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- Didactic Activity to Deaf Children
- Research on English Pronunciation
- Framework to Articulate Teachers
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Discovering Thoughts, Inventing Future

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Portuguese Language Textbook Adapted to Brazilian Sign Language: Analysis of a Second Language Didactic Activity to Deaf Children

By Dayse Garcia Miranda
Federal University of Ouro Preto

Abstract- This paper aims to present and analyze an episode regarding the application of a didactic activity, in the written modality, on the study of the Portuguese Language related to Alphabetical Order, withdrawn from a Portuguese Language TB2 adapted to Libras[3]. The participants in this investigation are deaf fifth-grader elementary school students in a special and bilingual school, public system, in the state of Minas Gerais, Brazil. The respondents' answers reveal that the intention to promote a second language learning environment, led by a pedagogical activity that has not been experienced in their first language, makes it unfeasible to access and reflect on L2.[4] The sign language adaptation of the didactic activity did not help the understanding of the exercise proposal as in the Portuguese language. In summary, it is evinced that didactic materials with proposals for adaptation and accessibility in SL[5] for deaf students are inadequate and do not build learning in L2.

Keywords: libras; L2; textbook; portuguese language; deafness.

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Portuguese Language Textbook Adapted to Brazilian Sign Language: Analysis of a Second Language Didactic Activity to Deaf Children

Dayse Garcia Miranda[1]

Abstract- **This paper aims to present and analyze an episode regarding the application of a didactic activity, in the written modality, on the study of the Portuguese Language related to Alphabetical Order, withdrawn from a Portuguese Language TB[2] adapted to Libras[3]. The participants in this investigation are deaf fifth-grader elementary school students in a special and bilingual school, public system, in the state of Minas Gerais, Brazil. The respondents' answers reveal that the intention to promote a second language learning environment, led by a pedagogical activity that has not been experienced in their first language, makes it unfeasible to access and reflect on L2.[4] The sign language adaptation of the didactic activity did not help the understanding of the exercise proposal as in the Portuguese language. In summary, it is evinced that didactic materials with proposals for adaptation and accessibility in SL[5] for deaf students are inadequate and do not build learning in L2.**

Keywords: libras; L2; textbook; portuguese language; deafness.

I. Introduction

The textbook is one of the devices present within the school setting, and it occupies a significant position of utmost importance. In the schooling process, it is an instrument of mediation between the student and the teacher. In the TB, content and activities composed of texts, systematizations and examples that help the teacher in the dynamics of the classroom, are grouped. Prepared by specialists from different areas, such as: text producers and proofreaders, editors, illustrators, diagrammers and, stemming from the concept of accessibility to all students, the professional sign language interpreter and the Braille text transcriber can be added; they become part of the textbook development team.

TB is commonly a printed material, but, with the digital advance, it has been enriched by media components. It can be found in digitized versions, which can be a simple scan of the printed page with the inclusion of animations, website indicating links and/or with a CD-ROM.

From this perspective, this study reflects on textbooks, and, in this specific case, on their accessibility and/or adaptability to sign language for deaf students. The argument for adapting textbooks to Libras is based on the guidelines of the document that proposes the implementation of a National Policy on Special Education from the perspective of Inclusive Education (Brasil, 2015). This document highlights that literacy textbooks and para-didactics must be produced in an accessible format in Portuguese language (PL) and in Libras. The same guidance is also found in Decree No. 9,465, as of January 2, 2019, Art. 35, which refers to the Board of Bilingual Education Policies for the Deaf, making explicit, in item V, "[...] the preparation of bilingual didactic materials" (Brasil, 2019, p. 19).

In this sense, it emphasizes that the inclusion of sign language in the textbook does not characterize the elimination of the Portuguese language. On the contrary, it is supported by the idea of a bilingual product/book, where both Libras and PL are present.

Regarding the teaching of PL for the deaf, more specifically the teaching materials, there are still many discussions among researchers, since there is not a significant amount of material for the teaching of a second language that includes bilingual education for the deaf. However, the proposal for the elaboration of a pedagogical resource based on accessibility for the deaf students is guided by Brazilian legislation. It is worth mentioning Decree-Law No. 7,084/2010[6], which provides for the didactic material programs and makes other provisions. Corroborating the view of an accessible format of a didactic material (DM), Decree-Law No. 5,626/2005[7] provides for Libras, defends the use and dissemination of this language in educational spaces.

In general, the main problem is that the adoption of a bilingual approach can establish Libras as

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[1] A cutout of the author's doctoral research entitled "Multimodality in the teaching of Portuguese as a second language for the deaf: an analysis of the use of the textbook adapted to Libras", defended at CEFET-MG, Brazil, in December, 2019.

[2] Textbook.

[3] Brazilian Sign Language.

[4] Second Language.

[5] Sign Language.

[6] Available at: http://www.planalto.gov.br. Accessed on August, 2014.

[7] Decree-Law 5,626/2005 regulates Law No. 10,436, as of April 24, 2002, which provides for Brazilian Sign Language and the Art. 18 of Law No. 10,098, of December 19, 2000.

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a language of instruction, but its implementation in didactic resources may mean to face difficulties, because, in this accessibility format, PL remains the official language to read and write, being, therefore, the legitimate language of instruction (Miranda, 2010; 2016; 2019). Thus, it does not meet the needs of deaf children who have PL as a second language, since this is not their first language, nor is it the communicative basis for learning another language.

With that in mind, this study sets out to, firstly, describe its research object: the textbook adapted to Libras. Then, it presents and reflects on a didactic activity applied to deaf students, withdrawn from a textbook adapted to Libras. The exercise proposed the appropriation and use of the alphabetical order in the Portuguese language.

II. Describing the Object of Study: PL Adapted to Libras

This section proposes to describe the object of this study: the PL Textbook adapted to Libras. The activity was withdrawn from a PL textbook by *Editora FTD* (FTD Publishing House), the *Porta Aberta* (Open Door) collection (2011), 2nd grade elementary school, unit 3, pages 49 to 67. The exercise was carried out both in the classroom and in the computer laboratory of the school. The students used the computer and the CD-ROM. It is worth mentioning that the activity was read in PL and Libras (translation) and answered in PL in the printed textbook.

The *Porta Aberta* collection is a collective work produced by *Editora FTD*. On the cover of each volume, the school grade each one is aimed at is identified (1st, 2nd, 3rd, 4th or 5th grade elementary school) and the information (rectangular-shaped and in different colors) about the grade, PNLD[8], Libras, FNDE[9] and free distribution is highlighted. The translation of the *Porta Aberta* collection was carried out by the *Arara Azul* publishing house[10] in 2010. There is, however, no graphic representation that identifies the material as a textbook also adapted for deaf children, as shown in Figure 1:



Figure 1: Cover of the PL Textbook from the *Porta Aberta* Collection — PNLD Stamp Detail

Source: Portuguese Language, 5th grade. Porta Aberta Collection, 2011.

The *Porta Aberta*, Portuguese Language, is a collection that presents several sections for the study of linguistic knowledge, among them, "Language Study", which prioritizes orthographic conventions and the alphabetic writing system, stimulates reflection on the regularities of alphabetic writing and presents didactic activities that make it possible to learn lexical organization mechanisms through understanding the meaning of words and the meaning of the text and context in which they appear (PNLD, 2016, p. 114).

The whole material is accompanied by a CD-ROM, whose content reproduces each page of the corresponding book and brings its translation into sign language. Deaf students can resort to videos in which a Libras interpreter appears; that is, the content of this digital media presents, at the end of each sentence, an icon that, when activated, opens a screen with a Libras interpreter. Thus, for each sentence there is an icon that, when activated, displays an interpreter translating the sentence from PL into Libras, as shown in Figures 2 and 3.

[8] National Textbook Program. http://portal.mec.gov.br Accessed on January, 19, 2019.
[9] National Education Development Fund. www.gov.br/fnde/pt-br. Accessed on January, 19, 2019.
[10] https://www.editora-arara-azul.com.br/site/

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Figure 2: Activity from Unit 3, 2nd Grade

Source: Portuguese: 2nd grade. Porta Aberta, 2011. p. 49 -50.



Figure 3: Activity from Unit 2, 3rd grade – digital mode

Source: Portuguese: 3rd grade. Coleção Pitanguá, 2005. p. 32.

From the next sections on, this study exposes the procedures that designed the execution of the research as for the use and appropriation of the PLTB[8] adapted to Libras by the deaf child.

III. The Context of use and Appropriation of the Adapted Textbook

Located in Belo Horizonte, capital of the Minas Gerais State, Brazil, this school serves deaf students, with or without other impairments, in three shifts. In the morning and afternoon shifts, students of early

[11] Portuguese Language Textbook.

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education, namely deaf children up to six years of age, and elementary school students. In the evening, classes for deaf youth and adults (EJA)[9] take place. Teachers teach using Libras as their base language, and the PL, in its written form, is considered a second language.

This research was carried out in a fifth-grade class, elementary school, in the afternoon shift. Composed of seven students — three boys and four girls, aged between twelve and eighteen.

It is worth highlighting that before entering the classroom, the regent teacher expressed concern about the use of the unit referring to the 5th grade's PL TB. Her argument was the distance from the linguistic reality between deaf and hearing students, since SL was used only at school and those students had few opportunities to interact through PL in the written modality. In order to not embarrass the students and minimize the obstacles with the dynamics of the pedagogical unit, I left free the choice of which textbook the teacher should use, its volume, reference grade and didactic unit.

As aforementioned, the choice was for the PL TB by *Editora FTD*, the *Porta Aberta* Collection, 2nd grade, Unit 3, 2011, pages 49 to 67. The unit is divided into: (i) "Reading preparation" — children's verses and songs; (ii) "Text" — genre to be read; (iii) "Study of the text" — questions to be answered in writing; (iv) "For fun" — activity with colleagues; (v) "Language study" — alphabetical order, written activity; (vi) "Spelling Bee" — spelling activity; (vii) "Another text" — poem/oral activity; (viii) "Production" — research and reading of poems.

The exercise was carried out in the computer laboratory. Each student sat in front of a computer, used a CD-ROM and the activity was answered individually in the printed material.

In order to analyze these data, the study proposes to present peculiar aspects of the teaching and learning circumstances of PL as a second language through a TB adapted to Libras. However, every pedagogical process has a before and an after moment. This refers to planning, the process and, finally, the result of these didactic practices adopted in teaching.

A relevant fact for the understanding of this sample is to realize that in the different didactic exercises there are several modes of languages, such as Images/SL/PL. It is thereby evinced that Libras circulates as the dominant language among the participants and in the translation windows of the textbook, and PL is found both in the printed and digital text. The imagery mode (FIG. 4) focuses on the TB, however, it is observed that they are designed to instruct, produce understanding either of SL, or of PL. At last, the teaching dynamics allow the different language modes to align and overlap each other, therefore helping specific practices to promote learning.

This way, the sample portrays the linguistic, social and cultural representation of the bilingual space for deaf students. The result of the investigative proposal translates the form and effects on the use of textbooks adapted for the deaf.

When thinking about the preparation of the didactic unit, the specialist is guided by a pedagogical line that results in practical actions in the teaching and learning process. Thus, examining the didactic units presented in the TB, the following order of activities is observed: (i) preparation for reading, which it deals with a basic text. Before starting to read this text, there is previous information that help in the understanding of this textual genre. Right after that, there is item (ii) text studies, which deals with comprehension issues; (iii) vocabulary study, which deals with the study of words and their meanings; (iv) language studies, which deals with grammatical and orthographic aspects. Lastly, item (v) text production, which deals with the production of another text stemming from the basic text.

For this paper, the focus will be on the fourth (iv) didactic sequence, which relates to language studies, more specifically, dealing with orthographic aspects. This activity aimed at teaching the mechanism of PL, a way of agreeing on the different modes of orality within the same language, thus allowing adjustments in the production of writing and the correct use of the language rules.

The activity carried out proposed to exercise the ordering of the letters based on the initial text of this didactic unit. For this action, the exercise was divided into (i) connecting the dots in alphabetical order and discovering the drawing formed, (ii) filling out the alphabet with the missing letters, (iii) filling out the table with the letters that come before and after and (iii) writing words that start with a certain letter (FIG. 4 and 5).

[9] Educação de Jovens e Adultos (Youth and Adult Education).

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Figure 4: Didactic Activities, Unit 3, 2nd grade.

Source: PL/Portas Abertas Collection, 2nd grade, p.54-55. 2011.

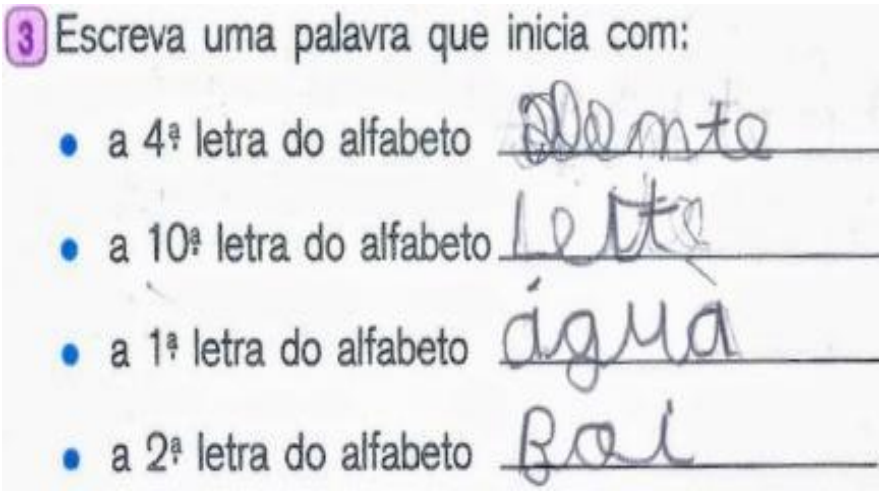


Figure 5: Didactic Activity, Unit 3, 2nd grade

Source: PL/Portas Abertas Collection, 2nd grade, p. 54. 2011.

At the beginning of the class, students felt motivated and autonomous when opening and closing the translation windows, changing pages and discovering what interactions they could have with the CD-ROM. Throughout the execution of the task, it was noticed that the participants demanded a lot of attention from the teacher and performed a lot of conversation between the pairs. The teacher could not attend to everyone and asked the Libras instructor for help. Most of the time, the students showed insecurity in their answers and always asked for correction. The activity raised many questions from the students to the adults present.

In the course of the action, it was necessary for the teacher to write, on the whiteboard, the letters of the Portuguese alphabet and their corresponding alphabetical order. Always with the help of spelling the Manual Alphabet[10], the teacher explained and exemplified the exercise based on this visual resource. On several occasions, the teacher resorted to the blackboard. It was noted that the strategies used by the educators present did not produce learning effects.

As for the accessibility feature, the "translation window" was activated very few times during the entire event. However, after reading the activity through signs, no change was observed in the performance of the students. The printed TB was accessed most of the time. In short, SL was the dominant language for performing these exercises, but it did not provide an easy understanding of the action.

Faced with the sketch, it is clear that deaf students, even having mastered the PL alphabet by

[10] Manual alphabet, used to manually spell words (also referred to as hand spelling or fingerspelling), is a resource used by sign language speakers. It is not a language, but a representation code of the alphabetic letters.

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fingerspelling it, were not able to rely on sign language as an aid toward understanding PL in the written modality.

The reflection continues, we start to inquire about the acquisition of SL and how it is fundamental for L2 learning; however, further discussion about the lack of inclusion of deaf students in the same TB activities based on their own language is needed; that is, to promote teaching and learning actions in Libras, so that the deaf student can reflect on the second language from the first one, in a written way.

Confirming the aforementioned point, this study relies upon the work by Maribel Gárate (2014), on the development of reading and writing skills by deaf children in L2. According to this author, it is necessary to stimulate cognitive skills - such as the ability to organize, evaluate and compare information - in their L1 and expect them to apply these skills in their L2, that is, the skills acquired in L1 will be used in L2 and vice versa. This way, activities experienced in SL can be transported into the second language. In doing so, deaf children who do not have a metalanguage in their own language do not have a base of support to develop in L2. The school, the teacher and the SL developers need to produce didactic materials that encourage deaf children to reflect from the SL, and with that, achieve efficiency in a second language.

This sample shows that most deaf children arrive at school with little development in a first language, a fact confirmed by Quadros (1997, 2019), Pereira (2009), Plaza-Pust (2012) and Silva G. (2018). The justification lies in the lack of access, low exposure and interaction through SL. Consequently, not knowing cognitive actions in your language makes cognitive actions in another language difficult. In the process of learning a L2, the learner bases himself on their language to become aware of the differences in the languages involved.

Therefore, this investigation calls for more public and linguistic political projects aimed at educational programs to promote deaf children's access to sign language, stemming from the exposure and interaction with their linguistic peers, in their early years of life. The earlier the deaf child has their locution from Libras, the greater the chances of them developing PL.

IV. Final Considerations

The Textbook is an instrument used to create learning conditions and circulates as a product for didactic purposes (LEFFA, 2008). According to Silva (2016), the textbook is a vehicle through which social representations of people, events or objects circulate (p. 114). In the case of a TB for PL teaching adapted to Libras, it can, of course, be assumed that the guidelines for language teaching (linguistic and didactic elements) correspond to the proposed language, and, as the word "adaptation" itself says, it only configures the aspect of translating the TB into another language, thereby presupposing the translation of the written text into the signed text, that is, the translation from the written Portuguese language into the SL recorded by video cameras.

The sample described confirms the complexity in the use and appropriation of adapted materials in a second language on the part of deaf students and bilingual teachers. According to Silva (2016), social agents build representations about the object of teaching and learning a second language (TB), however, when deaf teachers and students are faced with an adapted product (TB), they do not see themselves identified with the discursive modes presented, even if one of these modes points out to their first language. It is noted that, in the textbooks investigated, the statements of the activities and the way in which the student's action is required in the face of that exercise does not promote autonomy, does not promote understanding or promote stimulation, which can cause, in the deaf student, the feeling of incompetence to deal with the task, even though it was requested in their own language, Libras.

Digital technologies have intensified the use of different language modes, although, for deaf children, they are resources that insert SL. However, Libras is not represented with the potential for instruction yet.

For Moses et al. (2018), communication technology must incorporate the linguistic and cultural model of deaf children, even though deaf and non-deaf children exposed to different linguistic models gain empathy through similarity and difference. However, based on the research, the use and appropriation of the TB adapted to Libras confirms that the technology is only an element that gives "visibility" to SL, but does not foster conditions for learning PL as L2.

Regarding the strategies used by those involved in the use of printed/adapted textbooks in SL and how these different modes are treated, it was observed that they were not considered differently, but rather as a support for each other, both students and teachers used both materials (digital/printed). The TB adapted to Libras, on CD-ROM, was used as a support for understanding the written language, that is, for the translation of texts into L2. However, the translation into Libras did not provide understanding in the activities. In this way, the accessible product was not readable to deaf students and the videos in Libras did not create a comfortable environment for reading in signs nor did they help in reading the second language.

The TB adapted to Libras is a fact. Albeit its ineffectiveness is contested and proven, it remains a bilingual instrument and educators who are unaware of the scenario on deafness can take it as a product of

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prominent place in the different ways of developing didactic resources for deaf children and will effectively become an element of real use. However, the deaf reader needs to find their visual identity, they need to be familiar with the material and experience its interface, first of all, through their language.

This research is a contribution to other investigations within the field of deafness, although we are still at the tip of a pyramid. Therefore, it is considered that this analysis certifies that, for deaf children, the simple insertion of SL is not enough, as this does not guarantee their school development. The obstacles lie in the acquisition of this language, for instance its exposure and use, and in the effective absence of linguistic public policy actions, as what is verified is the belief that the recognition of SL is enough to introduce oneself in the social scenario. Giving visibility does not necessarily reflect on the linguistic and social aspects that involve deaf students. Finally, the sample denounces the need for more research that seek to better integrate ICTs, textbooks and SL/PL to promote teaching and learning, and, for this, the teaching of PL in the written modality.

References Références Referencias

1. BRASIL, 2005. Decreto-Lei 5626 — Regulamenta a Lei nº 10.436, de 24 de abril de 2002, que dispõe sobre a Língua Brasileira de Sinais - Libras, e o art. 18 da Lei nº 10.098, de 19 de dezembro de 2000. Disponível em http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2005/decreto/d5626.htm, acesso em: ago./2015.
2. BRASIL, 2010. Decreto de Lei Nº 7084 - Dispõe sobre os programas de material didático e dá outras providências. Disponível em http://www.planalto.gov.br. Acesso em ago./2015.
3. BRASIL, 2015.Decreto de Lei Nº 5.626 - Regulamenta a Lei nº 10.436, de 24 de abril de 2002, que dispõe sobre a Língua Brasileira de Sinais - Libras, e o art. 18 da Lei nº 10.098, de 19 de dezembro de 2000.
4. BRASIL 2019, *DECRETO Nº 9.465* - ESTRUTURA REGIMENTAL DO MINISTÉRIO DA EDUCAÇÃO. Dispõe sobre à Diretoria de Políticas de Educação Bilíngue de Surdos.
5. GÁRATE, M. "Developing Bilingual Literacy in Deaf Children". In: *Literacies of the Minorities:* Constructing a Truly inclusive society. Kurosio Publishers, 2014.
6. LEFFA, J. V. "Como produzir materiais para o ensino de línguas". In: _____. *Produção de materiais de ensino:* prática e teoria. Pelotas: Educat, 2ª ed. v. 1, 2008.
7. MIRANDA, D. G. "As mediações linguísticas do intérprete de língua de sinais na sala de aula inclusiva". Dissertação de Mestrado. Faculdade de Educação. UFMG, Belo Horizonte, 2010.
8. _____. "Material didático digital: nova forma de o aluno surdo "ler" e "interagir" com os conteúdos educacionais". Disponível em http://periodicos.letras.ufmg.br/index.php/textolivre. Belo Horizonte, v. 9, n. 2, p. jul.-dez. 2016.
9. _____. A multimodalidade no ensino de Língua Portuguesa como segunda língua para surdos: análise do uso do livro didático adaptado em Libras", defendida no CEFET-MG, Brasil, em dez.2019.
10. MOSES, A. M., GOLOS, D. B.; HOLCOMB, L. "Creating and Using Educational Media with a Cultural Perspective of Deaf People". In: *Pectives on Practice. Language Arts,* v. 96, nº 1, Set./2018. p. 67–71.
11. PEREIRA, M. C. C. O *papel da língua de sinais na aquisição da escrita por estudantes surdos.* São Paulo: Secretaria da Educação, 2009.
12. PNLD – Plano Nacional de Livro Didatico. 2016. /www.fnde.gov.br/pnld-2016
13. PLAZA PUST,. "Deaf education and bilingualism". In: PFAU, R.; STEINBACH, M.; WOLL, B. (Eds.). *Sign Language:* An International Handbook. Berlin: De Gruyter Mouton, 2012. p. 949–979.
14. PORTUGUÊS. São Paulo: Editora FTD, 2011. Coleção PORTA ABERTA.
15. PORTUGUÊS. São Paulo: Editora Moderna, 2005. 1ª ed. 4 volumes. Coleção Pitanguá.
16. QUADROS, R. M. *Educação de surdos:* a aquisição da linguagem. Porto Alegre: Artmed, 1997.
17. _____*Libras.* São Paulo: Parábola Editorial, 2019.
18. SILVA, G, M. "Transitando entre a Libras e o Português na sala de Aula: em busca de estratégias visuais de ensino da leitura". In: *Revista X,* Curitiba, v. 13, n. 1, 2018. p. 206–229.
19. SILVA, R.C. *Livro Didático de Inglês:* que livro é este? Discursos de Produtores e

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Teaching of - and Research on English Pronunciation in Africa: A Multi-Model Approach

By Jean Paul Kouega

Abstract- This paper describes a novel way to conduct research on English pronunciation in Nigeria in particular and in Africa in general. Thus far, research in the continent consisted in identifying the characteristic features of the English used in each nation-state, using one target model, i.e., RP; it can be said today that such research used a one-model approach. In this study, a multi-model approach is proposed. The target model for research should not necessarily be RP, but any varieties used in a given country's major business partner countries. The central element in this multi-model approach is therefore international transactions. This means that if a country like Ghana has India as its major trade partner country, then the features of Indian English will have to be described in Ghanaian classrooms as well as research laboratories. The present study focuses on Nigeria, whose major business partner states are China, India, and the USA. For this reason, the features of the English spoken in these countries need to be highlighted in the pronunciation lectures and in research laboratories in Nigeria.

Keywords: english pronunciation; target model; research; teaching; chinese english; indian english; general american; RP; nigerian english, one-model approach, multi-model approach.

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Abstract- This paper describes a novel way to conduct research on English pronunciation in Nigeria in particular and in Africa in general. Thus far, research in the continent consisted in identifying the characteristic features of the English used in each nation-state, using one target model, i.e., RP; it can be said today that such research used a one-model approach. In this study, a multi-model approach is proposed. The target model for research should not necessarily be RP, but any varieties used in a given country's major business partner countries. The central element in this multi-model approach is therefore international transactions. This means that if a country like Ghana has India as its major trade partner country, then the features of Indian English will have to be described in Ghanaian classrooms as well as research laboratories. The present study focuses on Nigeria, whose major business partner states are China, India, and the USA. For this reason, the features of the English spoken in these countries need to be highlighted in the pronunciation lectures and in research laboratories in Nigeria. Familiarity of Nigerian citizens with these varieties is likely to enhance intelligibility as well as understanding in international interactions with the citizens of these countries.

Keywords: english pronunciation; target model; research; teaching; chinese english; indian english; general american; RP; nigerian english, one-model approach, multi-model approach.

Introduction

This paper focuses on teaching of – and research on English pronunciation in the West African region, with special emphasis on problems and prospects. There is one major problem that affects research on – and the teaching of – English pronunciation in West Africa. That problem is the choice of the English model to teach and to use for research. Over the years, RP has been the chosen model, with research in West Africa being limited to identifying, comparing and contrasting the salient phonetic and phonological differences between RP and each of the local English varieties in the region. This choice was influenced by renowned researchers including Prator and Quirk. Prator (1968) opted for a single, native-speaker model for the English language education of non-native speakers across the world. Similarly, Quirk (1988) considered variations and innovations as performance errors that needed to be corrected and as deviations from the native-speaker norm that needed to be avoided. As a result of the use of RP as target model to be attained by all learners of English, the findings of all research works highlighted the acquisitional deficiencies of each of the West African local accents. This paper proposes a completely different approach which would have an impact on both teaching and research. The paper first describes what strategies can be used to choose a model of English to teach (1), and then it highlights other ways of conducting research on English pronunciations in West Africa (2).

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I. Choosing a Model of English to Teach in West Africa

This section proposes a strategy for choosing a model for teaching oral English in the West African region. This region comprises some 17 countries, when Cameroon is included. Of these 17 countries, six are English-speaking. These are: Cameroon, Gambia, Ghana, Liberia, Nigeria, and Sierra Leone. Over the years, research on the pronunciation of English in this region consisted in comparing the features of one model of English, i.e., RP and those of each of the local English varieties. As a result, the findings of these studies highlighted the acquisitional failures of each of the West African nation-state accents, which were labelled in turn as: Cameroon English (Simo Bobda 1994; Kouega 2013), Gambian English (Wolf 2003), Ghanaian English (Sey 1973), Liberian English (Hancock 1974; Singler 1997), Nigerian English (Jibril 1979; Banjo 1993; Bamgbose, 1995; Igboanusi 2002), and Sierra Leone English (Pemagbi, 1989).

Reliance on RP was justified by the fact that each local variety had to be intelligible to the native speaker; the belief at the time was that anyone who learnt English did so in order to be able to communicate with the native speaker of English, who was assumed to speak RP. Little was it known that the RP accent in question was not the dominant accent in Britain. Actually, it was and it still is the most documented accent of English. Because of its availability in textbooks, Oral English teachers found it difficult to discard it. Unfortunately, as Soneye (2008:194) pointed out, these teachers continue "to labour, most times fruitlessly, to teach students to pronounce sounds the British way, they themselves not having the necessary input, thereby sounding bookish and the students most of the time passive." Today many researchers have realised that there is a need for an international model that can be used for pedagogical purposes. MacArthur

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(2004: 416) for example, reports that: "at the moment, there are demands for a standardised international variety so that it can be taught". Such a standard will be hard to construct as there is no authority that is in a position to determine how other users of the language would speak.

To choose a model of English to teach today, it would be a good idea for English-using countries to first discard the belief that all learners of English learn this language in order to be able to communicate with native speakers of English. This old belief can be referred to here as the one-model approach, which was recommended by many influential figures including Prator and Quirk. When this mono-model approach is applied to RP and any other native accent of English, it reveals a number of significant deviations and divergences (Wells, 1982), just as divergences are observed between RP and any non-native variety of English.

The present study proposes a multi-model approach, which stipulates that each country should adopt the position that its citizens learn English in order to communicate with the citizens of other English-speaking countries, especially those countries with which they do business. If an English-using country does business exclusively with Britain, then it would focus on RP. If on the contrary, an English-using country does business exclusively with another English-using country, it goes without saying, the two countries would need to know the characteristic features of their Englishes. Simply put, it is important for each country to integrate into its classrooms and research laboratories, those salient elements of the English of the country or countries with which it does business. To be more specific, the choice of the target model of English to use for the teaching of oral English and research on English pronunciation in a country should be determined by the transactions done in English with this country's external trade partner states. This new way of choosing a target model for teaching English is referred to above as the multi-model approach.

