73.81%. This meant that the average improvement in the Control group was 6.28% while that of the Experiment group stood at 12.82% which was almost double. This result almost evidently presents itself to prove that usage of social networking websites is an efficient medium of technique when teaching English to second language learners. However, a closer look at the scores of each group revealed some interesting facts which would prove this theory otherwise. As a first step of the investigation firstly, each of the groups (both control and experiment) was subdivided into five different subsets. These subsets of students were classified by the marks that they achieved in their diagnostic test which by their title were quite self-explanatory. The categories were "<50%" for the students who failed in their diagnostic tests, "50%-60%" for students who achieved equal to or more than 50% but less than 60%, "60%-70%" for students who achieved equal to or more than 60% but less than 70%, "70%-80%" for students who achieved equal to or more than 70% but less than 80% and "80%-90%" for students who achieved equal to or more than 80% but less than 90%. None of the students achieved more than 90% in their diagnostic test which was quite reasonable as these students were assigned to this course due to their poor performance in English Language in their previous tests respectively.

After this subdivision and assignment of students to different subsets, a comparison was drawn on how much each subset of students has improved and the respective subsets were compared within their own large group, i.e., the Control group and the Experiment group.

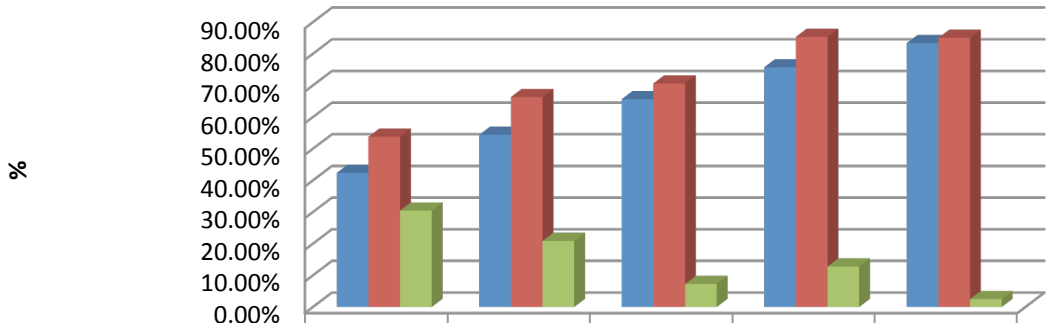
Figure 3 - Control Group subset classification



	<50%	50-60%	60-70%	70-80%	80-90%
Start	41.72%	55.42%	66.52%	74.44%	82.95%
End	53.04%	59.76%	71.53%	74.44%	87.96%
Avg. % Improvement	28.65%	7.88%	7.81%	0.02%	6.29%

When looking at the Control group % improvements in results, the increase of the students' aptitude (attributed by the marks they achieved in their respective tests) was seen to be quite spread out, with the highest increase in the failing group (28.65%) and lower but similar increases being noticed in the "50-60%", "60-70%" and "80-90%" groups with increase of 7.88%, 7.81% and 6.29% respectively. This is quite acceptable as students with lower abilities tend to catch more in these specific courses than students with higher levels. This is because these courses are designed such that students with a background in learning English language but with poor skills in the Language are the priority target of the teaching. However it is quite interesting to note that, the students in the "70-80%" subset had almost no development in their test scores (0.02%).

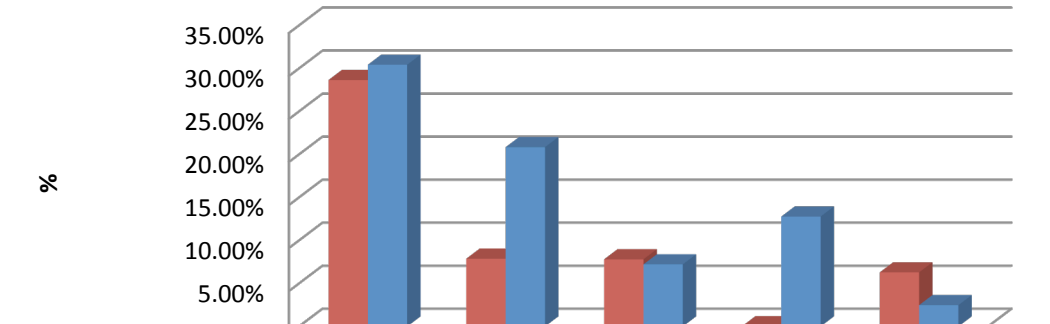
Figure 4 - Experiment Group subset classification



	<50%	50-60%	60-70%	70-80%	80-90%
Start	42.34%	54.38%	65.63%	75.69%	83.33%
End	53.75%	66.29%	70.60%	85.32%	85.00%
Avg. % Improvement	30.43%	20.85%	7.22%	12.78%	2.48%

A look at the Experiment group however showed a slightly different trend, with almost a linear decrease in the improvement of students as their initial aptitude (attributed by the marks achieved in the diagnostic "Start" test) increased. The lowest increase in this group was noticed in the "80-90%" region. There was however a sudden spike in improvement in this trend for the "70-80%" subset with almost double the improvement from the immediately lower subset (12.78%)

Figure 5 - % improvement Control vs Experiment group

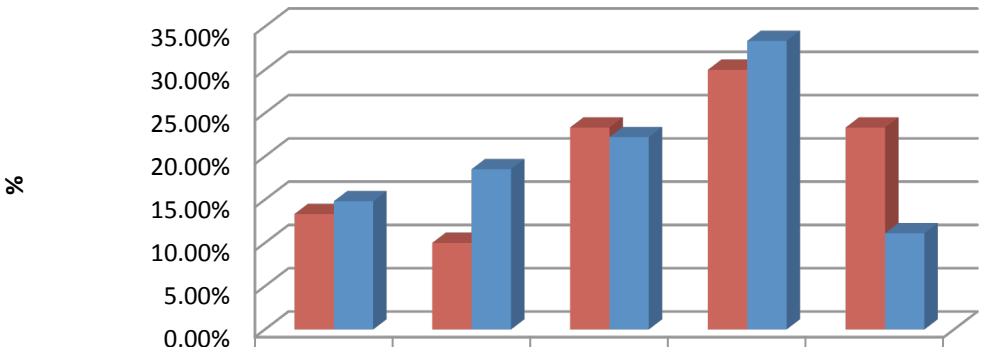


	<50%	50-60%	60-70%	70-80%	80-90%
Control Group	28.65%	7.88%	7.81%	0.02%	6.29%
Experiment Group	30.43%	20.85%	7.22%	12.78%	2.48%

As can be seen above, a second comparison was drawn between the subset of students across the two groups. This helps to clearly understand how the improvement has varied over the two groups. The Experiment group (in blue) can be easily seen to be following a trend in its ability to improve as it moves along the subsets, while the ability improvement of the Control group seems to have drastically dropped when rising from the failing (<50%) students to the higher subset students. What is also interesting to notice is that, where one group failed in improvement, the other group seemed to almost always persevere with a common meeting place in the "60-70%" subset.

As seen in both groups, the only subset of students that gave results out of trend was the ones in the "70-80%" set. When revisited with the query of how they felt about the course, in the Experiment group, 100% of the students in this subset (70-80%) replied with a positive answer explaining that the course was very engaging.

Figure 6 - % of class population in subset as per Start Test



	<50%	50-60%	60-70%	70-80%	80-90%
Control Group	13.33%	10.00%	23.33%	30.00%	23.33%
Experiment Group	14.81%	18.52%	22.22%	33.33%	11.11%

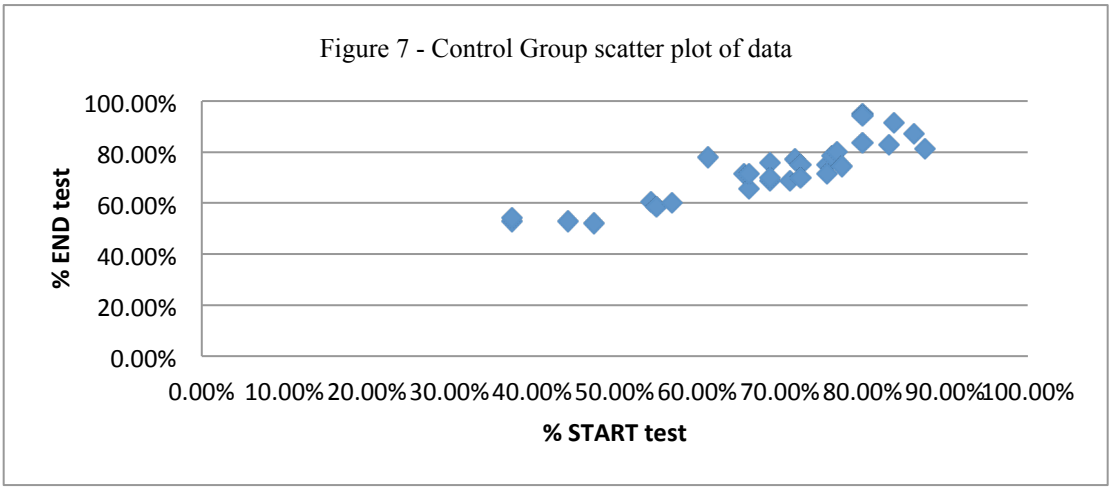
Finally, a comparative study showed that the maximum number of students resided in the 60-80% margin of marks (obtained in the "start" diagnostic test).

Correlativity & reliability of Data

A scatter plot of the two groups' result was drawn up with the x-axis or the independent axis as the % of marks obtained by each student in the diagnostic Start test. The y-axis or the dependent axis was then populated with the respective students' % marks obtained in the final End test. The results were then also calculated through the Pearson product-moment correlation coefficient using the following equation to ascertain the correlativity and reliability of the data:

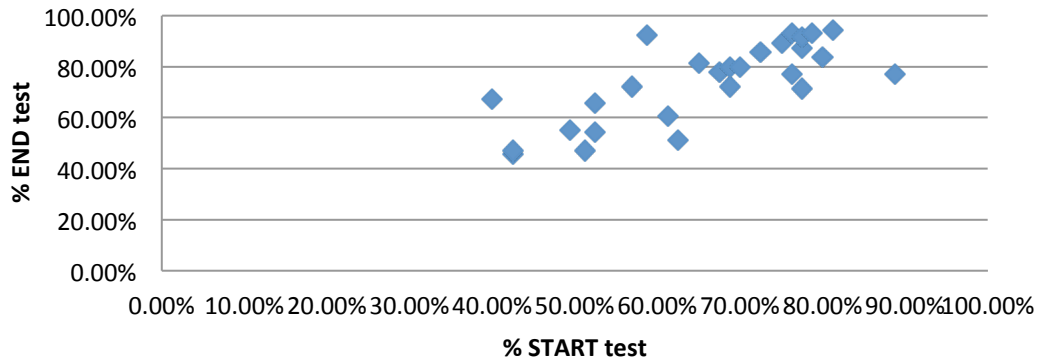
$$r = \frac{\sum_{i=1}^{n}\left(\left(x_i - \bar{x}\right)\left(y_i - \bar{y}\right)\right)}{\sqrt{\sum_{i=1}^{n}\left(x_i - \bar{x}\right)^2 \sum_{i=1}^{n}\left(y_i - \bar{y}\right)^2}}$$

Figure 7 - Control Group scatter plot of data



The Control group data when plotted in the scatter diagram showed a very good trend of uniformity with a strong to very strong correlation coefficient of 0.88868

Figure 8 - Experiment Group scatter plot of data



The Experiment group data when plotted in the scatter diagram also showed a fairly uniform trend in data with a strong to medium correlation coefficient of 0.74317. This weaker result could be attributed to the abnormally higher improvement of this group's "70-80%" subset students.

Conclusion

In conclusion, after analyzing all the data from the study, it can be said that a social networking website does not work as a technical platform for students to learn new theories or hone their skills in English as a second language, rather, it works as a motivational platform (Greenhow, Robelia, & Hughes, 2009) which encourages, liberates (from fear and introversion) and engages students into the practice of collaborative learning (Liaw, Chen & Huang, 2008) and therefore increase of skill in the language. This finding is also reflected in the survey by Kabilan, Ahmad, and Abidin (2010) where it has been stated by the students that Facebook – the online social network could facilitate second language learning. Zaidieh (2012) points out a few benefits of online social networks that they are 'flexible', 'repeatable' and 'convenient and accessible' which make them a beneficial tool to be used for educational purposes along with some drawbacks.

This means that, when teaching students with already advanced skills in the language, this method will not help the students to increase their skills much further. This can be clearly seen when

comparing the results of the students in the Experiment group "80-90%" subset. The "80-90%" subset of the Experiment group demonstrated only 2.48% improvement compared to a 6.29% improvement shown by their counterpart subset in the Control group. One reason that could be responsible for this phenomenon is as this course was of the foundation level , therefore the students with the highest level of ability in English had little to gain from the course. Secondly but more logically, the reason could have been because the higher ability students in both groups had advanced skills when it came to socializing in English but were rather weak in a few technical concepts of English. Such students would profit more from class contact time where each concept would be traditionally taught and consequently assimilated efficiently by the learner. The "80-90%" subset of the Control group received more of such contact time than the Experiment group whose regular class contact time was cut short by 30 minutes in each lecture (as mentioned earlier). Thus for such "high-skilled" learners, it could be safely said that a more technically focused class room based teaching method would help improve their skills further.

On the other hand students with very poor skills are also seen to have gained little more from the method, as seen in the "<50%" subset as in their case they are also learning new theories in English Language. This phenomenon can be clearly appreciated when comparing the said subset students' 28.65% improvement of the Control group compared to the 30.43% improvement of the Experiment group. The second reason for the "80-90%" subset of both the groups stands to logic here also, but with a slight spin. What it seems is that, the "<50%" subset students in each group are so weak in the technical concepts of the Language specially Grammar, that they are far from even "entering" a language socializing zone. For them, the language English is still a "Foreign" language for which they are yet to learn the elementary principles. Such students again need rigorous traditional class contact time where they are introduced to the basic principles of English. Rather than improving,

such students "learn" the principles for the first time perhaps due to various reasons including but not limited to "seriously-flawed" teaching or learning practices during their primary and secondary education. Thus a decreased class contact almost offsets the "motivational factors" and positive impacts of such language socialization techniques. Such students therefore need to be firstly taught in class room based environments where they would progress to become "medium-skilled" and only then can further teaching methods be applied to "improve" their soft skills in the language.