Let us illustrate this position with the cases of Nigeria and Ghana, two leading West African countries. In the year 2017, to take just that year, Nigeria's main export partners were: India (18%), United States of America (14%), Spain (9.7%), France (6%), Netherlands (4.9%), and Germany (3.6%); that same year, her main import partner countries were: China (28%), Belgium (8.9%), Netherlands (8.3%), South Korea (6.4%), United States (6%), and India (4.6%) (Source: https://oec.world/en/profile/country/nga/). Trade with all these countries is negotiated in English and, as one can guess, none of the negotiators speaks RP. This means that the target accents that need to enter Nigerian classrooms and research laboratories are: RP, General American, Indian English, and Chinese English. RP is chosen because it is the most documented accent of English and it cannot therefore be left out. General American is chosen by virtue of the USA being Nigeria's second export partner country (14%). Indian English must be on the list because India is Nigeria's first export partner country (18%); finally, Chinese English, though a performance variety, is chosen because China is Nigeria's top import partner country. In short, research on English pronunciation in Nigeria should focus at the same time on: RP, American English (GenAm), Indian English (IndE), and Chinese English (ChinE). The same reasoning can be made for Ghana, whose main export partners are India ($5.09B), China ($1.9B), Switzerland ($1.84B), South Africa ($918M) and the Netherlands ($911M), with its main import partners being China ($3.08B), the United States ($1.1B), India ($660M), Belgium-Luxembourg ($637M) and the United Kingdom ($587M). (Source: https://oec.world/en/profile/country/gha/). This means that Ghana's target accents for both teaching and research should be RP, GenAm, IndE, and ChinE. The point this paper is putting across is that pronunciation teaching and phonological analysis in a given country should focus on the accents of English used in its major trade partner countries. As far as Nigeria is concerned, the focus should be on RP, GenAm, NigE, IndE and ChinE, because these five accents are likely to be heard more frequently by most speakers of English within the Nigerian territory. At this point, there is a need to define each of these five accents.

a) RP (Received Pronunciation)

As many researchers including Jones (1917), Wells (1982), Gimson (1989) and MacArthur (1992) pointed out, it is an accent that developed in the Southeast of Britain and that has usually been referred to by various names including: BBC English, Standard British pronunciation, Southern British pronunciation, or Public School English. Although used by a very tiny proportion of British citizens, it is regarded as the prestige standard in the country. What makes it prestigious is the fact that it is used by people of wealth and power like the royal family, high-ranking army officers, graduates from Oxford and Cambridge universities, politicians, successful actors and, more importantly, BBC newsreaders. It is the accent that was taught in all English as a Second and Foreign language classes in the rest of the world. As such, all spoken pedagogic materials used in the world were produced in RP. Strangely enough, when visitors get to Britain, they hardly meet anyone to speak RP with. What they hear is usually a multiplicity of regional accents of English. In short, RP is an accent that is associated with education, as it is used by journalists and university graduates.

b) GenAm (General American)

This accent, which may be abbreviated to GA or GenAm, is associated with the speech of educated people. It started up in major business centres in New

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York and St Louis and, with time, it imposed itself as the form of speech to be heard over the radio and television, at the expense of many regional accents used in the south and the east of the country. Later on, it became the standard pronunciation used in scientific and business interactions throughout the country. Like RP, this accent is associated with education, as it is used by journalists and scientists.

c) NigE (Nigerian English)

Nigeria is a country where three dominant communities co-exist; these are Hausa, Igbo and Yoruba. Typical Nigerians learn Standard British English after having acquired their respective L1s in the home context. As Jowitt (1991) pointed out, they do not acquire English in the first few years of life, as is the case with native English children; they learn it as an L2 over the years, mainly through formal instruction in school. To describe their output, this researcher proposed a number of terms: Popular Nigerian English, Standard Nigerian English, and Nigerian English (p. 46). Popular Nigerian English (PNE) is the mesolectal variety of English used mainly by primary school certificate holders and high school leavers. Standard Nigerian English (SNE) is what may be referred to as educated English, that is, the acrolectal variety. Nigerian English (NE) is therefore the sum total of both Popular Nigerian English and Standard Nigerian English. In short, NE=PNE+SNE meaning: Nigerian English is Popular Nigerian English plus Standard Nigerian English. For the purpose of this study, Nigerian English is considered as the English produced in formal contexts by educated speakers like journalists, lawyers, medical doctors, teachers, and other learned people.

d) IndE (Indian English)

India is a big country of over three million square kilometres where several languages co-habit. Hindi is the dominant indigenous language with the greatest number of speakers in the country, but there are a number of regional languages which are widespread in certain states to the point that some inhabitants have limited knowledge of Hindi, the official language used for domestic affairs. It shares this official status with English, which is used mainly for interstate and federal transactions as well as international dealings. India is an English-using Outer Circle country. This term is drawn from Kachru (1985, 1992) who used three concentric circles to distinguish three groups of English-using countries: the Inner Circle which brings together the old English-speaking countries where English is a native language like Britain, the Outer Circle where English was taken to during the years of colonization and has to co-exist with other languages of various statuses like Ghana, and the Expanding Circle which groups an increasing number of countries which have adopted English as a foreign or trade language like China. In the literature on the distribution of English-using countries in the world, three types of territories are distinguished. These are: English as a Native Language (ENL) territories like Britain, English as a Second Language (ESL) countries like Ghana, where English is used for various purposes and usually has official status, and English as a Foreign Language (EFL) countries like Japan, where English is learned and used mainly for business or education (Kachru, ibid; MacArthur, 1992: 353). In this categorisation, India falls into the group of English as a Second Language (ESL) countries, where English has official status and where the preferred spoken model is usually the RP accent. English in India is used as a natural medium of communication by many people. The focus in this study is on the English of educated people (Bansal 1990; Kachru 1983), who may be journalists, lawyers, and businessmen.

e) ChinE (Chinese English)

China is a huge country where several languages or distant dialects of the same language co-exist. Northern Chinese, which is the native language of over 70% of the population, has been accepted as the written standard language and the national and official language for all Chinese. In other words, all Chinese learn Northern Chinese also known as Mandarin, in school. This means that Mandarin is an L2 for some people like Mongolians and Tibetans, and an L1 for the vast majority of Chinese. English in China is a non-native variety which falls under Kachru's Expanding Circle countries; it is a foreign language used mainly for international trade and commerce. In primary school, Chinese pupils learn Mandarin and English, with the model of English chosen being British English. In secondary school, they switch to American English and in high school they switch back to British English. This means that, right from the start, Chinese pupils and their teachers can hardly make any distinction between American and British English. In other words, Chinese English (Feifei Han 2013; Zhang and Yin 2009), whose characteristic features have been referred to as Chinglish (MacArthur 1992: 214), is a learner English variety which is made up of a mix of features of Mandarin, British English, and American English. For the purpose of this study, Chinese English is regarded as the English used in formal contexts by educated speakers like journalists, lawyers, and businessmen dealing with international trade and commerce.

Varieties of English are grouped on pedagogical terms above into Inner, Outer and Expanding Circle varieties (Kachru 2001). They can also be grouped on geoeconomic terms into "centre" and "periphery", drawing from world systems economic theory (Wallerstein, 1991). Centre countries are those with a high level of economic development like the USA and Britain; periphery countries, on the other hand, are countries with a relatively low level of economic development, like Nigeria and India. This geoeconomic

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antinomy has been transposed into the geolinguistic domain, where "centre" countries refer to Kachru's Inner Circle English-speaking countries while "periphery" countries refer to postcolonial Englishes (Canagarajah 2002, Pennycook 1998, Phillipson 1992). This geolinguistic centre-periphery dichotomy seems to overlook some countries like China which have embraced the learning of English, i.e., the Expanding Circle countries; this gap was filled by Souza Santos (1994), who coined the term "semi-periferico" or "semi-periphery" to refer to such countries. In short, varieties of English can additionally be grouped on geolinguistic terms into Centre (GenAm or RP), Periphery (IndE and NigE) and Semi-periphery (ChinE) varieties. This geolinguistic categorisation will be useful in the multi-model descriptions presented in this study.

In brief, the multi-model approach outlined above dwells on international trade, as English is essentially used in most non-native countries for international transactions.

II. Possible Ways of Doing Research on English Pronunciations in West Africa

Thus far, the issue of the choice of a model of English for research and pronunciation teaching has been outlined. This section discusses how segmental features can be described using the multi-model approach. Vowels are considered first (2.1) and consonants are taken up next (2.2). Finally, consonant cluster and syllable structure simplification processes (2.3) are dealt with.

a) Vowels

Under this heading, vowel length (2.1.1), monophthongs (2.1.2), and diphthongs and triphthongs (2.1.3) are considered.

i. *Vowel length*

Vowel length is characteristically phonemic in RP, as can be illustrated by the FLEECE and KIT vowels, where /i:/ and /ɪ/ are perceptibly distinct. The /i:/ and /ɪ/ distinction is attested in Indian and Chinese Englishes, but not in American and Nigerian Englishes. The START vowel is replaced by /a/ in most varieties except American English where pre-consonantal /r/ is added, hence /ɑr/. This pre-consonantal /r/ is also observed in CLERK, NORTH, FORCE, and NURSE. In the word CLERK, /ɑ:/ tends to be rendered as /ɛ/ in the non-native varieties; this is an obvious case of spelling-induced pronunciation, with the –ER– letter sequence being pronounced as it is spelt. The THOUGHT vowel is usually replaced by a shorter /ɔ/ sound, which is however not as short as RP /ɒ/. In brief, vowel length is not realised in the targeted varieties of English; long vowels are generally replaced by shorter vowels which are not as short as their RP equivalents. From these observations, it can be concluded that there is convergence in the rendering of long vowels in the speech of the non-native speakers considered in this study. In short, the long and short vowel pairs /i:, ɪ/, /ɑ:, æ/, /ɔ, ɒ/, and /u:, u/ tend to be conflated to /i, a, ɔ, u/ respectively. These findings are summarised in Table 1 below.

Table 1: Vowel length in the models of English considered

Words	RP	GenAm	NigE	IndE	ChinE
FLEECE	/i:/	/i/	/i/	/i:/ or /i/	/i:/
START	/ɑ:/	/ɑr/	/a/	/a/ or /a:/	/a/
tomato	/ɑ:/	/eɪ/	/a/	/a/	/a/
BATH	/ɑ:/	/æ/	/a/	/a:/	/a/
clerk	/ɑ:/	/ɜr/ or /ɜ^{r}/	/a/ or /ɛ/	/ɛ/	/ɛ/
THOUGHT	/ɔ:/	/ɔ/	/ɔ/	/ɔ/	/ɔ/
NORTH	/ɔ:/	/ɔr/	/ɔ/	/ɔ/	/ɔ/
FORCE	/ɔ:/	/ɔr/	/ɔ/	/o/ or /ɔ/	/ɔ/
GOOSE	/u:/	/u/	/u/	/u/	/u/
NURSE	/ɜ:/	/ɜr/	/ɛ/	/ɛ:/ or /a/	/œ/ or /ə/

ii. *Monophthongs*

The FLEECE and KIT vowels are distinct in the two native varieties under consideration; conversely they are rendered in the non-native varieties under consideration by an /i/ vowel which is not as long as the FLEECE vowel nor as short as the KIT vowel. Interestingly, this /i/ vowel is heard in final position in GenAm as the word HAPPY in Table 2 attests.

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Table 2: Realisations of the FLEECE, KIT and HAPPY vowels

Words	RP	GenAm	NigE	IndE	ChinE
FLEECE	/i:/	/i/	/i/	/i:/ or /i/	/i:/ or /i/
KIT	/ɪ/	/ɪ/	/i/	/ɪ/ or /i/	/i:/ or /i/
HAPPY	/ɪ/	/i/	/i/	/ɪ/ or /i/	/i/

The DRESS vowel is rendered as /ɛ/ in all varieties. However, it may occasionally be replaced by /e/ in the Indian and Chinese varieties, as Table 3 shows. This means that, in an interaction with these people, one should not be worried when /drɛs/ is occasionally rendered as /dres/, as these two forms may occur in the speech of the same speaker.

Table 3: Realisation of the DRESS vowel

Words	RP	GenAm	NigE	IndE	ChinE
DRESS	/ɛ/	/ɛ/	/ɛ/	/ɛ/ or /e/	/e/ or /ɛ/

The TRAP vowel tends to be rendered as /æ/ in the native varieties. However, it is systematically replaced by /a/ in Nigerian English and it alternates with /ɛ/ in Chinese English. The START vowel is replaced by /a/ in the non-native models and it is accompanied with the pre-consonantal /r/ in GenAm. The letter A in the word TOMATO is rendered by the monophthong /a/ in the non-native varieties and by the diphthong /eɪ/ in GenAm. The implication here is that non-native speakers can more readily understand this word when it is pronounced by an RP speaker than by an American English speaker. The BATH vowel is consistently rendered as /a/ in the non-native models, which cannot affect a conversation with Americans who tend to pronounce it as /æ/ nor RP speakers who say /ɑ:/ instead. Finally the CLERK vowel is replaced by /ɛ/ in the non-native varieties; this rendering seems to be influenced by the spelling of the word, as the sequence of letters –ER– in medial position may be rendered as /ɛ/ in words like "clergy" and "cleric". This rendering may therefore be attributed to spelling pronunciation. In Nigerian English, a few purists use /a/ instead of /ɛ/; this rendering is therefore consistent with the rule of conflation of long and short RP vowels mentioned earlier. Finally, in GenAm, the pre-consonantal /r/ element follows the vowel /ɜ/, yielding /klɜrk/. Both the RP and GenAm renderings of this word can be a real challenge for the non-native speakers, whereas the reverse is not true, as these native speakers can be inspired by the presence of the –ER– sequence in the spelling of the word. This is summarised in Table 4.

Table 4: Realisations of the TRAP, START, TOMATO, BATH and CLERK vowels

Words	RP	GenAm	NigE	IndE	ChinE
TRAP	/æ/	/æ/	/a/	/æ/	/æ/ or /ɛ/
START	/ɑ:/	/ɑr/	/a/	/a/ or /a:/	/a/
tomato	/ɑ:/	/eɪ/	/a/	/a/ or /a:/	/a/
BATH	/ɑ:/	/æ/	/a/	/a:/	/a/
clerk	/ɑ:/	/ɜr/	/a/ or /ɛ/	/ɛ/	/ɛ/

The LOT vowel on the one hand, and that of THOUGHT, NORTH, and FORCE are conflated to /ɔ/ in the non-native varieties. This conflation may affect the perception of isolated words but not words used in context. However, the rendering of the vowel /ⓘ/ in the word LOT as /ɑ/ in GenAm is likely to confuse both unaccustomed RP speakers and non-native users. These findings are presented in Table 5.

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Table 5: Realisations of the LOT, THOUGHT, NORTH, and FORCE vowels

Words	RP	GenAm	NigE	IndE	ChinE
LOT	/ɒ/	/ɑ/	/ɔ/	/ɔ/	/ɔ/
THOUGHT	/ɔ:/	/ɔ/	/ɔ/	/ɔ/	/ɔ/
NORTH	/ɔ:/	/ɔr/	/ɔ/	/ɔ/	/ɔ/
FORCE	/ɔ:/	/ɔr/	/ɔ/	/o/ or /ɔ/	/ɔ/

The FOOT vowel, which is pronounced the same in the two native varieties considered here, is systematically rendered as /u/ in the non-native varieties. This same /u/ vowel is used in the word GOOSE in four of the five varieties under study, as Table 6 shows.

Table 6: Realisations of the FOOT and GOOSE vowels

Words	RP	GenAm	NigE	IndE	ChinE
FOOT	/ʊ/	/ʊ/	/u/	/u/ or /ʊ/	/u/
GOOSE	/u:/	/u/	/u/	/u/	/u/

The LETTER vowel tends to be rendered as /ər/ in GenAm, IndE and ChinE. This rendering with the post-vocalic /r/ may have resulted from the influence of GenAm on IndE and ChinE. This influence has not reached Nigeria and other West African countries, where RP central vowels are systematically replaced by peripheral vowels, with /ə/ rendered as /a/ as in "teacher" or as /ɔ/ as in "doctor". The COMMA vowel is pronounced the same in the two native varieties i.e. /ə/, and the same in the three non-native varieties i.e. /a/; the latter rendering is a good example of spelling pronunciation. Finally the STRUT vowel is pronounced the same in the two native varieties, with the /ʌ/ vowel. This vowel is rendered as /a/ in both IndE and ChinE. In West African countries including Nigeria, it is replaced by /ɔ/. In other words, the NigE pronunciation may be a problem for speakers of the other four varieties under scrutiny.

Table 7: Realisations of the LETTER, COMA and STRUT vowels

Words	RP	GenAm	NigE	IndE	ChinE
LETTER	/ə/	/ər/	/a/	/ər/	/ər/
COMMA	/ə/	/ə/	/a/	/a/	/a/
STRUT	/ʌ/	/ʌ/	/ɔ/	/ʌ/ or /a/	/a/

In brief, as the analysis above shows, there is a great deal of convergence in the realisations of English monophthongs in the speech of non-native speakers, which means that their citizens can easily communicate effectively, with each of them speaking its own variety of English. Needless to say, these realisations tend to be different from those of native speakers.

iii. *Diphthongs and triphthongs*

The FACE vowel is rendered as a diphthong in the native varieties; it is systematically monophthongised in the non-native varieties. The PRICE vowel tends to be pronounced in a recognisable way in all the varieties; however the AGILE vowel is monophthongised into /ɜ/ in GenAm and /a/ in ChinE. Like the PRICE vowel, the CHOICE vowel is readily recognisable in all the varieties under study, as Table 8 shows.

Table 8: Realisations of the FACE, PRICE, AGILE and CHOICE vowels

Words	RP	GenAm	NigE	IndE	ChinE
FACE	/eɪ/	/eɪ/	/e/	/e/	/e/
PRICE	/aɪ/	/aɪ/	/ai/	/aɪ/	/ai/
AGILE	/aɪ/	/ɜ/ or ø	/ai/	/ai/	/a/
CHOICE	/ɔɪ/	/ɔɪ/	/ɔi/	/ɔɪ/	/ɔi/

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The GOAT vowel is realised as a monophthong in all the varieties except RP, as Table 9 reveals. The replacement of / əʊ / by /o/ in four different varieties seems to be a mere coincidence, as there is virtually no historical or linguistic factor which justifies this convergence. The most likely factor may be spelling, as the letter sequence OA is generally rendered as /o/, as the words "coat", "approach", "toast" and "throat" show. The MOUTH vowel surfaces as a diphthong in all the varieties under consideration.

Table 9: Realisations of the GOAT and MOUTH vowels

Words	RP	GenAm	NigE	IndE	ChinE
GOAT	/əʊ/	/o/	/o/	/o/ or /oː/	/o/
MOUTH	/aʊ/	/aʊ/	/au/	/au/	/au/

The renderings of NEAR, CURE and SQUARE are markedly different in the five varieties under consideration. This can be a serious cause of misunderstanding. The diphthong /ɪə/ is mono-phthongised in GenAm (/ɪr/), with the post-vocalic /r/ element replacing the schwa. In NigE, this same schwa is replaced by the DRESS vowel. The CURE vowel has the most diverse realisation in the five varieties. An extra effort has to be made by listeners to recognise this word. The SQUARE vowel is reduced to the monophthong /ɛ/ in the three non-native varieties. This reduction also occurs in GenAm, but its characteristic post-vocalic /r/ element is added.

Table 10: Realisations of the NEAR, CURE and SQUARE vowels

Words	RP	GenAm	NigE	IndE	ChinE
NEAR	/ɪə/	/ɪr/	/iɛ/	/iar/	/iə/
CURE	/ʊə/	/ʊr/	/uɔ/	/u/, /uə/ or /ijo/	/uə/ or /ɔ/
SQUARE	/ɛə/	/ɛr/	/ɛ/	/ɛ/	/ɛ/

The FIRE vowel is realised as a diphthong followed by the post-vocalic /r/ (diphthong+/r/) in GenAm. In the non-native varieties, its central element /I/ tends to surface as /j/, therefore breaking the triphthong into two different syllables, i.e., /a.ja/ in NigE and /a.jə/ in both IndE and ChinE. The GREYER vowel is systematically converted into a diphthong followed by the schwa and the postvocalic /r/, i.e., diphthong +/ə /+/r/ in GenAm. Elsewhere, the central component of the triphthong is realised forcefully to the point that it surfaces as the glide /j/. In short, when the first element of a triphthong is a front vowel, the central element is replaced by /j/ in the non-native varieties under consideration. When on the contrary this first element is a back vowel, the same process applies, but this time, the central element is replaced by the glide /w/ in the non-native varieties, as the words "employer", "power" and "lower" in Table 11 show. In GenAm, these triphthongs are realised as a diphthong followed by the sequence /ər/.

Table 11: Realisations of the triphthongs

Words	RP	GenAm	NigE	IndE	ChinE
Fire	/aɪə/	/aɪr/	/aja/	/ajə/	/ajə/
Greyer	/eɪə/	/eɪ.ər/	/eja/	/ejə/	/ejə/
employer	/ɔɪə/	/ɔɪ.ər/	/ɔja/	/ɔjə/	/ɔjə/
Power	/aʊə/	/aʊ.ər/	/awa/	/awə/	/awə/
Lower	/əʊə/	/oʊ.ər/	/ɔwa/	/ɔwə/	/ɔwə/

In brief, the analysis of the realisations of vowel sounds shows that these vowels undergo various processes in the varieties under consideration. Some monophthongs are replaced by others, some diphthongs are monophthongised, and triphthongs are generally broken into two separate syllables, with the second syllable beginning with a glide like /j/ or /w/.

b) Consonants

This section dwells on the renderings of individual consonant segments. It takes up voiced consonants first (2.2.1). Then it looks into interdental consonants (2.2.2) and finally other consonants (2.2.3). These are taken up in turn.

i. *Voiced consonants*

A consonant is said to be voiced when, during its articulation, the vocal cords vibrate (Meyer 2009). For example, in the pair /p, b/, the first element is voiceless whereas the second is voiced. In English, voiced consonants are devoiced in certain contexts. For example, when voiced plosive, fricative, and affricate

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consonants precede a voiceless sound, they are systematically devoiced. Take for example the two phrases "his case" and "his box". When the word "his" occurs in isolation, it ends with the voiced consonant /z/. When it is followed by a voiced sound as in the phrase "his box", this voiced /z/ is used because the following sound /b/ is voiced: /hɪz bɔ①ks/. When on the contrary, the following sound is voiceless as in the word "case", the sound /z/ is devoiced to /s/, hence /hɪs keɪs/. In other varieties of English, consonant devoicing tends to be used in different contexts. In the non-native varieties under consideration, devoicing usually occurs in word-final voiced consonants. Illustrations are provided in Table 12.

Table 12: Devoicing of consonants

Words	RP	GenAm	NigE	IndE	ChinE
Globe	/b/	/b/	/p/	/p/	/p/
Hide	/d/	/d/	/t/	/t/	/t/
Bag	/g/	/g/	/k/	/k/	/k/
Toys	/z/	/z/	/s/	/s/	/s/
Fridge	/dʒ/	/dʒ/	/tʃ/	/ts/	/ts/

As these examples show, consonant devoicing is systematic in word-final position in NigE, IndE and ChinE.

ii. *Interdental consonants*

These sounds, which are pronounced the same in the native varieties, are hardly realised in non-native Englishes. In the two post-colonial Englishes under consideration, i.e. NigE and IndE, /θ/ is replaced by /t/ and /ð/ by /d/. In ChinE, these two sounds are replaced by /s/ and /z/ respectively, as Table 13 shows. At final position, /ð/ is replaced by /t/ in the post-colonial varieties and by /s/ in ChinE, as the word "with" below shows. This can be regarded as another instance of consonant devoicing that was outlined in 2.2.1 above.

Table 13: Realisations of interdental sounds

Words	RP	GenAm	NigE	IndE	ChinE
Thin	/θ/	/θ/	/t/	/t/	/s/
The	/ð/	/ð/	/d/	/d/	/z/
With	/ð/	/ð/	/t/	/t/	/s/

iii. *Other consonants*

The consonant /t/ at intervocalic position is rendered the same in all varieties except GenAm, where it is pronounced /d/ as in the word "city". In RP, GenAm and NigE, the labio-dental consonant /v/ is pronounced the same in most contexts. It is systematically replaced by the bilabial /b/ in IndE and the bilabial /w/ in ChinE. The voiced palato-alveolar consonant /ʒ/ is realised as expected in RP, GenAm and ChinE. In the post-colonial varieties, it may be devoiced as in NigE, or realised as a voiced affricate sound in IndE. The voiceless affricate sound /tʃ/ tends to be realised in all varieties as expected except ChinE where it is replaced by /tr/. The same can be said of its voiced counterpart /dʒ/, which is rendered as /ts/ in all contexts. Devoicing of consonants takes place in word-final position; /dʒ/ therefore surfaces as /tʃ/ in NigE and as /ts/ in both IndE and ChinE. The velar nasal /ŋ/ is rendered as /ŋg/ in medial position in the non-native varieties, as the word "singing" shows; this is an instance of spelling pronunciation. This velar nasal is systematically replaced by the alveolar nasal /n/ in final position in these same varieties (singing).

The alveolar lateral sound /l/ is rendered as expected in all contexts and in all the varieties; however, it is replaced at final position in ChinE by the alveolar nasal /n/, as in the word "pale", which surfaces as "pane". The alveolar roll /r/ occurs in all varieties but in different contexts. In ChinE, it is replaced by /w/ or /l/ at both initial and medial positions and is actually articulated as expected at final position. This may be an influence of GenAm, which seems to have affected IndE, as the words "rice", "derive", and "pear" below show. Needless to say, /r/ is silent at final position in RP and NigE. Finally, the bilabial semi-vowel /w/ is rendered in all varieties as expected except in ChinE, where it is systematically replaced by the labio-dental fricative /v/, as the words "win" and "underwear" show.

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Table 14: Realisations of other consonant sounds

Words	RP	GenAm	NigE	IndE	ChinE
city	/t/	/d/	/t/	/t/	/t/
food	/f/	/f/	/f/	/p/	/f/
vest	/v/	/v/	/v/	/b/ or /w/	/w/
pleasure	/ʒ/	/ʒ/	/ʃ/	/dʒ/	/ʒ/
chin	/tʃ/	/tʃ/	/tʃ/	/tʃ/	/tr/
fridge	/dʒ/	/dʒ/	/tʃ/	/ts/	/ts/
singing	/ŋ/	/ŋ/	/ŋ/	/ŋg/	/ŋg/
singing	/ŋ/	/ŋ/	/n/	/n/	/n/
pale	/l/	/l/	/l/	/l/	/n/
rice	/r/	/r/	/r/	/r/	/w/ or /l/
derive	/r/	/r/	/r/	/r/	/w/ or /l/
pear	/ /	/r/	/ /	/r/	/r/
win	/w/	/w/	/w/	/w/	/v/
underwear	/w/	/w/	/w/	/w/	/v/

c) Consonant cluster and syllable structure simplification

Various consonant cluster and syllable structure simplification processes are observed in the varieties under consideration. The consonant cluster simplification processes can grouped under two broad headings: those which declusterise by deleting some elements from clusters (consonant deletion), and those which simplify clusters by inserting a vowel in them (vowel epenthesis). These are considered in turn.

In GenAm, Yod dropping is systematic. In the context of /j/ followed by /U/ after alveolar sounds like /t/, /d/, /s/, /n/, /l/, the /j/ tends to be dropped. This can be illustrated by the words "tube", and "news", where the RP /C/ + /j/ cluster is rendered as /C/. This process seems to have entered IndE and ChinE, but not NigE, as Table 15 shows. Similarly /nt/ is rendered as /n/ in GenAm; this can be illustrated by the word "winter", which rhymes with "winner". This dropping of /t/ does not take place in NigE, IndE and ChinE. In the same vein, the cluster /kt/ as in the word "act" tends to be reduced to /t/ in NigE (Soneye and Oladunjoye, 2015), and to /k/ in IndE and ChinE. This simplification does not occur in GenAm. Both types of reduction can be a good source of misunderstanding.

Table 15: Consonant cluster simplification: deletion

Words	RP	GenAm	NigE	IndE	ChinE
Tube	/tj/	/t/	/tj/	/t/	/t/
News	/nj/	/n/	/nj/	/n/	/n/
Winter	/nt/	/n/	/nt/	/nt/	/nt/
Act	/kt/	/kt/	/t/	/k/	/k/

Vowel epenthesis is another common process which characterises the varieties under consideration. The cluster /ʃn/ as in "version" is rendered as /ʒn/ in GenAm; this cluster is broken by an epenthetic vowel, which surfaces as /ɔ/ in NigE and as /ə / in IndE and ChinE. Similarly the CC cluster /sp/ as in 'speech" may be rendered as /səp/, where the anaptyctic vowel / ə / is inserted in-between the CC cluster to yield a CVC structure. On the other hand, the prothetic vowel /i/ may be inserted at the beginning of /sp, st, sk/ clusters to turn them from a CC structure into a VCC structure, like "school" where /sk/ is rendered as /isk/.

Table 16: Consonant cluster simplification: epenthesis

Words	RP	GenAm	NigE	IndE	ChinE
Version	/ʃn/	/ʒn/	/ʃɔn/	/ʃən/	/ʃən/
Speech	/sp/	/sp/	/sp/	/sp/	/səp/
School	/sk/	/sk/	/sk/	/isk/	/isk/

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Syllable structures tend to be simplified by one generalised process which is the insertion of a vowel or a consonant where they are not expected. The consonant /j/ may be used in fast RP speech to ease the transition of one word to the next as in "my arm". The same can be said of the consonant /w/, which may be used to link two words in fast speech, as in "go away". This process can be exploited in normal speech rate to change the structure of a syllable from a VCV pattern to a CVCV pattern. This can be illustrated by the word "every" which is rendered in Indian English as /jɛvəri/, with an intrusive initial /j/ (Gargesh 2008). This same process is observed in the word "only" which is rendered with an intrusive /w/ at initial position: /wɔnli/. Syllable structure may also be modified by the use of vowels. For example a CVC structure may be changed into a CVCV structure in ChinE when the final C is a stop consonant (Feifei Han 2013). Final alveolar and velar stops (/t/, /d/, /k/, /g/) tend to take the vowel /ə/. Hence, words like "hot" and "good" (CVC) tend to be rendered as /hɔtə/ and /gudə/ (CVCV). Bilabial stops rather go with the vowel /u/ as in "map" and "tab", which are rendered /mapu/ and tabu/. Another process which changes syllable structure is the substitution of the vowel /ə/ for the consonant /l/ when it occurs in final position in ChinE; this process may change a CVC structure into a CV structure as can be illustrated by the word "pool" /puə/, which usually rhymes with "poor". These findings are presented in Table 18.

Table 18: Syllable structure simplification

Words	RP	GenAm	NigE	IndE	ChinE
every	/ɛvrɪ/	/ɛvri/	/everi/	/jɛvəri/	/eweri/
only	/əʊnlɪ/	/ɔnli/	/ɔnli/	/wɔnli/	/ɔnli/
hot	/hɒt/	/hat/	/hɔt/	/hɔtə/	/hɔt/
good	/gʊd/	/gʊd/	/gut/	/gudə/	/gudə/
map	/mæp/	/mæp/	/map/	/map/	/mapu/
tab	/tæb/	/tæb/	/tap/	/tap/	/tabu/
pool	/pu:l/	/pu:l/	/pul/	/pul/	/puə/

III. Conclusion

This paper has proposed a new way of teaching and doing research on – English pronunciation in Nigeria in particular and in Africa in general. Previous researchers have been highlighting the contrast between RP and other varieties, with RP being regarded as the model to approximate. This can be called the one-model approach. In this study, the multi-model approach has been outlined: the citizens of each English-using country are expected to familiarise themselves with the salient features of the English of the citizens of the country or countries with which they do business. If for example India is a country's major trade partner, then this country has to carry out research on the features of the Indian variety of English. In the one-model approach, teachers and researchers used to identify features and contrast them. Using the error analysis tool, they showed how distant the identified features were from the features of RP, the target model.

In the multi-model approach, teachers and researchers will identify features and compare them in order to facilitate convergence, with the ultimate aim being to increase intelligibility during business transactions. This model is an empowerment tool that will lead to the simplification of the phonology of the English language, and the new accent thus created will have a greater number of speakers than all the native accents' speakers put together. Ultimately, the multi-model approach will solve the issues of internal variations within a given country like Nigeria, as focus will henceforth shift from tribal, ethnic or regional features towards global features.

When research in the multi-model approach reaches full gear, this newly constructed accent of English will exhibit a number of salient features, some of which are:

- dominance of spelling pronunciation, which will cause weak vowels to be articulated fully;
- loss of phonemic distinctiveness of vowel length, which will cause "fit" and "feet" to be homophonous;
- replacement of interdental sounds with alveolar sounds /t, d. s. z/
- systematic devoicing of consonants in word-final position, which will cause "back" and "bag" to be homophonous, to name only these.

In brief, knowledge of the salient features of the Englishes of one's country business partner countries is likely to accelerate convergence, enhance intelligibility, and therefore limit the possibility of misunderstanding. Greater familiarity with salient features will eventually lead to closer convergence.

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References Références Referencias

1. Bamgbose, A. (1995). English in the Nigerian environment. In A. Bamgbose, A. Banjo, & A. Thomas (Eds.), *New Englishes: A West African perspective* Mosuro, The British Council (pp. 9-26).
2. Banjo, A. (1993). An endonormative model for the teaching of the English language in Nigeria. International *Journal of Applied Linguistics* https://doi.org/10.1111/j.1473-4192.1993.tb00050
3. Bansal, R. K. (1990). The pronunciation of English in India. In Ramsaran, S. (ed.), *Studies in the pronunciation of English: A commemorative volume in honour of A. C. Gimson.* London, Routledge
4. Bussmann, H. (1996). *Routledge dictionary of language and linguistics.* London, Routledge.
5. Canagarajah, A. S. (2002). *The geopolitics of academic literacy and knowledge production*. Pittsburgh, University of Pittsburgh Press
6. Feifei Han (2013). Pronunciation problems of Chinese learners of English. *ORTESOL Journal*, 30, 26-30
7. Gargesh, R. (2008). Indian English: Phonology. *ResearchGate* (available at https://www.researchgate.net/publication/2888864349)
8. Gimson, A. C (1989). An introduction to the pronunciation of English (4th Edn), London, Edward Arnold
9. Hancock, I. (1974). English in Liberia. *American Speech*, 49(3/4), 224-229. doi:10.2307/3087801
10. Huber, M. (2004). Ghanaian English phonology. In Kortmann, B. and Schneider, E. W. (eds.) *A handbook of English varieties* Berlin, Walter de Gruyter (pp. 843-865).
11. Igboanusi, H. (2002). *A dictionary of Nigerian English usage*. Ibadan, Enicrownfit
12. Jibril, M. (1979). Regional variation in Nigeria spoken English. In Ubahakwe, (ed.). *Varieties and functions of English in Nigeria*. Ibadan, African Universities Press (pp. 78-93)
13. Jones, D. (1917). *Everyman's English pronouncing dictionary*. London, Dent and Sons
14. Jowitt, D. (1991). *Nigerian English usage: An introduction*. Lagos, Longman.
15. Kachru, B. B. (1982). *The other tongue. English across cultures*. Urbana, Ill. University of Illinois Press
16. Kachru, B. B. 1983. *The Indianization of English: The English language in India.* Delhi, Oxford University Press
17. Kachru, B. B. (1992). *The other tongue* (2nd Ed). Urbana, University of Illinois Press
18. Kouega, J. P. (2013). RP and the Cameroon English accent: An overview. *US-China Foreign Language*, 11(12), 887-900
19. MacArthur, T. (1992). *The Oxford Companion to the English language*, Oxford, Oxford University Press
20. McArthur, T. (2004). Singapore, grammar and the teaching of internationally acceptable English. *English Today*, 20(4), 13-19
21. Meyer, C. F. (2009). *Introducing English linguistics*. Cambridge, Cambridge University Press.
22. Pemagbi, J. (1989). Still a deficient language? — The new English of Sierra Leone. *English Today* 17
23. Pennycook, A. (1998). *English and the discourses of colonialism*. London, Routledge
24. Phillipson, R. (1992). *Linguistic imperialism*. Oxford: Oxford University
25. Prator, C. H. (1968). The British heresy in TESL. In Fishman, J. A., Ferguson, C. A., and Das Gupta, J. (Eds.), *Language problems of developing nations* (pp. 459–476). New York, John Wiley.
26. Quirk, R. (1988). Language varieties and standard language. *Japanese Association for Language Teaching Journal*, *11*(1), 14–25.
27. Sey, K. A. (1973). *Ghanaian English: An exploratory survey*. London, Macmillan
28. Simo Bobda, A. (1994). *Aspects of Cameroon English phonology*. Bern, Peter Lang
29. Singler, J.V. (1997), The configuration of Liberia's Englishes. *World Englishes*, 16, 205-231. doi: 10.1111/1467-971X.00060
30. Soneye, T. (2008). Teacher-centered impediments to oral English learning. *ES 29*, 185-200
31. Soneye, T. and Oladunjoye, F. J. (2015). Syllable structure in educated Nigerian spoken English. *Konin Language Studies KSJ*, 3(3), 255-269
32. Sousa Santos, B. (1994) Pela mão de Alice: O social e o político na pós-modernidade. Porto: Edicoes Afrontamento
33. Trask, R. L. (1996). *A dictionary of phonetics and phonology*. London, Taylor & Francis Routledge
34. Vrabel, T. T., (2009). *Lectures in theoretical phonetics of the English language and method: Guides for seminars.* Poli Print, Ungvár
35. Wells, J. C. (1982). *Accents of English: An introduction*. Cambridge, Cambridge University Press
36. Wolf, H. G. (2003). An account of distinctive phonetic and lexical features of Gambian English. *Research Gate* (Available at DOI: https://researchgate.net/publication/233570413
37. Zhang, F. and Yin, P. (2009). A study of pronunciation problems of English learners in China. *Asian Social Science*, 5, 141-146

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Mobile Educational Game to help the Learning of Scrum Agil Development Method

By Priscilla Leão de Lima

Abstract- Scrum is one of the agile methodologies that companies seek to use for project management. Based on this fact, a mobile educational game was developed to help the teacher and dynamize the class, having some steps to follow, containing two steps, in the first one the student will complete the quiz, to know his statistics of errors and successes of the chosen answers. in the quiz about the Scrum method. In the final step, the construction of a city must be carried out that the student must fulfill, within this construction he will learn about roles, events and artifacts linked to Scrum through rules and in the continuation of the game.

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Mobile Educational Game to help the Learning of Scrum Agil Development Method

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Abstract- **Scrum is one of the agile methodologies that companies seek to use for project management. Based on this fact, a mobile educational game was developed to help the teacher and dynamize the class, having some steps to follow, containing two steps, in the first one the student will complete the quiz, to know his statistics of errors and successes of the chosen answers. in the quiz about the Scrum method. In the final step, the construction of a city must be carried out that the student must fulfill, within this construction he will learn about roles, events and artifacts linked to Scrum through rules and in the continuation of the game.**

I. Introdução

É indiscutível que as empresas hoje em dia, tendem a investir em inovações em seu empreendimento, de uma forma que reduza seus custos, mas sem perder a qualidade do produto oferecida para seus clientes e que seja flexível a mudanças, nesse contexto pode-se encaixar o método de desenvolvimento ágil Scrum para suprir essa situação.

O Scrum (nome derivado de uma atividade que ocorre durante um jogo de Rugby) é um modelo ágil de processo que foi desenvolvido por Jeff Sutherland e por sua equipe no início da década de 1990 (PRESSMAN, 2006). Originalmente, o Scrum foi desenvolvido para ser implementado em equipes de desenvolvimento de produtos de software. Porém, pode ser utilizado por qualquer empresa que necessite implementar processos de gerenciamento de projetos, tais como agências de publicidade, projetos de arquitetura, bancos (SILVA, et al, 2010).

Este método Scrum não requer ou fornece qualquer técnica específica para a fase de desenvolvimento, apenas estabelece conjuntos de regras e práticas gerenciais que devem ser adotadas para o sucesso de um projeto (CARVALHO & MELLO 2009).

Os Jogos tem como principal característica o foco direto à educação. Assim, os jogos são projetados afim de transmitir informações sobre um determinado domínio. Como este jogo ocorre, como é o roteiro, as características lógicas do jogo, ou mesmo as audiovisuais, são decisões de projeto afim de que se possa alcançar de maneira eficiente o objetivo de ensino (OLIVEIRA, 2010)

Um dos trabalhos relevantes na área é a plataforma Qranio, que proporciona aprendizado ao desafiar seus conhecimentos, motivando o usuário a ler sobre artes, biologia, cinema, DETRAN, ENEM, entre outros, surgindo a necessidade do mesmo para adquirir uma melhor compreensão sobre tais assuntos abordados na plataforma (BISSOLOTTI, 2016).

O SE-RPG é uma ferramenta que simula o ambiente de desenvolvimento de software através de um jogo que tem por cenário uma empresa de desenvolvimento fictícia (MOLLÉRI, 2006, p. 74). Apresentando três (3) ambientes na interface gráfica: recepção e sala de reuniões, sala de direção e sala de produção.

"O mercado de trabalho tem crescido muito nessa área de ensino da engenharia de software", segundo a afirmação de Aynur Abdulnasyrov fundador do LinguaLeo, por exemplo, os games consomem uma fatia de cerca de 52% do mercado de entretenimento eletrônico.

Dentre as diversas metodologias ágeis de gerenciamento de projetos, o Scrum é o de uso mais popular no Brasil (PMISURVEY.ORG, 2013). É um framework estrutural que está sendo utilizado desde o início de 1990 para tratar e resolver problemas complexos e adaptativos (SCHWABER & SUTHERLAND, 2013). É considerado leve e simples de entender, baseia-se em curtos ciclos de inspeção e adaptação, e prioriza o desenvolvimento das funcionalidades com maior valor para o negócio. Os benefícios do uso do Scrum no projeto ficam evidentes com o aumento de mais de 80% na produtividade, a diminuição de 25% do custo e a melhoria de cerca de 40% na qualidade dos projetos (COHN, 2010).

Para consolidar a importância do aprendizado, uma alternativa para o ensino são os jogos educacionais, visando uma melhor instrução, este trabalho tem como objetivo auxiliar o ensino e aprendizado do Scrum, que enfatiza a comunicação, o trabalho em equipe, a flexibilidade e sempre fornecer software funcional e de forma incremental (BARTON e CAMPBELL, 2007), onde os usuários tendem a ter dificuldades na habilidade de mudar a cultura organizacional seguido de resistência geral à mudanças.

Através desse jogo voltado principalmente para alunos de Engenharia de Software, temos como meta a aprendizagem de forma mais dinâmica, colocando em prática tudo o que foi ministrado em aula, sendo assim uma boa aplicação que serve como apoio para

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professores que necessitam de uma ferramenta que apoie o aprendizado de tal assunto.

II. Tecnologias Utilizadas

a) Visual Studio

Visual Studio é um conjunto completo de ferramentas de desenvolvimento para criação ASP.NET aplicativos da Web, Serviços Web XML, aplicativos de desktop e aplicativos móveis. Visual Basic, Visual C#, e Visual C++ todos integradas ao ambiente de desenvolvimento (IDE), que permite o compartilhamento de ferramenta e facilita a criação de soluções de idioma misto. Além disso, esses idiomas usam a funcionalidade de .NET Framework, que fornece acesso a tecnologias-chave que simplificam o desenvolvimento de aplicativos Web ASP e Serviços Web XML. (DEL SOLE, 2010).

b) Astah Community

Para a documentação dos diagramas foi utilizado a ferramenta Astah Community. Astah, muito conhecido anteriormente como JUDE (Java e Uml Developers), é uma ferramenta de modelagem UML (Unified Modeling Language) criado pela Vision empresa japonesa pelo Instituto Tecnologia da Informação, a base do Astah foram concebidos para ser de fácil acesso, as seguintes funcionalidades agregadas na ferramenta comunitária (YOSHIDOME, 2013) , esta ferramenta nos auxilia para desenvolvermos a diagramação e documentação de software a ser criado.

A UML é uma linguagem-padrão para elaboração da estrutura de projetos de software (BOOCH, 2000). A UML é apenas uma linguagem e, portanto, é somente uma parte de um método para desenvolvimento de software.

c) Photoshop

Para a criação das imagens foi utilizado a ferramenta Adobe Photoshop. Adobe Photoshop é um software caracterizado como editor de imagens bidimensionais do tipo raster (possuindo ainda algumas capacidades de edição típicas dos editores vectoriais) desenvolvido pela Adobe Systems(ALMEIDA, 2013). É considerado líder no mercado dos editores de imagem profissionais, assim como o programa de facto para edição profissional de imagens digitais e trabalhos de pré-impressão.

d) AssistantMeega

Para criação dos gráficos na análise de dados foi utilizado o AssistantMeega, uma ferramenta de apoio para automatizar o agendamento e aplicação do questionário, assim como a tabulação dos dados recebidos.Também é empregado o Modelo MEEGA neste método, avaliando a qualidade e eficácia de jogos educacionais voltados para o ensino de Engenharia de Software.

III. Descrição do Aplicativo

O aplicativo trata-se de um jogo baseado no método de desenvolvimento ágil Scrum, focado no ensino da teoria e prática dos conceitos que compõe o mesmo, de uma forma mais simples, prática e dinâmica.

O objetivo do jogo juntamente com o conceito/prática do Scrum é a construção de uma cidade, dividida previamente em quatro listas de atividades sendo elas: bairro, igreja, hospital e mercado.

A atividade inicial do jogo, é um quiz com questões gerais sobre todo o assunto, todas questões objetivas, com justificativas das respostas quando respondidas corretamente. Também exibirá a pontuação do usuário conforme seu desempenho.

A segunda fase da construção da cidade proposta ao usuário, são de algumas regras em que cada cenário deverá conter. O processo de construção é feito apresentando os elementos disponíveis no jogo e o usuário seleciona e arrasta ao local desejado, cada parte da Sprint leva em média de dez a vinte segundos para a finalização da construção, porém se o usuário não cumprir o que foi lhe proposto, terá que repor na outra etapa além das regras estabelecidas. Conforme concluído, ou não, pois o Scrum permite que você avance para a próxima Sprint, todavia é necessário nessa fase cumprir o que ficou pendente; assim seguindo para a próxima fase, repetindo os mesmos passos: planejamento e desenvolvimento.

O objetivo desta etapa é levar o jogador a desenvolver os três papeis presentes no modelo Scrum, são eles: Scrum Master, equipe de desenvolvimento e Product Owner. Ele desempenha esses papeis a partir do início da construção da cidade, uma vez que ele precisa planejar como realizará a construção da cidade, depois ele se verá como parte da equipe de desenvolvimento uma vez que participará do processo de criação dentro das Sprint's, além de tudo isso ele mesmo avaliará toda a cidade pronta, como Scrum Master.

a) Diagrama de Caso de Uso

O diagrama de caso de uso documenta o que o sistema faz do ponto de vista do usuário. Em outras palavras, ele descreve as principais funcionalidades do sistema e a interação dessas funcionalidades com os usuários do mesmo sistema. Nesse diagrama não nos aprofundamos em detalhes técnicos que dizem como o sistema faz.

Nesta seção são apresentadas as funcionalidades e características da aplicação.

A Figura 8 apresenta o diagrama de caso de uso para o cenário do usuário.

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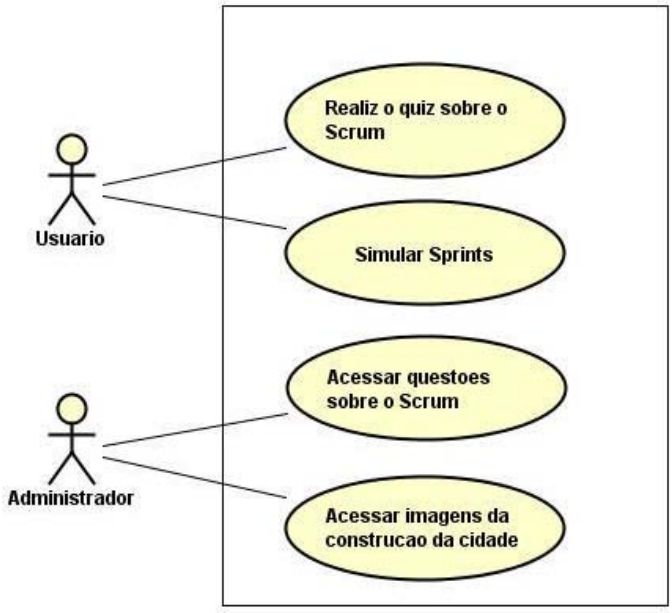


Figura 8: Diagrama de Caso de Uso - Usuário

Aqui estão as possíveis ações para o usuário. O usuário realizará o quiz onde constará 10 questões para serem desenvolvidas durante o jogo, caso o usuário erre a resposta, será exibido uma mensagem de erro, caso acerte, o jogo exibirá a tela com a resposta correta, juntamente com a justificativa da questão. Após a realização do quiz, o usuário terá que construir uma cidade, em cada cenário existem regras em tempo que deverão ser seguidas, caso o usuário não complete as tarefas estabelecidas na primeira etapa, terá que repor na etapa seguinte, além do que foi estabelecido na mesma, e assim consecutivamente nas etapas posteriores.

b) Descrições dos Casos de Uso

Tabela 1: Identificação Caso de Uso 1

Identificação Caso de Uso 1	
Nome do Caso de Uso:	Realizar quiz sobre o Scrum
Ator:	Usuário
Descrição:	Quiz composto de 10 questões objetivas
Pré-condições:	Iniciar o jogo
Pós-condições:	Passar para a próxima fase do jogo
Ações do ator:	1 – O usuário inicia o quiz. 2 – Caso o usuário acerte a questão, passará para a próxima pergunta. 3 – Caso o usuário erre, retornará para a mesma questão e só poderá seguir se acertar a mesma.

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Tabela 2: Identificação Caso de Uso 2

Identificação Caso de Uso 2	
Nome do Caso de Uso:	Simular Sprint
Ator:	Usuário
Descrição:	Inserir os elementos necessários de cada Sprint.
Pré-condições:	Realizar o quis
Pós-condições:	Visualizar seu resultado juntamente com o que era esperado.
Ações do ator:	1- O usuário insere os artefatos. 2- Caso o usuário não insira os artefatos no tempo determinado, passará para a seguinte etapa, acumulando tarefas da etapa anterior.

IV. Telas de Software

Abaixo constam telas do aplicativo ScrumCity. São apresentadas conforme se encontram-se dispostas no jogo.

Nesta Figura 1, o usuário terá duas opções de escolha, começar o jogo ao clicar sobre "Jogar" ou obter informações do aplicativo ao clicar "Sobre".

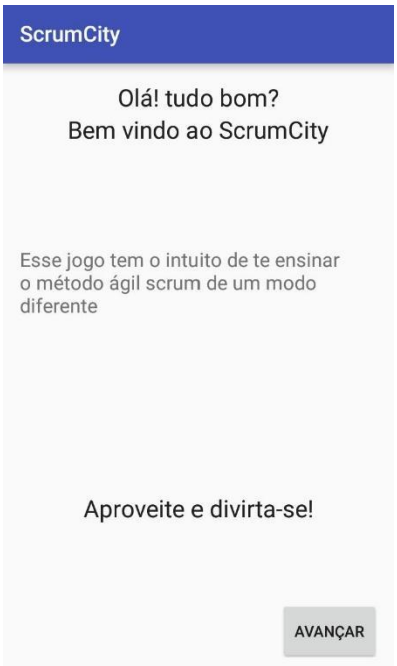




Figuras 1 e 2: Tela Inicial e sobre do aplicativo

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Exibindo uma interação com o usuário com uma breve apresentação de ScrumCity. E na 4, apresenta uma tela de interação com o usuário, informando que o mesmo terá que realizar algumas perguntas e ao clicar em "Avançar" começará a responde-las.





Figuras 3 e 4: Tela de Interação com o usuário e Tela de Informações do Jogo

A Figura 5, apresenta uma tela com questões sobre o Scrum, contendo sete questões com- cinco opções para escolha e três com apenas duas. A Figura 6 apresenta a tela de erro, neste caso o usuário selecionou a resposta incorreta e é permitido escolher outra resposta entre as que lhe é apresentado. A Figura 7 apresenta a tela de acerto, neste caso o usuário selecionou a resposta correta e também é exibido a justificativa da resposta.



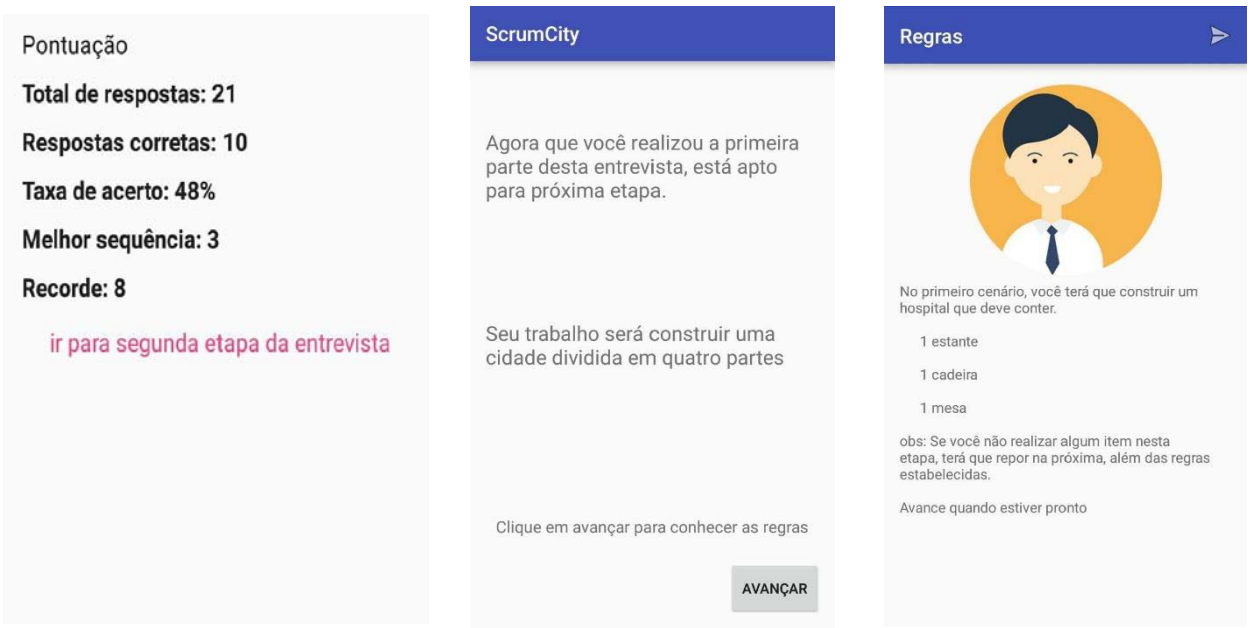




Figuras 5, 6 e 7: Tela de questão do Quiz, com resposta Correta e justificativa

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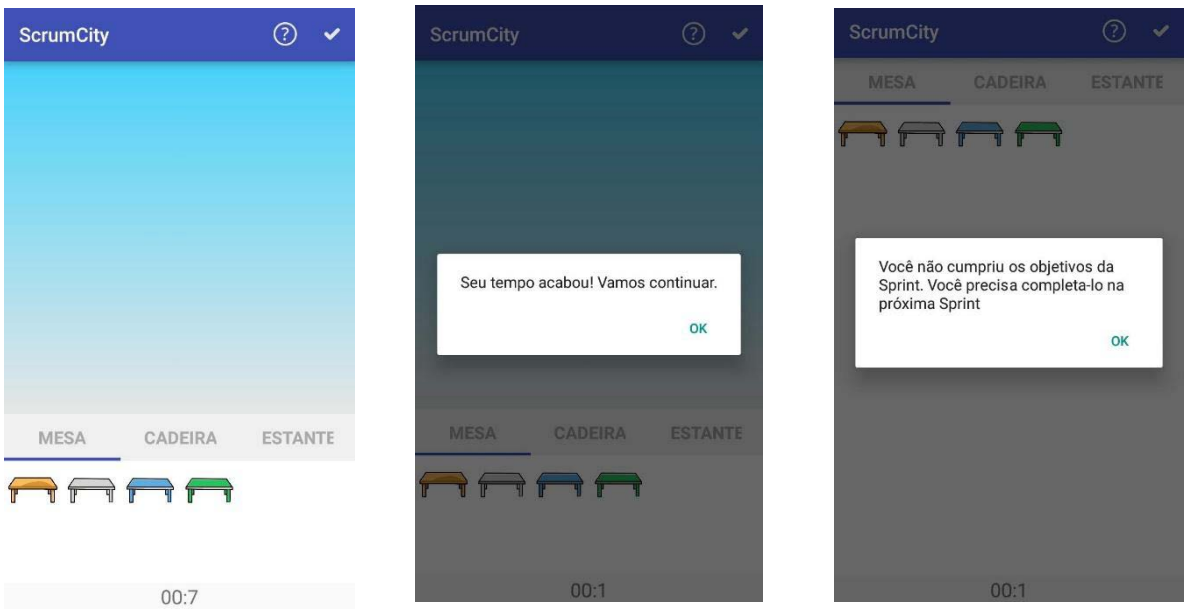
A Figura 8 exibe a tela de pontuação, apresentado a nota referente ao quiz. A Figura 9apresenta a tela de interação com o usuário com uma pequena introdução, explicando a segunda fase do jogo. A Figura 10 apresenta a tela de regras do primeiro cenário da construção da cidade.



Figuras 8,9,10: Tela de pontuação e regras do primeiro Cenário

A Figura 11 apresenta a tela da construção do hospital com três itens que foi proposto na regra de negócio com duração de dez segundos. O botão "?" é um lembrete do que deve ser realizado.

A Figura 12 apresenta a tela de alerta que seu tempo expirou, mas que poderá passar para próxima etapa. A Figura 13 apresenta a tela de alerta relatando que o usuário não cumpriu todas as regras e terá que repor na etapa seguinte.

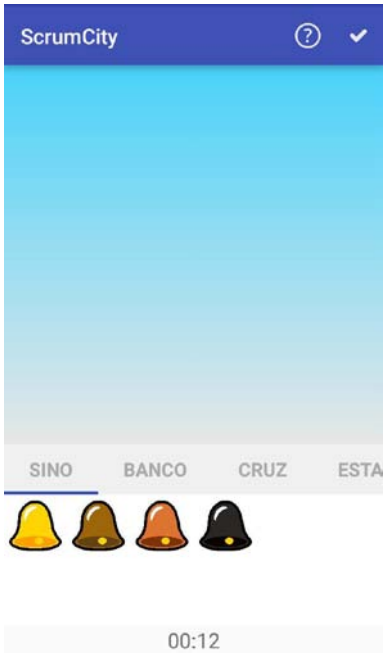


Figuras 11,12,13: Tela de alerta de atividades não realizadas

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A Figura 14 apresenta a tela de regras do segundo cenário da construção da cidade. A Figura 15 apresenta a tela da construção da igreja com quatro itens que foi proposto na regra de negócio com duração de quinze segundos. O botão "?" é um lembrete do que deve ser realizado. A Figura 16 apresenta a tela de lembretes, no que falta a ser inserido.



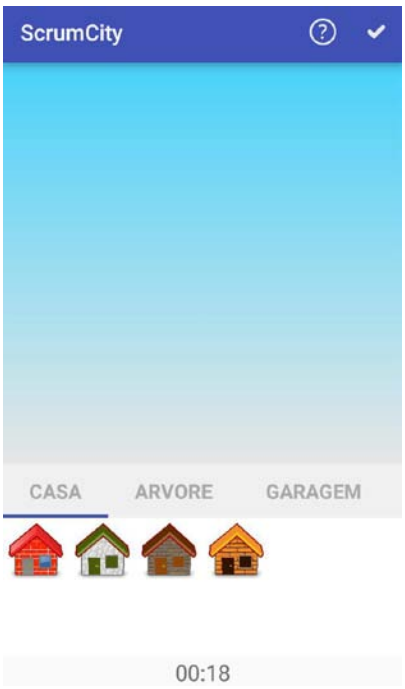




Figuras 14,15,16: Tela de regras do segundo cenário

A Figura 17 apresenta a tela de regras do terceiro cenário da construção da cidade. A Figura 18 apresenta a tela da construção de um bairro residencial com cinco itens que foi proposto na regra de negócio com duração de vinte segundos. O botão "?" é um lembrete do que deve ser realizado.





Figuras 17, 18: Tela de regras do terceiro cenário

A Figura 19 apresenta a tela de regras do quarto cenário da construção da cidade. A Figura 20 apresenta a tela da construção de um supermercado com cinco itens que foi proposto na regra de negócio com duração de vinte segundos. O botão "?" é um lembrete do que deve ser realizado.

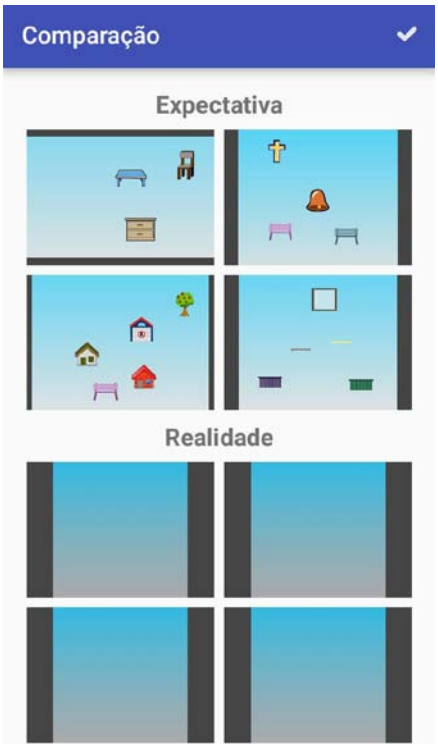
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Figuras 19 e 20: Tela de regras do terceiro cenário

A Figura 21 apresenta a tela de comparação imagens do que foi pedido e o que foi realizado. A Figura 22 apresenta a tela final, agradecimentos pela participação no jogo.



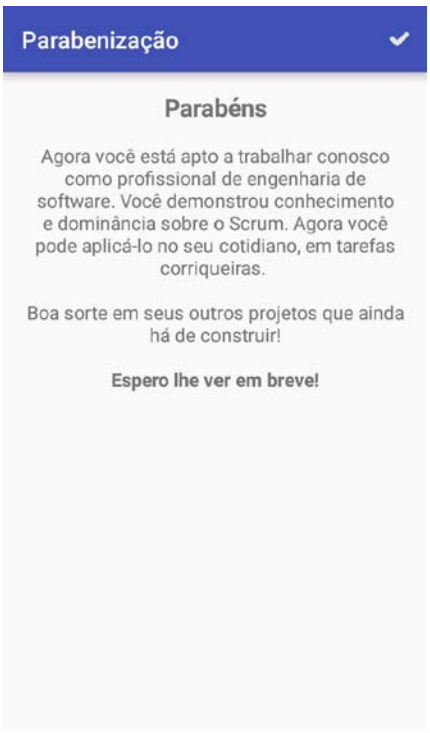


Figura 21 e 22: Tela de comparação das atividades e agradecimento

V. Validação e Análise dos Resultados

O estudo experimental da aplicação foi realizado com alunos do 4º período de Desenvolvimento de Sistemas da Instituição UNINORTE, que possuem conhecimento sobre Scrum, analisaram toda a estrutura do jogo e depois responderam algumas perguntas, adicionaram comentários positivos e negativos para que pudéssemos ter um feedback e aprimorar alguns ajustes. Para realizar este procedimento, utilizamos uma ferramenta de avaliação de jogos educacionais intitulado *AssistantMega* (em desenvolvimento), nesta cadastramos os alunos participantes, agendamos o questionário e depois colhemos todo o resultado em forma de gráficos. Esta plataforma utiliza o Modelo Meega que também avalia a qualidade e eficiência dos jogos.

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O questionário utilizado é dividido em escalas, 27 itens fixos divididos em 3 dimensões. No primeiro subcomponente é retratado a Motivação, onde seus itens são denominados Instructional Materials Motivational Scale (IMMS), para ser empregado no modelo ARCS. A Figura 23 apesenta o Item de Escala Motivacional.

Nº do item	Item	Dimensão
1	O design do jogo é atraente.	Atenção
2	Houve algo interessante no início do jogo qu e capturou minha atenção.	Atenção
3	A variação (forma, conteúdo ou de atividades) ajudou a me manter atento ao jogo.	Atenção
4	O conteúdo do jogo é relevante para os meus interesses	Relevância
5	O funcionamento deste jogo está adequado ao meu jeito de aprender	Relevância
6	O conteúdo do jogo está conectado com outros conhecimentos que eu já possuía.	Relevância
7	Foi fácil entender o jogo e começar a utilizá-lo como material de estudo	Confiança
8	Ao passar pelas etapas do jogo senti confiança de que estava aprendendo.	Confiança
9	Estou satisfeito porque sei que terei oportunidades de utilizar na prática coisas que aprendi com o jogo	Satisfação
10	É por causa do meu esforço pessoal que consigo avançar no jogo	Satisfação

Figura 23: Item de escala do subcomponente Motivação (ARCS)

No segundo subcomponente é retratado a Experiência do Jogador, onde seus itens são considerados aderentes ao modelo teórico e adequados aos objetivos da escala.

Nº do item	Item	Dimensão
11	Temporariamente esqueci as minhas preocupações do dia-a-dia, fiquei totalmente concentrado no jogo.	Imersão
12	Eu não percebi o tempo passar enquanto jogava, quando vi o jogo acabou.	Imersão
13	Me senti mais no ambiente do jogo do que no mundo real, esquecendo do que estava ao meu redor.	Imersão
14	Pude interagir com outras pessoas durante o jogo.	Interação social
15	Me diverti junto com outras pessoas.	Interação social
16	O jogo promove momentos de cooperação e/ou competição entre as pessoas que participam.	Interação social
17	Este jogo é adequadamente desafiador para mim, as tarefas não são muito fáceis nem muito difíceis.	Desafio
18	O jogo evolui num ritmo adequado e não fica monótono – oferece novos obstáculos, situações ou variações de atividades.	Desafio
19	Me diverti com o jogo.	Divertimento

Figura 24: Item de escala do subcomponente Experiência de Usuário

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No terceiro subcomponente é retratado a Experiência do Jogador, onde seus itens são do estudo de Sindre e Moody que se refere a aprendizagem de urto e longo prazo.

O formato das respostas do quiz da plataforma AssistantMeega é baseado o Modelo Likert com cinco pontos, concordo totalmente, concordo, nem discordo, nem discordo, discordo e discordo totalmente como é apresentado na Figura 25.



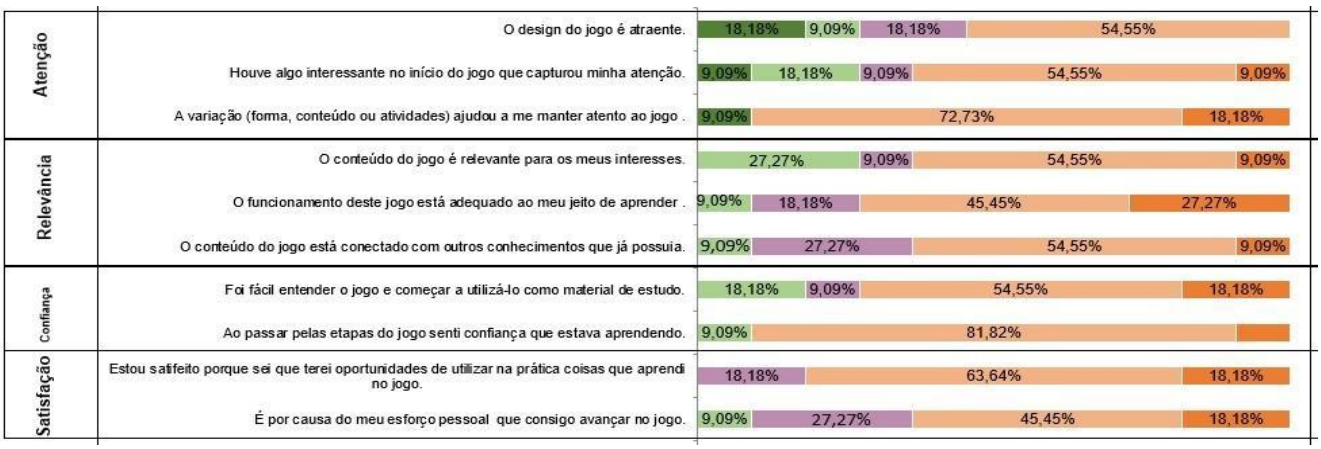
Figura 25: Tela do questionário AssistantMeega

Na categoria de motivação, foram avaliadas as dimensões de atenção, relevância, confiança e satisfação. apresentando as afirmativas relacionadas a cada uma das dimensões e as porcentagens relativas a cada afirmativa. Sobre a dimensão de Atenção, 54,55% dos participantes afirmam que o designer do jogo é atraente. Para o elemento que avalia se ocorreu algo de interessante no início do jogo que o chamou houve a concordância de 63,64% e 90,91% afirmam que existe uma variação que ajudou a ficarem mais atento no jogo.