Conversely the most surprising results were demonstrated by the students of the middle "50-80%" subset. Where the general norm seemed to be that the Experiment Group outperformed the Control group by a considerable margin. This is the group of interest where it seemed that the theory of Facebook thrived. The "50-80%" subset students of the Experiment group were also the ones who took part most actively in the Facebook activities. For these types of students, with fewer weaknesses in the principles of English language, bulk of the issue was the practical usage and learning through practice of the principles of the language. It is these "medium-skilled" students of Bangladesh, who are capable of understanding (and have somewhat learnt the theories) but have been suppressed by the one-sided communicative and "punishing" system of the prevailing schooling system in the country, who can benefit the most from this type of method (Chowdhury,2003) as online social networks provide equal participation opportunities to students (Warschauer, 1995). By "punishing" it is meant that the flawed communicative language teaching practice prevailing in Bangladesh, actually "injects" the student with theories of English language (in the forms of verbs, nouns, sentence making etc.) but never allows them to practice or even use the Language in an un-inhibited environment. The general English language student on the other hand is in an even unfavorable situation outside the classroom where the nation speaks only one common language "Bangla" and little use is needed for a second language other than when attempting an aristocratic upper hand.

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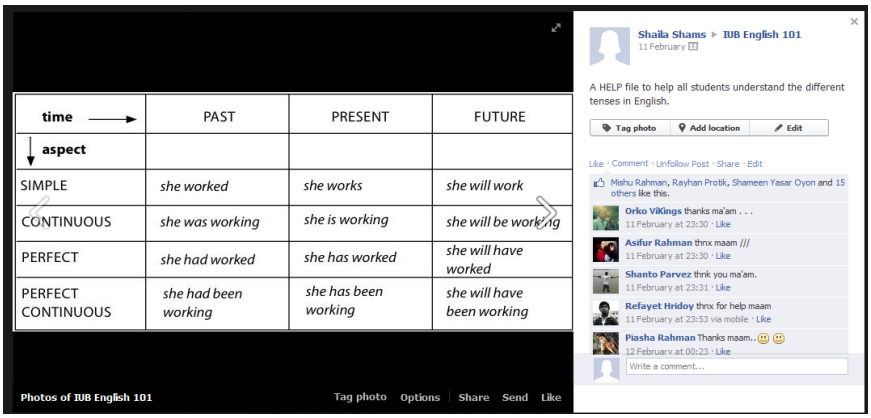
Appendix

Tables

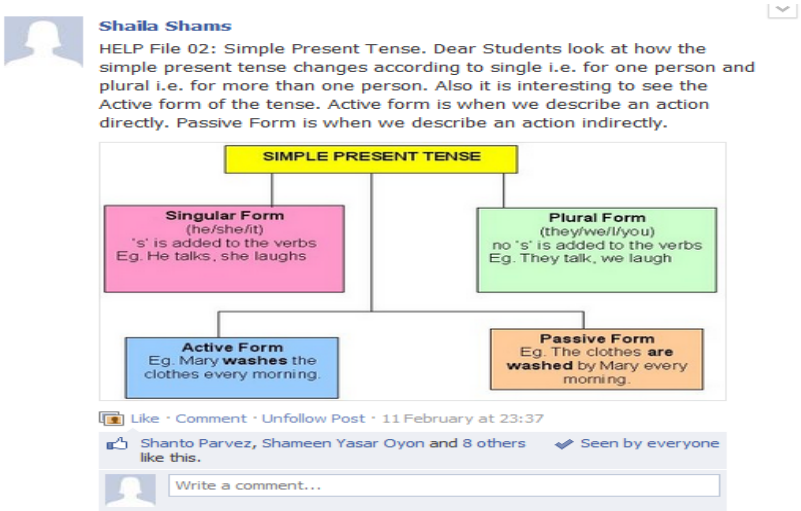
Table 1. Lecture Time Calculation

Samples of Screen Shots of Help Posts, Contest Posts, Result Posts and Students' Posts

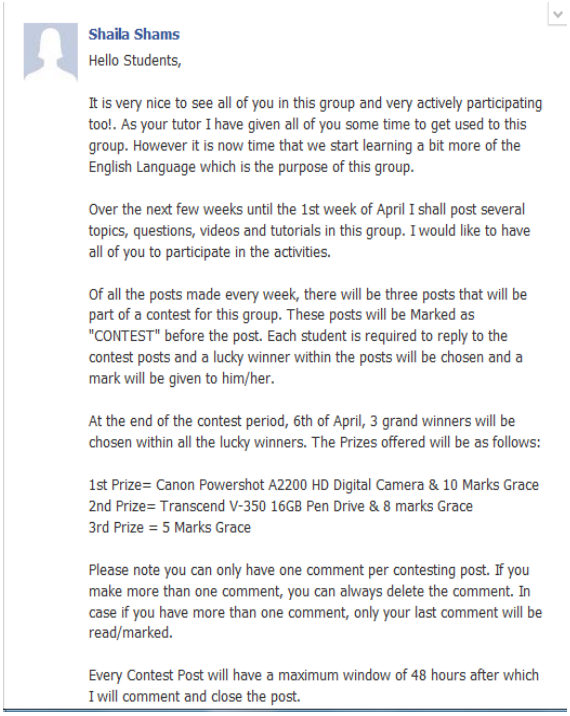
Help Posts



time → / aspect ↓	PAST	PRESENT	FUTURE
SIMPLE	*she worked*	*she works*	*she will work*
CONTINUOUS	*she was working*	*she is working*	*she will be working*
PERFECT	*she had worked*	*she has worked*	*she will have worked*
PERFECT CONTINUOUS	*she had been working*	*she has been working*	*she will have been working*



Contest Posts



Shaila Shams

Hello Students,

It is very nice to see all of you in this group and very actively participating too!. As your tutor I have given all of you some time to get used to this group. However it is now time that we start learning a bit more of the English Language which is the purpose of this group.

Over the next few weeks until the 1st week of April I shall post several topics, questions, videos and tutorials in this group. I would like to have all of you to participate in the activities.

Of all the posts made every week, there will be three posts that will be part of a contest for this group. These posts will be Marked as "CONTEST" before the post. Each student is required to reply to the contest posts and a lucky winner within the posts will be chosen and a mark will be given to him/her.

At the end of the contest period, 6th of April, 3 grand winners will be chosen within all the lucky winners. The Prizes offered will be as follows:

1st Prize= Canon Powershot A2200 HD Digital Camera & 10 Marks Grace
2nd Prize= Transcend V-350 16GB Pen Drive & 8 marks Grace
3rd Prize = 5 Marks Grace

Please note you can only have one comment per contesting post. If you make more than one comment, you can always delete the comment. In case if you have more than one comment, only your last comment will be read/marked.

Every Contest Post will have a maximum window of 48 hours after which I will comment and close the post.

Shaila Shams

Contest Post 2: Dear students, please use WH words to ask questions to the following sentences. Also, remember to write your answers serially, for example :
1.
2.
When you finish the task , send it to me as an email attachment to iubg101@gmail.com. Please provide your full name and in the place of subject, write contest 2.
Your time will be up on 20th February at 11:59 pm.
DO NOT ANSWER ON FACEBOOK
Thank you and Good Luck.

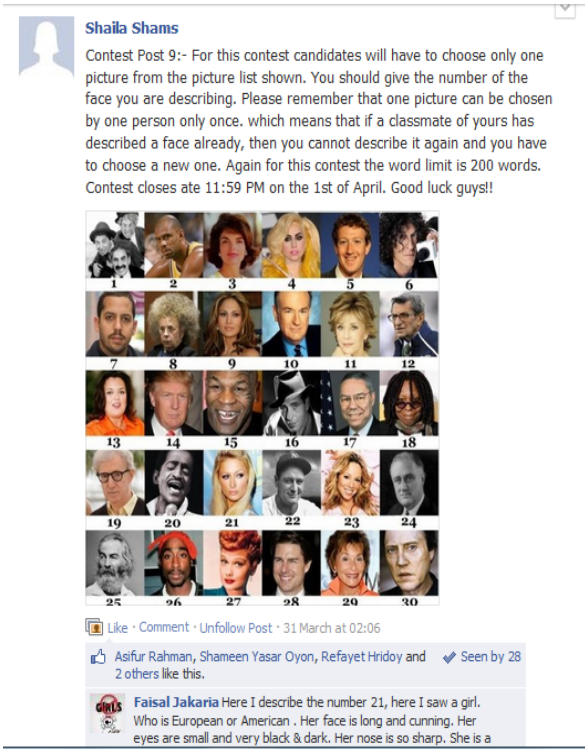
1. I go to school by bus.
2. The train leaves at 8 pm.
3. By walking regularly you can stay fit.
4. She can speak four languages.
5. My parents have two cars.
6. He studies BBA at the university.
7. She ate a sandwich.
8. I did not bring my books today.
9. I want to eat pasta and cheese.
10. I am going to open a bank account.

Like · Comment · Unfollow Post · 18 February at 23:12

Enoy Hasan, Orko ViKings, Asifur Rahman and 9 others like this. Seen by everyone

Asifur Rahman done maam
19 February at 18:09 · Like

Write a comment...



Result Posts

Students' Posts

Integrating Technology in Teaching Students with Special Learning Needs in the SPED Schools in Baguio City

Marilyn L. Balmeo, Erika Mae A. Nimo, Aubrey M. Pagal, Stephanie C. Puga, ArisDafQuiño, Jaleen L. Sanwen

Abstract

Leading-edge creation and development of technologies including those for the children with special learning needs found common place in the educational system. Allowably, this study's focal point engages in the integration of technologies in the educational environments where students with special learning needs are housed. Respondents include 53 teachers employed in the special education schools in Baguio City, who were to determine the availability and effectiveness of technology in their schools and the problems encountered in the integration of technologies. Results indicate that availability and effectiveness of technologies are at limited level and that there are problems encountered in technology integration. This is significant for the achievement of the aim of students with special learning needs for they would be guided appropriately in the development of their skills with the challenges of educational attainment and life itself.

Keywords: Technology integration; Special education; Baguio City SPED schools; Students with special learning needs.

Introduction and Literature review

Technology is a term that originated from the Greek word *technologia*, which is a combination of *techne*, meaning "craft" and *logia* meaning "saying". As a result, technology might be considered the articulation of a craft. In a formal manner, it is a branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society and the environment, drawing upon such subjects as industrial arts, engineering, applied science and pure science (Random House Dictionary, 2013).

Technology, which is known to be a growing part of any society today pervasively, had brought significant changes in the different fields like health, medicine, entertainment, business, trade and commerce, leisure, etc. The use of technology is at least one unavoidable reality twenty years after the introduction of personal computer (Matulac, 2013). Moreover, Matulac (2013) stated that closing our awareness regarding the changes brought by technology would mean death especially to educators. Lensing into education, it is also a key factor on the radical changes in the educational system (Bates, 2011). It turned classroom environment from teacher-centered to student-centered one. It increasingly moved the boundary of educational resources. The use of computer has transformed the traditional concepts of education (Shirley, Philip & Jennifer, 2007) confirming the statements of historic educationists: Thomas Edison (1922) 'motion pictures would replace textbooks in classrooms', William Levenson (1945) 'radio receivers would be as common in classrooms as the blackboard, and B. F. Skinner (1960s) 'new technology devices would vastly increase students' interest in learning' (Norman, 1999). Researchers conducted worldwide indicate that using technology has a positive impact on teaching and learning (Almekhlafi & Almeqdadi, 2010).

Technology's use in education is becoming an increasingly important part of higher and professional education (Wernet, Olliges & Delicath, 2000). The U.S. Department of Education National Center for Education Statistics (NCES) (NCES, 2010) reported that novice teachers were more likely to use computers or the internet to accomplish various teaching objectives. The NCES (2000) cited by Rowand (2000), mentioned that 39% of the teachers surveyed use computers or the internet to create instructional materials, 34% used computers or the internet on administrative record keeping, and less than 10% have reported to access model lesson plans or research and best practices. Almekhlafi and Almeqdadi (2010) stated that teachers with utmost nine years of teaching experience were more likely to report using computers or the internet to communicate with colleagues compared to teachers with 20 or more years of experience.

Some reasons for teachers to use technology in classroom instruction are to promote student agreement, to teach 21st century skills, to stay current, to have hands-on interactive learning, to vary instructional methods, to conduct research, and to communicate (Hakverdi-Can & Dana, 2012; Hechter & Vermette, 2012a). As transformative tools, computer technologies can help all students develop their ability for structured yet flexible inquiry and investigation so that they can link ideas, explore solutions and examine consequences to create value from information (Donovan & Macklin, 1999). Kotrilk and Redmann (2005) pointed out the results of the National Center For Education Statistics (2000) survey to which: 44% reported using technology for classroom instruction, 42% reported using computer applications, 12% reported using practice drills, 41% reported requiring research using the internet, 20% required students to use technology to solve problems and analyze data, 27% had students conduct research using CD-ROMS, 27% assigned students to produce multimedia reports and projects, 23% assigned graphical presentations of materials, 21% assigned demonstrations or simulations, and 7% assigned students to correspond with others over the internet.

However, for many teachers, lack of personal experience with technology presents a challenge. In order to incorporate technology-based activities and projects into their curriculum, those teachers must first find the time to learn to use the tools and understand the terminology necessary for participation in those projects or activities (Starr, 2011). If these technologies are used properly, they can be a tool for teachers as well as for students to help them gain experiences using new technologies. In relation to special education, teachers will need to understand how technology can benefit student learning. Technology can allow teachers to access each and every child's individual learning style while providing a platform where students can work at their own pace. Technology can help teachers balance the limited instruction time by providing activities, project-based learning, and one-on-one coaching and peer support while making learning interactive and fun. Well-employed use of technology in the classroom can allow teachers to tailor learning to student's individual needs while freeing up classroom time, leaving teachers more time for projects, one-on-one coaching, and more creative activities (Starr, 2011).