Na Dimensão Relevância, 63,64% afirmam que o conteúdo do jogo é relevante aos seus interesses. No elemento do funcionamento do jogo é adequado ao jeito de aprender, 72,72% afirmam a concordância e 63,64% relatam que o conteúdo está conectado aos conhecimentos que já possuem.

Na dimensão Confiança, 72,73% afirmam que foi fácil entender o jogo e começar a utilizá-lo como material de estudo e 81,82% os participantes se sentiram confiança no que estava aprendendo.

Na dimensão Satisfação, 81,82% afirmam que estão satisfeitos pois irão utilizar na prática o que aprendeu no jogo e 63,63% afirmam que é por causa do esforço pessoal que consegue avançar no jogo.



Fonte: (ASSISTANTMEEGA)

Figura 26: Gráfico Motivação do Usuário

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Na categoria de experiência do jogador, foram avaliadas as dimensões de imersão, interação social, desafio, diversão e competência, apresentando as afirmativas relacionadas a cada uma das dimensões e as porcentagens relativas a cada afirmativa. Sobre a dimensão de Imersão, 63.63% dos participantes afirmam que temporariamente esqueceu das preocupações do dia-a-dia, 45,45% afirmam que não percebeu o tempo passar enquanto jogava e 54,54% se sentiram mais no ambiente do jogo que no mundo real.
Na dimensão Interação Social, 9,09% dos participantes afirmam que puderam interagir com outras pessoas durante o jogo, cooperação e competição entre jogadores e se sentiram bem interagindo com outras pessoas durante o jogo. Este baixo índice nesta dimensão, é devido a aplicação não oferecer esses requisitos de interação, o jogo é apenas individual.

Na dimensão Desafio, 63,63% dos participantes afirmam que o jogo foi desafiador para eles e 54,54% relatam que o jogo evolui num tempo adequado e não fica monótono.

Na dimensão Diversão, 54,55% dos participantes afirmam que se divertiu com o jogo,63,63% afirmam que ficou desapontado quando o jogo havia acabado, 64,45% recomendariam o jogo para seus colegas e 55,35% relatam que gostariam de utilizar o jogo novamente.

Na dimensão Competência, 63,64% dos participantes afirmam que tiveram sentimentos positivos de eficiência ao desenrolar o jogo.



Fonte: (ASSISTANTMEEGA)

Figura 27: Gráfico de Percepção de Aprendizagem

O gráfico dos resultados da categoria de Aprendizagem é exibido na Figura 27. Ocorreu concordância de 54,55% dos participantes sobre o elemento que avalia se o jogo contribui para aprendizagem na disciplina. Para o elemento que avalia se se o jogo foi eficiente para aprendizagem em comparação com outras atividades da disciplina, ocorreu 72,73% de concordância e 45,45% dos participantes afirmam que o jogo trouxe contribuições para seu desempenho na vida profissional.

VI. Considerações Finais e Trabalhos Futuros

Este projeto, ScrumCity, visou o ensino do método ágil Scrum através de uma forma prática de fácil compreensão e que despertasse o interesse nos estudantes de tecnologia ensinando conceitos básicos do assunto aos mais específicos como os pilares desse método.

O Scrum contribui para obtenções de resultados onde seja necessário que seus eventos tenham uma completa e eficiente finalização. A elaboração deste projeto muito além de simplesmente desenvolver uma ferramenta, se tornara um técnica de aprendizagem tanto para seus desenvolvedores quanto para aqueles que o receberam como uma nova perspectiva de aprender a esse método que tem se demonstrado eficiente e plausível.

Durante o desenvolvimento do jogo ScrumCity surgiu muitas outras necessidades, as quais não foram possíveis serem implementadas nessa versão. Assim, encaixando-se em propostas para trabalhos futuros. Esse item apresenta ideias para um aplicativo com o mesmo ideal do ScrumCity, mas indo um pouco além do quiz e da construção da cidade. Essa versão contaria com um banco de informações, textos, livros e imagem sobre o Scrum, permitindo não somente que o usuário jogue, mas também utilize o aplicativo como fonte de pesquisa extra, dentro e fora do ambiente escolar.

Aqui propõe-se apenas a melhoria no ScrumCity, melhorando seu caráter visual, em que se diz respeito as suas animações, interações e feedback com o usuário, mudanças nos aspectos 2D das imagens utilizadas nessa versão.

References Références Referencias

1. BERTHOLDO, Ana. - *Gamificação em aplicativos móveis.* São Paulo, 2014.
2. BORGATTO, A. F. *A Model for the Evaluation of Educational Games for Teaching Software Engineering.* September 2011.

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3. COUTINHO, E. *Evolução do Jogo ItestLearning para o Ensino de Testes de Software: Do Planejamento ao Projeto.* December 2014
4. GRANDE, Marcos. GRANDE, João. SANTOS, Fernando. *Proposta de aplicativo gamificado para o ensino de direção defensiva*. Rastros - Ano XV - dezembro de 2014.
5. INTRODUÇÃO AO VISUAL STUDIO - Msdn. Disponível Em: Http://Msdn.Microsoft.Com/Ptbr/Library/Fx6bk1f4.Aspx. Acesso Em 28/11/2016.
6. JOGOS DIGITAIS NO ENSINO E APRENDIZAGEM DE ENGENHARIA DE SOFTWARE. Disponível em: http://gestaouniversitaria.com.br/artigos/jogos-digitais-no-ensino-e-aprendizagem-de-engenharia-de-software. Acesso 28/11/2016.
7. PRESSMAN, R. S. *Engenharia de Software, McGrawHill,* 6ª Edição, 2006.
8. SANTOS, Ivson. *Identificando requisitos emocionais para criar um ambiente educacional baseados em games.* Recife, dezembro de 2013.
9. SCHWABER, K.; Beedle, M. *Agile Software Development with Scrum.* New Jersey: Prentice Hall, 2002.
10. SCHNEIDER, Marcelo. *SCRUM'ed: um jogo de RPG para ensinar Scrum.* 2011.
11. SILVA, A. C. *"Jogo Educacional para Apoiar o Ensino de Técnicas para Elaboração de Testes de Unidade". Dissertação de Curso de Mestrado, Computação Aplicada, UNIVALI, São José.* 2010.
12. SOMERVILLE, Ian. *Engenharia de software;* tradução André Mauricio de Andrade Ribeiro; revisão técnica Kechi Hirama, -- São Paulo: Addison Wesley, 2003.

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Conceptual Framework to Articulate Teachers' Knowledge in an Interdisciplinary, Skills-Centered, Ever-Evolving School

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Conceptual Framework to Articulate Teachers' Knowledge in an Interdisciplinary, Skills-Centered, Ever-Evolving School

Vered Resnick [α] & Yifat Ben David Kolikant [σ]

Abstract- **We examined the growth of teachers' knowledge in the context of interdisciplinary teaching, which has been adopted by many educational settings in the last decade. Following teams of interdisciplinary teachers in design sessions for two school years, we sought to reveal what knowledge emerges and how it expands under these conditions. Our findings point to the need for a new framework to discuss knowledge growth outside of one' discipline. We articulate the different knowledge components that emerged and offer a framework to capture teachers' knowledge in interdisciplinary teaching model (KIT). This framework is sensitive to the context in which teachers work and can be useful to articulate teachers' knowledge in other dynamic teaching and learning contexts.**

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I. Introduction

In the past few decades, most of the new teaching curricula in the Western world from primary school up through university have advocated the use of interdisciplinarity as a mean to promote the learning of "21st century skills", such as problem solving and critical thinking (Lenoir & Hasni, 2016). As interdisciplinarity becomes more and more common, it calls for a new view on teachers' knowledge and knowledge growth. Such teaching is inherently different from the traditional schooling as content areas are blended, and goals shift from knowledge transmission to knowledge creation and skills building. Hence it requires new kinds of teachers' knowledge.

In the research reported herein we studied the knowledge expansion processes of teachers, as they participated in a school-initiated pedagogical endeavour: skills-centered interdisciplinary teaching, led by interdisciplinary teams of teachers. Specifically, we followed interdisciplinary teams of teachers for two school years, each of which implemented a different interdisciplinary model.

Our findings show that although teachers had mono-discipline roots, both their content knowledge and pedagogical knowledge expanded beyond their core disciplines. Furthermore, we detected another type of knowledge, which revolves around the connections between the disciplines, the development of a holistic point of view, and making this new knowledge teachable, i.e., the pedagogical knowledge of how to foster students' integrative thinking skills. This knowledge at times directly affects one's teaching, and at other times affects teacher's general knowledge and understanding of the subjects and teaching tasks.

The teachers in this study faced unfamiliar situations in their everyday practice. They needed to develop the ability to continuously construct new meaningful knowledge and apply this knowledge creatively both within and outside their discipline. We view this dynamic as demonstrative of ever-evolving schooling: a school context in which teachers encounter unfamiliar situations frequently and intensively. Clearly, school life is vibrant and raises new challenges for teachers on a daily and even hourly basis. Yet ever-evolving schooling refers to changes in the "grammar of schooling", the organizational and pedagogical core forms of schooling (Tyack and Tobin, 1994), that present teachers with meaningful unfamiliarity.

The data we collected through non-participant observations of knowledge-rich teachers' curriculum development meetings provided us with access to in-action knowledge (Ball, 2008), and with an opportunity to articulate an empirically-based conceptual framework that emphasize knowledge growth in the interaction between teachers. We therefore suggest a new theoretical framework, which we call *knowledge for integrative teaching* (KIT). This framework reflects the complexity of the interdisciplinary teaching and is more sensitive to knowledge components which develop in a more dynamic teaching and learning context. As such, it can be used in other attempts to articulate teachers' knowledge in ever-evolving schoolcontexts.

II. Literature Review

To discuss teachers' knowledge in an interdisciplinary ever-evolving school context, we first describe the relevant literature about teachers' knowledge in general, and then turn to describe the specific context of interdisciplinary teaching model.

a) Teachers' knowledge

The most common framework for teacher's knowledge is Pedagogical Content Knowledge (PCK) by Shulman (1986; 1987; 2015) - the professional knowledge

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specific to teaching and learning about a topic. Shulman argued that teacher's knowledge is a distinct knowledge which differs from the knowledge of other content experts. It is the specific knowledge which is resulted from the unique context in which the teacher works to make discipline content teachable.

According to Shulman (1986; 1987; 2015), pedagogical content knowledge is what allows for the meaningful blending of content and pedagogy for teaching. Emphasizing the need to examine the interaction between, and the blending of, content and pedagogy as both come together to educate, Shulman (1987, 2015) created the following seven categories to describe teacher knowledge: (a) content knowledge; (b) low pedagogical knowledge, with special reference to those broad principles and strategies of classroom management and organization that appear to transcend subject matter; (c) curriculum knowledge, with particular grasp of the materials and programs that serve as "tools of the trade" for teachers; (d) PCK, that special amalgam of content and pedagogy that is uniquely the province of teachers – their own special form of professional understanding; (e) knowledge of learners and their characteristics; (f) knowledge of educational contexts, ranging from the workings of the group or classroom and the governance and financing of school districts to the character of communities and cultures; and finally, (g) knowledge of educational ends, purposes, and values and their philosophical and historical grounds.

Since it was originally introduced, PCK has been defined, translated, and extended in different ways (Doyle et al., 2018; Author, 2019) and several conceptions have been put forward over the years (e.g., Cochran et al., 1993; Gess-Newsome, 2015; Loughran et al., 2006; Park & Chen, 2012; Park & Oliver, 2008). PCK has also been critiqued for being static, amorphic and therefore insufficient for describing different educational settings (Park & Oliver, 2008). Yet, it is widely agreed that teachers' knowledge is unique, as Shulman says, that there is a difference between any subject-domain expert and a teacher, with teachers knowing how to make the subject teachable.

Vast efforts has been made to articulate this particular teacher knowledge, PCK. Many models were developed to modify the constituent components or to add new components based on empirical evidence or researchers' beliefs (Kind, 2009). Relevant for this research is the work of Ball and her colleagues (2008). Their work was done in the context of mathematics education, in which PCK "has lacked definition and empirical foundation, limiting its usefulness" (p. 389). They suggested an empirically-based alternative framework through which they mapped in-action knowledge, resulting in specific knowledge components which are unique to this particular context.

Nonetheless, as the field of education goes through many change processes, the need to revisit the term PCK in specific contexts based on empirical data becomes more vital. As we explain below, interdisciplinarity changes the traditional, disciplinary-oriented view about what is sufficient knowledge and who is a knowledge expert. Teaching within a discipline differs from teaching across disciplines. When the topic expands beyond one discipline, it creates not only a new way of teaching but a new content area altogether. As a result, the professional knowledge specific to teaching and learning about a topic change as well to develop beyond the traditional PCK.

b) Interdisciplinary pedagogy

Interdisciplinarity is defined as an integration of information, data, techniques, tools perspectives, concepts and theories from multiple bodies of specialized knowledge to advance fundamental understanding or solve problems whose solutions are beyond the scope of a single discipline. Teaching that crosses disciplines within lessons and across lessons (Heimer & Winokur, 2015) challenges traditional schooling by breaking the walls between subject-matters, teachers and ways of thinking.

As such, traditional schooling and interdisciplinary do not harmonize (Boix Mansilla, 2016). Interdisciplinary learning has been linked to sophisticated conceptions of knowledge, learning and inquiry (Baxter Magolda, & King 2004). When the focus of education shifts to foster 21st century skills and problems solving, interdisciplinarity can address today's complex social reality and develop students' critical thinking process (Lenoir & Hasni, 2016; Klein, 2002).

The first major interdisciplinary typology was published in 1972 and other labels soon followed, producing a sometimes confusing array of jargon. In this study we use the OECD typology, to distinguish between 'multidisciplinary', 'interdisciplinary', and 'transdisciplinary' models of teaching (Klein, 2010). This distinction is necessary to understand the nature of interaction that was observed in each team of teachers and the knowledge that emerged within each team. Figure 1 illustrates this typology and the way disciplines interact with one another in each model.

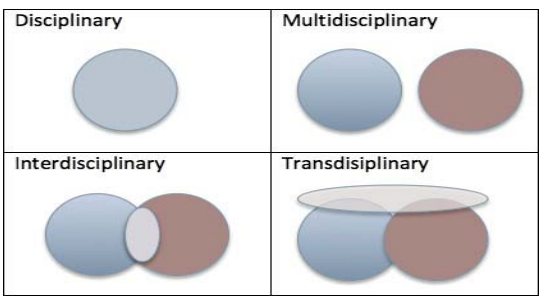


Figure 1: Disciplinary, multidisciplinary, interdisciplinary, and trans-disciplinary models (adaptedfrom Seaton, 2002)

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Multidisciplinarity is defined as an approach that juxtaposes disciplines. Juxtaposition fosters wider knowledge, information, and methods. Yet, disciplines remain separate, disciplinary elements retain their original identity, and the existing structure of knowledge is not questioned. A multidisciplinary team may come together at the end to tell a synthesized story of their individualized results; however, the narrow perspectives through which questions are examined throughout the project make it a modest attempt at collaboration.

Interdisciplinarity is defined as restructuring existing approaches through explicit transfer of knowledge across disciplines. It is about linking issues and questions that are not specific to individual disciplines to achieve a more holistic understanding of a cross-cutting question or problem. This process may lead to the creation of an entirely new discipline or area of scientific inquiry. The members of an interdisciplinary team contribute to the processwhile still grounded in their root disciplines.

Transdisciplinarity is defined as stepping outside the boundaries of known areas ofinquiry. The goal of this mode is to truly blend different perspectives so as to understand scientific questions and problems in their complexity rather than just addressing pieces of them. Although members of the transdisciplinary team may be informed by their core discipline this approach allows them to transcend and operate outside the boundaries and cultures of those disciplines to capture new realities (Klein, 2010, Boix Mansilla, 2016; Schmalz, Janke & Payne, 2019; Lenoir, & Hasni, 2016).

It is common to use the term "interdisciplinarity" to describe any kind of learning model which aims to link and blend disciplines. In this work, the specific learning model that teachers plan by has a key role in understanding the processes they undergo. Hence, from this point forward we will use the terms "integrative teaching" and "integrative learning" to describe the learning processes that took place in the school and include all three models described above. The terms "interdisciplinary teaching" and "interdisciplinary learning" willbe used to describe the specific integrative model as portrayed in Figure 1.

In the heart of all integrative models is the integrative mode of thinking - the knowledge to make connections between disciplines, themes, big ideas and topics. Integration is above all a cognitive process that must be performed by the learners themself and not from above, where the integration process itself has already been established from outside, by the designers of the curriculum, textbook or activity (Leonir and Hasni, 2016). This viewpoint adds a new component to teachers' knowledge – the knowledge and ability of connections making and of teaching for connection making. We refer to this component as *connectedness knowledge*. As integrative learning expands beyond the traditional fragmented learning which most schools still practice, it is safe to assume an expansion in teachers' knowledge as well.

III. Our Case Study: Interdisciplinary Skills-Centered Model led by Teachers

Our research takes place in a public high school in Israel which is part of the centraleducation system, as the majority of Israelis schools are. The regulatory functions of the Ministry of Education (MOE) operate in many areas, and are carried out by several of the Ministry's units. The MOE also regulates the k-12 curriculum. The central national curricula are implemented and supervised in the school system through a group of National Subjects Supervisors and matriculation examinations. These factors form the mechanism by which the MOE directs and controls teaching and learning in schools (Nir et al., 2016). Given this background, it is of a special value to examine a school which claims (at least partial) autonomy by initiating and implementing innovative learning while still being a part of a traditional and central exams-oriented system.

The school's management initiated this endeavor as part of its "ongoing quest for a pedagogy suitable to the 21st century," as the principal told us at our first meeting. Interestingly, this quest started a few years ago with digitalizing the school, a course which led to asking pedagogical questions. Specifically, they pondered on how to improve students' ability to handle new problems, to "transfer" their knowledge from one context to another, and to improve their ability to be adaptive learners. As described on the school's website, the aim was to "change the perception of the term "knowledge", from a fixed body of information to an evolving learning outcome."

To meet this vision, the school has been developing a skills-centered interdisciplinary pedagogy, in which certain disciplines would be taught under one cluster: sciences, social studies, and humanities. The shift has been gradual and every year more grades and teachers join the model, creating more interdisciplinary clusters and changing more norms and practices, and slowly the culture of the school as a whole.

When the school leadership first introduced the concept, they only presented the teachers with the interdisciplinary idea and expectation, without laying out a working model and without offering in-service or expert mentoring to accompany the change process. The school built a new space within the old building, designated to the new learning. The new space offers flexible sitting areas, mobile furniture, group work areas and open spaces.

The school leadership encouraged each cluster team to work closely together to pave its own path, exploring and developing the model that is right for

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them, based on their characteristics (viewpoints, knowledge, skills, barriers and ambitions) as well as their subject area requirements and bureaucratic limits. The name that was given for this kind of team was a catchy phrase in Hebrew whose initials are D.T. – *development teams*. Designated weekly planning hours were given to each team, and at times to a few teams together for peer learning.

As a result, teachers re-organized their disciplinary curricula (contents and skills required by the Ministry of Education) into interdisciplinary units, each of which usually focuses on a project, a long-term assignment to be solved by the students, relevant to the reality of the 21st century. On "cluster day", students study 4-6 consecutive hours at the newdesignated space and science labs, while teachers co-teach the integrative units.

IV. Research Rationale, Goal, and Questions

In this setting teachers are positioned as learning designers, collaboratively crafting their knowledge through teams of teachers from different disciplines. In this position, teachers are potentially involved in the sense-making of the change process rather than just implementing policies or reforms. They can create meaning that is relevant to them and to their students, which in turn orients their decisions and actions (Marz & Kelchtermans, 2013). Nonetheless, they still work within the macro context of a (rather centric) education system, which generates an inherent tension between old and new schoolings. Moreover, every year, mainly due to the school's regulations teachers find themselves working in different clusters with different colleagues, sometimes in a different grade level and with different curricula than they did the year before. Namely, in this model uncertainty and instability of the changeprocess seem to be not just a stage but a trait of new schooling.

Hence, this setting serves as an opportunity to shed light on teachers' knowledge growth in a skill-centered non-fragmented schooling, which is the goal of this study. As opposed to common discussions about teachers' knowledge, which is still centered within each discipline, we suspect that teachers who work together continuously across disciplines develop a different kind of knowledge. Our research questions were as follows:

(a) What is the required knowledge for teachers to design and teach in an interdisciplinary teaching model?
(b) How does this knowledge emerge and expand?

V. Methodology

a) Data collection

Creswell and Poth (2017) defined a case study as a qualitative approach in which the researcher inquiries into a real life, current bounded system, or multiple bounded systems over time using multiple in-depth sources of data and report a case description or case themes. The present study is an intrinsic case study (Stake 2005; Creswell & Poth 2017), namely a case that provokes researchers to examine what is imperative about the case. This approach aims to develop an understanding about the case´s own issues and contexts, to achieve "thick description" about the researched phenomena, and to examine what can be learned from it for broader contexts.

We followed all seven of the school's cluster teams throughout two school years, 2018-2019 and 2019-2020 (data described in this article do not include the end of the 2019-2020 schoolyear when the school shifted to distance learning due to the coronavirus). The first year of theresearch was the second year of implementing the model in the school. In that year there were three integrative clusters: sciences, social studies, and humanities, which were taught across three grade levels – eighth, ninth and tenth grade. Overall, there were 21 teachers divided into seven integrative teams. For most of the teachers, this was their first year teaching in the clusters. In the second year of research, more clusters teams were added to include a total of 27 teachers.

Our goal was to capture teachers' knowledge expansion. For this purpose, we adopted the view that teachers' knowledge appears in an interactive planning of teaching(Hashweh, 2005; Park and Chen, 2012). Hence, the main data resource was non-participantobservations of the weekly curriculum-development interdisciplinary teams' meetings.

Overall, we observed 42 team meetings across all the integrative clusters during the two years of the research. Each meeting duration was between 45-90 minutes. All these meetings were audiotaped and transcribed, accompanied by field notes taken during the observations. Additionally, we conducted semi-structured interviews, administered surveys to the teachers and school's management, conducted lesson observations and collected school documentation, including lesson plans, handouts, students' work samples and final projects, and a students' reflection questionnaire about the learning process. We used these data resources to heighten our understanding of occurrences and discourses in the development team meetings.

b) Data analysis

We approach this qualitative case study from an interpretive perspective, as we aimed to understand the process at hand and conceptualize it. Data analysis was conducted in stages, according to Creswell's (2013) model of spiral data analysis: managing and organizing data, reading and looking for emergent ideas, describing and classifying codes into themes, developing and assessing interpretations, and representing and visualizing the data.

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At the first round of analysis all transcripts and fieldnotes from all 42 team meeting observations were organized and read to get a general understanding of the design process. We scribed emerging topics alongside the fieldnotes and the meetings transcripts. This initial reading revealed that different teams followed different integrative models in their design process (as we will explain further in the findings).

We then chose to focus on three clusters teams so we could gain in-depth insight into the process that each team underwent. We aimed to follow varied teams in terms of subject areas, team structure (i.e., the number of sub-teams and the number of teachers in the cluster), and the integrative model by which the cluster taught (see research findings for explanation on this point). Table 1 describes the three teams we comprehensively followed:

Table 1: The integrative clusters

Integrative Cluster	Social studies	Science	Humanities
Subject areas	• Civic Studies • History • Geography	• Biology • Chemistry • Physics	• literature • history • language arts
Grade	9	9	10
Learning model	transdisciplinary	interdisciplinary	multidisciplinary
Cluster structure			
Number of classes	3	3	6
Number of teams	1	2	3
Number of teachers	3	6	9

This led us to the second round of analysis, in which we aimed to identify repetitive conversation topics. Simply put, the question we asked was what teachers talk about during the development meetings (Horn & Little, 2010). The result was the emergence of teachers' knowledge as a repetitive theme - its strengths or its limitations, its presence or lack. We then followed Cohen et al. (2007), who stressed that purposive sampling should be used to get access to relevant data. Hence, we chose 12 knowledge-rich curriculum development meetings wherein teachers' knowledge was explicit, i.e., PCK or one of its components were present in the conversation (Park & Oliver, 2008; Park & Chen, 2012). Then, we created a series of codes to map out the different knowledge components that we identified in the transcripts. The codes were created in agreement with teachers' knowledge literature described earlier and with our observations. We conducted a few rounds of coding using the Atlas.ti software, and in each round we refined the codes and narrowed them down. Other data resources such as teachers' interviews and lesson observations were used to clarify transcripts when clarification was needed.

Next, we wanted to know if all the knowledge components we coded were equally present or if there were components that were more dominant than others. We believed that this would help us address the second resource question about how knowledge emerges since it would examine the components in the context they emerge. Hence, we divided each of the 12 transcripts into "segments" (Oliver & Park, 2012), parts in the conversation. We limited a segment to five conversation turns about the same topic, as our impression from the earlier analysis stages was that five conversation turns were sufficient to create a meaningful exchange between the teachers. We counted the number of segments in which each knowledgecomponent appears. For example, if a certain component appeared for five conversation turnswe counted it as one segment, and if it appeared for ten conversation turns we counted it as two segments (we rounded down the counting, so 12 conversation turns would be considered as two segments). Lastly, we interpreted the data based on the coding process.

VI. Findings

The data analysis process revealed two related findings: (1) each cluster team developed its teaching and learning process using a different integrative model (i.e., context and conditions), and (2) there are different knowledge components that all together comprise teachers' knowledge for integrative teaching.

a) Three different integrative models

As we stated in the description of the case study, teachers were given a general vision and framework and vast autonomy to plan according to their sense making of the learning design process. Teachers were not given formal training about integrative teaching and learning, and they were not familiar with the academic typology of the different integrative models. Interestingly, each cluster team created a model that worked for them. The three teams we chose, came up with three different models which fell into one of the integrative models described in the integrative typology: the humanities cluster planned and taught by a multidisciplinary model,

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the science cluster planned and taught by an interdisciplinary model, and the social studies cluster planned and taught by a transdisciplinary model. It should be kept in mind that these different implementations were not "by the book", simply because teachers did not read 'the book'. Yet, we observed practices and design decisions that we could organize under the common integrative typology.

The differences between the clusters teaching and learning models are described in Table 2.

Table 2: Teaching and learning models in the clusters

Cluster	Humanities	Science	Social Studies
Integrative Model	Multidisciplinary	Interdisciplinary	Transdisciplinary
Example unit	"Identity" as a common theme.	Integrated understanding of radiation's effects.	Driving question: Was modernism good for mankind?
Teaching method	Each teacher teaches his own discipline. Students rotate between teachers.	"Jigsaw": Each teacher teaches both his discipline and final project related topics.	The curriculum is broken down to topics. All teachers teach all topics.
Assignments	Separate for each discipline.	Cluster's final project, and separate assignments for each discipline.	Cluster's assignments and final project.

Multidisciplinary model-humanities cluster: Teachers' planning process aimed to identify common themes and address them in all three disciplines. For example, in one of the meetings teachers recognized the common theme of identity across the different curriculum. In history lessons identity was taught through the topic of Jewish emancipation. In literature identity was discussed through the play "A Doll's House" by Henrik Ibsen (which considered to be one of the first feminist plays). In language arts lessons students wrote essays on the topic "my choices." Students rotated between the teachers throughout the cluster day, while each teacher taught his own discipline and assigned his own assignments.

Interdisciplinary model – science cluster: Teachers' planning process aimed to achieve an integrated understanding grounded in the three taught disciplines. For example, students were assigned a joint final project to present the effects of radiation in everyday life, synthesizing information from all three disciplines. To achieve this, a "Jigsaw" method was applied: each student chooses a specialty for the semester (biology, physics, or chemistry), which he or she studies with the disciplinary teacher for half of the cluster day. In the second half of the day, students work with their project group of three students, assembled from one student from each specialty. While in their work-groups, teachers mentor them and guide through project-related topics and skills. At times, teachers taught skills such as critical information gathering, and sometimes teachers taught topics from another discipline.

Alongside the joint final project, students were assigned disciplinary assignments in their specialty lessons.

Transdisciplinary model–social studies cluster: Teachers' planning process aimed to teach themes and big ideas by eliminating boundaries between disciplines. For example, the driving question of the semester was whether modernism was good for mankind. Each cluster day was devoted to a different topic related to the driving question, such as colonialism, world wars and democracy. For the most part, all three teachers taught all topics, regardless of their discipline. Assignments were given for each topic taught in the cluster. At the end of the semester, students presented their final project in relation to the driving question.

b) Knowledge components for integrative teaching

Through the analysis process we found two distinctions that influenced the way we defined and divided the knowledge components we recognized. The first distinction that the data revealed was teacher's knowledge in his/her discipline vs. his/her knowledge in other disciplines. The second distinction was about the level of knowledge teacher demonstrated in the different disciplines, high knowledge vs. low knowledge, as we turn to explain below.

- *My Discipline* (MD) refers to the subject-area I (the teacher) teach in the cluster. It is my field of training and expertise that I am used to teaching.
- *Other Discipline*(s) (OD) refers to the other subject-matter(s) that are taught in the cluster. Sometimes the teacher needed to actually teach those other subject-areas (for example, in the transdisciplinary model and in parts of the interdisciplinary model), and sometimes the teacher only teaches his own subject-area (for example, in the multi-disciplinary model).

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- *Low Knowledge* (LK) refers to knowledge for the purpose of being aware of it, not for using it or teaching it. For example, in the humanities cluster, when the history teacher read the play that is being taught by the literature teacher, she gained knowledge of a different discipline in her cluster, although she did not teach this content directly. Sometimes, LK had a more substantial role than just "knowing", and it shaded a light on teacher's own teaching (for example, what does this play tell me about my understanding of the topic that *I teach*).
- *High Knowledge* (HK) refers to knowledge that the teacher used in her own teaching or in her dialogue with other teachers. For example, the knowledge required for the chemistry teacher when she conducted a physics experiment in her class.

With these distinctions in mind, we identified knowledge components in three different areas - content knowledge, pedagogical knowledge, and connected-ness knowledge. In each area, teacher's knowledge expanded to include new components. Hence, we expanded the terms and call them expanded content knowledge (ECK), expanded pedagogical knowledge (EPK), and expanded connectedness knowledge (ECNK).

We broke down each area to its expression for the two implications, my discipline or other discipline(s) and for the level of depth it appeared - high or low. Table 3 summarizes the identified knowledge components. Below the table we explain each of the components and provide examples from different cluster teams.

Table 3: Knowledge components

Expanded Content knowledge (ECK)	Expanded Pedagogy knowledge (EPK)	Expanded Connectedness knowledge (ECNK)
Low my content knowledge (LMCK)	Low my pedagogical knowledge (LMPK)	High connectedness knowledge (HCNK)
High my content knowledge (HMCK)	High my pedagogical knowledge (HMPK)	High pedagogical connectedness knowledge (HPCNK)
Low other content knowledge (LOCK)	Low other pedagogical knowledge (LOPK)	
High other content knowledge (HOCK)	High other pedagogical knowledge (HOPK)	

i. *Expanded Content Knowledge*

This category includes understanding of the content of teaching. It includes both "common knowledge" and "specialized content knowledge" (Ball, 2008). Common knowledge is subject-matter knowledge that not only teachers hold but rather knowledge that is used in other setting as well. Specialized content knowledge is the subject-matter knowledge that is required for teaching this particular subject. In this category, we found expressions of the three following knowledge components:

High my content knowledge (HMCK): Teacher's content knowledge in his/her own discipline that is mentioned in the conversation with the purpose of using it further in the actual teaching. In the following excerpt from the social-studies team, both the civil-studies teacher and the history teacher use their own content knowledge as they plan the unit about World Wars – the civil-studies teacher suggests a book that he uses in his disciplinary lessons and the history teacher links it to main concept from the history curriculum:

– Civic-studies teacher: We can bring the book, *All Quiet on the Western Front*. The soldiers talk among themselves and don't understand why they're fighting.
– Geography teacher: Yes
– Civic-studies teacher: …and then they talk like they are captives... and they talk with the enemy. It's awesome.
– History teacher: Of course, because it's a war without a purpose. And then we can talk about liberalism and pacifism.

Low other content knowledge (LOCK): Content knowledge in other discipline(s) that is mentioned by the teachers without the purpose of using it further in their actual teaching.

In the following excerpt from humanistic team, the language art teacher shares with the team that she read the play that was taught by the literature teacher because she felt it affects her understanding of her own teaching in relation to the overall theme of the cluster, that of identity. Although none of the other teachers taught the play directly, they decided that they will all readit:

– Language art teacher: I really recommend that everybody would read the play.
– History teacher A: Ok

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- Language art teacher: Because last year we didn't read it and later we saw that nothing we taught was related to the play.
- History teacher B: I will read it this weekend.

High other content knowledge (HOCK): content knowledge in other discipline(s) that is mentioned by the teacher with the purpose of using it further in the actual teaching.

In the following excerpt from the science team, the biology teacher explains to the physics teacher how to conduct the blood sugar experiment, which is part of the curriculum in biology but it is not part of her content knowledge as a physics teacher:

- Biology teacher: The Benedict's and the glucose sticks identify the sugar.
- Physics teacher: The Benedict's and the glucose sticks...ok.
- Biology teacher: And the iodine identifies the starch…and now you start to drip this on this (*demonstrating*).
- Physics teacher: Identifies means that it changes the color, right?
- Biology teacher: Right.

ii. *Expanded Pedagogical Knowledge*

This category includes the knowledge of how to make content teachable. It contains knowledge about teaching strategy, curriculum knowledge, knowledge of learners and their characteristics, knowledge about educational ends and educational context (Shulman, 1986). In this category, we found expressions of the three following knowledge components:

High my pedagogical knowledge (HMPK): Teacher's pedagogical knowledge in his own discipline that is mentioned in the conversation with the purpose of using it further in the actual teaching.

In the following excerpt from the science team, the discussion focused on students' difficulties in formulating a research question. Both the biology teacher and the chemistry teacher use their disciplinary pedagogical knowledge in the discussion:

- Chemistry teacher: This [what students wrote] is not a research question.
- Biology teacher: They didn't understand that a research question should [revolve around]…
- Chemistry teacher: something that influences something.
- Biology teacher: … a question that should lead you to actual research.
- Chemistry teacher: They didn't get that.
- Biology teacher: OK, so we have to devote the time so they will understand. We need to sit down with each group, and we should have our comments written before that.

Low other pedagogical knowledge (LOPK): Pedagogical knowledge in other discipline(s) that is mentioned by the teacher without the purpose of using it further in the actual teaching.

In the following excerpt from the humanistic team, the language art teacher inquires the literature teacher about the method that the later chose for teaching the new play, even though in practice this method does not influence her own teaching:

- Language art teacher: When do you start the play?
- Literature teacher: Next lesson
- Language art teacher: And your introduction is this exercise about relationships?
- Literature teacher: Yes, relationships
- Language art teacher: And after that do you let them read?
- Literature teacher: They are going to read the rest at home.

High other pedagogical knowledge (HOPK): Pedagogical knowledge in other discipline(s) that is mentioned by the teacher with the purpose of using it further in the actual teaching.

In the following excerpt from the science team, the teachers discuss an experiment in biology they need to conduct with the students. The physics teacher, for whom it is the first time to teach this biology topic, struggles with the way the experiment's protocol is written and raises a non-expert's questions about it:

- Chemistry teacher: …the enzyme loses its uniqueness and therefore stops working.
- Physics teacher: I don't know. I don't understand chemistry or biology.
- Biology teacher: Ok, but…
- Physics teacher: When you ask me, when you bring me to the conclusion that in the digestive system something similar happens, so I tell myself – OK, my digestive system is warmer than my mouth and 37 degrees is enough. But like this, I don't understand it.
- Biology teacher: Ok, so we need to…how can we write it differently?

As a result of this discussion, the team reexamined the protocol and made adjustments.

iii. *Expanded Connectedness knowledge*

This category includes teachers' understanding of the way other disciplines are connected to their own field and to their ability to recognize main themes that cross subject areas. It also includes teachers' ability to facilitate students' understanding of relationships and connections between contents, themes, and ideas. In this category, we found expressions of *high connectedness knowledge (HCNK) and high connectedness pedagogical knowledge (HPCNK),* as we explain below:

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High connectedness knowledge (HCNK): Refers to teachers' ability to recognize and create meaningful connections between the different disciplines that are taught in the cluster, and torecognize common themes and big ideas.

In the following excerpt from the humanistic team, the teachers try to find a common theme across the different topics they have to teach. The discussion starts when the literature teacher shares that literature teachers are about to teach a poem by Bialik (one of the pioneers of Modern Hebrew poetry). To that the language art teacher responded with a suggestion to collaborate on the topic and the history teacher suggests that in history lessons they would discuss the Kishinev Pogrom that influenced the poet prior to writing this poem. All three teachers participate in the cognitive and practical effort to connect between their three different curricula:

- Literature teacher: Next is Bialik. I love Bialik.
- Language art teacher: I thought maybe language art and literature can work on ittogether.
- History teacher A: Yes, you can do it together, and we…
- History teacher B: This can actually be something we all connect to…because if you take the Kishinev Pogrom, it affected Bialik a lot.

High pedagogical connectedness knowledge (HPCNK): Refers to teachers' knowledge in facilitating students' understanding of relationships and connections between contents, themesand ideas and knowledge of advancing students' integrative thinking skills.

In the following excerpt from the social studies team, teachers were engaged in finding the most effective way to summarize the topic of imperialism as a main theme of the day. They aimed to put together an assignment that would help students recapitulate the topic from all three angles: civil studies, geography and history.

- Civil studies teacher: But what would be the connection to history?
- History teacher: Why did the European conquer Africa? I want them to answer that it's because of nationalism, because of natural resources….
- Geography teacher: Wait, let's write it – what were the European motives to conquerAfrica….Now, let's each try to answer it from our own point of view. What would yousay?
- History teacher: I would talk about the Industrial Revolution.
- Geography teacher: I would emphasize natural resources.
- Civil studies teacher: I would talk about expanding the territory of the country.

iv. *Knowledge components across the clusters*

When counting the number of times that each component was evident during the development meetings, we found that different components were more or less evident indifferent clusters, as illustrated in Figure 2.

For example, HMCK (high my content knowledge) was most evident in the science cluster (interdisciplinary model) as teachers spend significant amount of time explaining one another core concepts of their own discipline, so other teachers can use this knowledge in their own teaching or to emphasize their own disciplinary contribution to the joint integrative understanding. HMCK was the least evident in the humanities cluster (multidisciplinary model) as teachers did not need to go in depth about their own disciplinary content, since the other teachers just used it for their general knowledge.

HOCK (high other content knowledge) was the most evident in the social studies cluster (transdisciplinary model) as teachers constantly taught content that was outside of their discipline. HOCK was the least evident in the humanities cluster since teachers did not teachcontent outside of their discipline.

HCNK (high connectedness knowledge) was most evident in the humanities cluster since teachers constantly looked for common themes for each topic in their different disciplinary curricula. HCNK was the least evident in the social studies cluster since the connectedness was already inherent in the choice to teach big ideas and not subject matter.

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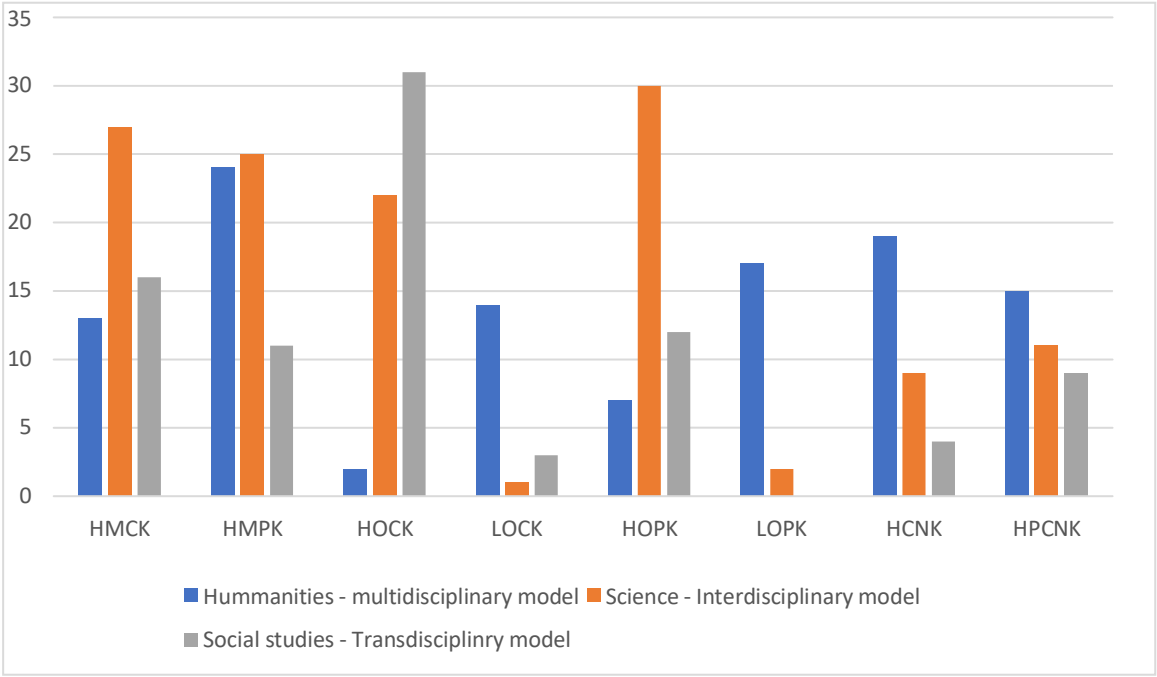


Figure 2: Knowledge components across the clusters

VII. Discussion

We found that teachers' knowledge expanded beyond the traditional disciplinary knowledge and included other components that better capture this unique educational setting. We also found that the knowledge expansion was related to the teaching models, i.e., the specific task at hand. This highlights the importance of the context when discussing teachers' knowledge in a dynamic environment. In this particular case study, the context appeared on two levels: First,the context of a progressive integrative teaching model while still being a part of centric and rather traditional education system. Second, the specific situation in which the teachers work with the integrated curricula, the team members and the teaching models.

In regard to the first research question, what is the required knowledge for teachers to teach in an interdisciplinary teaching model, our findings show that teachers need content knowledge and pedagogical knowledge in their own discipline as well as in other disciplines. Additionally, teachers need knowledge in making connections across and between disciplines (connectedness knowledge), and knowledge in making these connections teachable (pedagogical connectedness knowledge). Each of these knowledge components can appear in high level or in low level.

Our findings imply that in regard to the second research question, how does this new knowledge emerge and expand, there was a relation between the integrative model and the kind of knowledge it evoked. The three clusters we followed implemented three different integrative models: interdisciplinary (science cluster), multidisciplinary (humanities cluster) and transdisciplinary (social studies cluster). Although the same knowledge components wereobserved in all three clusters, they were not equally present: in each cluster some components were more potent than others. While there could be numerous explanations for this, such as teachers' experience, disciplinary knowledge, team dynamic, core beliefs about teaching and learning, or how much teachers identify with the integrative teaching idea, we suggest that the differences can also be attributed to the different tasks each learning model presented to the teachers. In other words, the level of each knowledge component, high or low, and its expression for the two implications, my discipline or other discipline(s) could be connected tothe integrative model and the kind of connectedness it calls for. The tighter the links, the higher the content knowledge, the pedagogical knowledge, and the connectedness knowledgethese links require. Future research is needed to examine this hypothesis and other factors that stimulate or hinder teachers' knowledge development.

Alongside the differences, the commonality between the three clusters was that each integrative model challenged teachers' knowledge and created various learning opportunities. While teachers relied heavily on their own PCK, they realized that their PCK was insufficient for the task at hand. The findings show high knowledge level was needed in my discipline together with high or low knowledge level in another discipline (even a low level of knowledge is still additional knowledge). The multiple perspectives and the mutually dependent relations with peers created a knowledge-rich environment. In this environment,

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teachers needed to use their previous knowledge to facilitate their own learning as well as the collaborative learning process, resulting in the creation of new knowledge to mediate the integrative content to students.

Hence, conceptual frameworks that describe merely content knowledge, pedagogical knowledge or their intersection do not sufficiently capture the complexity of integrative teaching. Therefore, we propose a framework for Knowledge for Integrative Teaching (KIT), which outlines the necessary knowledge for teaching in integrative model when implemented in an ever-evolving schooling. The framework portrays three knowledge components - Expanded Content Knowledge (ECK), Expanded Pedagogy Knowledge (EPK) and Expanded Connectedness Knowledge (ECNK). It also suggests two distinctions – between my discipline and other disciplines, and between high level of knowledge and low level of knowledge (see Table 4: Teachers' KIT framework – teachers' knowledge for interdisciplinary teaching).

Table 4: Teachers' KIT framework – teachers' knowledge for interdisciplinary teaching

Expanded Content Knowledge (ECK)	Expanded Pedagogy Knowledge (EPK)	Expanded Connectedness Knowledge (ECNK)
High/Low my content knowledge	High/Low my pedagogical knowledge	High/Low connectedness knowledge
High/Low other content knowledge	High/Low other pedagogical knowledge	High/Low connectedness pedagogical knowledge

The framework can be used as an analytical tool and as a way to think about learning design. It can be utilized to analyze lessons plans and lessons observations, to highlight areas of strengths and weaknesses in teachers' practice and knowledge. It offers concepts to identify and verbalize missing components in teachers' knowledge, for instance when observing students' difficulties or misconceptions, one can look at the pedagogical connectedness knowledge of teachers and the way it influences the support, or lack of, that teachers provide the students during the integrative learning process. This does not and should not diminish other reasons for students' difficulties, such as lack of motivation or group-work skills, but it provides a reasonable explanation when looking for a better understanding of the challenges in implanting integrative teaching and learning models in schools.

The framework can be also used as a planning tool for both in-service and pre-service teachers. It can help in-service teachers to map the necessary knowledge for their new task. As our findings show, teaching in an integrative model is complex. To simplify the complexity and to work with it, it is useful to keep in mind that not every model and not every task require the same knowledge or the same depth of knowledge. Mapping the necessary knowledge for the team or for the individual teacher can help focus professional learning and planning efforts where needed. The framework can also be used in settings of teacher training programs which aim for interdisciplinary teaching. As the framework sheds light on the required teachers' knowledge, it can scaffold the design of such programs to include the important knowledge aspects.

As stated above, we define an ever-evolving schooling as a context in which teachers face unfamiliar situation frequently and intensively, and this case study captures a comprehensive kind of ever-evolving schooling since the unfamiliarity happens beyond teacher's disciplinary knowledge and practice. The KIT framework describes the knowledge expansion in this particular context, and can be viewed as an example for other contexts in which the pedagogical change calls for a meaningful expansion in teachers' knowledge. As schooling shifts so that we no longer assume static knowledge to be transmitted from authoritative teachers to passive students, a framework that is sensitive to dynamic knowledge is necessary, The KIT framework provides a ground for discussing teachers' knowledge in a changing world and articulates the necessary knowledge components to not only survive changes, but to lead them and strive through them. Additional examinations of teachers' knowledge in other dynamic and progressive environments can further contribute to broaden the traditional view of teachers' knowledge.

Finally, the context of ever-evolving schooling creates "unstable" environment for teachers. Our research shows an expansion in teachers' knowledge in the context of ever- evolving schooling, and as such it suggests that similar contexts should be viewed as a catalyst for teachers' growth. In this sense, instability is in fact a feature (characteristic that promotes change) and not a bug (that should be prevented or fixed). This viewpoint is of particular importance in today's fragile reality of constant changes, in which teachers' knowledge will be challenged relentlessly, as a way of life.

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VIII. Conclusions

This empirical research examined the expansion of teachers' knowledge in the context of integrative teaching. It aimed to understand what knowledge evoked under the new conditions and how this knowledge emerged. It showed that teachers' knowledge expanded to include content knowledge and pedagogical knowledge from other disciplines, as well knowledge in connections making and knowledge in teaching for connections making. This knowledge emerged through teachers' engagement in hands-on integrative planning process and in relation to the specific task and teaching model.

The research supports the relevance of examining teachers' knowledge, which should beviewed as a dynamic concept that expands in conditions of ever-evolving schooling. Particularly, it offers a framework for teachers' knowledge in integrative teaching (KIT) to analyze and to think with interdisciplinary teaching which has been adopted by many educational settings in the last decades. The research sees the instability of ever-evolving schooling as a catalyst for teachers' knowledge expansion. This viewpoint can be useful to articulate teachers' knowledge in other dynamic teaching and learning contexts.

References Références Referencias

1. Martinovic, D., Kolikant, Y. B. D., & Milner-Bolotin, M. (2019). The Usefulness of Technology in Teacher Professional Development: Extending the Frameworks. Journal of the International Society for Teacher Education, 23(2), 21-36.
2. Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching: What makes it special? *Journal of teacher education*, *59*, 389–407.
3. Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. New York, NY: Sage.
4. Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. New York, NY: Sage.
5. Baxter Magolda, M. B., & King P. M. (2004) *Learning partnerships: Theories and models of practice to educate for self authorship*. Sterling VA: Stylus Publishing.
6. Boix Mansilla, V. (2016). Interdisciplinary learning: A cognitive-epistemological foundation. In R. Frodeman & J. Klein (Eds), *Oxford handbook of interdisciplinarity* (2nd ed.). Oxford, UK: Oxford University Press.
7. Cochran, K. F., DeRuiter, J. A., & King, R. A. (1993). Pedagogical content knowing: An integrative model for teacher preparation. *Journal of teacher education*, *44*(4), 263– 272.
8. Doyle, A., Seery, N., Gumaelius, L., Canty, D., & Hartell, E. (2018). Reconceptualizing PCKresearch in D&T education: Proposing a methodological framework to investigate enacted practice. *International journal of technology and design education*, *29*(3), 473–491.
9. Gess-Newsome, J., & Lederman, N. G. (Eds.) (1999). *Examining pedagogical content knowledge: The construct and its implications for science education*. Dordrecht, The Netherlands; London, UK: Kluwer Academic.
10. Heimer, L., & Winokur, J. (2015). Preparing teachers of young children: How an interdisciplinary curriculum approach is understood, supported, and enacted among students and faculty. *Journal of early childhood teacher education*, *36*(4), 289-308.
11. Horn, I. S., & Little, J. W. (2010). Attending to problems of practice: Routines and resources for professional learning in teachers' workplace interactions. *American educational research journal*, *47*(1), 181-217.
12. Kind, V., (2009) Pedagogical content knowledge in science education: Perspectives and potential for progress. *Studies in science education*, *45*(2), 169-204.
13. Lenoir, Y., & Hasni, A. (2016). Interdisciplinarity in primary and secondary school: Issues and perspectives. *Creative education*, *7*, 2433-2458.
14. Loughran, J., Berry, A., & Mulhall, P. (2006). *Understanding and developing science teachers' pedagogical content knowledge*. Rotterdam, The Netherlands: SensePublishers.
15. März, V., & Kelchtermans, G. (2013). Sense-making and structure in teachers' reception of educational reform:A case study on statistics in the mathematics curriculum. *Teaching and Teacher Education*, *29*, 13–24.
16. Nir, A., Ben-David, A., Bogler, R., Inbar, D., & Zohar, A. (2016). School autonomy and 21st century skills in the Israeli educational system: Discrepancies between the declarative and operational levels. *International journal of educational management*, *30*(7), 1231-1246.
17. Organization for Economic Co-operation and Development (OECD). (2018). The future ofeducation and skills: Education 2030. *OECD Education Working Papers*.
18. Park, S., & Oliver, J. S. (2008). Revisiting the conceptualization of pedagogical content knowledge (PCK): PCK as a conceptual tool to understand teachers as professionals. *Research in Science Education*, *38*(3), 261–284.
19. Park, S., & Chen, Y.C. (2012). Mapping out the integration of the components of pedagogical content knowledge (PCK): Examples from high school biology classrooms. *Journal of research in science teaching*, *49*. 922-941.
20. Klein, J. T. (2002). Introduction: interdisciplinarity today: why? what? and how? In J. T. Klein (Ed.), *Interdisciplinarity education in K-12 and college. A*

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foundation for K-16dialogue (pp. 1-17). New York, NY: College Board Publications.
21. Klein, J. T. (2010). A taxonomy of interdisciplinarity. *The Oxford handbook of interdisciplinarity, 15*(6), 15.
22. Seaton, R. A. F. (2002). Knowledge transfer. *Strategic tools to support adaptive, integrated water resource management under changing conditions at catchment scale: A co- evolutionary approach*. Bedford: The AQUADAPT Project.
23. Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational researcher*, *15*(2), 4–14.
24. Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard educational review*, *57*, 1-22.
25. Shulman, L. S. (2015). PCK: Its genesis and exodus. In A. Berry, P. J. Friedrichsen, & J. Loughran (Eds.), *Re-examining pedagogical content knowledge in science education* (p.3). Abingdon, UK: Routledge.
26. Schmalz, D. L., Janke, M. C., & Payne, L. L. (2019). Multi-, inter-, and transdisciplinary research: Leisure studies past, present, and future. *Journal of leisure research*, *50*(5), 389-393.
27. Stake, R. E. (2005). Qualitative case studies. In Denzin, N. K., Lincoln, Y. S. (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 443-466). Thousand Oaks, CA: Sage.
28. Tyack, D., & Tobin, W. (1994). The "grammar" of schooling: Why has it been so hard to change?. *American educational research journal*, *31*(3), 453-479.
29. Weick, K. E. (1976). Educational organizations as loosely coupled systems. *Administrative science quarterly*, *21*(1), 1.

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Otherness, Culture, and School Inclusiveness: Rethinking Deficiencies

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Abstract- This article discusses the criteria of normality and pathology, as proposed by Cognitive Psychology and Sociology, in relation to mental deficiency. *In order to* reflect on this Other, in the sense of *otherness,* we explore *the assumptions,* conceptions and epistemological roots *of what is currently argued to be* "normal" and "pathological." Based on these foundations, we will analyze their representations and consequences to psychology, Cognition, and Inclusive Education *at the present time*.

Keywords: otherness; culture; deficiencies.

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"Porque a vida, a vida, a vida, a vida só é possível reinventada".
(Because life, life, life, life is only possible reinvented.)

Cecília Meireles

Introduction

One of the most important issues under discussion in current-day sociology and psychology is the constant thinking and rethinking on the role of sociocultural context and its multiple relations with the "different" (the so-called "intellectually deficient.") To reflect on this Other, in the sense of otherness, we will return to the assumptions, conceptualizations, and epistemological roots of what we now conventionally deign "normal" and "pathological." Based on these foundations, we will analyze the representations and consequences for current-day developmental psychology, Cognition, and Inclusive Education.

More specifically, in this article we will take as a reference point Durkheim's (1983) basic assumptions on conceptualizations on this topic, given that they continue to influence the view and the interventions that professionals in psychology and education maintain about the different and the exceptional, based on the situation we researched. These assumptions will be considered alongside theoretical-methodological propositions by other authors, such as Vygotsky (1993, 2001), Canguilhem (1993), Meira (2001, 2003), and Mcdemott (1996), which are pertinent to our own approach.

We will divide this article into three main topics: (1) The Normal and the Pathological in Durkheim; (2) Soviet Defectology, Normality, and Pathology: a new look; (3) Soviet Defectology, Language, ZPD, and Special Education: overlaps. In the first topic, we will spell out the criteria Durkheim establishes to conceptualize normality and pathology. In the second, we will analyze the contribution of socioculturalists/ neuroscientists, both classical (Sacks, 2001, and Fonseca, 2002) and contemporary (Mcdermott, 1996). In the third, we will investigate the implications of these authors' thinking for the educational environment in which we include the so- called "intellectually deficient," "cognitively incapable," with "developmental delays" (concepts that often emerge in teachers' speech).

Guided by the objectives outlined above, it is important to make clear that investigating conceptualizations regarding normality and pathology requires understanding the multiple dialogues with the field of culture and subjectivity. Throughout human history, the diverse forms of intellectual deficiency have always been subject to judgments of a moral nature. In this sense, deficiencies are inseparable from what Fonseca (2000) calls "cultural relativity," that is, an obscure, tenuous, confusing way of excluding undesirables from the social order. In the Middle Ages, for instance, we see the prevalence of the conception of deficiencies as connected to the religious-mystical realm, whose representational images connect the figure of the person with deficiency with demonic possession, sin, and divine punishment. Within this context, "deformities" and "anomalies" were seen as breaks with the sacred, generating what people labeled "social disorder" and thus the object of efficient actions to cleanse the environment through exclusion/ banishment of these undesirables from society. Later, in the XVI century, with the contributions of Paracelsus and Cardano to medicine, we see the arrival of another type of discourse in the sociocultural environment: the medical discourse, whose intent was to raise the "deficient" subject to another representational level, distinct from the mystical-religious discourse; as such, intellectual deficiency is now seen through the medical prism and becomes a *disease*.

The disconnection of intellectual deficiency from the field of *demonology*, and its association to an organic, biological model transforms the phenomenon–intellectual deficiency becomes a fact which is susceptible to investigation using the logic of scientific though. Those "affected" would now be

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perceived as *patients* that should be treated with the objective of reaching their functional recovery and their social inclusion. However, despite these supposed advances that mental deficiency achieved through the medical focus, we must not be naïve and ignore what happens in the background of these propositions, in which there is an emphasis on concepts of "deficiency" and "mental illness" which prioritize their endogenous nature, ignoring the values and meanings constructed within and inherent to sociocultural reality.

The XVI, XVII, and XVIII centuries are thus characterized by the primacy of the clinical foci of psychiatry about the so-called "mad," "insane," "intellectually deficient," and "maturity delayed" (Foucault, 1991). In this sense, the history of intellectual deficiency seems to show us that, more than the existence of subjects who deviate from normality (which is, in itself, a discourse), this history is one of constant appropriation by an order (psychiatric, psychometric, pedagogical, sociopolitical, and cognitive) of the object of "mental deficiency," which is reinstated every step of the way.

In the XVIII and XIX centuries, a relevant change will take place in this socio- historical context, since the "deviants" are now the object of another discourse: the sociological. Sociology, specifically the Durkheimian variety, has something to say on the nosography, taxonomy, and categorization of the so-called socially "normal" and "abnormal." This is because sociology does, in fact, move away from the merely ontological criteria of normality and abnormality brought about by psychiatry andexpands its horizons: it studies the triadic relationship individual-collective-normality. Let us recall the assumptions that found these conceptualizations, using Durkheim's classic text *The Rules of Sociological Method* (1983) as our reference.

I. The Normal and the Pathological in Durkheim

Durkheim defined sociology as the science of social facts and institutions. Social facts are analyzed in their capacity of acting as coercive forces in determining human conduct–in other words, in terms of social control. His ideas on collective consciousness, despite the variations present therein, called attention to the ways in which social interactions and relationships influence significantly in individual attitudes, ideas, and feelings. In this framework, language is also seen as a social fact. It is seen as a system of signs and symbols that circulate in society and impose their power on individuals. However, it is not merely an external expression of thought; it is itself internalized. Furthermore, language does not only express thoughts; it also creates them. A fundamental aspect of this assumption is that language helps shape individuals' social environment–at school, for instance–imposing on said individual an irresistible pressure. This conceptualization of language as a social fact corresponds to the static view of collective representations, and, as Marková (2006, p. 179) points out, in this theoretical approach "(…) social facts are facts of collective solipsism and the collective monologue. They act as impersonal repressors of the individual and do not allow dialogue between the individual and society."

In a more vertical perspective, we can see that this author's work was influenced by certain doctrines, such as evolutionism. This doctrine appears in his theory of growth of a mechanical society towards an organic one, based on the assumption of necessary stages towards social organization, holding the view that contemporary primitive societies represent earlier periods of evolutionary development.

The treatment Durkheim gave social facts and the collective consciousness associates sociological truths to fallacious points of view. Thus, it was inevitable that it would fail in many of its interpretations of social phenomena related to individual motivations. Several unintended and undesired phenomena (e.g. economic depressions and wars) require a social interpretation instead of a psychological one, or so it stated. Thus, concomitantly and frequently, especially in discussions about collective consciousness, they reached a degree of sociological realism that seemed to deny the social meaning of volition or individual choice. In this conception, society shapes our actions and expectations, and rewards us to the extent that we play our social roles to the letter. If we try to break out of these, society activates an almost infinite number of controls and coercions.

Despite ignoring the individual in his theoretical propositions, it is undeniable that Durkheim made an important contribution to sociology and psychology, especially when he thinks of society as a *sui generis* phenomenon, representative of a compact, external reality. However, it is our understanding that the individual and society can only be understood via an interactive, dialogical basis, since prioritizing one or the other pole of this relationship inevitably leads to inconsistent, fragmented interpretations. It is worth mentioning, as Valsiner (1989, 1988) observes, that the non-developmental psychological theories have denied this interactive basis (individual↔context), considering them ontologically separate entities. This means that the individual is precariously perceived as a unit, and society as another.

However, in inclusive schools, we understand that teaching and learning are processes of shared construction of meaning through discursive activity which involves all the participants, and the classroom is the specific environment in which this process occurs. It is in the classroom that teacher and students

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intentionally dive into theknowledge previously built, and under construction, by human society. Through dialogical exchanges, they build and reorganize the shared meaning of this knowledge. The construction of knowledge at schools is forged in the interaction between people who share a social context which allows them communicative exchange and who have similar objectives in regard to the primordial purpose of teaching. However, at the same time, they have vastly diverse experiences from the point of view of individual lived experience and knowledge accumulated in their private histories. Thus, school is a social environment which reflects the macrosocial relations, as well as presenting a specific organization which guides the forms of interaction and, therefore, the discourse of its participants.

After succinctly pointing out Durkheim's importance to sociology and psychology, it now behooves us to discuss, in greater detail, the concepts of normality and pathology contained within his theoretical-methodological framework.

II. The Normal and the Pathological in Durkheim

Logical positivism had enormous influence on modern conceptions of pathology (as mentioned in the introduction to this article) since, based on the knowledge achieved by medicine on the health-disease relationship, different theories developed. Comte, for instance, established the positivist conceptual basis for analyses of normality and pathology, inasmuch as he understood that illness and health are governed by similar laws. For this author, *apud* Canguilhem (1995, p. 31):

> *(…) the pathological state is not at all radically different from the physiological state, with regard to which–no matter how one looks at it–it can only constitute a simple extension going more or less beyond the higher or lower limits of variation proper to each phenomenon of the normal organism, without ever being able to produce really new phenomena which would have to a certain degree any purely physiological analogues.*

If Comte established the pillars of this conceptualization, Durkheim (1983, p. 110) built the most complete form of this distinction between normality and pathology. The whole of Durkheimian thinking is based on the fundamental premise that, based on observation, society "mixes up two orders of facts, very dissimilar in certain respects: those that are entirely appropriate and those that should be different from what they are– normal phenomena and pathological phenomena."

These observations lead the author to establish criteria with which to define the two states. To this end, he uses the health-disease opposition, upon which he develops his whole theory. The criterion currently used to determine illness is, according to the author, suffering and pain. However, he finds the criterion insufficient, as he recognizes that certain states of suffering, such as hunger, fatigue, and childbirth, are normal. Another way to think of disease is as that of a perturbance in the adaptation of the organism to its environment. To Durkheim this would seem dubious, to say the least, because, in this case, one would need to establish principles that would define that one determined way of adaptation were more perfect than another. This principle could, however, be established in relation to the possibility of survival, defining the state of health as that in which the possibilities of life are greater, and of illness as the state which would diminish these possibilities. Durkheim questions this conceptualization as well, because a series of phenomena, such as death (necessary in the reproduction of some lower species) and old age cannot be considered pathological.

Similarly, he refutes "(…) deductive reasoning, whose conclusion have no value except as subjective presumptions" (p. 113), which are unable to demonstrate that such a phenomenon effectively "(…) weaken[s] the social organism, but that it *should* have that effect." In his understanding, these procedures led sociology down tortuous pathways, since they bring to the table the personal feelings of the researcher.

How then to distinguish the normal from the pathological? Durkheim believes thatboth biological and sociological phenomena can be reduced to two basic types: those that are common across the species and "(…) are to be found, if not in all, at least most individuals," and, if they "vary from one person to another, their variations are confined within very narrow limits" (p. 114), and the exceptional phenomena which, besides appearing in a minority, often last the whole life of the individual. Based on these two types of basic phenomena, *normal* and *exceptional*, Durkheim (1983, p. 114) establishesan average type, which serves as a generic norm for the species. In reality, the average type is a:

> *(…) hypothetical being which might be constituted by assembling in one entity as a kind of individual abstraction, the most frequently occurring characteristics of the species in their most frequent forms. We may then say that the normal type merges into the average type and that any deviation from this standard of healthiness is a morbid phenomenon.*

After defining the parameter of normality, Durkheim (*ibid.*, p. 118) states that the quality of the phenomenon (normal or pathological) must be considered in relation to its frequency. Thus, he formulates three criteria to distinguish the normal from the pathological:

(1) *A social fact is normal for a given social type, viewed at a given phase of its development, when it occurs in the average society of that species, considered at the corresponding phase of its evolution.*

(2) *The results of the preceding method can be verified by demonstrating that the general character of the*

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phenomenon is related to the general conditions of collective life in the social type under consideration.