Moreover, the use of technology needs to be re-conceptualized in areas such as students' and learners' roles in using technology, how technology fits into the curriculum, what teachers should know, how teachers will learn about technology, and how the impact of technology be assessed (Budin, 1999; Kotrilk & Redmann, 2005). As Matulac (2004) and Strommen and Lincoln (1992) mentioned, the key to success lies in finding the appropriate points for integrating technology into a new pedagogical practice, so that it supports the deeper, more reflective, self-directed activity children must use if they are to be competent adults in the future. Girgin, Kurt and Odabasi (2011) further mentioned that not only do teachers need to learn how to use technology but they also need to learn how to apply the technology to teaching and learning, where in they need to know which technologies will most effectively meet children's skills, abilities and needs.

There are really barriers that hinder the effective implementation of technology into classroom teaching and learning, such as factors like access, time, resources, training, attitudinal effects, beliefs, practices, institutional and administrative support, experience, and resistance are as well restraining forces to technology integration (Earle, 2002; Gulbahar, 2008).

The Philippine government initiated that by the end of 2009, there would be a: 1) provision of appropriate educational technologies to all public high schools; 2) provision of a computer laboratory with basic multimedia equipment to 75% of public high schools; 3) provision of electronic library systems to all public science-oriented high schools; 4) training of 75% of public secondary school teachers in basic computing and internet skills as well as in Computer-Aided Instruction (CAI); 5) integration of ICT in all learning areas, when appropriate; and 6) private sector support.

Technology is arguably even more relevant in special education than it is in general education because it makes the complex simple and it addresses the individual needs of the learner (The International Council for Education of People with Visual Impairment, 2007). Similarly, Johanson (1998) posited that to create learning activities and to set up inclusive learning environments that enable the child with disabilities to learn and play along with other children, technology is needed. In addition, Hasselbring and Glaser (2000), pointed out that technology has equalized holistic development by giving opportunities to children with disabilities, their families, and teachers. The integration of technology in teaching to Special Education and in learning has positive influences on students' motivation, attitudes, achievement, and peer interactions in the classrooms (Schofield, 1995). Hence, technology could enhance children's educational, social, and cultural experiences (Girgin, Kurt & Odabasi, 2011; Saba, 2009). Technology is then potential to become a vehicle to make education for all children with disabilities a reality in developing countries (ICEVI, 2007) like

the Philippines. Hasselbring and Glaser (2000) define technology for students with special needs based on federal laws as "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities."

Computer-based technologies' integration into the classroom for regular students is recognized but few have come to the realization that there are great benefits that technologies may afford students with disabilities (Espique, 2009; Hasselbring & Glaser, 2000). A knowledgeable teacher who understands technology's potential for education is involved in the effective technology implementation in the preschool special education classroom or in any classroom (Johanson, 1998). However, Espique (2009) pointed out that many teachers are not adequately trained on how to use technology effectively in their classrooms. Bauer and Kenton (2005) found that teachers, who were highly educated and skilled with technology, were innovative and adept at overcoming obstacles, but they did not integrate technology on a consistent basis both as teaching and learning tool.

Hasselbring and Glaser (2000) and Judge (2001) affirmed that the lack of appropriate technology training in pre-service and in-service teacher education programs is the most cited barrier in using technology in the classroom. They further added that the lack of adequate training has an especial strong impact on students with disabilities because technology is often a critical component in planning and implementing an educational program for them. According to Zhao (2007), most teachers were willing to use technology, expressed positive experiences with technology integration training, increased their use of technology in the classroom, and used technology more creatively.

Kolb (2012) explained that different people naturally prefer a certain single different learning style. Various factors influence a person's preferred style: notably in his Experiential Learning Theory

model (ELT) Kolb (2012) posited three stages of a person's development and suggests that our propensity to reconcile and successfully integrate the four different learning styles improve as we mature through our development stages. He as well mentioned that knowing a person's (and your own) learning style enables learning to be orientated according to the preferred method. That said, everyone responds to and needs the stimulus of all types of learning styles to one extent or another – it is a matter of using emphasis that fits best with the given situation and a person's learning style preferences. In special education, many are limited to direct experience as a part of learning due to some limitations that they acquire. But with the help of technology, experiential learning takes place. In addition, with technology the child with special learning needs will be able to gain a more concrete and more real scenario of what is learned inside the four corners of the classroom. Further, Kolb (2012) mentioned that "learning is the process whereby knowledge is created through the transformation of experience." Thus, transformation of the teaching learning process in the classroom of children with special learning needs could be well acquired through the integration of technology.

Theory of Planned Behavior or Reasoned Action highlights the person's behavior determination through his or her intention to perform the behavior and that this intention is, in turn, a function of his/ her attitude toward the behavior and his/ her subjective norm. Moreover, intention is the cognitive representation of person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. To predict someone's intentions, knowing these beliefs can be as important as knowing the person's attitudes. Finally, perceived controlled behavior control influences' intentions that refers to people's perceptions of their ability to perform a given behavior. In the integration of technology in teaching students with special learning needs, the teachers must as well be oriented in their intention and the intended way they would integrate technology in teaching

so that these students' learning would be catered. There must be planned behavior that would also refer for the teachers' view of technology integration to be more deliberative.

Four areas of technology benefits that have not been thoroughly researched and are applicable to special education and technology has been delineated by Roblyer (2004). First is "research to establish relative advantage," that includes preventing inert knowledge (i.e., skills learned but never used) and increasing cultural awareness and acceptance (e.g., internet projects to encourage appreciation of other cultures and improve attitudes about other ways of life). Second is "research to improve implementation methods" that might include word processing and online chats and conferences. Thirdly is "research to monitor impact on important societal goals" that addresses information literacy and visual literacy skills as part of high quality education for all students. Last is "studies to monitor and report on common uses and shape directions" that address how technologies are used in practice and what impact they have on school life.

This study focused on the last need which is "studies to monitor and report on common uses and shape directions". Specifically, it caters to a) the technologies integrated in classroom instructions in teaching students with special learning needs in the context of Baguio City, b) the extent of effectiveness of the technologies integrated in teaching students with special learning needs in Baguio City, and c) the problems encountered in the use of these technologies in teaching students with special learning needs.

This study can help special educators to have a deeper understanding in the integration of technology in teaching students with special learning needs. Through this study, they will come up with easier and conducive ways to cater the needs of these students. For students, this study can provide clear

lines of information that not all technologies are for gaming, social networking and the like, but they also play a major role in supporting learners in a classroom setting.

Moreover, this study can provide future researchers with more information regarding the use of technologies in teaching students with learning disabilities. On the part of the researchers, this paper can serve as a guide on how to present their lessons in a more meaningful way. It will also make them aware of the needs and difficulties encountered by the learners and address these concerns to make their learning more enjoyable and purposeful.

Methodology

This study utilized qualitative and quantitative approach. For the problems presented, descriptive approach is employed, but predominantly quantitative method is utilized. The survey questionnaire was formulated with the utmost care; hence, survey questionnaire method of formulation was considered. It was validated by the experts in the field of technology and in Special Education; then it was pre-tested at Benguet Special Education Department-Wangal, La Trinidad, Benguet who have 17 Special Education teachers. Using Kuder Richardson Formula 21 to test the reliability of the questionnaire, it was considered reliable.

The self-made questionnaire consisted of 43 named hardware technologies and 13 named software technologies that were assessed with their extent of use using a 4 point Likert scale (4=Always Used, 3= Frequently Used, 2= Sometimes Used, 1= Never Used), and their extent of effectiveness using a 4-point Likert scale (4= Always Effective, 3= Frequently Effective, 2= Sometimes Effective, 1= Never Effective). Moreover, perceived problems in the integration of technology in teaching students with special learning needs were assessed through a yes or no response. If the response is yes it is

equated to be a problem with the scale of 0.51-1.00. On the other hand, if the response is no, it is equated to be considered as a problem and is scaled to as 0.01-0.50.

Participants

The respondents to this study included 53 teachers from the different schools offering special education, namely Special Education (SPED) Baguio, Bridges Learning and Tutorial Center, Easter College SPED Center, Just For Kids Tutorial Center, STI SPED Center, San Lorenzo Ruiz- deaf Resource Center, and Northern Luzon Association for the Blind. These respondents were chosen because they belong to the context of schools who offer Special Education in Baguio City.

Settings and Arrangement

Guided with the letter approved by the Undergraduate Research Coordinator and the Dean of the School of Teacher Education, the researchers personally asked the Schools Division Superintendent for the Baguio City Division, Estela Leon –Cariño, Ed.D., CESO the permission to administer the survey questionnaire in the schools that offers Special Education in Baguio City. In addition, the researchers asked the permission of the school heads of the schools before the questionnaires were administered. The researchers have personally administered the said survey questionnaire to be able to discuss the purpose of the study and the way the survey questionnaire should be answered.

Findings and Discussion

For the acquisition of meaningful learning experiences to develop problem solving and higher order thinking skills and to function in the world beyond the classroom, access to technology is an essential element and its appropriate and successful integration into learning environments has the potential to benefit all students (Blair, 2003). Only over 53% of the teachers do not routinely use

technology in the classroom and over half of the students responding to questionnaires reported that they use technology no more than once a week, unfortunately, this was the result in a large scale of the nationwide survey of teachers, students, and administrators (Abbott, 2003). In the report made by Rodriguez (2007), the Philippines is ranked 48th in terms of preparedness and ability to absorb advances and growth in information and communication technologies (ICT) among the 55 nations included in the Information Society Index (ISI).

Study results show that in the special education schools in Baguio City, there is integration of technology, but not to an extensive level. This is in accordance to the fact that there is a relative relationship between availability and effectiveness in the integration of technology. Ergo, the three main concepts of this study that affects and collaborates together for the successful integration of technology in teaching students with special learning needs include availability, effectiveness, and the problems encountered.

Table 1. Most available technology integrated in teaching students with special learning needs

Rank	Technology	Mean	Descriptive Indicator
1	Whiteboard	2. 8490	B
2	Multimedia Software	2. 5492	B
3	Dictionary	2. 5094	B
4	Computer	2.4905	C
5	Clock	2.4716	C

Table 1 shows the most available technologies that are integrated in teaching students with special learning needs with the following descriptive indicator: A- Always used (3.25- 4.00); B- Frequently used (2.50- 3.24); C- Sometimes used (1.75- 2.49); D- Never used (1.00- 1.74)

With the weighted mean of 2.8490 signified to be frequently used, whiteboard resulted to be one of the most available technologies in teaching students with special learning needs in the SPED schools in Baguio City. It is approximately used three times a week for classroom interaction. With the observation in the schools, whiteboard is commonly utilized by teachers and students for writing (through the use of a whiteboard marker) and for projecting pictures, videos and texts (through the

use of either an overhead projector or an LCD projector). With its affordability, considering its type and size and with its usability for the betterment of the teaching- learning process, schools made a way to provide it. A respondent said *"I handled deaf students in my Algebra. I do not allow them to use calculators. My style of teaching makes use of whiteboard markers and whiteboard since Algebra usually involves computation in problem solving".*

With a mean of 2.5492 interpreted as frequently used, Multimedia Software resulted to be the second most available technology in teaching students with special learning needs. Experts advised that teachers may use multimedia software to present more interactive, motivating, and relevant and plenty of action and novelty mannered lessons (Sponder & Hilgenfeld, 1994). Moreover, the electronic means of linking various media in new and different ways in activities that can facilitate fundamental learning and thinking is the educational role of multimedia (Haselbring & Glaser, 2000). To affirm, multimedia can help deepen students' conceptual understandings by linking visual imagery and sound effects to information that is difficult to understand when presented in text alone (Hasselbring & Glaser, 2000). The aforementioned roles of multimedia software and its accessibility have furnished its result to be used recurrently in the classroom. Although, there is extensive debate about the efficacy of laptop computers in the classroom, several studies have identified benefits such as keeping students on task and engaged (Hyden, 2005), and helping students follow lectures via PowerPoint or multimedia (Lauricella & Kay, 2010).

The third most common technology with a mean of 2.5094 is dictionary. It is an essential tool for teachers and students especially when it comes to words. Dictionary is as well the most reliable source for defining words. In a study made by Man (1998) it was found out that there is a total of 66% of the students who answered they would use a dictionary very often or quite often during term

time. This tool is an exemplary tool for both students and teachers to be able to develop their sense of communication. This comes in an affordable price depending on its type, size and publication. Its affordability contributes to its accessibility and availability

The computer with the mean of 2.4905 is one of the most available technologies in teaching students with special learning needs in the SPED schools in Baguio City. The researchers observed that, in order for the students to experience manipulating the computers, a computer laboratory is taken as a set-up. Moreover, other set-up noted from Tinio (2002) "in cases where no classroom is available at all to be turned into the school's computer room, computers are housed in the principal's office or other administrative rooms". The limited number of available computer units may have decided the schools to plan for a computer laboratory instead of having all classrooms equipped with computers. Moreover, Rodriguez (2007) cited that the National Teacher Survey (2005) found that only 13 percent of teachers have one computer for every two or three students, and 10 percent have one-to-one (1:1) ratio. When asked what the best ratio is for classroom teaching, a majority (54 percent) of teachers replied that 1:1 would be their preference. The survey made in 2002 by the Philippine Senate Committee on Education, Arts and Culture to the South-East Asian Ministers of Education Organization Regional Centre for Educational Innovation and Technology (SEAMEO INNOTECH), reveals that there are only about 5,217 (14.28 percent) schools who have computers in the Philippines (Rodriguez, 2007).

With the mean of 2.4716, clock is interpreted as frequently used. Scheduling of tasks is important to humans. Work, personal care, transportation, and recreation are known to be included as life skills which could be succeeded if there would be an employment of time management skill to direct the tasks under the aforementioned tasks (Green, Hughes & Ryan, 2011). In education, activities and

classes are needed to be scheduled, that is where clock enters. They may be always utilized knowing that they are hanged on walls for time reference, but in this study, the focus points out on its usage in the teaching- learning process. It is asserted that over the last few years there is decrease on the way of describing time and this is made by moving away from analogue clocks proceeding to the utilization of digital clocks which are always accurate (Cotton, 2010).

Table 2. Least available technology integrated in teaching students with special learning needs

Rank	Technology	Mean	Descriptive Indicator
56	Abacus	1.0000	D
55	Vibrating Watch	1.0556	D
53.5	Talking Calculator	1.1320	D
53.5	OCR	1.1320	D
52	Raised Line Paper	1.1538	D

Table 2 shows the least available technologies that are integrated in teaching students with special learning needs with the following descriptive indicator: A- Always used (3.25- 4.00); B- Frequently used (2.50- 3.24); C- Sometimes used (1.75- 2.49); D- Never used (1.00- 1.74).

Abacus (mean= 1.000), Vibrating watch (mean= 1.0556), talking calculator (mean= 1.1320), Optical Character Recognition (mean= 1.1320) and raised line paper (mean= 1.1538) are included in the least available technologies that are integrated in teaching students with special learning needs in the SPED schools.

Abacus, an old time's calculator, is not widely used and is less and less popular in the system of today's learning scenario. As for the vibrating watch, Green, Hughes Ryan (2011) posited that it is used as a self-regulation and time management tool for students and for people with Intellectual Disability. For the talking calculator, it is only aimed at students with visual impairment. On the part of the raised line paper, a low-tech tool for teaching line orientation is essential to students with dysgraphia or difficulty in writing and for mathematical computations if students experience difficulties aligning their work (Ministry of Education and British Columbia School Superintendent's Association, 2011).

On the other hand, Optical Character Recognition (OCR) existence had brought blind students' ability to place books or other print materials on a scanner and to have the text interpreted and read using synthetic or digital speech. However, Gold and Lowe (2009) acknowledged that it is a high-technology device that costs more than $3, 000.

Table 3. Most effective technology integrated in teaching students with special learning needs

Rank	Technology	Mean	Descriptive Indicator
1	Whiteboard	2.7169	B
2	Computer	2.6792	B
3	Dictionary	2.5849	B
4	Clock	2.5471	B
5	Laptop	2.3962	C

Table 3 shows the most effective technologies that are integrated in teaching students with special learning needs with the following descriptive indicator: A- Always effective (3.25- 4.00); B- Frequently effective (2.50- 3.24); C- Sometimes effective (1.75- 2.49); D- Never effective (1.00- 1.74)

The study reveals that the use of whiteboard (mean= 2.7169) is frequently effective in teaching students with special learning needs. Boards had a beneficial impact in motivating and getting the attention of students with special learning needs that gears towards effective teaching-learning process (Somekh et al., 2006). Whiteboard nowadays is essential in the delivery of lessons in the educational setting. It comes in different sizes and types that make it more accessible and easy to handle. It may be permanently placed in the classrooms.

Computer's extent of effectiveness have encircled the mean of 2.6792, which is under frequently effective. In addition, the survey of the National Teachers Survey (2005) revealed that teachers rank computers as most effective for working on reading skills, writing skills, math drills and critical thinking skills. To support, Gokhale (1996) mentioned that integration of computer simulation into traditional lecture-lab activities enhances the performance of the students. Guided computer simulation activities can be used as an educational alternative to help motivate students into self-discovery and develop their reasoning skills. Moreover, many studies (Christmann, Badget &

Lucking, 1997; Dwyer, 1994; Kulik & Kulik, 1991; Liao, 1992; Losak & MacFarland, 1994; Sivin-Kachala & Bialo, 1996) have shown that computers at school can have a beneficial effect not only on student achievement but also on students' learning motivation, on classroom atmosphere, and on the teachers' willingness to experiment with new and innovative instructional approaches (Schaumburg, 2001).

This study also reveals that dictionary (2.5849) is frequently effective. This revolves to the notion that its impact on the betterment of the teaching-learning process is great. Boonmoh (2003) claimed that dictionaries are beneficial and facilitative in the teaching and learning context. Moreover, its effectiveness involves skills and strategies that students acquire not only about dictionaries but also about language (Man, 1998). In a study conducted by Dziemianko (2010) as cited by AlBulushy (2012), to determine students' actual use, the students consulting the electronic dictionary performed much better than those using the paper dictionary. Those who support the use of the dictionary presume that it is more useful with receptive and productive tasks. They also argue that it is a better learning tool since its use affects students' withholding of meaning and gives higher chances for more effective recovery of learned words. More recent studies (Chan, 2011, 2012; Frankenberg-Garcia, 2011; Laufer, 2011) have proposed improving learners' language awareness as part of dictionary-skills training.

Clock's extent of effectiveness reaching the mean of 2.5471 is specified to be frequently effective. This technology is observed to be effective in the way the tasks of the students are assessed. Schedule and duration in an activity where the students work are the areas that the teachers as respondents consider.

Laptop, having been effective in its integration to classroom activities with the result as a basis earning 2.3962, is concluded to be sometimes effective. Noted that, in the report made by Demb, Erickson and Hawkins-Wilding (2004) mentioned by Lauricella and Kay (2010) 16% of overall laptop use involved typing papers. On the other hand, Arend (2004) noticed that laptops are being used in bulk for writing papers, using software programs, searching the Internet, and completing group projects.

Table 4. Least effective technology integrated in teaching students with special learning needs

Rank	Technology	Mean	Descriptive Indicator
52	Vibrating Watch	1.2264	D
53	Dual Time Watch	1.2641	D
54.5	OCR	1.3018	D
54.5	Talking Calculator	1.3018	D
56	Smart Board	1.3996	D

Table 4 shows the least effective technologies that are integrated in teaching students with special learning needs with the following descriptive indicator: A- Always effective (3.25- 4.00); B- Frequently effective (2.50- 3.24); C- Sometimes effective (1.75- 2.49); D- Never effective (1.00- 1.74)

Included in the technologies assessed to be never effective are vibrating watch (mean= 1.2264), dual time watch (mean=1.2641), optical character recognition and talking calculator mean which have the same mean at 1.3018, and smart board (mean= 1.3996). The vibrating watch and dual time watch are utilized for time. A clock may have been used to surrogate their function in the classroom instruction. To have a clear view, it is asserted that over the last few years there is decrease on the way of describing time and this is made by moving away from analogue clocks proceeding to the utilization of digital clocks which are always accurate (Cotton, 2010).

Optical Character Recognition, talking calculator and Smart Board are signified to be never effective. From the allowable time, the researchers have not really come across Smart Board and Optical Recognition Character in the schools that served as respondents. This may have been due to the fact that the schools could not provide it for they are of high value. For example, the SMART board costs

$5000, depending on size and features for its installation only, not considering the material itself (Preston & Mowbray, 2008). Moreover, because of its non-provision, teachers have not come across it yet- thus concluding for these technologies to be not effective in their presumption.

Table 5. Most common problem in integrating technology teaching students with special learning needs

Rank	Statement	Mean	Descriptive Indicator
1	The school does not provide the existence of new technologies due to its cost.	0.5577	P
2	My students have no sufficient hardware and software skills that make instructional time being consumed by technical issues rather than the content of the lesson.	0.5192	P
3	There are limited available technologies to be used in my classroom.	0.5	p

Table 5 shows the problems encountered in the integration of technology in teaching students with special learning needs with the following descriptive indicator: NP- not a problem (0.01- 0.50) and P- problem (0.51- 1.00)

Hasselbring and Glaser (2000) mentioned that one of the serious considerations for all schools is the cost of the technology needed to help students with disabilities participate in regular classroom settings, especially the computer systems needed for students with more severe disabilities. Moreover, it was cited that funding for technology can be obtained from a variety of sources, but these sources are not always adequate. For example, two federal acts attempt to address the needs of students with disabilities, but their goals exceed their funding levels.

However, because of limited funding, school districts are not obligated to purchase a specific computer technology, even if it is identified as potentially beneficial. Individual schools are often hesitant to provide the necessary technology because they must fund these purchases themselves rather than rely on the school district's resources (Hasselbring& Glaser, 2000). Tremendously, cost of technologies varies from upwards of $3, 000 for certain high- tech devices and as little as a few dollars for low- tech devices as it was confirmed from Gold and Lowe (2009). It is accepted as well that "many AT electronic devices are expensive, hard to use and hard to keep track " (Green, Hughes & Ryan, 2011).

"My students have no sufficient hardware and software skills that make instructional time being consumed by technical issues rather than the content of the lesson", garnered a mean of 0.5192. The result indicates technological knowledge to be a problem in technology integration. Hence, technological knowledge must be modeled and emphasized (Ludlow, 2001; Martin, 2004; Martin & Crawford, 2004; Martin & Crawford, 2005). Students are perceived to acquire basic skills regarding technology manipulation by the end of their fourth year according to the school's goals (Tinio, 2002). The basic skills targeted include operating a computer and writing documents with a word processor, calculating with spreadsheets or writing simple programs. It is remarkable that with this set- up, students are still on their way to suffice their skills in handling the technologies available. However, Wartella, Schomburg, Lauricella and Robb, Flynn's study (2010) suggested that technology must be introduced to children before the age of 3. Furthermore, operational skills, functional skills, strategic skills, and social skills are important skills in successfully incorporate technology (Green, Hughes, & Ryan, 2011; Behnke & Bowser, 2010).

Having a mean of 0.5, teachers employed in the special education schools noted that there are limited available technologies to be used in their classrooms. In surveys conducted, some schools reported that principals decided that all the computers that were received from the Department of Education will be placed in their office as an interim measure while waiting for a secured computer room. Computers are made available to students' use although clearly, the set up is not ideal and may limit access (Tinio, 2002). Reiterating the experiences of most schools, technologies with limited numbers are handled by the principals or the heads and are reserved by the teachers if ever they are needed. This denotes that there are no permanently situated technologies in the classrooms. Another thing considered is the security of the technologies, where some classrooms in the schools do not really have security tools (e.g., security locks).

Table 6. Least common problem in integrating technology teaching students with special learning needs

Rank	Statement	Mean	Descriptive Indicator
12.5	I don't have sufficient knowledge in manipulating technology in my classroom.	0.0769	NP
12.5	The technology does not improve my creativity.	0.0769	NP

Table 6 shows the statements assessed as not included as problems encountered in the integration of technology in teaching students with special learning needs with the following descriptive indicator: NP- not a problem (0.01- 0.50) and P- problem (0.51- 1.00)

Sufficient knowledge in manipulating the available technologies in the classroom (mean= 0.0769) have been noted to be one of the least common problems in the integration of technologies in teaching students with learning needs in the SPED schools in Baguio. Bauer and Kenton (2005) found that teachers, who were highly educated and skilled with technology, were innovative and adept at overcoming obstacles (Almekhlafi & Almeqdadi, 2010). Gulbahar (2007) as cited by Almekhlafi and Almeqdadi (2010) stated that teachers and administrative staff felt themselves competent in using ICT available at the school. Moreover, the survey result that newer educators were less likely to believe their training to use technology in several areas was adequate, but they were still more likely to be satisfied with their overall knowledge and ability to use technology. This is in contrast to what is practiced wherein computer training for further skills enhancement is only duly implemented in the high school level- specifically in the area of Technology and Home Economics (THE) (Rodriguez, 2007).

Technology not improving the teacher's creativity (.0769) is also one of the least common problems. In reference to creativity, knowledge on manipulating technology may have brought the teachers and respondents to discover the unlimited capabilities of technologies that could allow them to express their creativity. In addition, it is known that as teachers integrate technology they could come across an evolutionary process (Sandholtz & Ringstaff, 1997; Dwyer, 1999) which includes entry, adoption, adaptation, appropriation, and invention (Kotrlik & Redmann, 2005). Anent this, assurance that

through the extraordinary storage and delivery capabilities of computers and advancements in software and communications technologies today by the educators, it is possible to present learning information in new meaningful ways, engage various senses, record and assess learner's choices and performance, and suggest remedial feedback based on the learner's performance (Akour, 2006).

The study shows that there are available technologies integrated in teaching students with special learning needs but to a limited level only. Much of these technologies are provided by school themselves. Some technologies available in the schools that served as respondents depend on the students that they cater. The generally used technology-computers, dictionaries, clocks, whiteboards, etc- could be observed in the schools. On the other hand, technology utilization, when teaching students with special learning needs is effective. This is because it helps not only the teachers to deliver well the learning, but also the students to be able to effectively grasp the learning. Thus, teaching-learning process is undertaken more effectively with the use of technology. Results show that there are problems encountered when integrating technology in teaching students with special learning needs. Some of which have been noted to be on the side of the teachers, some problems could be observed because of the students and some were from the technologies themselves. Observantly, these have affected the flow of the teaching-learning process.

Conclusion

In this study, the respondents included 53 teachers from the different schools offering special education in Baguio City. They answered to a self-made questionnaire consisting of 43 named hardware technologies and 13 named software technologies. Whiteboard resulted to be one of the most available technologies in teaching students with special learning needs, followed by Multimedia Software and electronic dictionary.

With the data collected from the teachers themselves, technology integration appears to be an effective method in teaching students with special needs, whether this technology may be in software or in hardware form. Various factors, including time, knowledge in manipulation, financial resources, and the availability of this technology has affected teaching efficiency and student learning. Anent these factors, the administration, teachers and the students are considered to be the main proponents in the integration of technology for teaching-learning process to take place effectively.

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Faculty Attitudes about Distance Education

Esther Smidt, Brian McDyre, Jennifer Bunk, Rui Li, Tanya Gatenby

Abstract

In recent years, there has been a dramatic increase in distance learning in higher education. Given this, it is extremely important to understand faculty attitudes about distance education, not only because they can vary widely, but also because it is the faculty, through their design and implementation of online courses, that will shape the future of distance education. The purpose of the present study is to uncover faculty attitudes about distance education in a specific context, namely that of a mid-sized mid-Atlantic state university. Data sources consist of posts from two of six discussion boards written by 21 faculty participants during an Online Faculty Development Program. Findings are categorized according to (i) philosophical discussions about collaboration, online versus face-to-face courses, and anonymity, (ii) practical discussions about instructor workload and small group discussions, and (iii) practical applications on the incorporation of discussion boards, access, and guidelines for discussion board use. The study ends with course design and faculty training implications.

Keywords: Distance Education; Faculty Attitudes; Effective Practices.

Introduction

In recent years, there has been a dramatic increase in distance learning in higher education. In 2013, the Instructional Technology Council (ITC) reported that the enrollment of students in online courses continues to increase at a higher rate than overall student enrollment at colleges and universities. Between Fall 2012 and 2013, those colleges and universities participating in the ITC survey reported a 5.2% growth rate in online student enrollment. The Department of Education Integrated Postsecondary Education System (IPEDS) reported in Fall 2012 that 26.5% of community college students and 26.5% of undergraduates at four-year institutions enrolled in at least one distance education course. While online enrollment has continued to show growth since 2004, this survey found that overall student enrollment is declining and this is particularly evident at colleges and universities that offer programs for working adults (Lokken & Mullins, 2014).