(3) *This verification is necessary when this fact relates to a social species which has not yet gone through its complete evolution.*

We can see that current conceptualizations of exceptionality correspond exactly to these Durkheimian rules, even when the school of thought puts on trappings of aconstructivist, vanguard discourse. This is due to the fact that it uses the criteria of deviation from average normality. Secondly, because they refer to the general conditions of collective life–in other words, the need to learn at school and adjust to the established social standards. Finally, because they establish a form for this coercion: inclusion in special education processes. Here we could cite Fonseca (1987), who sharesthe content of the Council of Exceptional Children (CEC), which defines the atypical child as *one who deviates from the average normal child in: 1. mental characteristics, 2. sensory aptitude, 3. neuromuscular and corporal characteristics, 4. emotional and social behavior, 5. communication abilities, and 6. multiple deficiencies* to the point that they require modification of educational practices or the creation of special education services in order to develop their capabilities to their maximum.

Through these ideas, the dichotomy between deficiencies-school-society is established: these last two correspond to the general conditions of collective life, and exceptionality is defined by individual deviation. This leads us to conclude that Durkheim was correct to state that his method guides thought and action. To this day, special education seems to be impregnated with his ideas, since it analyzes deviation based on individual characteristics and fails to take into consideration macrosocial aspects.

III. Soviet Defectology, Normality, and Pathology: A New Look

For quite some time, disease, or morbidity, has become commonplace for Sociology and mental pathology, to the extent that it only becomes real and gains value within a given culture, which recognizes it as such. However, this relativity of morbidity is not always clearly explained. This is what happens, for instance, to Durkheim as he tried to explain it through a conception both evolutionary and static. In this sense, a society would consider pathological those phenomena which, as they distance themselves from the norm, marked stages of a previous evolution that had already been overcome, or announced the next phases of a development just begun. In this respect, Durkheim (1983), in his *The Rules for Sociological Method*, defines morbidity based on the establishment of the schematic being, an average type of a species: "…any deviation from that standard of healthiness is a morbid phenomenon." (Durkheim, 1983, p. 114)

Foucault (1978, p. 73) points out that, in Durkheim's conceptualization, disease is viewed as both negative and virtuous:

> *Negative, since it is defined in relation to an average, a norm, a pattern, and in this distance resides the essence of the pathological: disease would be marginal by nature and relative to a culture only to the extent that it is behavior that is not integrated to said society. Virtuous, since the content of the disease is defined by possibilities which are, in and of themselves, non-morbid within their manifestation: to Durkheim, it is the statistic virtuosity of deviance in relation to the average…*

In opposition to this statistical perspective, Foucault (1975, p. 24) does not analyze disease only via its negative aspect; on the contrary, he points out positive aspects that underlie the negative, stating that, "In fact, disease erases, yet underlines; abolishes on one side to exalt the other. The essence of disease is not only in the void it creates, but also in the plenitude of activities that come about to fill said void."

Based on these statements, we see a game of complementarity in which negativity is affirmed in the presence of its contrary, circumscribing its own logic. That is, in returning to earlier phases of evolution, disease abolishes recent acquisitions and rediscovers behavior that had been overcome. Disease thus presents itself not as a "step back," but as a process in which evolutionary structures are unmade. In its most benign forms, there is the dissolution of recent structures and, at the end of the disease or at its greatest extremes, of more archaic structures. To Foucault (1975, 1991), then, disease is not a deficit that radically strikes this or that faculty; there is, within the absurdity of the morbid, a logic which one must "figure out," since it is not ultimately the proper logic of normal evolution. He views pathology or disease not as an essence against the nature of "normality," but as the nature of this normality itself, in an inverted process which forces us to acknowledge that society determines the texture of mental illness and of the mentally ill, based on medical and paramedical analyses, conferring to them, respectively, meaning or abnormality and the status of excluded, different, or insane. Society projects its ills on the illness of the Other and will not accept any vestige of positivity.

Corroborating this perspective and defining its limits to issues concerning learning and development, Vygotsky (1999, 1996) and Mcdermott (1999) are also opposed to theuse of psychometrics as an instrument to measure those who "deviate" from the average as a means of categorizing the "normal" and the "abnormal." It is based on these premises, for example, that Vygotsky himself disagrees with the thesis, popular in his time, that the development of the abnormal child

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obeys its own specific laws; to him, the laws of development should be the same for all children, there being a continuum between the development of these two groups. In this way he points out the primordially social aspects of learning, preparing the way for an educational approach that emphasizes not only pathology, but also the means to develop and improve teaching abilities.

Based on Vygotsky's proposals, we can assure that the child with an intellectual deficiency is now seen through a qualitative perspective, and not simply as a quantitative variation of a normal child (the Durkheimian perspective). To Vygotsky, deficiency would bring about a process of compensation, stimulating the subject towards a (re-)direction Thus, this author's proposals are attached to the so-called *compensatory approach* to education, which takes into consideration not only the gravity of the difficulty, but also the efficiency of the teaching strategy used to help students overcome their limitations. In this understanding of compensatory elements, used in the sociocultural environment, Vygotsky (1996, p. 221) points out that "(…) through experience, the child learns to compensate their natural deficiencies, based on the defective natural behavior; cultural techniques and abilities come about, hiding and making up for the defect. They make it possible to take on an unviable task through the use of new, different pathways." Thus, it would fall to the Soviet Defectology of Vygotsky and his collaborators to study the cycles and transformations in development, the compensatory practices which would allow one to overcome deficiencies, taking as their object of analysis the physical and psychological reactions of the so-called "deficient" person. The uniqueness of the development of the subject categorized as "deficient" would be in the positive effects of the deficiency, in other words, in the pathways traveled to overcome the deficit. In this view, the "deficient" subject is not understood as inferior to his or her peers, but as one who presents a qualitative different, unique development. Corroborating this argument, we defend that the proposal designed by Vygotsky destroys the crystalized, rigid conception of mental deficiency still current in Brazilian special education. This variety of conceptions (limitations, delays, stagnations, and impossibilities) has been established, as we have already analyzed, throughout human history in the social environment, going through transformations as to what we name the so-called "mentally deficient" ("idiot," "imbecile," "retarded"), as well as the means of understanding these subjects ("mad," "possessed by demons," "cognitively incapable"). However, to this day, we see the marks of these concepts and, as discussed by Ferreira (1994), are constantly faced with concepts and impressions of mental deficiency that emphasize the *deficit*, the inability, the impossibility of including the subject in regular school, in society–in life.

Within these propositions, the social environment is seen by Vygotsky as the element which may facilitate or impede the creation of these developmental pathways. The "defect," thus, is not in the individual, nor is the child who has a "defect" necessarily "deficient"–his or her degree of normality is conditioned to the social interactions established by the child throughout his or her existence.

Adjacent to this assumption, Leontiev, as cited by Ferreira (1994), defends the notion of *activity,* which is the relationship the individual establishes with objective reality. However, we point out that the term "activity" implies the nature of a social process and is related to semiotic mechanisms. Leontiev's Theory of Activity postulates that individual action, in and of itself, without insertion in a collective system, loses meaning and cannot be qualified as an object of study for the comprehension of psychological processes.

In this sense, we see that the possibilities of development and learning are broadened when one works with heterogeneity, with activities which are meaningful to the student in his or her relation to the world and, especially, with a conception of deficiency as a motor for change; as a difference and not a "loss," as Vygotsky points out in his *The Fundamental Problems of Defectology*. Corroborating this postulation, Ferreira (1994) explains that "the socio-historical approach to deficiency revolutionizes the concept of deficiency (…), seeking the development of potential, of the compensatory processes brought about by deficiency, emphasizing capacity and not the *deficit*." In the same vein, Vygotsky attempts to transcend a psychology of pathology and abnormality when he defends the premise that compensatory cultural behavior overcomes the defective natural behavior, an idea based on Adler's (*apud* Vygotsky, 1996) conception that we can see the overcoming of grave "defects" in specific organs of the human body. However, we must point out that this process of compensation is singular and *sui generis*, because there may not only be the compensation of "congenital weaknesses," but also the super compensation of these. Examples of this include people who are born with poor hearing becoming musicians, people with deficient vision becoming visual artists, and people with speech impediments becoming public speakers. The basic mechanism of both compensation and supercompensation follow a logical sequence, as Vygotsky himself points out (1996, p. 222):

> *The defect becomes the focal point of the individual's concern, and over it is built a certain "psychological superstructure" which seeks to compensate the natural insufficiency with persistence, an exercise which involves the cultural use of his or her defective function (if it is weak) or of other substitute functions (when completelyabsent). A natural defect organizes the mind in such a way that makes a maximum ofcompensation possible.*

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In this process, as defended by Sacks (2001) and González (2002), there is a focuson the defect and a neuropsychological directing towards it, showing an intermingling of the areas of neuropsychology, Soviet defectology (developmental aspects), and special education. Within these conceptualizations, we see that the position Vygotsky defended–education as a driving element of development and socialization in children– is based on the premise that education should lead students from their current state of development or learning to a future level, qualitatively different, and compatible with the sociohistorical realities of the culture or science of the times. In other words, in his conceptual model, as pointed out by Fonseca (2002), there is a prospective emphasis on the sociohistorical factors of education and development.

Within these proposals, we find a special focus given to teachers, as a fundamental element in the teaching-learning process as they play the role of mediator of the world to the child. This shows up in Vygotsky's second fundamental psychological law, investigated by Davydson and Zinchenko (*apud* Daniels, 1994). Let us refresh our memories these concepts: "(…) any function appears twice on the scene of the cultural development of the child, in two stages: first, the social, and later, the psychological; first among people (…); later, within the child itself." (pp. 162-163) According to these authors, this psychological law is manifest mainly within what Vygostky called "Zone of Proximal Development" (ZPD).

IV. Soviet Defectology, Language, ZPD and Special Education: Interactions

Vygotsky's thinking, as analyzed above, allows us to understand, in general terms, the foundations proposed by Soviet Defectology regarding the development of subjects with mental deficiencies. In a perspective of greater verticalization, it is possible to see that the concept of ZPD, described by Vygotsky around 1930, is based on the possibility of understanding a large range of assumptions about the social genesis of human beings, especially in regard to the process of internalization, fundamental in the development-learning relation, in games, in children's play, and in social interactions. The general meaning underlying this concept states that a child, at a determined stage of his or her development, can solve a certain range of problems only with the help of adults and, to a point, with the collaboration of more experienced peers. The concept of ZPD is relevant to professionals (such as teachers and psychologists) who study human development with a focus on the process of development, as discussed by Valsiner (2000) in his article titled "The development of the concept of development: Historical and epistemological perspectives," and not necessarily in the products of development. In Vygotsky's view, the concept of ZPD "allows us to outline the child's immediacy and his or her dynamic state of development, allowing access not only to what has already been achieved through development, but also what is in the process of maturing." (*ibid*, p. 113) Similarly, the intent is not to focus simply on the academic performance of "special" children as products of their development (statistical performance indicators), but to focus on the process of the cognitive phenomenon to be investigated in the classroom. We believe the concept of ZPD can provide us with a powerful instrument to understand notions underlying the reality of inclusive education: ideas of inclusivity, virtuousness, diversity, prospection, and potential, which has implications for rethinking educational and psychological practices and models, traditionally based on behavioral models.

However, it is valid to point out, as analyzed by Valsiner (2000) and Meira (2004), that Vygotsky used this concept in different contexts and circumstances, allowing us to identify different meanings attributed by this author to this concept. Thus, Valsiner & Van der Veer (1999) suggest the existence of three possible forms for the development of the concept of ZPD. The first was based on a critique of the traditional method of investigation and measurement of intelligence, via psychometrics (IQ tests) and emphasized the comparative analysis of levels of individual and collaborative performance during the resolution of problems, as pointed out by Meira (2004) in his article "Zones of Proximal Development in science and mathematics classrooms." In this article, Meira (2004) analyzes the trajectory of the construction of the ZPD by Vygostky in three distinct moments: a) First Moment: Emphasis on Individual Development; b) Second Moment: Emphasis on Interaction, and c) Third Moment: Emphasis on Semiotic Mediation.

Referring to the Vygotskyian paradigm, Feuerstein (…) proposes what he calls "Mediated Learning," whose evaluation has as its main objective to explore the subject's potential through a process of active involvement and interaction with an adult or a more experienced peer. In the teacher's case, he or she prepares learning situations and gradually offers the student clues throughout the activities where said student runs into barriers. Thus, the teacher may create alternative pathways for students to advance in academic tasks. This concept was also studied by Fonseca (1995), who presents identification and diagnosis as an early strategy of therapeutic and psychopedagogical intervention, with the objective of apprehending the characteristics of the learningpotential of the child. This process allows one to reflect on the inventory of adaptive acquisitions and capabilities, flexibility, and plasticity of children's competencies.

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It may be important to point out that the ideas of "mediated learning" defended by Feuerstein, and that of "modifiability," proposed by Fonseca, which show up in the discourse of Brazilian educators, reveal a reductionist understanding of ZPD. This happens because, by defining it strictly as a characteristic of the individual, as analyzed by Meira and Lerman (2001), they leave out what emerges from the dialogic relation between the subjects, revealing what is basically an individual vision of the ZPD. To these authors, though based initially on Vygotsky's proposed concept of ZPD, the studies that follow from this foundation end up in opposition to the theoretical- methodological base proposed by Vygotsky, as well as to the ideas put forth in later formulations of the concept of ZPD.

Considering this criticism to the first formulation of the concept of ZPD, and pointing out the importance of considering this concept as both relational and constituted by a process of negotiation of meanings by the relational partners, Meria (*op. cit.*) makes it clear that, in the second formulation of the concept of ZPD, Vygotsky begins to prioritize the socio-interactional aspects of the process of collaboration *per se* over the solution of individual problems. More specifically in relation to this work, Meira (2004) points out the importance of considering the ZPD as an emergent phenomenon in socially diverse contexts of interaction. The notion of symbolic mediation, on the other hand, is associated to the use of mediators–toys, for instance– which lend a symbolic dimension to the activities. In this theoretical perspective, the ZPD is not conceived as a "force field," as something belonging to the child or the adult. On the contrary, the ZPD is defined as a relational construct, a privileged space of negotiation of meaning, built on the engagement of the relational partners in social, dialogical, cultural, and linguistic activity. Thus, in this approach, we see that the ZPD is "(…) a symbolic space which emerges, based on teaching, of various types of dialogical interactions, self-help, play, or fantasy, to bring about social creation of development processes not yet reached." (Meira, *ibid*, p. 5).

In the third and last phase of construction of the ZPD, Vygotsky focuses on the symbolic and discursive aspects of various activities, still connected to international formulations, but definitively distancing itself from comparisons of performance. Meira believes this is the phase of least theoretical elaboration of the concept of ZPD, while "(…) at the same time, that which brings the most original and interesting contributions." (Meira, 2004, p. 13).

In a perspective of verticalization of Meira's contribution (2004, p. 14), we see that he builds a model of analysis of instructional activities and of the interaction among teachers and students in the classroom (such as those carried out in our study) whose conceptual bases show notions of dialogicality and time in the emergence and maintenance of the ZPD as a semiotic-temporal field. To this end, ZPD is conceptualized as "(…) a semiotic field, a symbolic space of signification, in which interaction and communication promote the guided development of learning. In this sense, ZPDs emerge, or don't, moment-to-moment, as part of the microculture of the classroom and other learning context." Thus, Meira (2004) focuses on the analysis of the variety of discourses which emerge among participants in teaching situations, especially in the classroom.

Within these propositions, we should also mention that the products which emerge from the ZPD are not directly internalized, in a movement from the outside to inside the individual. They are reconstructed and have their meanings (re-)elaborated in this symbolic space, allowing the intersubjective, shared maintenance of these products even when the subjects internalize aspects of the activity. Specifically, we could say that our emphasis will be on the mediating character of the interactions between special child and teachers creating a space of intersubjectivity between them in which knowledge is constructed and helps in the creation of developmental and learning possibilities.

By joining the historical-cultural perspective to the model set forth by Meira (2001), we can state that the pertinence of Vygotsky's theory lies in the fact that it treats the educational problems brought about by children with special educational needs in a constructive manner, seeking solutions within the systems that support students. Thus, Evans (1994) assures us that distinct school cultures have different impacts on students' cognition, making it necessary to reflect profoundly on the organizational and operational methods of said schools. In this sense, schools need to be thought of as microcultures, which aggregate the responsibility to condense culturally organized human activities.

In summary, we bring up Maturana and Varela (1995, p. 50), who propose an education which contemplates reflection on the

> *human condition as a nature whose evolution and realization is in the meeting of the individual BEING with his or her ultimate nature, which is the social being. Therefore, if individual development depends on social interaction, then formation itself, the very world of meanings in which one exists, is a function of living with others. Acceptance of the other is, then, the foundation so that the observer or self-conscious fully accept him- or herself.*

Based on this philosophical principle, we believe that a proposal of inclusive education may contribute to bringing about a more egalitarian and supportive society, one more committed to its most meaningful purpose: to HUMANIZE.

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V. Final Considerations: Searching for a Prospective View

This article revisited concepts of sociology and psychology. In contrast to Durkheim's perspective, we postulate that the concept of "normal" goes beyond the mere designation of a frequent phenomenon, given that "[a] norm is in effect the possibility of a reference only when it has been established or chosen as the expression of a preference and as the instrument of a will to substitute a satisfying state of affairs for a disappointing one." (Canguilhem, 1995, p. 212)

As stated by Canguilhem (*op cit.*), a norm is a reference to a possible order, which allows and demands a challenge (counter-norm) to become a norm.

With the evolution of scientific knowledge, another concept to observe is that of *exceptionality*, according to which the phenomenon stops being considered an *illness* to be seen instead as a *condition*. Either way, disease or condition, exceptionality is still a pathology at schools, determined by deviation from the norm, and using as a paradigm the conditions of collective life. Anomalies, in this sense, would be any particularities which differ from the common traces of the species. When we talk about anomalies, Canguilhem (1995, p. 106) says

> *(…) Statistical divergences such as simple varieties are not what one thinks of when one speaks of anomalies; instead one thinks of harmful deformities or those even incompatible with life, as one refers to the living form or behavior of the living being, not as a statistical fact but as a normative type of life.*

Thus, even from the strictly biological point of view, pathologies are not simply *a deviation from the average,* but refer to *values determined by the act of living itself.* If, from the strictly biological point of view, the positivist concept of pathology does not hold water, much can be said in relation to exceptionality, inasmuch as it is determined not by simple biological differences, even when organic in nature, but because they influence the *gestalt* or humans as individuals and members of a given social group.

The influence of the positivists remains to current day, and have been determinant the field of special education more than Cognitive and Developmental Psychology itself. The biggest problem of these authors' theoretical contributions was to present a concept of a given human phenomenon in order to, as Lowy (1988, p. 30) so poetically points out, "(…) ignore ideological conflicts, suppress passions and prejudices, and systematically drive away preconceptions." That is, the totality of the individual, within this narrow, abstract perspective, becomes simply its divergent, negative marks. But "deficiencies" should not be seen as something abstract, but as a historically constructed category. It includes subjects who possess individual characteristics, defined and produced by social requirements that interfere in their process of humanization.

Finally, we would like to point out that the great paradox of modern-day society lies in the fact that, while generating these differences, it is incapable of living with them, except through discriminatory mechanisms. This brings about the normalizing coercion mechanisms and the ceaseless fabrication of deviants. Thus, when it establishes its clientele as that which presents "deviations" in biological, psychometric, developmental, and cognitive characteristics, so-called "Special Education" reproduces, within its realm of actions, the process of participation-exclusion, contributing to the fact that these individuals continue to not be incorporated by the social environment which, more and more, demands increasing levels of schooling and socio-cognitive development of its members.

References Références Referencias

1. BUENO, J. G. S. (1993). "Educação Especial Brasileira: Integração/Segregação do Aluno Diferente". São Paulo: EDUC.
2. CANGUILHEM, G. (1995). *O Normal e o Patológico*. Rio de Janeiro, Forense Universitária.
3. DANIELS, Harry (Org) (1994). *Vygotsky em Foco: Pressupostos e Desdobramentos*. Campinas, SP: Papirus.
4. DURKHEIM, E. *As Regras do Método Sociológico*. 2. ed. Seleção de textos de José Artur Gianotti. Tradução de Carlos Ribeiro de Moura. São Paulo: Ed. Abril Cultural, 1983. (Série Os Pensadores)
5. EVANS(1994). In: DANIELS, Harry (Org) (1994). *Vygotsky em Foco: Pressupostos e Desdobramentos*. Campinas, Papirus.
6. FOUCAULT, M. (1991). *Doença Mental e Psicologia.* Rio de Janeiro, TempoBrasileiro.
7. ____. (1975). *História da Loucura na Idade Clássica*. São Paulo: EditoraPerspectiva.
8. ____. (1980). *O Nascimento da Clínica*. 2. ed. Rio de Janeiro: Forense –Universitária.
9. GONZÁLEZ, J. A. T. (2002). *Educação e Diversidade: bases didáticas e organizativas*. Porto Alegre, Artemd.
10. LURIA (1988*). Diferenças culturais de pensamento. In L. S. Vygotski, A. R. Lúria e A. N. Leontiev (eds.),* Linguagem, desenvolvimento e aprendizagem (pp. 39-58). *SãoPaulo: Ed. Ícone.*
11. MATURANA.R. & VARELA, F.G. (1995). A Árvore do Conhecimento: as bases biológics do centendimento humano. Campinas. Editorial Psy.
12. McDERMOTT, R. P.; HOOD, L. Institutional psychology and the ethnography of schooling. In: GILMORE, P.; GLATTHORN, A. (Eds.) *Children in and out of school:* ethnography and education. Washington, DC: Center for Applied Linguistics, 1982, pp. 232-249.

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13. McDERMOTT, R. P.; VARENNE, H (1995). *Culture as Disability). Antropology & Education Quarterly, v. 26, n. 3 (pp. 324-348).*
14. MEIRA, L. (2004). *Zonas de Desenvolvimento Proximal nas salas de aula de ciências e matemática.* In: Vetor Netclem. Série de Divulgação Cientifica em Educação Matemática.Campos dos Goytacazes, Ed. FACIC.
15. MEIRA, L. & LERMAN, S. (2001). *The Zone of Proximal Development as a symbolic space.* IN: Social Science Research Papers, 13, 1:1-40.
16. MEIRA, L. (1995). Análise microgenética e videografia: Ferramentas de pesquisa em psicologia cognitiva. Temas de Psicologia, Ribeirão Preto, v. 1, n. 3, pp. 59-71.
17. MOREIRA, F. W. S. (1997). *Expressões e Silêncios do Discurso Cidadania-Deficiência Mental – Uma Abordagem Histórico-Discursiva do Plano Estadual de Educação 1988- 1991. Dissertação de Mestrado, UFPE, Recife.*
18. MOREIRA, F. W. S. (2010). *Na Contramão das Limitações: a produção de sentido na deficiência mental. Recife, Editora Universitária, UFPE.*
19. SACKS, O. (2001). *Um Antropólogo em Marte – Sete Histórias Paradoxiais .* São Paulo: Companhia das Letras.
20. VALSINER, J. *The Development of the Concept of Development: historical and epistemological perspectives.* In: W. Damon & R. Lerner (orgs). Handbook of Child Psychology. 5 th edition. V. 1. New York: Willey.
21. VALSINER, J. (1997). Culture and the development of childrens's action: A theory of human development. New York: John Wiley & Sons, Inc.
22. VALSINER, J. (2000). *Culture and human development*. London: SAGE Publications.
23. VAN DER VEER, René e VALSINER, Jaan. *Vygotsky – Uma Síntese (1999).* 3ª ed. São Paulo: Loyola.
24. VYGOTSKY Lev. S. *Fundamentos de Defectologia.* Obras completas - tomo cinco. Havana: Editorial Pueblo y Educación, 1989.
25. VYGOTSKY, Lev. S (1993). *The collect works of L.S. Vigotsky: thefundamentals of defectology.* New York, London: Plenum Press, 1993. 2v.
26. VYGOTSKY, L. S. (1984). A formação social da mente. São Paulo: Martins Fontes.
27. VYGOTSKY, L. S. (2001). A construção do pensamento e da linguagem. São Paulo: Martins Fontes.
28. ____. (1996). Teoria e Método em Psicologia. São Paulo: Martins.
29. VYGOTSKY, L.S. & LURIA, A..R (1996). *Estudos sobre a História do Comportamento: o Símios, Homem Primitivo e a Criança.* Porto Alegre: Artes Médicas.
30. WANDERLEY, F. (1997). *Expressões e Silêncios do Discurso Cidadania-Deficiência Mental – Uma Abordagem Histórico-Discursiva do Plano Estadual de Educação 1988- 1991. Dissertação de Mestrado, UFPE, Recife.*

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Social and Emotional Learning in Online University Education for the Japanese Youth Trapped by Social Norms

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Social and Emotional Learning in Online University Education for the Japanese Youth Trapped by Social Norms

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Abstract- Japanese schools have long provided a well-balanced education system that develops children's cognitive skills as well as their emotional and physical skills. However, the system has an orientation that emphasizes having children adhere to the Japanese social norms and punishes those who choose to deviate. With the recent focus on Social and Emotional Learning (SEL) in educational research and practice, will Japanese children be able to live their own lives in a 21st century society full of change and diversity? This paper aims to find out how to liberate students affected by the formal education at universities, the last stage of schooling. Using practices at a Japanese university as a case study, the paper describes how multicultural SEL creates the meaningful learning that is uniquely for their own through the students' internal and external worlds and the back-and-forth between the two.

Introduction

Schools and communities are generally spaces where people encounter and become aware of a variety of different beings. People can demonstrate care and compassion for others and can also act and grow without being controlled by the desires of others. However, at present, it does not appear to be such a space in Japan.

The movie "Spirited Away" (2001), for example, suggests this. The main character, Chihiro, an ordinary girl from a middle-class family in Japan suddenly found herself lost in a strange world inhabited by gods. At first, she was only concerned with helping herself and her family. As she engaged with others, she became aware of a higher purpose of living. In this process, she took care of the loneliness of a character (*Kaonashi* or faceless) who lost their social identity and got desires bloated and aggressive. At the end of the movie, she cared for the restoration of the river god, wounded by human activity. Her concern shifted from the stage of self and family to the resolution of more universal issues such as loneliness and environmental destruction. She did not achieve a given agenda, showing care and compassion, but found her own agenda and acted on it.

The movie suggests what opportunities should be given to children today. Schools and communities are not a space to fulfill the desires of others but to restore self-awareness and compassion for others. It is to be a place to engage with others and society that has been damaged by loneliness, environmental pollution, and so on. In other words, children need a process of emancipation to the wider outside world while engaging with others. This process can be called the Social and Emotional Learning (SEL) as Goleman & Senge (2010) describe:

> If after a while she is just following the teacher's goals for what she *should* learn and not thinking much about her own goals, she can develop an attitude that school is all about other people's agendas - and fail to tap her inner reservoir of motivation and engagement…In the school years, the equivalent is "good learning" - being engaged with what feels important, what we are enthused by, and building the skills and constructs that we can get better at as we progress (Loc:93-99).

The factory model of education enforces students to compete to arrive at the only correct answer as quickly as possible. Through the modernization process in Japan, schools deliberately built a highly homogeneous society and sustained it for economic efficiency. The school system controls every detail of a student's life even today in the 21st century[1](). One of the reasons for this is that Japanese school education emphasizes "intellectual, moral, and physical education" at the same time. The system is originally set up so that children can grow up in a well-balanced manner[2]. Ironically, the above problem is caused by Japan's long-standing adoption of whole-child education, including physical and mental development, as opposed to Anglo-Saxon culture, which emphasized cognitive skills as a criterion for selecting outstanding students. The Japanese students, who have been expected to realize the agenda prepared by their teachers for more than 12

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[1] In the name of education, even in high schools, there is intense pressure on children's bodies such as uniform, underwear color, shoe color, hair color and length, and hairstyle. In many schools, participation in after-school club activities, which should be voluntary, is almost compulsory for all students.

[2] Basic Law of Education articles 1 and 2 show the purpose of education and targets of education. Article 2 explains the development of children based on the harmony of the intellectual, moral, and physical education by the school. Retrieved from https://www.mext.go.jp/b_menu/shingi/chousa/shotou/053/gaiyou/attach/1286153.htm on 2022/5/1

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years[3], are at a loss when they are told to "freely choose a theme" when they enter university. Freedom is the most painful for the mindset that it is natural to have choices prepared in advance. Cognitive skills are examined in university entrance examinations in Japan, while the children are educated for non-cognitive skills that are the outcome of SEL at schools. If social and emotional skills can be developed more than cognitive skills in lifelong learning (Cunha & Heckman 2007; Cunha, Heckman & Schennach 2010) after university graduation, then universities should ensure SEL as the last chance in the formal educational institutions.

From the above concerns in this article, we focus on virtual communication in Japanese university education with the following research questions:

1. What conditions are necessary to make SE skills possible in formal university education in Japan, while the skills are considered difficult to develop in formal education?
2. How can Japanese students be freed from social norms by encountering themselves and the different others? Even though their mindset has been shaped by the whole education including SEL, they are educated by the norms set by others.

I. Theoretical Framework and Research Methods

a) *SEL in Japan*

Originally, social skills and emotional skills were thought of as two separate things. In the 1990s, Goleman proposed the idea of emotional intelligence, and the idea of integrating both were expanded. CASEL, an American educational organization founded in 1994, defines SEL as follows:

> Social and emotional learning (SEL) is an integral part of education and human development. SEL is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel, and show empathy for others, establish, and maintain supportive relationships, and make responsible and caring decisions. (CASEL 2021: 1)

CASEL highlights the five core areas: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, and says SEL is the" missing piece" in education. The SEL program has been shown to reduce violence and bullying, increase pro-social behaviors such as liking school and improving attendance, and even improve academic performance. OECD (2015) has been working on SEL in formal, nonformal, and informal settings for skill development, as it conducted a series of research on the Social Outcomes of Learning project (2005-2010). They show that these skills can be viewed as learning outcomes for a well-functioning society and that they need to be addressed from the earliest stages of development.

The SEL-specific contents are not particularly new to school education. Elias (1999) and Sprenger (2020) introduce activities in subject lessons and social learning such as role-play, debate, art, and volunteer activities are common as SEL. At the same time, as diversity are more visible, the development of interpersonal relationships such as care, respect, and compassion can surely contribute to the prevention of problem and to well-being in a multicultural society as Elias shows:

> Having a multicultural perspective requires SEL skills, and neither can be conveyed didactically. Both the perspective and skills become developed through guided, lived experience, even in schools that may appear to be lacking diversity -- at least on the surface[4].

In Japan, SEL has also emphasized the prevention of student's problematic behavior (Watanabe 2015, Koizumi 2016), but it also develops the good character among the children (Ikesako, & Miyamoto 2015). However, the current state of school education in Japan nurtures children to be good at conforming to others so that they do not engage in deviant behavior in groups. Therefore, one of the major factors that undermine the attractiveness of learning in schools is the class environment neglects the consistency between the cognitive and non-cognitive aspects.

In the case of university students, they received enough evaluation in goal achievement but less in collaborative work and emotion management. They studied hard for entrance examinations, but their classmates were competitors for the selections among themselves under the pressure of being the same as others.

One of the approaches to free the students is the multicultural co-learning class (MCC) in universities in Japan. According to Suematsu (2019), MCC is defined as "a multicultural learning experience in which learners from different languages and cultural backgrounds share, understand, and accept diverse ways of thinking through meaningful interaction, and create new values through the reinterpretation of the self." The sense of "multicultural learning" is important for the Japanese youth because they must recognize the variety of cultures, meaning not only nationalities and languages but also ethnicities, genders, occupations, and hobbies as multi-layered individuals. It is difficult to see the invisible aspects of cultures for the Japanese students who experienced standardized social norms. For example, food, fashion, and festival are easier to see but values and meanings of behavior

[3] G1-9 are compulsory in Japan. The 97% graduate from G12 go to high school (G10-12), of which 83.8% graduates enter higher education institutes (enrolment to universities is 58.9%) (MEXT 2021).

[4] https://www.edutopia.org/blog/how-sel-can-help-students-gain-multicultural-perspective-maurice-elias

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are not clear enough at a glance (Sakamoto et al 2017). MCC aims to create a support for mutual learning among learners from multicultural backgrounds. When Japan expanded accepting international students as a national policy, most universities, as a part of university reform, actively opened their gates to welcome them from all over the world. However, they had a common problem: Although both Japanese and international students want to communicate, they can hardly talk and develop friendships. MCC has been a solution to the problem.