Faculty, however, have been resistant to online teaching, especially because the demands are higher compared to traditional courses (Murphy, Levant, Hall, & Glueckauf, 2007). The results of the 2013 ITC survey found that engaging faculty in online pedagogy was one of the top two concerns reported by distance education administrators when asked to rank their greatest faculty challenges (Lokken & Mullins, 2014). Conversely, Rudestam (2004) also reported that distance education instructors describe positive experiences such as collaborative learning and rich online discussions. It was found that discussion boards fostered an environment where students could develop higher-order thinking. This study concluded that online discussion boards are ideal teaching tools that can foster collaborative learning, create environments where students can interact with their professors and each other, and engage students in debate and discourse that otherwise would not be available in a distance education course (Bradshaw & Hinton, 2004). It is thus important to understand faculty attitudes about distance education, not only because they can vary widely, but also because it is

faculty, through their design and implementation of online courses, which will shape the future of distance education.

The purpose of the present study is to uncover faculty attitudes about distance education in a specific context. To achieve this, we will be qualitatively analyzing faculty discussion forum posts that occurred during an Online Faculty Development Program at a mid-sized mid-Atlantic state university. To guide our thinking, we asked two related questions:

1. What do faculty think about distance education?
2. What do faculty think about discussion forums?

We expand upon previous research by applying the theoretical lens of constructivism to understanding faculty attitudes about distance education in a specific university context. Our research thus has the potential to make both theoretical and practical contributions. Theoretically, we add to the existing body of knowledge surrounding constructivism. Practically, our application of constructivism will result in pedagogical suggestions with the aim of increasing the effectiveness of online learning.

What follows is a literature review centered on constructivism in distance education. We present the theoretical background as well as the benefits and shortcomings of applying constructivism to online learning. This literature review will provide a useful framework for understanding the diverse faculty reactions to distance education that are revealed in our qualitative data.

Review of Literature

Following constructivism's emergence as the most widely accepted view of human learning in the 1980s (Liu & Matthews, 2005), it also began to inform the majority of pedagogical approaches

employed during the genesis of distance education (Dass, Dabbagh, & Clark, 2011). Constructivism remains the most common grounding theory in distance learning, where the instructor's goal is to foster a collaborative, reflective, learner-centered virtual classroom environment which focuses on active, task-based learning through socially constructed knowledge (Dass et al., 2011; Jonassen, Davidson, Collins, Campbell, & Haag, 1995). In today's technological climate, many scholars have noted particular advantages of a constructivist approach to distance education, especially the opportunities for reflective, critical thinking via discussion boards, task-based activities using virtual worlds, and collaboration using online grouping strategies.

Success Factors in Distance Education

A review of the literature associated with success factors in distance education reveals several substantial links with a constructivist approach. Bolliger and Wasilik (2009) established student-related issues as "the most important factor influencing satisfaction of online faculty" (p.112), suggesting a student-centered approach to online pedagogy that is consistent with constructivism. Menchaca and Bekele (2008) found situated, social learning to be the most important success factor related to pedagogical strategies as identified by both students and instructors. This sense of value for community is echoed in a case study by Agosto, Copeland, and Zach (2013), in which the use of blogs was found to promote knowledge sharing and reflective thought in a manner that was more effective than a traditional face-to-face model. Shenk, Moore, and Davis (2004) similarly found that online discussions inevitably led to higher levels of student satisfaction in which everyone was heard, higher levels of trust and mutual support among students, and a more thoughtful and relevant exchange of ideas. Overall, these findings strongly endorse the generally accepted position that

student learning outcomes are positively correlated with faculty satisfaction (Fredericksen, Pickett, Swan, Pelz, & Shea, 2000; Hartman, Dziuban, & Moskal, 2000).

The evolving role of the instructor as a facilitator of learning and a guide through knowledge acquisition is a well-established principle of a constructivist approach (Baran, Correia, & Thompson, 2013; Honebein, 1996), and persists as a determinant factor for effective distance learning. A case study by Baran et al. (2013) cited "changing roles" as the most prominent strategy for success as identified by instructors who were nominated as exemplary in online instruction. Shenk et al. (2004) also found in their case study that those discussions in which the instructor moderated or facilitated discussion were most productive, and intervened only when they deemed it necessary. Indeed, Eskey and Schulte (2012) asserted that "[t]he discussion board is the focal point of the online course classroom." The importance of such a pedagogical approach was further substantiated through a large-scale questionnaire study by Olson (2005) in which students (n=185) identified the instructor and his/her ability to facilitate classroom interaction as one of three key factors crucial to success. Elsewhere, other researchers have identified interaction as the most critical factor necessary for success (Simmons, Jones, & Silver, 2004).

The opportunities afforded by technology to allow for examination of meaningful, authentic learning environments through active participation as emphasized by constructivism (Herrington, Reeves, & Oliver, 2006; Honebein, 1996) have likewise been well-documented by recent research. Tam (2000) offered numerous such opportunities that wouldn't be otherwise possible without contemporary technology, such as virtual tours and field trips, and exposure to multiple perspectives on a topic from multiple sources all over the world.

Menchaca and Bekele's (2008) study revealed "multiple tools" to be the most prevalent category of success factors, with citations emphasizing how the variety of instructional tools appealed to multiple learning styles and allowed for types of interaction that could occur spontaneously and from many separate locations. Participants also were quick to note that participation was more evenly distributed when utilizing multiple tools, allowing those students who were less likely to participate in a face-to-face class to become engaged and active in the online learning environment. Means, Toyama, Murphy, Bakia, and Jones (2009), further clarified that it was the perceived ease of technology use that multiple tools afforded that was the defining factor rather than the inclusion of more technology per se.

Obstacles to Distance Education

Although constructivism has been shown to widely inform pedagogical approaches during the development of the distance education model, certain barriers and limitations have been identified by observing the application of theory to practice. Huang (2002) identified some of these key issues relating to constructivism as: (1) a potential for learner isolation in the absence of face-to-face social interaction, (2) the potential for erroneous learning to occur in a context where a student is learning primarily from peers and not the instructor, (3) a lack of willingness on the part of the instructor to accept a new role as facilitator rather than presenter of material, (4) difficulty associated with assessment and evaluation in an online learning environment, and (5) the incompatibility of collaborative learning approaches among groups with significant individual differences, such as adults at the university level. A factor analytic study by Muilenburg and Berge (2005) revealed student-identified barriers similar to those enumerated above, with instructor-related issues (#3, #4) receiving the highest ranking, followed by lack of social interaction (#1).

While pedagogical issues persist at the forefront of the discussions of both success factors and obstacles to distance education, there has been no shortage of research reporting on external factors which impact the distance learning experience. Hogan and McKnight (2007) found that instructors of online university-level courses reported high levels of depersonalization along with low sense of self-accomplishment, which could have negative effects on faculty motivation. Furthermore, many faculty report low levels of motivation to participate in distance education due to variables such as unfair compensation for time and workload, lack of administrative support and technical training, and inadequacy of resources (Bolliger & Wasilik, 2009).

Having explored constructivism and its application to distance education, focusing in particular on its success factors and obstacles as implemented in online learning, we move next to discovering faculty attitudes about distance education as demonstrated in one particular context, namely a mid-Atlantic mid-sized state university.

Methodology

As indicated in the Introduction, the research questions of this qualitative study are:

1. What do faculty think about distance education?
2. What do faculty think about discussion forums?

Data sources consisted of posts from two of six discussion boards written by 21 faculty participants during the Winter 2012 Online Faculty Development Program held in January 2012 at a mid-Atlantic mid-sized state university. The two selected discussion boards (italicized) were chosen because they demonstrated "rich, 'thick' description" (Merriam, 1998, p.29):

1. Online Student Orientation Assignment
2. *Engage Online Learners Discussion*

3. Effective Online Assessment Discussion
4. Accessible Course Design Discussion
5. Copyright and Library Resources Discussion
6. *Effective Online Discussion*

The prompt for "*Engage Online Learners Discussion*" was:

- Please post your response to the following prompts by **January 9th**.
- Please read and respond to at least 2 postings from other members by **January 10th**.
- Identify an activity that you are currently using in your face-to-face class.
- Discuss how this activity can be transformed to an online activity to engage students.
- Refer to activities discussed in Conrad & Donaldson's Chapter 5-10 if needed.

The prompt for "*Effective Online Discussion*" was:

- Design a small group discussion activity for one module in your online course and post that activity in this discussion forum.
- Your activity should include the objectives for the module as well [as] a description of how students will be assessed.

Using the qualitative software, NVivo 10, the first three co-authors coded the data via both literature-informed coding as well as arising themes, resulting in a list of codes based on topics. We then recoded the data, resulting in the following nodes:

Table 1. Nodes

Nodes	References
Role of Instructor	
Class Management Strategies	44
Assessments and Expectations	28
Time Management	13
Teacher-Student Communication	6
Collaboration	40
Other Benefits of Online Format	29
Anonymity	3
Photo	13
Anonymous Comments	8
Access to Content	
Expanded Access to Content	15
Limiting Access to Content	7
Workload	
Workload for Students	12
Workload for Instructors	8
Technical Concerns	19
Engagement	11
Higher Engagement Levels	4
Learning Outcomes	
Increased Learning Outcomes	9
Decreased Learning Outcomes	1
Class Size	9
Participation	8
Impact on Teaching Philosophy	6
Administrative Support	4
Types of Learners	1

Finally, we conducted triangulation by selecting representative excerpts.

Discussion

The discussions that the faculty had in the discussion forums can be categorized according to:

- philosophical discussions,
- practical discussions, and
- practical applications.

Philosophical Discussions

Collaboration

The Online Student. The first area of philosophical discussion revolves around the nature of the online student. According to AR, "the traditional student is the non-traditional student in most online programs today"—a working professional with the potential for direct real world application of content in the workplace because of their non-traditional student status, highlighting constructivism's emphasis on meaningful, authentic learning (Honebein, 1996). For example, some professors shared about their students' requests to allow the discussion boards to be kept active even after their courses were over:

- "In a summer class I taught several years ago, the students were so engaged in the Discussion Board that they asked if I could make it continue after the course was over. I did, and they did. I would log back into that course over the fall semester, and they were still in there, chatting away. Remarkably, they were chatting about course CONTENT! Obviously, not all of them stuck with it, but there were 7 or 8 of them that just hung on. They really wanted to see this one idea through". (NN)
- "Students in my course continue sharing in the Discussion Board after the course is over as they implement their teacher leadership plans. They appreciate the support, advice, and encouragement from their peers who are teaching in different contexts but often face the same challenges." (EO) This excerpt is also reminiscent of Shenk et al.'s (2004) findings of trust and mutual support among students.

The potential for real world application, whether arising from a personal connection or professional interest—"[students discussing] their own athletic injuries or ask[ing] questions about some of the

injuries that they see in professional sports" (LR)—is a distinction that should be capitalized, particularly with the working professional online student. Indeed, EO stated:

> "I generally touch base with students via e-mail during the fall semester after they return to school to follow up on the goals and plans they discussed during the summer. It might be interesting to keep the online group discussion going after the course is over so the teachers can help and support each other."

EO's statement exemplifies the professor's changing role from that of sage on the stage to that of "moderator/manager in online education"—or Honebein's (1996) assertion of instructor as a facilitator of learning—with the concomitant need for "organization, feedback, and clarity" (AR).

Online versus Face-to-Face Courses

Concerns about Course Conversions. As would be expected in an Online Faculty Development Program, there was much comparison between online and face-to-face courses, particularly in the voicing of concerns about the conversion of face-to-face courses to online courses. NN shared "My main concern about moving course content "online" is that the discussions won't be as rich, or as interactive." TS added "I do struggle with some students not consistently using theory and/or content in their responses and not going back on to the "board" to respond besides the required amount, even if a question is raised to them."

More specifically, concerns were voiced about the workload increase for students in the conversion from face-to-face to online courses. Even without having to learn to use new software, tasks appeared to take longer to complete online. With the addition of learning to use new software like Prezi, "a learner who is new to an online course may find it a course within itself to master the application before the end of a semester, so deference to a more experienced person may happen"

(AR). In view of this, limiting tasks to the most essential tasks, providing students with software options (e.g. Prezi or PowerPoint), and "assign[ing] an approximate time to each [course] element" (ER) would be helpful.

Besides general conversion and workload concerns, there was also the tendency, albeit inappropriate, of expecting a one-to-one conversion or reproduction effect from the face-to-face to the online environment, as demonstrated by "I think the laughing is half the fun. I wonder how you would get the same effect on line." (YK)

Increased Learning Outcomes. In contrast with the concerns expressed above, and the expectation of a one-to-one conversion or reproduction effect, there was the understanding that converting a face-to-face course to an online course changed the very nature of the learning experience even though similar learning outcomes could be obtained. In fact, there was some sentiment that learning outcomes could be increased—that there were activities that could be completed in the online environment that might not have been possible to conduct or might have been more difficult to complete in the face-to-face environment. This sentiment is explained by the RAT Framework (Hughes, 2005), which explores the possibility (and recommendation) that technology use should not replace (R) face-to-face activities. Instead, it should be used to amplify (A) or transform (T) what already occurs in the face-to-face environment. NE shared:

> "I'm intrigued by the idea that online discussion may be more substantive that in-class discussion. That seems to argue that you can accomplish MORE rather than less in the online version?"

This possibility certainly fits constructivism's claim of collaborative learning and socially constructed knowledge (Dass et al., 2011; Jonassen et al., 1995).

Amplified technology use is hinted at in these excerpts:

- "I don't normally do discussions in general chemistry – so sad! We are so focused on solving problems that we rarely discuss anything, except of course, how to solve the problems. … So, I am thinking about how I could do discussions online that will engage students to think about other important things such as: ethical issues that scientists face, the influence of science on politics, the influence of political situations on science, the lack of diversity among scientists and the effect this might have on what scientific questions are studied, how they are studied, and how the results are interpreted, and the myths and stereotypes associated with science and scientists." (IN)
- "I too think the value of having students view themselves in a discipline specific context is important through video-recording … The activity you describe would work great in the online environment. I think non-verbal communication skills (i.e. body language, voice, posture, eye contact etc) is something that is hard to teach students and have them retain unless it is in the discipline specific context they will use in the future. Certainly we can lecture about what is appropriate vs non-appropriate and they will "hear" us but will the importance of the information be learned. The use of videotaping and debriefing with all of the students will be very beneficial to teaching these skills in a way that the students value as being important to their future as musicians." (TS)

Anonymity

The third area of philosophical discussion pertains to anonymity involving the use of photos and anonymous comments.

Photos. There was an intense discussion about the advantages and disadvantages of having students post pictures of themselves. Among those in favor of having students post a picture of themselves was LN who stated "In my view, a community of readers is more readily established in the presence

of familiarity than in anonymity" and IT who believed "posting a picture of the students themselves is valuable to give a 'human' face to an online course." These sentiments seem in line with constructivism's emphases on situated, social learning (Menchaca & Bekele, 2008) and trust and mutual support among students (Shenk et al., 2004).

AR in particular believed very strongly that student photos should not be posted because "students take online classes for a variety of reasons: anonymity, convenience, equity, privacy, time, transportation, etc." When she surveyed close associates, five of six revealed that they did not post photos for reasons "rang[ing] from equity concerns to personal privacy." AR was particularly concerned about the propensity for stereotyping in the online environment:

- "The online version seems invasive and can alienate. Just think if a person gets correct presumptions about peers based on a visual image, it could confirm bias. What do I mean? If the burly, bisexual student … posted a picture, students would have answered on perception, not meaningful dialogue. If your class deals with bias and perceptions, this could be a good icebreaker, but still it treads very close to a dangerous borderline."
- "After more thought, I thought about an Asian, African, Indian, or a non-white student posting a picture and having students answer "who was born outside of the U.S?" Perceptions could play into their answers and possibly alienate the Asian American, non-white Hispanic American, or Indian American from California, New York, Alaska, or any part of U.S. Also, it could possibly alienate the white student who does not want to appear discriminatory. Moreover, most people select folks who are similar to [them]selves (hence, homogeneous or default segregated communities and organizations across America). If there are any group projects, you could remove diversity in the selection process by folks self-selecting who they would feel more comfortable with b[ased] on visuals."

Among the solutions suggested include:

- "I say let it be optional (personal pic or image that describes him/her) and allow space for those who want anonymity beyond their intellectual input to exist." (AR)
- "the web site or where the pictures and biographies etc are post[ed] needs to be password protected" (IT)

Anonymous Comments. Besides the issue of post-or-not-to-post, some discussion also revolved around the issue of anonymous comments. The argument against anonymous comments, namely the desire for "students to take responsibility for their words" (YS) and "the danger … that in online spaces there is a tendency to rely on stereotyping MORE" (NN), is weighed against the argument for anonymous comments, namely that anonymity may encourage students "to take a flyer on an interpretation" (YS) and that "anonymity might enhance course content—because the students would be "embodied" in different ways" (NN).

These concerns raise issues not found in the face-to-face classroom, adding a layer of complexity to student identity in the online environment and its impact on teaching and learning.

Practical Discussions

Instructor Workload

A frequent refrain in the category of practical discussions is the time intensive nature of "reading and evaluating student Discussion posts" (NN), primarily because of the large class sizes. 40- to 45-student and 60-student classes are mentioned while the "optimum is 5-15 participants" (YR).

Among solutions forwarded include the following:

- "Small graduate classes are a great place to start!" (ER),
- Reducing discussion board assignments with 40- to 45-student class sizes,
- Having non-graded discussion board assignments,

- "Group-based collaborative writing assignment using wiki" (II),
- Minimizing "instructor "set-up" time" (NN), for example by automating small group assignments and online quizzes—there is a need to know what the learning management system (LMS) is capable of, and
- Small group graded discussions.

Small Group Discussions

The last solution suggested above, however, resulted in much debate. As mentioned above, some professors saw small group discussions as a way of managing instructor workload and were more concerned about the small group composition, whether to keep the group composition constant or changing. There was a concern about a tendency towards stereotyping and homogeneous self-selection for group projects if the group composition was to remain constant.

AR, meanwhile, believed strongly that small group discussions were not the answer. She stated:

- "Discussion Boards allow all students to participate. … there are more talkative people than others. … some students who [are] reserved in class, come alive in discussion boards. … "Discussion Boards" are spaces for folks to share. … frankly when I ask the class a question, I expect an answer from any part of the room and discussion boards mirror me asking the entire class a question without putting into "small groups," which, from my experience, require extensive monitoring";
- "I don't find this format difficult at all, nor do my students. I have a class of 60 students and the students appreciate the flexibility to comment on who they want to, which build[s] interactions. … Personally, small-group projects work for some assignments. However, I DO NOT think it is appropriate here. I appreciate this format. Why? It is like being at a dinner party or fundraising function-- I enter and depart based on my terms. Thus, I am not being

held-up among friends observing or being forced to talk to certain folks, particularly ones who I have to "make" conversation with."

Practical Applications

Incorporation of Discussion Boards

It should be noted that discussion boards can be used in conjunction with multiple other online tools (Menchaca & Bekele, 2008) in the context of the learning management system. Among those mentioned in the discussion forums include the incorporation of discussion boards with:

- Presentation software like PowerPoint or Prezi, with or without audio or animation;
- Synchronous chat like Skype, during which students can do their presentations;
- Videos as a source for discussion board collaborative activity, whether obtained via the internet or created by instructors or students—constructive peer feedback and individual reflective writing can be conducted on the discussion boards (Dass et al., 2011; Jonassen et al., 1995);
- Online surveys or online polling like polleverywhere.com;
- Content production for avenues like Wikipedia, wikis, and GoogleDocs;
- Discussion board or synchronous chat data being used as sources for end-of-semester reflection papers or subsequent assignments—these assignments can be group assignments which later allow for peer review or individual discussion board response,
- Virtual tours, virtual worlds, and virtual field trips (Tam, 2000), for example where a live field trip culminates in a virtual experience:

    "I find the idea of the 'virtual' field trip fascinating. A little twist on using virtual world...I think that we could still require our students to actually go out into the real world, observe something, and then maybe create a virtual world based on what was

> observed. So, they could go into an actual restaurant, make observations, then create their 'ideal' restaurant for a particular disability - or multiple disabilities. Other students could view it and make suggestions to improve. So, students would be experiencing the real world and sharing it via the virtual world. Obviously, the technology to create a virtual world would need to be user-friendly." (EJ)

It is hoped that conceiving of the discussion board as part of an entire learning management system package would provide a more coherent online experience which would result in the co-construction of knowledge in a community of learners (Dass et al., 2011; Jonassen et al., 1995).

Access

The mention of different online tools led to an intense discussion about the issue of access. For example, although polleverywhere was touted as an excellent polling tool, some professors preferred Survey Monkey or the LMS's survey tool even though the latter did not provide instant results because it did not run into potential problems like the lack of unlimited text affordances or bandwidth problems, which in turn "could lead to disfranchisement" (AR). Indeed, II reminded:

> "... polleverywhere might not be the best solution. One rule for technology integration is to pick a tool that's mature and has been on the market for a while. … Any technology failure and difficulty can impact your overall course evaluation and make both you and your students frustrated."

YS, however, believed that with regards to access, the onus was on students:

> "Obviously I'm all for making our courses accessible. However, it seems to me that when a student opts for an online course, the issue of access shifts into the student's lap(top). So I think they have to take the responsibility to get up to speed."

Guidelines for Discussion Board Use

- ***Instructions and deadlines.*** Explicit instructions about posting and responding to posts (e.g. number of posts and responses) and the provision of requirements and scaffolded deadlines (e.g. post essay, post discussion entry, post responses, watch video, complete a short quiz) are important. Prompts, course objectives, netiquette expectations, rubrics, and time commitment for assignments should also be provided.
- ***Assessment of group projects.*** It would be advisable to incorporate "team member evaluation[s]" (EJ) in group projects to encourage "equal participation" (ER) so that tech-savvy students are not left to complete the bulk of the assignments. Having both fixed and rotating group compositions would also encourage equal participation.
- ***Require authors to reply to comments*** so that the problem with students "not going back on to the "board" to respond besides the required amount, even if a question is raised to them" (TS) is averted.
- ***Compose in MS Word first***. "[H]ave students compose their discussion board messages in MS Word then copy/paste into [the LMS]" (ER).

In the final analysis, the pedagogically sound use of discussion boards can be remarkably successful, as aptly encapsulated by ER: "I think discussion intensive courses can actually work quite well online. They take a bit more work in the design process to get "right" but I have seen some excellent examples over the years."

Implications

In this section, we offer implications that are both theoretically derived from constructivism and empirically derived from our results. Our aim is to offer practical suggestions that are straightforward yet capture the real-world nuances of teaching online.

Course Design

Our first set of suggestions is related to course design. First, it is clearly important to give students opportunities for meaningful, authentic learning (Honebein, 1996). This can be achieved through service learning or by simply asking students to apply the course material directly to their own lives. Also, instructors should realize that this level of learning can occur *after* a course ends so they may want to consider leaving the lines of communication open by, for example, leaving discussion boards open.

Second, consider giving students the option to post photos of themselves as this can engender social learning and create a learner-centered environment. This does, however, bring up one of the obstacles of constructivism discussed earlier: collaborative learning can be challenging with diverse groups (Huang, 2002). That is, minority students may not feel comfortable posting photos for fear of being stereotyped. Thus, instructor sensitivity is important here.

Third, use discussion boards as they are clearly becoming a crucial centerpiece for many online courses (Eskey & Schulte, 2012). They can be an effective tool to capture many of the theoretically-derived success factors we outlined above and, by utilizing the guidelines suggested by our participants, can be successful. Namely, set clear instructions and deadlines, incorporate team member evaluations, require authors to reply, and suggest that students compose their messages in a separate word processing program first.

Faculty Training

Our second set of suggestions is related to faculty training. Given research findings that student learning outcomes are positively correlated with faculty satisfaction (Fredericksen, Pickett, Swan, Pelz, & Shea, 2000; Hartman et al., 2000), it is critical to stimulate satisfaction with effective training. First, it is important that trainers set expectations about what it will be like to teach

online. For example, new online instructors must learn that there cannot be a one-to-one conversion from face-to-face to online. More broadly related to this, the training should foster a greater willingness to take on the "new" role of facilitator (Huang, 2002).

Second, trainers should stress that online learning can amplify and transform (Hughes, 2005) through the use of collaborative learning that generates socially constructed knowledge (Dass et al., 2011; Jonassen et al., 1995). Indeed, our results show that at least some faculty already understand this. Therefore, trainers can build on this in the training environment by, for example, having trainees give examples of how amplification and transformation might occur. Past research suggests that one way this may be achieved is by stressing the importance of faculty interaction with students (Olson, 2005; Simmons et al., 2004).

Additionally, a goal of the training program should be to demonstrate how using multiple tools can help create meaningful, authentic learning environments with active participation (Herrington et al., 2006; Honebein, 1996). It should be stressed that multiple tools are the means to an end – the end being increased ease-of-use (Means et al., 2009). Therefore, when using multiple tools, usability should not be sacrificed. It is also important that faculty be adequately trained to use these tools. However, the training should also emphasize sensitivity to access issues. Do not simply assume that all students will have access to all tools. Sharing the syllabus before the class starts can inform students of expectations about what technologies will be necessary, which can reduce access issues.

Finally, it is important to note the findings of this study that are relevant for instructors who teach online or may be thinking about creating an online course. Although there were some concerns about maintaining the interactive nature and richness of a face-to-face course through the transition to online, it was evident that similar outcomes could be obtained in an online learning environment and

in fact, might even be increased. It was felt that online learning offers students the potential to learn real world applications through discussion board assignments. Instructors did voice their concerns about the management of reading and evaluating discussion board assignments for large classes. Several solutions were gleaned from this study including the use of small group discussions, which was found to be a topic of debate. Some felt it to be a useful pedagogical tool to help manage the instructor workload while others were concerned about small groups restricting the participation of students in an online class. It was noted that discussion boards used in conjunction with a variety of other online tools would provide a more coherent experience for the learner.

Suggestions for future research

A reasonable next step following the present qualitative study on faculty attitudes about distance education is a university-wide quantitative survey and this step is currently under way. Furthermore, besides faculty data, it is also important to collect student data, particularly comparing the student attitudes of those who have taken online courses as opposed to those who have not. These data can be obtained via quantitative surveys as well as qualitative semi-structured interviews.

Besides collecting data about distance education indirectly via surveys and interviews, it would also be a good idea to collect data directly. This can be done through observations of online courses, taking into consideration the varieties of online courses being offered university-wide—for example by investigating synchronous and asynchronous implementations of online courses. In addition, online instructors can conduct action research studies of their own courses, which would result in a deeper understanding of course dynamics and lead to improvements in the quality of individual online courses.

Conclusion

Distance education is undoubtedly driving today and tomorrow's higher education revolution and these courses are continuing to grow in number. However, faculty have been more pessimistic than optimistic about online education (Allen, Seaman, Lederman, & Jaschik, 2012). Thus, in order to further develop the quality of distance education, it's important to understand faculty attitudes and views and how they relate to pedagogical tools.

The findings of this study suggest that faculty are concerned about the conversion of face-to-face courses to online courses. The conversion not only changes the nature of the learning experience but also increases the workload for both students and instructors. Faculty are also sensitive about anonymity issues, specifically about whether student photos should be optional and discussion comments should be anonymous. It should be noted that faculty do see the value of online pedagogical tools, such as discussion boards, and how they can contribute to increased learning outcomes if designed appropriately with clear instructions, guidelines, and assessment methods. Access, however, has been an issue when it comes to choosing specific tools to use in the online courses.

The study offers practical implications for online course design and faculty training. It suggests that online courses should offer authentic, meaningful, and long-term learning; students should have the option to post or avoid posting photos of themselves; and instructors should set clear guidelines in terms of discussion board setup and use. The study also suggests that faculty should be trained in various learning tools as well as how to use them to create meaningful and authentic learning environments. Additionally, faculty should be informed about online teaching expectations and potential role changes.