University MCC sets the goal to develop a multi-layered understanding of such differences and commonalities that are difficult to see in the invisible parts of culture. There are many conditions for MCC. The presence of "others" is an important condition. Others do not necessarily mean other nationalities but bring some difficulty in understanding mental dilemmas. When the students work on a group task, they must have a common target in order to make the invisible expose. This article uses a case in which the students encounter others, meet the outer world through their dialogues, and transform their inner world.

b) Research Method

In 2020, online university education spread rapidly with the start of the COVID-19 pandemic. While the advantages of online classes without spatial restrictions were enormous, the Japanese students were of course very dissatisfied with little face-to-face interaction. For students interested in international exchange, in particular, the fact that multicultural opportunities such as study abroad and the arrival of international students in Japan had been halted was discouraging enough. As an alternative, virtual exchanges were actively developed at many universities.

In this study, the first author conducted a multicultural communication class in which sixteen undergraduate students took part in 2021. All the students agreed with this study's purpose and cooperation with clear written statements. The three multicultural communication events with non-Japanese students aimed to provide an opportunity to reflect the Japanese students themselves. The final report was required for responding to their experiences in talks about social issues with others, most impressive thing, and their own explanation about multicultural understanding.

In order to catch the changes in the mindset of the Japanese natives, their responses in three events and required final report were coded by KH coder application[5]. The coded results were shown as networks of texts with high or low relationships among the words.

The larger the bubble becomes, the deeper the relationship between the words is shown.

II. Case Study: Online Collaborative Learning

a) Target Practice

The illustrated case here is online multicultural communication in Japanese between native speakers and international learners of Japanese as a second language. Changes in the mindset among the Japanese students were the focus after MCC practice. The target Japanese were not often connected with international students because of their low English skills. They needed to challenge the communication events to overcome their hesitation and low confidence. This MCC course was designed for undergraduate students with fifteen 90-minute-units (Figure 1). First one-third of fifteen units focused on self-awareness, the second for the meet-up with the Vietnamese students, and the final for MCC and reflection. The Japanese students picked up one of the Sustainable Development Goals (SDGs) to know better about the outer world by communicating with others. The instructor of this course played a facilitator role in these participatory classes, while the instructor intervened, when necessary, as illustrated below. The course formats are as follows:

(1) *Title:* Multicultural Communication Project – Multicultural Understanding

(2) *Students:* sixteen from five departments (First year students – 5, Second – 3, Third – 5, Forth -3 in undergraduate course)

(3) *Formats:* In-person at computer room.

	Topic	Main Activities
1	Introduction	"Do&Be Cross", Icebreaking
2	Workshop	Each student shared one slide on the theme "What promotes multicultural understanding?
3	Workshop	Each student shared one slide on the theme "Lack of multicultural understanding." /Watch "Blue Eyes - Brown Eyes" by Jane Elliott
4	Reflection	Reflection and sharing on "Blue Eyes, Brown Eyes"
5	Select a theme	Students to choose their own themes based on their interests in the SDGs.

Figure 1: 15-Unit Course Contents

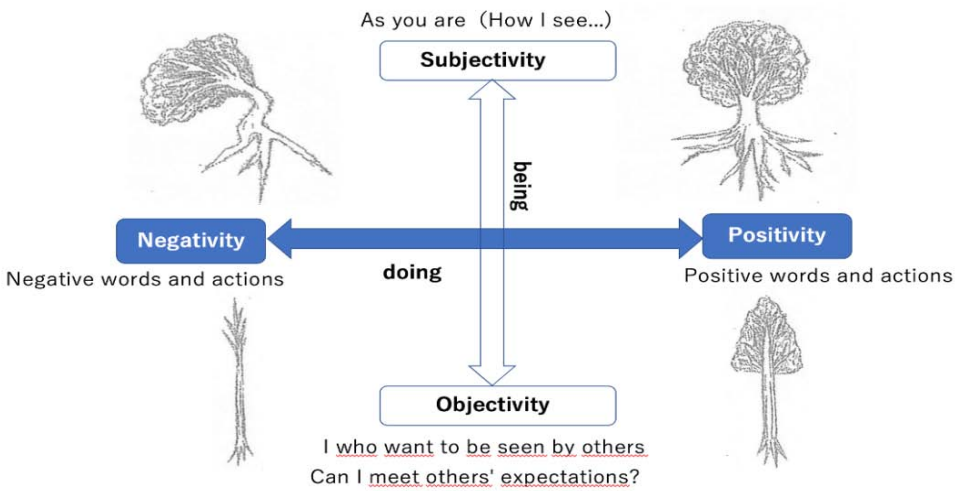
[5] A freeware for quantitative content analysis or text mining, developed by Dr. Koichi Higuchi. For more details, visit his website: http://khcoder.net/en/

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6	Preparation for a meeting with a Vietnamese univ. (1)	Lecture: The Rapid Increase in the Number of Japanese-Language Learners in Vietnam and Its Background/Current Status of Vietnamese Technical Interns in Japan/Working in groups
7	Preparation for a meeting with a Vietnamese univ. (2)	Lecture: Businesses between Vietnam and Japan/Assign roles for the exchange meeting. /Working in groups
8	Preparation for a meeting with a Vietnamese univ. (3)	Lecture: Contemporary History of the U.S., Vietnam, and Japan/Assign roles for the exchange meeting. /Working in groups
9	1st Meet-up	Exchange session with students from a Vietnamese university
10	Preparation for Meet-ups (1)	Reflection/Lecture: The Pitfall of Cross-Cultural Understanding//Working in groups
11	Preparation for Meet-ups (2)	Lecture: Shifting the Paradigm from Intercultural to Multicultural/Read picture books: "Les Papas de Violette"/"If you come to earth"/Working in groups
12	Preparation for Meet-ups (3)	Assign roles for the exchange meeting/Working in groups
13	2nd Meet-up	Exchange session with students from multiple universities
14	3rd Meet-up	Exchange session with students from multiple universities
15	Reflection	Video Reflection on Meet-up (2) and (3)/Final Reflection

The first activity was that the students chose one tree out of four (Figure 2). They made a peer work after they identified themselves as one tree based on their comprehension among the four types. The four trees represented these characteristics:

1) *Subjective and positive:* Deeply rooted in the earth, its thick trunk grows straight, and its leaves are vigorous.
2) *Objective and positive:* The trunk and the roots are thin, but it grows straight.
3) *Subjective and negative:* The trunk is bent in the middle, and the leaves are thick and unbalanced in only one direction.
4) *Objective and negative:* The trunk is thin and the leaves have fallen off. No branches have grown.



Matsuki (2013: 103)

Figure 2: Do & Be Cross Trees

Although there were no correct answers, they chose one and found their check their inner world for a moment. Trees can be interchangeable when their mood changes as like tree under the good or bad weather. Trees do not stand alone on the ground, but they move like talking in the wind. The second unit let the student choose one picture showing "accelerator of multicultural understanding" after this inner work[6]. In the third unit, "lack of multicultural understanding." The fourth unit was discussion among the students after watching the documentary "Blue Eyes, Brown Eyes[7]." Sprenger (2020) introduces this film as an SEL activity, even though it was produced by Jane Elliott and well-

[6] A work to focus on themselves and access their own self-awareness to notice what, how, and why they are feeling right here, right now.

[7] An experimental lesson about racial discrimination held in an elementary school in Iowa in April 1968, shortly after the assassination of Martin L. King Jr. On the first day, the blue-eyed children were given preferential treatment, brown-eyed children were discriminated against, and the next day they were put in the opposite position.

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known today as a traditional experimental lesson for multicultural understanding.

The present course firstly saved time to imagine the children's emotions in this "Blue Eyes, Brown Eyes" classes, while the Japanese university students reviewed Four Trees at the first unit. Student's discussions went on and two controversial opinions emerged. One was critical against the "Blue Eyes, Brown Eyes" practice because they wondered whether or not Elliott had a right to hurt trust among the children there. The other opinion was positive for the Elliott's practice because higher order recognition or meta recognition occurred among the children because this practice turned their mindset to ideal situation of no discrimination instead of binary relationships. The students discussed the justification of the practice based on these two opinions, and one student pointed out how weak the children were in the society. It was a good point to share among the students because they must reflect on the social norms around themselves. When they found similarities and differences between the different perspectives, the instructor led them enjoy their feelings. They finally chose one topic from the 17 SDGs by themselves to talk with the Vietnamese students at the Unit 6.

b) Preparing and Holding the Meet-up with Others

i. *More Imagination Needed*

There were two significant points to explain here. One was how the instructor had to intervene their questions to ask for the Vietnamese students. The Japanese students prepared questions from the sixth to eighth units to ask at 9th unit of the first meet-up, shown in Figure 1 above, and would share them with the Vietnamese counterpart because they would learn Japanese vocabulary prior to the class.

The first draft questions were, however, so indistinct that the instructor had to warn the risk of miscommunication. For example, "Tell me about the measures against the Covid-19" and "Are schools different between north and south in Vietnam?" were too wide and pointless for the Vietnamese to answer. Without any explanations, "Have you ever got discriminated? "and "Send us a photo of a dirty street" were surprisingly meaningless and even rude to ask. The instructor must have explained the purpose of the meet-up as MCC because some students, as like other ordinary Japanese people, internalize being Japanese as something valuable more than being Vietnamese. The instructor asked the students about expressions of questions and expectations of responses. The students finally developed questions for the meet-up (Figure 3) through this process. This process was important to develop their imagination toward the other people.

Figure 3: Questions Prepared for Online Meet-up with Vietnamese (9th Unit)

Topic	Questions
Health and Welfare	What do you care about measures against Covid-19 in public place?
Community	For better living in a city, we have strong noise and garbage problem. Our city has detailed rules for garbage separation. Is there a garbage or noise problem in your city? What kind of rules do you have?
Inequality/ Discrimination	Asian hate become a serious issue in the USA. Do the Vietnamese feel the hate against the Asian if visit the USA or European countries?

ii. *Building Comfortable Space*

The second intervention was for an emotional sudden change of the topic. The students started to avoid the question about their own background and ignored a presence of the minority. The group was planning to talk about "Asian Hate" with multi-national units for 13th and 14th after a successful meeting with the Vietnamese students at ninth unit. However, they did not want to discuss "Asian Hate" but changed to "Transgender" because they were shocked by personal experiences shared in the ninth.

As reviewing the experiences among Japanese students only, two comments influenced the rest of the group members. One student was embarrassed with the personal story from a Vietnamese student who experienced severe discrimination when travelled abroad. Another student was shocked to learn that Vietnamese were being fought over by locals for no reason. These negative stories were shared in the whole class, but the instructor positively took this opportunity as a safe environment for them to talk anything.

However, the reality was opposite. They started to plan to discuss "Transgender" instead of "Asian Hate" because American and European students would join the discussion for the next times. They explained they could talk about "Asian Hate" within Asian people but not with non-Asians. The instructor had to point out there would be a possible presence of transgender persons in the discussion no matter what conditions. If it were difficult to talk about Asian issues with non-Asian people, how could the topic transgender possible to choose as some might be transgender? Did

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transgender people feel good as a topic target? The students took a moment to think about this but kept the topic simply because they did not want to talk about Asian issues with Americans and Europeans. This is limitation of the instructor's intervention.

III. Findings and Discussions

a) Emerged Co-occurrence Network

The Japanese students made three meet-ups with students who learn Japanese. They interacted with Vietnamese students in the first session and with students from universities in several countries in the second and the third sessions (Figure 4). The original design was from bilateral to multicultural interactions, but they found the first session with many the Vietnamese who had variety of experiences. Therefore, all the three sessions were multicultural environments for a good MCC practice.

Figure 4: Three Multicultural Online Meet-ups

Units	Counter-part	Number of guests	Motivation and backgrounds of the guests	Topic	Format
9th, Meet-up (1)	Vietnam	11	Volunteers	Gender, Education, Inequality, Health & Welfare, Community	Zoom, two times breakout rooms
13th, Meet-up (2)	US, UK, Canada, Korea,	13	Volunteers in a short program of Japanese lesson	The Olympic Games in the Covid-19 pandemic	Zoom main room only
14th, Meet-up (3)	US, UK, Canada, Korea, China	12	Volunteers in a short program of Japanese lesson	Barrier-free in public space, Universal design in the world, Transgender	Zoom main room only

Following the text analysis of the three sessions, the final report written by the Japanese students are introduced and discussed here. The first session had many symbolic words such as Japan and Vietnam as well as their topics, including discrimination and gender in the Zoom breakout rooms. The total word count was 1728 and identified words were 426 in the emerged co-occurrence network. The second and third sessions had wider range of wording and networks. The typical cluster such as Japan and countries, the discussion topics including the Olympic Games appeared. The total was 7807 and the identified 983.

The main analysis was their final report. The emerged co-occurrence network shows four clusters (Figure 5). The final report included the changes of their mindset in their talks about social issues with others, most impressive thing, and their own explanation about multicultural understanding. From the total 10,292 words and identified 1,186[8], the clusters which had three words, or more were found.

[8] The volume of Japanese characters can be understood as the half size of English wordings. Thus, word count 10,000 in Japanese may stand for 20,000 words in English.

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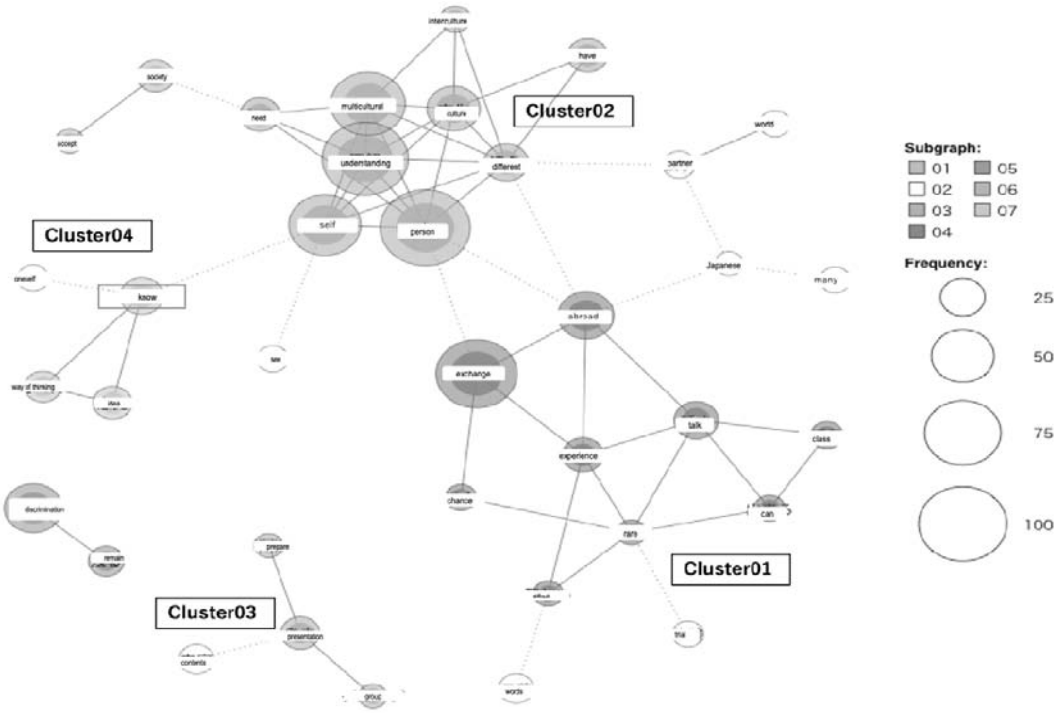


Figure 5: Emerged Co-occurrence Network in Final Report

b) Text Analysis

i. *Cluster 1: Difficult but Valuable Communication*

The first cluster shows the difficulty of communication and positive attitude of the students. The Japanese students never knew "plain Japanese" and we can see its necessity in MCC. The students commented "Topics were somehow too difficult to talk about. We might be able to deepen our friendship without the serious topics in chatting" This type of comment is common in MCC, especially in the process of social and emotional activities because the participants wanted to avoid uncomfortable space. At the same time, other students were impressed by the guest students because they seriously talked about the issue in their foreign language.

ii. *Cluster 2: Multicultural Understanding*

This cluster indicates that the students did not have enough time to review their experience at the meta level because they concentrated on the management of the meet-ups. The co-occurrence network for the meet-ups did not show their comments but the final report shows their reflections. Some wrote about their good experiences in multicultural understanding. Others wrote their viewpoints were limited and wrong for superior being as the Japanese to the others.

iii. *Cluster 3: Preparation and Presentation*

The cluster suggests the insight of otherness. MCC practices often focus on non-native speakers, but the Japanese students found their challenges and less preparedness for the meet-ups. This is something they found their inner and outer worlds as a lesson. Working with others seemed to be important to them.

iv. *Cluster 4: Important Communication*

This co-occurrence network produced the final report not the meet-ups. They wrote in their final report that the guests had their own opinions, comparing to the Japanese who tend to be the similar to friends. Working with others brought a comparative perspective to the socially tapped Japanese.

c) Insights from SEL

The present study focused more on social and emotional skill development by conducting a MCC practice. This one course might not be enough to make a meaningful change in the students[9]. However, the students seemed to start to take themselves differently from the socially and traditionally expected mindset.

i. *Inner Change of Students*

The three meet-ups made the students reflect their own issues through group activities, especially the imagination to others and emotional attachment with own body. Cognitive feedback or knowledge-extrapolated reflect from the outworld also promoted reframing of their mindset. The group kept the topic "Transgender" abandoning "Asian Hate" with non-Asian counterparts but found themselves an effort for smooth communication, meaning they saved a social norm that no difficulty in interaction with others is valued in

[9] Japanese universities provide 120 to 140 credits for students to graduate. This case course provides two credits as other general courses do.

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Japanese society. When writing the report, painful experiences in communication were often common after all sessions. One student wrote:

> It was heartbreaking to listen to the class. I think this was inevitable because the topic was about discrimination. However, I was born in a time and place where I did not feel much discrimination based on skin color or birth, so the various experiences stuck with me at every turn. My challenge now is that I need to look at foreign people and others without prejudice. I want to be conscious of communicating with them as if they are equal people, I am meeting for the first time.

Another student mentioned how social pressure controlled the Japanese youth:

> If someone disagrees with me, I cannot express that I disagree with their opinion. My own challenge is that I think too much about how other people think of me. I would like to be able to express myself more.

There was the student shared how imagination and feeling toward other people, especially, the social minorities in the nearby environment. This meant multicultural scene does not necessarily need international participation:

> One of the members of this course talked to me about his minority sexuality. It was very impressive to be able to talk to someone from overseas, but I was very moved by the fact that this person confided in me and tried to make the discussion more profound. Through this lecture, I realized that there are many diverse kinds of people even among those close to me within the same university… You may discover a new side to them... I was reminded that this ordinary thing is the most important.

They wrote they wanted to change themselves, not for obtaining cognitive skill to win others but for finding themselves. They projected themselves into one of the four Trees at the beginning of the course without strong social pressure and found again their own changes to be after the course. Interestingly, some students wrote about “Blue Eyes, Brown Eyes” practice after they received the unit about two months ago, saying “all children should receive the lessons like that, and people grow up with compassion.”

This inner change always suggests a back-and-forth between the cognitive and the non-cognitive skills. The activity that occurs in the inner world is difficult to see from the outside, but it is thought to be occurring simultaneously or without the students' awareness. When this is viewed as non-formal education, meaningful learning to the learners themselves is the one that has legitimacy, not someone else’s evaluation (Maruyama 2020). The Japanese students could overcome the state of being trapped with external social norms by keep learning the meaningful things for themselves.

ii. *Change with Outer World*

In this course the students chose discussion topics from SDGs to communicate for sustainable futures with other students beyond national borders. The development of the topic questions and preparation of comfortable spaces by the students, assuming the background of the others, were related to the social and emotional skills as working with others and managing emotions. The course goal was to help the students realize that they are not isolated in an increasingly fragmented society, and to gain experience that would lead to hope for the future through gradual solidarity with others who are different from them. Some students were proactive about social issues, while others were not. The first meet-up and online communication on a serious topic with someone in other countries put the Japanese students under a lot of pressure because uncertainty was not usual in the Japanese school environment.

The students did not satisfy with the three meet-ups because each time was limited within 90 minutes and all the Japanese contents were not transmitted properly. In general, even among the native Japanese speakers take time to have an open discussion between the people meeting for the first time. These situations can be interpreted as “superficial” communication (Sakamoto 2017).

However, some expressed hope for more increased and continued communications after this 15-unit course. They wanted to listen to more voice of the guests and have more time to comment back. The figure of foreign students talking about social issues in Japanese as a foreign language stirred the emotions of Japanese students. The results of the co-occurrence network showed that the Vietnam-Japan was simplified for the Japanese students as Japan or non-Japan, but the final report results indicated multicultural even beyond nationalities and binaries. The students gained insights that they could become aware not only of visible attributes such as country, but also of invisible cultural differences embedded in the individual.

This is a wake to the outer world. There are people from many different countries, with various levels of Japanese. Among them, we aim to "interact with them as one person" (Tokumaru et al., 2008). We believe that we were able to draw the students' attention to something difficult to make them aware of. It is important to find whether or not students will sustain their awareness of "empathy in social issues" and "from cross-cultural to multicultural" after this course. MCC is one of the footholds for this purpose. Beyond the others in MCC, there is local communities and the wider global community as the outer world. There will be not only the visible world, but also places like the world where the gods live, where Chihiro in “Spirited Away” got lost. That is also connected to the growth of their inner world. The experience of working together with others, even online was a valuable experience for the students.

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IV. Conclusion

We have studied the necessary conditions for the Japanese students to develop their social and emotional skills in formal education as well as how the students free themselves from the social norms. The conditions varied but important one was the safe space to express their own ideas, even they were different from others, and to recognize their mindset through working with others. They went through dialogues with themselves, as the inner world, with others as the outer world, and most importantly with back and forth between the two in honest emotion and body.

The "good" Japanese children receive more positive evaluations at school, and they internalize its values, legitimated by social norms. Where SEL occurs is not only at school but also at home and in the community. The shortcut to becoming a "good" child is to follow the social norms presented by the adults in Japanese society. The "good child" standard changes to the cognitive aspect at higher grade in school. In other words, students with good score become "good children," and this is the strongest motivation for high school students to learn before the university entrance examinations. In addition, SE skills are frequently regarded as important "score" for their examinations. This means the competency, combinations of cognitive and non-cognitive skills, accelerates the selective competition among the children. Education Sociologist Honda (2005) already pointed out this phenomenon as hyper-meritocracy in Post-Modern Japanese Society.

The whole education is justified in Japan as an ironical social norm. By nature, humans choose activities to build a good society, but the product of that activity itself becomes like a living creature and dominates the humans who created it (Maruyama 2022). Sending people into the mold of "business as usual" even in the 21st century when change and diversity are becoming stronger, if building a perfect human is the final goal of education here. Multicultural co-learning class (MCC) practice can push social and emotional learning (SEL) ahead of the dichotomic, useful or useless and normative or not, perspective of learning in Japan.

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References Références Referencias

1. Askoma (2015). *Jinshu sabetsu taiken jugyo "aoi me chairoi me o mita [Saw the racism experience class "Blue Eyes Brown Eyes"]* Retrieved from https://askoma.info/2015/08/17/1187 (2022/5/1).
2. Blackall, S. (2020). *If You Come to Earth*. Chronicle Books.
3. CASEL (2021). *The CASEL Guide to schoolwide SEL essentials: A printable compilation of key activities and tools for school teams.* Retrieved from https://schoolguide.casel.org/resource/the-casel-guide-to-schoolwide-sel-essentials/ (2022/5/1)
4. Chazerand, É. (2017). *Les papas de Violette*. Gautier Languereau.
5. Cunha, F. & Heckman, J. (2007). The technology of skill formation, American Economic Review, 97(2): 31-47.
6. Cunha, F., Heckman, J. & Schennach, S. (2010). Estimating the technology of cognitive and noncognitive skill formation, Econometrica, 78(3): 883-931.
7. Elias, M. J., Zins, J. E., Weissberg, R. P., Frey, K. S., Greenberg, M. T., Haynes, N. M., ... Shriver, T. P. (1997). *Promoting social and emotional learning: Guidelines for educators*. VA: Association for Supervision and Curriculum Development
8. Goleman, D. & Senge, P. (2014) The Triple Focus: A New Approach to Education, More Than Sound
9. Honda, Y. (2005). Tagenka suru "Nouryoku" to Nihon Shakai: Haipa-Meritokurashi ka no nakade [Pluralized "Ability" and Japanese Society; in the ongoing Hypermeritocrasy], Tokyo: NTT Pub.
10. Ikesako, H., & Miyamoto, K. (2015). *Katei, gakkou,chiiki syakai ni okeru syakai jodo teki sukiru no ikusei - kokusai teki ebidensu no matome to nihon no kyoiku jissenn kenkyu ni taisuru sisa [Fostering social and emotional skills through families, schools and communities: Summary of international evidence and implication for Japan's educational practices and research].* Tokyo: Benesse Education Research. Retrieved from https://berd.benesse.jp/feature/focus/11-OECD/pdf/FSaES_20150827.pdf (2022/5/1)
11. Koizumi, R. (2016). *Shakai sei to jodo no gakushu (SEL)no jissi to jizoku ni mukete* [Implementation and Sustaining of Social and Emotional Learning (SEL) Programs in Japan: Application of Anchor Point Planting Approach], *Kyoiku Shinri Gaku Nenpo [The Annual Report of Educational Psychology in Japan]*, 55: 126-141.
12. Matsuki, T. (2013). *Aruga mama no jibun o ikite iku 「[Live your life as you are]* Tokyo: Yamatoshobo.
13. Maruyama, H. ed. (2020). Cross-Bordering Dynamics in Education and Lifelong Learning: A Perspective from Non-Formal Education, London: Routledge.
14. Maruyama, H. (2022). SDGs no saki wo Tenbou suru Kyousei Shakai he muketa Shougai Gakushu [Lifelong Learning toward Coexistence Society in post-SDGs] In K. Sato, et al., Kyousei heno Manabi wo Hiraku: SDGs to Gurokaru na Manabi [New Horizon for Living Together: SDGs and Glocal Learning], (pp.235-249), Tokyo: Eidel Institute.

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15. Ministry of Education, Culture, Sports, Science and Technology (MEXT) (2021). Reiwa 3 nendo Gakkou Kihon Chousa [Basic Statistics of Schools in 2021], Tokyo: MEXT. (https://www.mext.go.jp/content/20211222-mxt_chousa01-000019664-1.pdf)
16. OECD (2015). Skills for Social Progress: the power of social and emotional skills, Paris: OECD.
17. Sakamoto, T., Horie, M., & Yonezawa, Y. (2017). *Tabunka kyoshu-tayou na bunkateki haikei o motsu daigakusei no manabiai o shien suru [Multicultural co-curricular learning - Supporting university students from diverse cultural backgrounds to learn from each other]* Tokyo: Gakubunsha.
18. Sprenger, M. (2020). Social-Emotional Learning and the Brain: Strategies to Help Your Students Thrive. ASCD.
19. Suematsu, K., Akiba, H., & Yonezawa, Y. (2019). *Kokusai kyoshu- bunkateki tayousei o ikashita jugyo jissenn e no apuroochi [International Co-education: Approaches to Classroom Practice that Makes the Most of Cultural Diversity]*, Tokyo: Toshindo.
20. Tokumaru, S., et.al. (2008). *Sakubun.org Intaanetto denshi keiji ban-sakubun kara sakubun e* [Sakubun.org Internet Electronic Bulletin Board-from writing to creation] In Hatasa. Y. ed. *Gaikokugo to shite no nihon go kyoiku-takaku teki siya ni motodsuku kokoromi[Japanese Language Education as a Foreign Language: An Attempt Based on Multiple Perspectives]* (pp.169-186) Tokyo: Kuroshio Pub.
21. Watanabe, Y. (2015). *Kenzen na gakko fudo o mezasu yunibaasaru na gakko yobo kyoiku* [A Universal Preventive Intervention for Promoting a Healthy School Climate], *Kyoiku Shinri Gaku Nenpo [The Annual Report of Educational Psychology in Japan]*, 54: 126-141.

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The Plethora of Working Self Out: Relationship Between Workload and Emotional Exhaustion among High School Teachers in Kiambu County, Kenya

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Abstract- Less emotional exhaustion among teachers is critical in ensuring that they perform optimally in their various workloads. However, few studies have explored how teacher workload can contribute to emotional exhaustion. The current study examined how various workload categories relate to emotional exhaustion among teachers in public high schools in Kiambu County, Kenya. The research adopted a descriptive survey design using a random sample of 367 participants drawn from 4447 teachers working in public high schools in Kiambu County at the time. The quantitative data were collected using a workload questionnaire for assessing workload and the Maslach Burnout Inventory Scale (MBI-S) for burnout. The qualitative data were gathered using a structured interview guide and focus group discussions. The study used Job Demand-Resource and Multidimensional theories to explain the relationship. The results indicate a relationship between workload and emotional exhaustion among teachers in public high schools.

Keywords: *workload, burnout, public secondary schools, teachers, kiambu county.*

GJHSS-G Classification: *DDC Code: 155.9042 LCC Code: RC963.48*



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The Plethora of Working Self Out: Relationship between Workload and Emotional Exhaustion among High School Teachers in Kiambu County, Kenya

Njuguna Christina Nyamugoro [α], Prof. Luke Odiemo [σ] & Dr. Geoffrey Wango [ρ]

Abstract- Less emotional exhaustion among teachers is critical in ensuring that they perform optimally in their various workloads. However, few studies have explored how teacher workload can contribute to emotional exhaustion. The current study examined how various workload categories relate to emotional exhaustion among teachers in public high schools in Kiambu County, Kenya. The research adopted a descriptive survey design using a random sample of 367 participants drawn from 4447 teachers working in public high schools in Kiambu County at the time. The quantitative data were collected using a workload questionnaire for assessing workload and the Maslach Burnout Inventory Scale (MBI-S) for burnout. The qualitative data were gathered using a structured interview guide and focus group discussions. The study used Job Demand-Resource and Multidimensional theories to explain the relationship. The results indicate a relationship between workload and emotional exhaustion among teachers in public high schools. The outcomes also affirm emotional exhaustion can affect teachers' physical, mental, emotional, and social well-being. The research recommends that school counselling departments be made comprehensive enough to accommodate workplace counselling to assist teachers in dealing with emotional exhaustion and acquiring overall mental health for enhanced performance.

Keywords: workload, burnout, public secondary schools, teachers, kiambu county.

I. Introduction

Research has linked burnout to the quality of work done and the productivity among professionals, including teachers. Findings have also linked the high demand for high-quality teaching and good performance to emotional exhaustion, which is one of the three dimensions of burnout (Khan et al., 2014).) Emotional exhaustion is a state of low energy and feelings of inadequacy experienced by an individual, setting the ground for eventual total burnout (Maslach, Schaufeli & Leiter, 2001; Muasya, 2016). The workload for teachers refers to all the duties officially allocated to teachers in school and which they are obligated to do. Shafie, Kadir, and Asimiran (2017) and Van-Droogenbroeck, Spruyt, and Vanroelen (2014) describe workload for teachers as the teaching and non-teaching responsibilities assigned to a teacher by the school and which the teacher must perform.

In Kenya, the teacher workload is not limited to actual classroom instruction. It comprises various curriculum activities that include; documentation of lesson plans, records of work, schemes of work, lesson notes, and students' records, preparation of the appropriate teaching and learning resources, actual classroom instruction and presentation, assessment and feedback given to learners on their academic progress (Cush, Pete, Ofafa & Otor, 2014; Teachers Service Commission, 2012, 2015). Other non-teaching responsibilities include: managing students' psychosocial welfare issues, administrative duties, and the supervision of co-curricular activities.

However, teaching workload is core and is done by all the teachers regardless of the other responsibilities (Teachers Service Commission, 2012, 2015).

Preparing for teaching duties and other activities demands that a lot of time and energy, emotionally, mentally, and physically, be dedicated to accomplishing them, thus subjecting the teachers to constant work overload and increased pressure to perform effectively. These tasks require many working hours and energy in preparation and, in turn, are likely to exert pressure on the person's emotional, mental, and physical strength. As a result, this pressure build-up might eventually lead to emotional exhaustion and loss of personal attachment to the work they could have previously enjoyed doing, resulting in burnout. It has been established that engaging in more than one responsibility is overloading (Afzal, Idrees, Fardous & Ambreen, 2019). In addition, Marina (2012), while expounding on the concept of workload, argued that more workload might occur when a person's work changes from a single item to multiple tasks. Furthermore, assigned workload demands that exceed the capacity to manage may lead to negative emotions because the individuals may feel stretched beyond their expectations and strength (Wang, Zheng, Hu & Zheng, 2014; Zheltoukhova, O'Dea & Bevan (2012).