Although the scale is small, this study sheds light on faculty views of distance education and offers practical suggestions and implications for online education. We hope this will provide faculty who are contemplating teaching an online course and those already engaged in online pedagogy valuable information that will assist them in creating a meaningful, authentic learning environment for online learners. It is also our hope that these findings give faculty an opportunity to start thinking about their role in an online environment and the need to learn new tools in order to embrace new teaching philosophies.

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Key Principles of Peer Assessments: A Feedback Strategy to Engage the Postgraduate International Learner

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Abstract

The paper reports the findings of a project that assessed the benefits of peer feedback as a formative assessment intervention for postgraduate international learners in the United Kingdom. The aim was to improve participants' understanding of quality in academic writing, and hence improve the summative assessment scores, by improving the quantity of feedback received in a collaborative learning environment. The project utilized the action research methodology and qualitative methods to recommend effective practices for peer assessment. Research findings highlight that although there was no substantial increase in the average score for the groups that received peer feedback, improvements in summative scores for the higher ability students were observed. All the learners agreed that the peer feedback should be made a permanent feature of the program; they also highlighted that the main barriers in giving feedback were lack of experience and hesitation in critiquing peer's work. It is recommended that peer assessment is included as a regular feature of postgraduate programs but with adequate tutor planning and student preparation. Additional strategies to encourage engagement of postgraduate students with the 'Peer Feedback' are required to demonstrate improved results across all ability levels.

Keywords: International Students; Peer Assessment; Peer Feedback; Formative Feedback.

Introduction

In recent years higher education institutions (HEIs) in the UK have witnessed unprecedented growth in the enrolment of students from other countries (Hall and Sung, 2011). Newsome and Cooper (2013) believe that previous academic experiences and expectations may lead to international students' dissatisfaction, a current challenge to educational institutes in the UK. As highlighted by Grimshaw (2011), there is a recognized need for the development of the UK HE provision to meet the needs and challenges faced by international students. The term 'international students' used frequently in this paper refers to the students from countries other than the United Kingdom. Although the issues discussed are relevant to all students entering an unfamiliar academic culture for the first time, the particular focus of this study is on students from Asia and Africa as the researchers are involved in the management and delivery of modules on a postgraduate program consisting of a high number of overseas students, mainly from these two continents. With this in mind, the authors initiated a peer feedback project for an assessment on the Masters in Business Administration (MBA) course. The MBA curriculum being content full and consisting of 8 modules with 16 assessments; finding space and time for feedback to individuals by the tutors was challenging. Further, it was observed that tutors' feedback was not being accurately perceived and effectively utilized by the students to improve the scores on summative assessments. As recommended by Orsmond et al. (2002), tutors felt the need to provide more guidance to students regarding the use of feedback for the international learner. To address these issues; a peer assessment project was piloted in June 2011. The aim of the project was to implement and evaluate a new learning strategy for timely formative feedback in an attempt to clarify 'quality' in writing (Sadler, 2010). The potential of formalizing peer assessment as a feedback mechanism has been widely researched and a number of strategies have been tested to utilize this as a formative tool for learners in the work of McConlogue (2012),

Wimshurst and Manning (2013) and Sadler (2010). The researcher investigates the benefits and challenges involved in formalizing peer assessment practices, specifically for postgraduate international students studying at a UK Institution.

Main observations and recommendations from the implementations are included in this paper. Although this process was initiated in 2011, the initiative for 'Peer Feedback' could be strengthened now to address the institute's strategic objective for excellence which states 'delivery of inspirational teaching and investment in the delivery of teaching' as a priority for strategic plans (EHWLC, 2013). In addition, the QAA (2005) has been encouraging the development of peer feedback schemes in higher education. This paper aims to evaluate the benefits of peer assessment for the international student and recommend effective practices to engage international learners in feedback through peer reviews.

The main research objectives are:

1. To investigate the strengths and challenges involved in peer assessment as a feedback strategy.
2. To evaluate the success of 'Peer Assessment' for international students, with respect to four implementations in a MBA program.
3. To recommend effective practices in 'Peer Assessment' as a useful tool to engage the international student in reflecting on feedback.

Why introduce Peer Reviews for courses involving a large number of international students?

Various authors (Hall and Sung, 2008; Grimshaw, 2011) have expressed views that the international students' barriers to learning relate to the tutors' perceived problems that overseas students bring with them, such as poor spoken and written language ability; a low level of participation in group

work; a reluctance to display critical thinking in study; problems with reference skills and plagiarism. Newsome and Cooper (2013) are of the opinion that these issues are linked to the cultural, language and academic differences in addition to the recent geopolitical events that may stereotype the international learner in the UK. They elaborate further that the international students in the UK could be affected by multiple issues, ranging from profound social or psychological factors to seemingly superficial but potentially very problematic changes of climate, diet or daily routine. A discussion with the overseas students on the postgraduate program under discussion revealed that these academic, social and psychological factors were some barriers to learning that were affecting their academic performance. Clearly, learning strategies to encourage participation and engagement with the content of the course was required.

The researchers realized that low levels of engagement with feedback needed to be addressed in time for students to modify their own thinking and behavior to improve learning. Popham (2008) recommends that the students be involved as partners in the assessment of learning and to be equipped to use the assessment results to change their own learning tactics. Formative assessment seeks to help students to improve their own learning and is important because feedback given only at the end of a learning cycle is not effective in furthering student learning (Bollag, 2006). The MBA program was providing opportunities for formative feedback from the tutor as comments on submitted work however the main challenge was the difficultly for the tutors to engage in dialogue with all students, due to the large class sizes. Fluckiger et al. (2010) acknowledges that on some courses planning time for giving students effective feedback is an important and challenging aspect of the teaching and learning process. The researchers realized the need to investigate learning strategies that might increase feedback dialogue to engage the international student with the formative feedback. One possible learning strategy that could be used to provide timely and

developmental formative feedback is 'Peer Assessment'. Utilizing the framework recommended by Nicol and Macfarlane-Dick (2006), the approach adopted was to structure small group break-out discussions of feedback in class (peer feedback) after students had received tutor comments on their individual work. 'Peer Feedback' as defined by The Centre of Academic Quality and Development at Nottingham Trent University is the observation, commenting upon and at times assessment of students' work by other learners (CADQ, 2013).

The benefits and challenges of introducing peer reviews

McConlogue (2012) is of the opinion that peer feedback prepares students for the kinds of critical review skills which their future professional contexts may require of them, especially practice in peer evaluation and feedback while CADQ (2013) argues that this is a crucial life-skill to offer learners. The need for peers' involvement in the feedback process is highlighted by Wimhurst and Manning (2013) who are of the opinion that the students' understanding of assessment standards is complicated by the fact that assessment processes require them to draw upon both explicit and tacit knowledge. The authors believe that this is more relevant in the context of the international learner where, explicit knowledge can be clarified through guidance notes or discussions in lectures. Tacit knowledge, however, tends to be experiential and is derived from shared understandings developed among members of academic communities. International learners may not have been exposed to the academic practices that local students have experienced in their undergraduate studies in the UK. Students who are still on the periphery of academic communities may not discover these implicit understandings which usually inform quality work (McConlogue, 2012; Sadler, 2010). It is through discussion of the assessment criteria, peers reviewing others' work that they begin to get clarity for the 'tacit assumptions.' This is especially true for students from Asian and African continents for

whom English may not the first language and tutors may need to invest substantial time to demonstrate the implied meanings in their formative feedback. As emphasized by ASKe (2010), Peer feedback increases the amount of feedback students receive and they get it more quickly than the tutor route. Another benefit highlighted by Sadler (2010) is that the process of reviewing the work of their peers clarifies to students what is considered good work, improving their understanding of quality in writing.

While earlier research on peer assessment identified considerable benefits for student learning, recent discussions have been more cautious. Wimshurst and Manning (2013) have in their literature cautioned against attempting to rigorously measure the outcomes of feedback as assessment occurs within a 'complex web' of contextual and relational factors. Bloxham and West (2007) found that their participants did not enjoy the experience of marking the work of classmates while Cartney (2010) writes of the emotionality and anxiety associated with peer assessment, where students are concerned about whether some of their fellow markers, in whom they have little confidence, actually understand the criteria for marking. If the formative and summative assessments are separated by little time difference, this may inhibit the effective application for improvement of the summative piece (CADQ, 2013; Wimhurst and Manning, 2013). These benefits and challenges must be carefully evaluated in the design and customisation of a peer assessment programme, especially in a diverse class consisting of international learners.

Reliability of Peer Assessment as compared to Tutor Judgments

Previous research (CADQ 2013, Sadler 2010,) indicates that formative rather than summative peer feedback is valuable for student development. McConlogue (2012) questions the consistency in grades awarded to complex tasks and is of the opinion that the value of peer reviews is not as much

in assigning marks but more in composing and receiving qualitative peer feedback. The authors observed that this particularly applied for the international learner for whom a low peer mark has a particularly disengaging effect. Sadler (2010) is of the opinion that the learning in peer reviews comes about not through grading but through reading and making assessment judgements about peers' work; awarding grades to their peers may be an unsettling experience and some cultural barriers for international learners may inhibit constructive feedback to peers. Awarding grades or marks to peers could reflect the individualistic view where students compete for grades whereas formative feedback involving comments rather than grades adopts social constructivism principles where students expand their knowledge within a social context of interactions and peer learning (Reece and Walker, 1997; CADQ, 2013). Hence, in this context it was decided that the peer review program should be used for formative and developmental purposes rather than for summative evaluation purposes.

Guiding Principles for Peer Reviews

A key framework for formative assessment and feedback is provided by Nicol and Macfarlane-Dick, (2006) in which the student is assumed to occupy an active role in all feedback processes. The model for self-regulated learning and the feedback principles to develop self-regulation in students (Nicol and Macfarlane-Dick, 2006) recommends that the learners are actively involved in monitoring and regulating their own performance through internal and external feedback using the following steps:

1. Clarify what good performance is (goals, criteria, and expected standards);
2. Facilitate the development of self-assessment (reflection) in learning;
3. Deliver high quality information to students about their learning;
4. Encourage teacher and peer dialogue around learning;

5. Encourage positive motivational beliefs and self-esteem;
6. Provide opportunities to close the gap between current and desired performance;
7. Use feedback to shape the teaching (Nicol and Macfarlane-Dick, 2006, p.203).

In the model, a piece of academic work set by the teacher is the starting point for the feedback cycle. The learner then engages in actions to achieve these goals by applying tactics and strategies that generate outcomes. Monitoring the goals with the task generates internal feedback while external feedback to the student might be provided by teachers, peers or others (e.g. placement supervisor). Peer dialogue is beneficial to student learning as they offer perspectives on alternative approaches and strategies and it is sometimes easier for students to accept critiques of their work from peers rather than tutors. The authors found this perspective especially useful since they were dealing with international learners; many of whom were not reflecting adequately on the tutor feedback. The model of self-regulated learning and feedback was applied to four cohorts of international students, with an emphasis on providing mechanisms for external feedback through peers.

Assessment Standards Knowledge exchange (ASKe), a Centre for Excellence in Teaching and Learning (CETL) based in the Business School at Oxford Brookes University recommends that peer reviews utilize a process involving three major steps (Figure 1):

STEP 1	Prior to the peer review session, facilitate marking exercises that give students practice in assessment and feedback using sample assignments
STEP 2	Prepare for and structure the peer review session
STEP 3	Actively facilitate the peer review session, adhere to a strict timetable and tell students exactly what they must do and for how long.

Figure 1. The ASKe Framework for Peer Reviews (Adapted from ASKe, Oxford Brookes University, 2010)

Step 1 in the model suggests that it is important to spend time in the rehearsal marking session exploring what is a 'normal' marking range, so that students know what to expect. Further, it is recommended that peer feedback is linked to tutor feedback from the outset, discussing how peer feedback is a valuable addition to tutor feedback (CADQ 2013; Nicol and Macfarlane-Dick, 2006). To provide a bigger picture of coherence, it is recommended by Wimshurst and Manning (2013) that the tutors supply students with any available exemplars of marked assignments with staff feedback statements. The researchers believe that this would assist the international student in particular, as language difficulties often make the tacit elements only partially comprehendible. Further, McConlogue (2012) advises that it is assumed that the tutor is an expert marker and this expertise is gained through years of marking and involvement in standardisation procedures, hence some demonstration of the tutor techniques is advisable. The above were the frameworks and concepts that were considered in the design of the learning intervention of peer feedback for the four cohorts of the postgraduate international students.

A Learning Intervention; Implementation of Peer Feedback

The project was implemented for a MBA program consisting mainly of international students with mixed abilities. A new learning strategy using the Model of Self-regulated Learning (Nicol and Macfarlane-Dick, 2006) and ASKe Framework (Table 1) was proposed and a 'Peer Assessment' initiative was designed as an intervention to engage the international learner with feedback. The author facilitated implementations of Peer Assessments in two phases for an assessment requiring responses to a complex task. The project utilised the action research methodology using qualitative data to make improvements in the second phase of the project. An explanation of why 'Peer

Assessments' is appropriate as a feedback strategy for the international learner and some guiding principles in its potential to improve teaching and learning follow.

The two-phase project:

A qualitative evaluation of four implementations of peer assessment, involving 138 students was implemented in two phases, between June 2011 to March 2013. This assignment was a piece of formative assessment in the 'Managing people' module that required an analysis of Organizational Behavior (OB) problems, typically involving divergent responses from different learners. This was a mid-term assessment; hence the feedback would benefit the summative assessment for this course. The output required from the peer feedback for the first phase was to award a numerical grade to a peer's work accompanied with detailed comments in the form of qualitative feedback.

First Phase - June 2011 to June 2012: Two groups of learners-one consisting of 42 and the other of 36 learners were assisted to implement the pilot peer reviews as indicated by the ASKe framework (ASKe, 2011).This involved peers assigning grades (Appendix1) as well as providing comments for each other's work (Appendix 2). Each learner received feedback from a minimum of two peers. Following this, the tutor spent time with each group and reviewed the peer comments and marking. Based on the feedback, the students reflected on the improvements required in their work. The implementations were evaluated through observation by the tutor and a questionnaire consisting of some closed and an open comments section for the learner to reflect on the effectiveness of the peer review process (as indicated in Appendix 3).

The results from the evaluation of the first phase were used to improve the second phase. Feedback from the first phase suggested that students needed more guidance on constructing feedback comments so, in the second phase exemplars, sample feedback comments were supplied for

discussion before the peer review session commenced, as recommended by McConlogue (2012).The results of phase one indicated that when peers were asked to award marks to each other's work, the focus was on awarding marks and most learners ignored the crucial aspects of providing qualitative feedback and suggestions for improvements.

Second Phase - July 2012 to March 2013: Considering the limitations of the numerical grading of peer's work, the technique of the peer feedback was modified for the next two groups to include mainly qualitative feedback from peers (Appendix 2).The next two groups of students were instructed to focus on providing their peers with only qualitative feedback, highlighting good features and advice for improvement. In both phases, all feedback was returned, so students could incorporate the suggestions for the summative assessment. The implementations were evaluated through observations of the peer assessment sessions and through an online survey that was administered two weeks after the peer review sessions. A gap of two weeks was designed to allow sufficient time for the learners to reflect on the peer feedback and the benefits and challenges of the new learning strategy.

A comparison group consisting of learners studying the Marketing module on the same MBA course was selected to determine the reliability of the peer feedback technique. Qualitative data from the open comment questions in the questionnaire and from summative class scores was analyzed. Participants were invited at the end of semester to reflect through an online survey (Appendix 3) to evaluate if they found the peer reviews useful and their perceptions of its challenges and benefits. Eventually, guidelines for effective peer feedback practices for international postgraduate students are proposed.

Findings from the 2-phase implementation:

The analysis of the open comment questions and tutor reflections on the experience offer some useful guidelines on the success of the peer reviews, in terms of its benefits and challenges. The tutors agreed that although the initial set-up for the sessions were difficult to achieve, the actual process was useful in terms of benefits for the staff and learners. Students seemed to value peer reviews and felt that they had a growing understanding of tutor expectations and the required quality. Some comments received from learners in the open comments section of the questionnaire follow:

'Feedback from peers who are objective and have a good level of knowledge is useful. It should be a regular feature of the MBA programme and could be included for all the subjects and also for exams' (Student A)

'It helps build up our ability to give feedback in our work in the future.' (Student B)

'The most difficult part was for me to assign a mark for another student, who is also my friend, I found it difficult to say to him that his work was not of a pass level.' (Student C)

'I think we need more training before we mark another student's work, we could practice using some examples first.' (Student D)

An analysis of the results of the survey highlighted the key benefits and challenges of the peer reviews as perceived by the learners:

Q. In your opinion, what are the benefits of peer feedback? Select as many as you think are applicable.

The analysis of this question highlighted the main benefits, as perceived by the learners were the opportunity to reflect on and discuss the feedback from the tutor. In addition, the 'assistance with focussing on the important aspects of the assignment' and 'gaining insights and opinions about quality of the work expected' were also listed.

An analysis of the results of the question:

Q. In your opinion, what are the challenges of peer feedback? Select as many as you think are applicable.

Peer reviews seemed to be an unsettling experience for some international students, resulting in hesitation to participate in the process in future. An analysis of the main challenges revealed that students seemed to be concerned about their own and their peers' ability to make marking decisions. They were also concerned about differences in ability and willingness to critique one another's work. For many students, this was perhaps the first time they had seen a range of marks and were confronted with subjectivity in marking.

The marks awarded by peers were analyzed to test the reliability of peer marking and these were found to be on an average 12-19% higher than tutor grades. This agrees with previous research that states; Peer assessment of long written tasks poses particular problems as these tasks typically involve complex learning and solving ill-structured problems which require divergent and variable responses (McConlogue, 2012; Wimshurst and Manning, 2013). For international students, there may be a tendency to over mark the peers' work. One reason for this could be the close-knit community of international students studying similar programs (Langan et al., 2008); another reason could be the hesitation to critique each other's work, linked to the culture prevalent in their country of origin (Newsome and Cooper, 2013).

The summative grades achieved by the students who were provided with peer feedback were compared with the summative grades of learners who did not get the opportunity to receive external feedback from peers (Table 1). Although the average scores did not increase as a result of the peer reviews, the proportion of learners achieving scores above 65 (Merit grade) increased as demonstrated by the figures in Table 1. It was observed that the standard deviation from the average scores was higher when peer assessment was introduced; a closer examination revealed that the scores at the higher end of the class range increased as a result of introducing the peer feedback strategy. To test the reliability of these results, benefits of the peer review were evaluated for the Marketing module which demonstrates similar results.

Table 1. Evaluation of Findings for the Managing People in Organisations (MPO) and Marketing Modules

Module	Average Scores (Summative)	Percentage of Merits (>65%)	Standard Deviation
MPO			
No Peer Feedback	61	31.42%	9
Peer Feedback Provided	62	43.75%	13.5
Marketing			
No Peer Feedback	49	17.14%	12
Peer Feedback Provided	49	27.77%	19

Note: Percentage of Merits indicates the ratio of the number of students achieving over 65 out of 100 marks in the summative assessment on the module. Standard Deviation here measures the amount of variation of the marks in a module from the average mark.

The benefits of peer reviews are clear from the analysis presented in Table 1; the high performing students achieve better as a result of the external feedback that they receive from their peers. Learners in this group are motivated and engaged from the outset, as demonstrated by the quality of feedback they themselves provided others. However, further investigation is necessary to confirm the extent to which this increase in scores can be attributed exclusively to the feedback strategy of peer assessments.

Discussion-Implications for practice

Peer reviews that involve numerical grades tend to limit the amount of quantitative feedback that peers provide, the main focus of the review sessions are the grades and conversations that justify the marks awarded. Davies (2006) notes it is important that this process includes feedback in the form of comments and not just marks. In the above implementation, peer reviews were utilized to improve the quality and timeliness of the formative feedback. As a result of this timely feedback, the number of students achieving a Merit grade in the summative assessment of the MPO module has been increasing by 10 to 12% over the previous cohorts that did not utilize peer reviews as a formative feedback strategy. Innovative strategies to engage all learners, especially the learners that find it difficult to achieve a Pass mark or score higher than 50 % are also necessary.

As highlighted by Popham (2008), consistent use of the above formative assessment has the potential to transform a traditional, comparison-dominated classroom, where the main purpose of assessment is to assign grades, into a learning-dominated classroom, where the main purpose of assessment is to improve the quality of teaching and learning.

Conclusions and Recommendations

This paper discusses experiences from four implementations of 'Peer assessments' in a MBA program. Results from these implementations demonstrate the benefits and challenges involved in peer reviews as a feedback strategy for international students studying on postgraduate programs. Feedback from the learners has highlighted that the main benefits of peer reviews are the opportunity to reflect on the formative feedback from the tutor. An analysis of the main challenges revealed that students seemed to be concerned about their ability to make decisions about the quality of peers' output and hesitation to critique each other's work. Although the benefits of peer reviews are clearer for the higher performing students, other strategies that can benefit all learners are required.

Innovative strategies to engage learners across all ability levels are required, that would complement 'Peer Assessment' as a feedback strategy for international students.

Based on the data gathered from the student surveys and staff interviews, the process for peer assessments introduced for postgraduate international learners should consider the following guiding principles:

1. Formative Evaluation - A peer review program should be used for formative and developmental purposes rather than for summative evaluation purposes as recommended by Huston and Weaver (2008).
2. Rehearse - A simple intervention such as a marking workshop prior to undertaking peer feedback on an assessed task can significantly increase students' understanding of the assessment criteria and improve their performance of the task.
3. Specific descriptors - Exact description of the level that should be achieved need to be included, there should be no ambiguity in the assessment criteria and it should not be open to diverse interpretation.
4. Provide Exemplars - Tutors could supply students with any available exemplars of marked assignments with staff feedback statements to provide a variety of comments for students in use in their feedback
5. Question tutor judgements - Using exemplars, prompt student questioning of tutor assessment judgements; McConlogue (2012) suggests that this questioning, which involves other students in an open discussion of the tutor's comments, helps students develop their thinking in a supportive 'learning relationship.'

6. Plan follow-up sessions - Organize sessions for any learners needing clarification/additional support. For example, demonstration by a previous student as to how the peer review improved his/her scores. This would be helpful for learners who do not seem to perceive the benefits of peer feedback in the initial sessions.
7. Encourage students to foster their own peer feedback cultures e.g. through informal study groups, reading groups, online discussions and social media/forums. Most international students frequently form relationships with other international students, and these sometimes endure years after the study abroad experience. Grimshaw (2011) is of the opinion that if this culture of peer feedback endures, the learners could benefit from a truly cross-cultural experience.

These guidelines hope to create a productive classroom climate, engaging the international student in the process of giving and receiving peer feedback, where the focus is on learning rather than on grading.

Should Peer Reviews be included as a regular feedback strategy in the design and delivery of the postgraduate provision of the institute?

Formative peer reviews have the potential to involve students as partners in assessment and use the strengths of the close knit community of international students to enhance the teaching and learning process. The authors recommend 'Peer Assessments' to be accommodated as a permanent feedback strategy in at least one or two modules in postgraduate qualifications, especially those involving a large number of international students.

Specific strategies need to be further innovated to engage a diverse range of abilities in a class involving international learners. For every group engaging in peer reviews, a workshop could be

introduced to discuss the concept and practices of peer review, distinguish formative assessment from summative peer review and help participants develop review skills and hence confidence with the process. If peer reviews can be made a part of a postgraduate course's learning strategy, the result would be that individuals are interacting with and learning from, a range of peers with diverse backgrounds and abilities. The inclusion of peer reviews as an integral component of a programme would engender a culture of critical review (CADQ, 2013). If this culture of peer feedback endures, Grimshaw (2011) highlights that the learners could benefit by developing cross-cultural interaction skills that are valuable in a globalised career.

Future research should explore the specific development of cross-cultural skills for international students in UK through peer reviews. Another area to explore is the innovation of additional learning strategies to improve the benefits of peer reviews across all ability levels. Further studies could consider the potential of technology in facilitating the process of peer feedback for the postgraduate international learner.

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Appendix 1: Marking Grid

NAME OF STUDENT BEING ASSESSED: _____

Names of peers assessing

1. _____ **2.** _____

Section	Marks Assigned Peer 1		Marks Assigned Peer 2		Tutor Mark and Comments
Executive Summary	/10		/10		
Introduction of the Organization	/5		/5		
Description of the Organizational Behavior related work problems Issue 1 Issue 2	/10		/10		
A critical analysis of the problems/issues, using theories/concepts	/20		/20		
Recommendations to improve the situation using key OB theories in the context of the situation	/30		/30		
Conclusion	/15		/15		
Document Structure and Referencing	/10		/10		
TOTAL	/100		/100		

Appendix 2. Peer Feedback Comments, Tutor Comments and Learner Reflection

PEER 1 FEEDBACK: Aspects that the learner has handled well: 1. 2. 3. Suggestions for improvement: 1. 2. 3.	**PEER 2 FEEDBACK:** Aspects that the learner has handled well: 1. 2. 3. Suggestions for improvement: 1. 2. 3.
Tutor Feedback:	**Tutor Feedback:**
Learner Reflection:	
For my next assessment, I could work on improvements in the following areas:	
Do I think that the peer review of assessment is a useful process?	
Here's how it's helped me (list two to three points):	

Appendix 3: On-line Survey

Peer Reviews - Usefulness and Limitations for Post Graduate Programs

1. Which course are you enrolled on

- (•) Hospitality Management
- ( ) MBA - General Management
- ( ) Postgraduate Leadership and Management
- ( ) MBA-Hospitality Management

2. Have you participated in a peer feedback session during the course of the study?

- ( ) Yes
- ( ) No

3. In your opinion, what are the benefits of peer feedback? Select as many as you think are applicable.

- [ ] Discuss and reflect on feedback from tutor
- [ ] Insights and opinions of peers on completed work
- [ ] Opportunity to learn about each other's organization or work area
- [ ] Focus on important aspects of the assignment

☐ Understand marking grid for the module better

4. Do you think peer feedback should involve feedback in the forms of comments only or should marks also be discussed for the completed piece of work?

○ Feedback in the form of peer comments only

○ Feedback in the form of suggested marks from peers

○ Feedback in the form of marks and comments from peers

5. What are the challenges that you faced in giving and receiving Peer Feedback?

☐ No previous experience in giving feedback

☐ Found it difficult to criticize classmate's work

☐ Confidentiality (of chosen organization that the submission was based on)

☐ Cultural differences

☐ Not equipped to make decisions on assignments

☐ Overall, peers were too generous

Guide for Authors

Article structure

Abstract

A concise and factual abstract is required (maximum length of **250 words**). The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Keywords

Immediately after the abstract, provide a maximum of **6 keywords**.

Introduction

Present purposes of the study and provide background for your work.

Literature Review

Include a pertinent literature review with explicit international connections for relevant ideas. Discuss the findings of published papers in the related field and highlight your contribution.

Methodology and methods

Provide sufficient detail to allow the context of the work to be thoroughly understood and/or for the work to be reproduced. Provide sufficient detail for readers to understand how you engaged in your

inquiry. Clear descriptions of your context and participants along with strategies used to collect and analyze data should be described.

Discussion

This section should explore the significance of the results of the work, not repeat them. Combining your results and discussion into a single section may be suitable. Returning to relevant literature from the introduction should show how your work connects with or interrupts already published literature.

Conclusions

The main conclusions of the study may be presented in a Conclusions section, which can include the main findings, the implications, and limitations.

Appendices

If there is more than one appendix, they should be identified as A, B, etc.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article, using superscript Arabic numbers.

References

Citation in text

Please ensure that every reference cited in the text is also present in the reference list (and vice versa).

Reference style

Text: Citations in the text should follow the referencing style used by the American Psychological Association (APA). Publication Manual of the American Psychological Association, Sixth Edition, ISBN 978-1-4338-0561-5.

List: references should be arranged first alphabetically and then further sorted chronologically if necessary.

Reference to a journal publication:

Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2010). The art of writing a scientific article. *Journal of Scientific Communications*, *163*, 51–59.

Reference to a book:

Strunk, W., Jr., & White, E. B. (2000). *The elements of style*. (4th ed.). New York: Longman, (Chapter 4).

Reference to a chapter in an edited book:

Mettam, G. R., & Adams, L. B. (2009). How to prepare an electronic version of your article. In B. S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp.281–304). New York: E-Publishing Inc.

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