Studies have established that workload is one of the noteworthy causes of burnout among teachers (Ali & Farooqi, 2014; El Helou, Nabhani, & Bahous, 2016). El Helou, Nabhani, and Bahous (2016) affirmed

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that workload was one of the major causes of emotional exhaustion. In the same strength, Ali & Farooqi (2014) conducted a study among the teaching staff at Gujranwala University to establish how workload affects work performance utilizing a sample size of 207 participants. The study findings revealed workload, when more than the individual's ability to manage, leads to one's inability to relax. As a result, the person suffers emotional stress, leading to job burnout. These results may have been a result of work overload. The outcome suggests that perceived or actual disparity between the assigned workload and the teachers' abilities to meet the work expectations may cause burnout. Moreover, in their study, Van Droogbroeck et al. (2014) affirmed that teaching and non-teaching workloads were strongly and negatively related to the three dimensions of burnout among teachers above 45. However, while the findings of these studies agree that workload relates to burnout positively, there is no clarification on how specific workload variables relate to burnout.

Workload influences burnout in various ways (Afshar & Doosti, 2016; Anap, Iyer & Rao, 2017; Froese-Germain, 2014; Van Bogaert, Kowalski, Weeks, & Clarke, 2013. Afshar and Doosti (2016) argued that workload problems need to be controlled or addressed. If not, they might have severe consequences on one's personal, physical, psychological, social, and emotional health and intrapersonal and interpersonal relationships. On their part, Anap, Iyer, and Rao (2017) opined that excessive workload has harmful effects on an individual's health status and might result in negative emotions. Consequently, these negative emotions might lead to rising levels of burnout. Additionally, Froese-Germain (2014), in a study of teachers in Alberta, pointed out that workload impacted negatively on the wellbeing of various teachers, with 47% of the participants reporting regular experiences of workload-related depressed moods, a scenario that lowers job satisfaction. Van Bogaert et al. (2013) also associated workload with anxiety, stress, depression, and general burnout.

In another study conducted to examine the connection between burnout, and workload, the results indicated that a moderate relationship existed between workload, and burnout (Yilmaz, Altinkurt, Guner, & Sen, 2015). The study further revealed that, although burnout was present, it was within the acceptable range. In other words, a high workload causes emotional exhaustion. Still, if the individual can manage their work without being overwhelmed, emotional exhaustion is likely low and within the acceptable range. Yilmaz Altinkurt, Guner, and Sen (2015) study employed a cross-sectional descriptive design and obtained data from a sample of 242 participants drawn from a target population of 427 staff members in Kermanshah University of Medical Sciences in Iran. Data was collected using NASA-Task Load Index for workload and Maslach Burnout Inventory (MBI-S) for burnout and analyzed using ANOVA and Pearson tests procedures.

Similarly, Afzal, Idrees, Fardous, and Ambreen (2019) reported that increased workload leads to more burnout. The study utilized a correlational study design and a sample of 200 teachers drawn from working teachers in public colleges of Pakistan who had been conveniently sampled to partake in the study. The research utilized the Maslach Burnout Inventory scale, questionnaires, and interviews to measure burnout and workload. However, Afzal Idrees, Fardous, and Ambreen (2019) limited their study to curriculum instruction, and there was a need to clarify the interaction of the variables in the development of burnout.

Khan et al. (2014) assessed burnout and professional growth among university academicians and used a sample of 160 academicians working in Pakistan Universities and the Oldenburg Burnout Inventory (OLBI) to evaluate burnout levels. The results indicated that mental workload increased burnout and negatively affected the teacher's job performance. Mental workload is associated with multitasking, and as a result, it causes mental demand, consequently leading to burnout, especially emotional exhaustion. Besides mental workload, other factors associated with emotional exhaustion are; time, pressure to complete the work demands, inadequate support from colleagues and supervisors, control, and autonomy. Moreover, high demand to produce high-quality teaching and good performance cause emotional exhaustion (Khan et al., 2014). Keser and Yılmaz (2014) also established that mental workload causes burnout as it puts pressure on the individual to balance the work expectations and other academic concerns.

Another study was conducted to assess the influence of workload on burnout among university academicians in Pakistan. The study was cross-sectional and utilized a quantitative research design and random sampling method to get a sample of 162 participants from public sector universities in the Malakand Division of Khyber Pakhtunkhwa, Pakistan. Data was gathered using a self-administered questionnaire which included workload and burnout items and analyzed using Hierarchical multiple regression analysis. The findings showed that workload positively correlated with emotional exhaustion (Khan, Rasil, Yasir, Khan, 2019). The study was based on the JD-R model. Furthermore, another study conducted to establish the implications of increased workload on burnout indicated that high workload was positively related to emotional exhaustion (Vesty, Sridharan, Northcott, & Dellaportas, 2016).

In another cross-sectional study conducted to establish burnout status using a sample of 490 Swedish school teachers and Maslach Burnout Inventory-General Survey to collect data, the study findings pointed to a negative relationship between workload and burnout.

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Overall, teachers reported low emotional exhaustion associated with workload regardless of the high job demands (Arvidsson, Hakansson, Karlson, Bjork, & Persson, 2016). Another study was conducted among school teachers of Boven Digoel District, Papua. The research results indicated that workload harmed the teachers' emotional exhaustion (Werang, 2018). Further, the study related burnout to individual characteristics and the school climate.

Jomuad et al. (2021) examined the association between burnout, workload, and job performance among educators using the Role Overload Questionnaire, Burnout Questionnaire, and Review Form (IPCRF) to collect data from 57 elementary teachers sampled using purposive and convenient sampling techniques. Results indicated that high workload contributed to high emotional exhaustion among teachers. Further, the study recommended addressing workload allocation to reduce burnout among teachers. According to Jomuad et al. (2021), more workload and its time-consuming nature, and a lack of mental and personal care, expose the teacher to burnout vulnerability. McTiernan and McDonald (2014) reported similar findings where they observed that burnout was positively linked to workload. Heavy workload and high demands from the administrators have also been linked to burnout. Subon and Sigie (2016) conducted a study using a sample of 50 primary and secondary school teachers of Samarahan District in Malaysia to assess the influence of workload on burnout. The study utilized a questionnaire to collect data and employed descriptive and inferential statistics to analyze the data. The study's results specified that teachers had a moderate level of emotional fatigue. Erat, Kitapci, and Comez (2017) conducted a study to establish the influence of organizational loads on emotional commitment, stress, and turnover intention. The study collected data from 1043 participants using questionnaires. The results specified that workload and responsibility load was negatively correlated with emotional exhaustion. Similar findings were reported in other studies where researchers observed that work overload contributed to the emotional exhaustion of the workers (Arvidsson, Håkansson, Karlson, Björk, & Persson, 2016; Imo, 2017; Liu & Lo, 2018; Turtulla, 2017).

The relationship between workload and emotional exhaustion is inconsistent. Some scholars have reported positive relationships, whereas others have found negative relationships, with others reporting no relationship. Also, in most of these studies, the workload has been conceptualized as a single variable. Additionally, most studies have used samples drawn from other professions, such as health workers. Further, no research has ever been done in Kenya on the link between workload and emotional fatigue. The few studies on burnout have related burnout to poor performance and reduction of work commitment (Baraza, 2017; Wang'eri & Okello, 2014). Therefore, there was a need for another study to explain the relationship between other workloads and emotional exhaustion among high school teachers. This study explains the link between emotional exhaustion and workload among high school teachers.

II. Methodology

This study was descriptive and had a random sample of 367 participants drawn from a target population of 4,447 teachers from public secondary schools in Kiambu County, Kenya. Sample determination was calculated using the formula provided by Yamane, 1973.

$$n = \frac{N}{1+N(e)^2},\ n = \frac{4447}{1+4447\,(0.05)^2}\ n = 367\ teachers$$

Where n = sample size, N = Total population size and e = level of precision.

The researcher created strata samples proportional to the population from each stratum. The sample was chosen randomly within each stratum to ensure that individuals in a particular sub-group had equal chances of being included in the study sample. The purpose was to ensure that the sample included all the sub-groups and avoided bias. Teacher workload was measured using a workload questionnaire developed by the researcher. It contained twenty-four structured items measured on a 5- point Likert scale. The construction of the teacher workload Likert scale was based on the guidelines stipulated in the Teachers' code of regulation of 2012 and the information from the workload literature. The questionnaire was multidimensional, measuring the main four categories of teacher workload as conceptualized. They included eight (8) items to measure teaching load, six (6) items to measure management of students' psychosocial issues, four (4) items to measure the administrative workload, and six (6) items to measure co-curriculum activities supervision.

Emotional exhaustion was measured using the Maslach Burnout Inventory Scale (MBI-S) adapted and modified to fit the current study. The researcher obtained permission to use the research instrument. The MBI-S has 22 items measured on a 7-Likert Scale. Emotional fatigue was evaluated using items 1, 2, 3, 6, 8, 13, 14, 16, and 20 on the Maslach Burnout Inventory – Scale (MBI-S). The study used descriptive and inferential statistical techniques to analyze the data. Descriptive statistics were presented using the frequency tables, while inferential statistical analyzes employed multinomial logistic regression analysis procedures with STATA version 14.

III. Results

The study's primary purpose was to establish the relationship between workload and emotional fatigue

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among teachers. The teacher workload had eight categories, namely; "1" teaching, management of students' psychosocial issues, administrative duties, and supervision of co-curricular activities; "2" teaching, management of students' psychosocial issues and administrative duties; "3" teaching, management of students' psychosocial issues, and supervision of co-curricular activities; "4" teaching, administrative duties, and supervision of co-curricular activities; "5" teaching and management of students' psychosocial issues; "6" teaching and administrative duties; "7" teaching and supervision of co-curricular activities, and "8" teaching only. In the analysis, the workload category "1" was used as the reference through which interpretations for the other seven workload categories were made. The descriptive statistics on the distribution of workload responses by workload category are presented in Table 1.

Table 1: Distribution of Workload by Category

	Categories	Frequency	Percentage
1.	Teaching, Administrative, Management, Co-Curricular	33	9.59%
2.	Teaching, Management and Administrative	21	6.10%
3.	Teaching, Management and Co-curricular	26	7.56%
4.	Teaching Administrative and Co-Curricular	18	5.23%
5.	Teaching and Management	84	24.42%
6.	Teaching and Administrative	53	15.41%
7.	Teaching and Co-Curricular	67	19.48%
8.	Teaching Only	42	12.21%
	Total	344	100%

Table 1 shows the distribution of responses by workload categories. Workload had eight categories. The majority of the respondents, 84 (24.42%) were in category '5" teaching and management of students' psychosocial issues) followed by 67 (19.48%) who were in category "6" (teaching and co-curricular activities). The minority of the respondents, 18 (5.23%), were in category "4" (teaching, administrative and co-curricular activities). Categories "1" (teaching, administrative, management of students' psychosocial issues and co-curricular), "2" (teaching, management of students' psychosocial issues and administrative), "3" (teaching, management of students' psychosocial issues and co-curricular), "7" (teaching and co-curricular) and "8" (teaching only) had 33 (9.59%), 21 (6.10%), 26 (7.56%) and 42 (12.21%) respectively. This distribution was expected because teachers engage in different responsibilities apart from teaching.

a) *Distribution of Emotional Exhaustion within the Workload Categories*

The study used descriptive statistical analysis to establish the link between workload and emotional fatigue. The researchers did a descriptive analysis based on the workload categories and emotional exhaustion. The distribution of emotional exhaustion within the workload categories is presented in Table 2.

Table 2: Distribution of Burnout Responses within the Workload Categories

Workload Categories (IV)	Burnout (DV)		
	Emotional Exhaustion	Depersonalization	Diminished Personal Accomplishment
1. TMAC	14 (13.3%)	10 (8.9%)	9 (7.3%)
2. TMA	6 (5.7%)	2 (1.8%)	13 (10.6%)
3. TMC	8 (7.6%)	2 (1.8%)	16 (13.0%)
4. TAC	6 (5.7%)	10 (8.9%)	2 (1.6%)
5. TM	27 (25.7%)	30 (26.8%)	27 (21.9%)
6. TA	16 (15.2%)	14 (12.5%)	22 (17.9%)
7. TC	18 (17.1%)	26 (23.3%)	21 (17.1%)
8. T only	10 (9.5%)	18 (16.0%)	13 (10.6%)
Total	105 (100%)	112 (100%)	123 (100%)

Table 2 presents the distribution of the independent variable in each of the aspects of the dependent variable. The data reveals that; a majority of the respondents with emotional exhaustion, 25.7%, were in workload category "5" (teaching and management) while the minority, 5.7%, were in categories "2" (teaching, management of students' psychosocial issues and administrative duties) and "4" (teaching,

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administrative, and co-curricular activities) respectively. Workload categories "1", "3", "6", "7", and "8" had 13.3%, 7.6%, 15.2%, 17.1%, and 10.9%, respectively.

b) Examination of the Relationship between Workload and Emotional Exhaustion

The study examined how emotional exhaustion and workload relate. The multinomial logistic regression analysis results of emotional exhaustion against workload are presented in Table 3.

Table 3: Multinomial Logistic Regression on Emotional Exhaustion against Workload and Confounding Variables

Emotional Exhaustion	β	Robust SE β	t-statistic	P-Value	95% CI
Workload (IV)					
Group 2	-1.6455	.8257	-1.99	0.046*	[-3.2638, -.0271]
Group 3	-.4597	.6986	-0.66	0.511	[-1.8288, .9095]
Group 4	.2331	.9919	0.23	0.814	[-1.7111, 2.1772]
Group 5	-1.9217	.6929	-2.77	0.006*	[-3.2798, -.5635]
Group 6	-1.7574	.8762	-2.01	0.045*	[-3.4748, -.0399]
Group 7	-1.7016	.7389	-2.30	0.021*	[-3.1498, -.2534]
Group 8	-.6208	.7412	-0.84	0.402	[-2.0735, .8319]
Constant	1.6642	1.3584	1.23	0.221	[-.9982, 4.3266]
Pseudo R^2	*0.3273*				
No. of Observation	331				

*Note: * and ** mean statistically significant at the 5% and 10% levels of significance respectively.*

Table 3 shows the analyzed results of the multinomial logistic regression done on emotional exhaustion. There were 331 observations. Based on the log-likelihood ratio (LR) test, the model containing the complete set of predictors represents a significant improvement in fit relative to a null model (LR $\chi 2(48)$ = 190.74, p=.0000). At least one population slope is non-zero. The model had a Pseudo R2 of .3273, which meant the proportionate improvement in fit relative to a null model was 32.73%. The workload had eight categories identified as Categories "1", "2", "3", "4", "5", "6", "7", and "8". The study used workload category "1" (teaching, management of students' psychosocial issues, administrative duties, and the supervision of co-curricular activities) as a reference in the interpretation of the other seven workload categories w. From the table, results indicate that individuals in workload category "4" were more emotionally exhausted compared to those in workload category "1", (β=-.2331, t=0.23, p=0.814). Those individuals in the workload categories "2", "3", "5", "6", "7" and "8" were found to be less emotionally exhausted than individuals in the workload category "1", (β=- 1.6455, t=- 1.99, p= 0.046*****); (β=- .4597, t=- 0.66, p= 0.511); (β=- 1.9217, t=- 2.77, p= 0.006*); (β=- 1.7574, t=- 2.01, p= 0.045*); (β=- 1.7016, t=- 2.30, p= 0.021*); (β=- .6208, t=- 0.84, p= 0.402) respectively. Of the six workload categories with less emotional exhaustion, categories "3" and "8" had a moderate but negative relationship with emotional exhaustion.

IV. Discussion

The study addressed the objective by hypothesizing that "*there is a relationship between workload and emotional exhaustion among teachers*." The null hypothesis was that workload has no connection with emotional fatigue. The documented workload literature presents contradicting findings regarding the link between workload and teacher emotional exhaustion. Some of the studies indicate that workload relates to emotional exhaustion positively (Akca & Küçükoğlu, 2020; Baraza, 2017; Chirimi, 2016; El Helou, Nabhani, & Bahous, 2016; Afzal, Idrees, Fardous & Ambreen, 2019; Khan et al., 2019; Shaheen & Mahmood, 2020; Van Bogaert et al., 2013; Vesty et al., 2016; Yilmaz et al., 2015; Zheltoukhova, O'Dea & Bevan, 2012). Other studies have reported a negative association between emotional exhaustion and workload (Arvidsson et al., 2016; Werang, 2018). These studies, however, have argued that the relationship is moderate (Turtulla, 2017; Ziaei, Yarmohammadi, Moradi & Khadnan, 2015). These inconsistencies may be due to the different perceptions that various teachers may have towards their profession. The current study conceptualized workload as a multidimensional construct comprising teaching and non-teaching workloads.

The quantitative findings of this study indicate that workload is related to emotional exhaustion both negatively and positively. Teacher workload categories "2", "3", "5", "6", "7" and "8" were more negatively related to emotional exhaustion than those in the workload category "1" (teaching, management of students' social issues, administrative duties and supervision of co-curricular activities). These results indicate that an increase in the workload unit in these workload categories leads to decreased teachers'

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emotional exhaustion. These findings reveal that most teachers were less likely to be emotionally exhausted due to workload. However, workload category "4", with teachers involved in (teaching, administrative duties, and the supervision of co-curricular activities) indicated a more robust and positive relationship with emotional exhaustion than the workload category 1. The findings unveiled statistically significant relationships between workload categories "2", "5", "6" and "7". These results are supported by the qualitative data as the majority of teachers in the discussion groups believed that although they had many activities to do on top of their teaching load, they still were energized to work and mentor young talents. For many teachers, emotional exhaustion resulting from workload was within manageable levels. However, during the discussion, the few teachers who expressed being exhausted with their work cited work overload, due to understaffing, multitasking, pressure, starting the day early and working late, paperwork demand, being out of school many times, filling and signing documents, supervision and several other activities outside the school time table.

The negative findings align with previous studies such as Arvidsson et al. (2016) and Werang (2018), who reported a negative association between emotional fatigue and workload. Elsewhere, Yilmaz et al. (2015) had reported a moderate negative relationship between workload and emotional exhaustion. The positive results of the current study also concur with the findings of other studies where workload had a positive relationship with emotional burnout (Van Droogbroeck et al., 2014; El Helou, Nabhani, & Bahous, 2016). These findings are consistent with Ali and Farooqi (2014), who found that when work is more than the individual's ability to manage, the individual cannot relax. As a result, the individual suffers emotional stress, leading to exhaustion. Similarly, Shafie, Kadir, and Asmiran (2017) reported that teachers who spent many hours doing administrative work and teaching were more emotionally exhausted. Moreover, Erat, Kitapci, and Comez (2017) and Liu and Lo (2018) also argued that workload and responsibility load led to more emotional exhaustion and stress. Additionally, the positive results are similar to other findings where lesson plans preparation, marking and processing feedback, and managerial, mentorship, security, and social work were associated with high emotional exhaustion (Afzal, Idrees, Fardous & Ambreen, 2019). Elsewhere, high emotional exhaustion was due to increased workload, paperwork, multitasking, and time pressure (Acka & Kucukoglu, 2020; Keser & Yilmaz, 2014; Khan et al., 2014; Vesty et al., 2016).

The current findings fit the Multidimensional Theory of burnout (Maslach, 1998; Maslach, Schaufeli & Leiter, 2001) and Job Demand-Resource theory (Demerouti, 2014) proposals. Maslach Schaufeli and Leiter (2001) propose that burnout generally results from a perceived discrepancy between work demands and the individual's coping ability. Thus, whenever the workload is manageable, emotional exhaustion is reduced. The current results show that most workload categories had less emotional exhaustion than those that combined all the workload attributes. Also, during the interviews, several teachers revealed that it was not the amount of frustrating workload but spending time on activities that were perceived not to add value to their work. Low burnout among teachers is associated with the motivation to mentor and transform the students' lives and see students excel academically and non-academically. Therefore, as long as the outcome of the work adds value to the students, the teachers are energized to work and are less frustrated.

According to Muasya (2015), burnout is manageable as long as the person is not exposed to stressful situations. However, as suggested by Maslach, Schaufeli, and Leiter (2001), Leiter and Maslach (2016), and Maslach and Leiter (2016), few teachers had high burnout, which was associated with inadequate time, doing a lot of paperwork, poor results, ability to balance teaching time and other activities, students' indiscipline, and multitasking. Furthermore, administrative duties require that one spends many hours doing work in the office, attending to many meetings in a week, both formal and informal, pursuing work deadlines, a lot of paperwork and supervision to do, all of which are time demanding as well as physically, mentally and emotionally draining. In addition, during the co-curricular activities (music and drama, athletics and sports), teachers spend many hours and energy supervising and accompanying the students for inter-school competitions. At times, engaging in these activities can cause teachers to get drained and miss out on other activities that make them feel unaccomplished, leading to burnout.

Leiter, Bakker, and Maslach (2014) maintain that people get emotionally exhausted when faced with demanding work situations. Administrative tasks and supervision of co-curricular activities are time-demanding. If teachers have difficulties keeping deadlines, sit for many hours in the offices compiling reports and organizing time for outdoor activities with the students, they may experience pressure (Ali & Farooqi, 2014). Accordingly, the situation may cause intra-personal conflicts leading to emotional exhaustion. The findings are supported by the qualitative data where the participants lamented that they spend a lot of time coaching and taking students out at the expense of their class and personal time. Hence, teachers' emotional exhaustion is attributed to the pressure created by various workloads (classroom teaching, management of students' social issues, administrative and co-curricular activities. Teachers who have been exposed to high work demands for a long time and lack the abilities to cope may experience burnout due to workload, whereas

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those who perceive no discrepancy in their work are more likely to manage with moderate burnout (Lesener, Gusy, & Wolter, 2019; Maslach & Leiter, 2016; Maslach & Leiter, 2017). However, the current guidance and counselling program in schools emphasizes the needs of pupils and students (Wango, 2015).

V. Conclusion

The current study explored the connection between workload and emotional exhaustion among high school teachers. They found that several teachers had moderate emotional exhaustion. The study concluded that workload as a multidimensional concept is related to teachers' emotional exhaustion, with some categories having negative relationships and others having positive relationships. Further, there were statistically significant negative relationships between workload categories "2", "5," "6" "7" and emotional exhaustion. Workload category "4" was positively related to emotional exhaustion. Emotional exhaustion can affect teachers' physical, mental, emotional, and social wellbeing. Therefore, the research recommends that school counselling departments be made comprehensive enough to accommodate workplace counselling to assist teachers in dealing with emotional exhaustion, thus acquiring overall mental health, which would enhance their performance.

References Références Referencias

1. Afzal, M. T., Idrees, M., Fardous, N., & Ambreen, M. (2019). Relationship between Workload and Burnout in Pakistani College Teachers. *Journal of Research & Reflections in Education* (JRRE), *13* (1), 148 - 154.
2. Afshar, H. S., & Doosti, M. (2016). Investigating the Impact of Job Satisfaction/Dissatisfaction on Iranian English Teachers' Job Performance. *Iranian Journal of Language Teaching Research, 4* (1), 97 - 115.
3. Akca, M., & Küçükoğlu, M. T. (2020). Relationships between mental workload, burnout, and job performance: A research among academicians *Evaluating Mental Workload for Improved Workplace Performance*. 49 - 68: IGI Global. http://doi:10.4018/978-1-7998-1052-0.ch003.
4. Ali, S., & Farooqi, Y. A. (2014). Effect of work overload on job satisfaction, effect of job satisfaction on employee performance and employee engagement (a case of public sector University of Gujranwala Division). *International Journal of Multidisciplinary Sciences and Engineering, 5* (8), 23 - 30.
5. Anap, D. B., Iyer, C., & Rao, K. (2017). Work-related musculoskeletal disorders among hospital nurses in rural Maharashtra, India: A Multicentre Survey. *International Journal of Research in Medical Sciences, 1* (2), 101 - 107.
6. Arvidsson, I., Håkansson, C., Karlson, B., Björk, J., & Persson, R. (2016). Burnout among Swedish school teachers. A cross-sectional analysis. *BMC Public Health*, *16* (1), 1-11. https://doi.org/10.1186/s12889-016-3498-7.
7. Baraza, O. T. (2017). *Teacher Management Related Factors Influencing Teacher Stress and its Effect on Student Academic Performance in Public Secondary Schools in Kakamega North Sub-County, Kenya.* Maseno University.
8. Chirimi, D. O. (2016). *The impacts of teachers' workload allocation on teaching and learning effectiveness of science subjects in secondary schools: The case of Hanang district, Tanzania.* Mzumbe University.
9. Cush, N. L., Pete, P. W., Ofafa, G., & Otor, S. (2014). Teaching workload analysis for performance contracting and service delivery in the academic setting of Kenya. *International Journal of Innovative Research and Development, 3* (5), 680 – 693.
10. Demerouti, E., Bakker, A. B., & Leiter, M. (2014). Burnout and job performance: The moderating role of selection, optimization, and compensation strategies. *Journal of Occupational Health Psychology, 19* (1), 96 - 107.
11. El Helou, M., Nabhani, M., & Bahous, R. (2016). Teachers' views on causes leading to their burnout. *School leadership & management*, *36* (5), 551-567.
12. Erat, S., Kitapci, H., & ÇÖMEZ, P. (2017). The effect of organizational loads on work stress, emotional commitment, and turnover intention. *International Journal of Organizational Leadership*, *6*, 221-231.
13. Froese-Germain, B. (2014). Work-Life Balance and the Canadian Teaching Profession. *Canadian Teachers' Federation*.
14. Imo, U. O. (2017). Burnout and psychiatric morbidity among doctors in the UK: A systematic literature review of prevalence and associated factors. *BJPsych Bulletin*, *41* (4), 197-204. https://doi.org/10.1192/pb.bp.116.054247.
15. Jomuad, P. D., Antiquina, L. M. M., Cericos, E. U., Bacus, J. A., Vallejo, J. H., Dionio, B. B., Clarin, A. S. (2021). Teachers' workload in relation to burnout and work performance. *International Journal of Educational Policy Research and Review, 8* (2), 48 - 53.
16. Keser, A., & Yilmaz, G. (2014). *Workload, Burnout, and Job Satisfaction among Call Center Employees.* Paper presented at the Journal of Social Policy Conferences. *SosyalSiyasetKonferanslarıDergisi*, (66–67), 1-13. Retrieved from https:// dergipark.org.tr/en/pub/iusskd/issue/32978/366525.
17. Khan, F., Rasli, A. M., Yasir, M., & Khan, Q. (2019). Interaction effect of social support: The Effect of Workload on Job Burnout among Universities Academicians: Case of Pakistan. *International*

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Transaction Journal of Engineering, Management and Applied Science and Technology, 10 (13), 1-13.

18. Khan, M. S., Khan, I., Kundi, G. M., Khan, S., Nawaz, A., Khan, F., & Yar, N. B. (2014). The impact of job satisfaction and organizational commitment on the intention to leave among the academicians. *International Journal of Academic Research in Business and Social Sciences, 4* (2), 114 - 131.
19. Leiter, M. P., & Maslach, C. (2016). Latent burnout profiles: A new approach to understanding the burnout experience. *Burnout Research, 3* (4), 89 - 100.
20. Leiter, M. P., Bakker, A. B., & Maslach, C. (2014). *Burnout at work: A psychological Perspective*: Psychology Press.
21. Lesener, T., Gusy, B., & Wolter, C. (2019). The job demands-resources model: A meta-analytic review of longitudinal studies. *Work & Stress, 33* (1), 76 - 103.
22. Liu, H.-L., & Lo, V.-h. (2018). An integrated model of workload, autonomy, burnout, job satisfaction, and turnover intention among Taiwanese reporters. *Asian Journal of Communication, 28* (2), 153 - 169.
23. Marina, Z. (2012). Job factors related to musculoskeletal symptoms among nursing personnel a review. *Work, 41* (1), 2516 - 2520.
24. Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52* (1), 397 - 422.
25. Maslach, C. (1998). A multidimensional theory of burnout. *Theories of Organizational Stress, 68*, 85.
26. Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry, 15*(2), 103 - 111. https://doi.org/10.1002/wps.20311.
27. Maslach, C. (2017). Finding solutions to the problem of burnout. *Consulting Psychology Journal: Practice and Research, 69* (2), 143-152.
28. Maslach, C., & Leiter, M. P. (2017). Understanding burnout: New models. In C. L. Cooper & J. C. Quick (Eds.). *The handbook of stress and health: A guide to research and practice* (pp. 36–56). Wiley Blackwell. https://doi.org/10.1002/9781118993811.ch3.
29. McTiernan, K., & McDonald, N. (2014). Occupational stressors, burnout and coping strategies between hospital and community psychiatric nurses in a Dublin region. *Journal of Psychiatric and Mental Health Nursing*, *22* (3), 208 - 218. https://doi.org/10.1111/jpm.12170.
30. Muasya, G. (2015). *The relationship between stressors, work-family conflict, and burnout among female teachers in Kenyan urban schools.* Arizona State University.
31. Muasya, G. (2016). Work-family balance choices of women working in Kenyan universities. *Sage Open, 6* (1), 2158244016630772.
32. Shafie, S., Kadir, S. A., & Asimiran, S. (2017). Workload of technical secondary school teachers: management and administration perceptions. *MOJEM: Malaysian Online Journal of Educational Management, 2* (4), 21 - 35.
33. Subon, F., & Sigie, M. M. (2016). Burnout among Primary and Secondary School Teachers in Samarahan District. *IOSR Journal of Humanities and Social Science*, *21* (08), 28 - 41. https://doi.org/10.9790/0837-2108112841.
34. Teachers Service Commission. (2012). *The Teachers Service Commission Act*. Nairobi: Government Press.
35. Teachers Service Commission. (2015). *Annual Report 2014/2015*. Nairobi: Teachers Service Commission.
36. Turtulla, S. (2017). Examining Levels of Job Burnout among Teachers Working in Kosova in Terms of Different Variables. *European Journal of Multidisciplinary Studies*, *2* (6), 285 - 297. https://doi.org/10.26417/ejms.v6i1.
37. Van Bogaert, P., Kowalski, C., Weeks, S. M., Van heusden, D., & Clarke, S. P. (2013). The relationship between nurse practice environment, nurse work characteristics, burnout and job outcome and quality of nursing care: A cross-sectional survey. *International Journal of Nursing Studies*, *50* (12), 1667-1677. https://doi.org/10.1016/j.ijnurstu.2013.05.010.
38. Van Droogenbroeck, F., Spruyt, B., & Vanroelen, C. (2014). Burnout among senior teachers: Investigating the role of workload and interpersonal relationships at work. *Teaching and Teacher Education, 43*, 99 - 109.
39. Vesty, G., Sridharan, V., Northcott, D., & Dellaportas, S. (2016). Burnout among university accounting educators in Australia and New Zealand: determinants and implications. *Accounting & Finance*, *58* (1), 255 - 277. https://doi.org/10.1111/acfi.12203.
40. Wang, Y., Zheng, L., Hu, T., & Zheng, Q. (2014). Stress, burnout, and job satisfaction: Case of police force in China. *Public Personnel Management, 43* (3), 325 - 339.
41. Wang'eri, D., & Okello, L. W. (2014). Role overload, teacher-pupil-ratio, school type, years of teaching experience, gender and burn out as factors related to work stress among primary school teachers in Kasarani Division, Nairobi County, Kenya. *Global Journal of Human Social Science, 14* (I), 54 - 64.
42. Wango, G. M. (2015). *Counselling Psychology in Kenya: A Contemporary Review of the Developing World*. Nairobi: Kenya Literature Bureau.

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43. Werang, B. R. (2018). The Effect of Workload, Individual Characteristics, and School Climate on Teachers' Emotional Exhaustion in Elementary Schools of Papua. *Jurnal Cakrawala Pendidikan*, *37* (3) 457-469. https://doi.org/10.21831/cp.v38i3.20635.
44. Wolter, C., Santa Maria, A., Wörfel, F., Gusy, B., Lesener, T., Kleiber, D., & Renneberg, B. (2019). Job demands, job resources, and well-being in police officers - a resource-oriented approach. *Journal of Police and Criminal Psychology, 34* (1), 45 - 54.
45. Yamane, T. (1973). *Statistics: An introduction analysis*: Harper & Row.
46. Yılmaz, K., Altınkurt, Y., Güner, M., & Şen, B. (2015). The Relationship between Teachers' Emotional Labour and Burnout Level. *Eurasian Journal of Educational Research*, *15* (59), 75 - 90. https://doi.org/10.14689/ejer.2015.59.5.
47. Ziaei, M., Yarmohammadi, H., Moradi, M., & Khadnan, M. (2015). Level of Workload and Its Relationship with Job Burnout among Administrative Staff. *International Journal of Occupational Hygiene,* *7* (2), 53 - 60.
48. Zheltoukhova, K., O'Dea, L., & Bevan, S. (2012). *Taking the strain: The impact of musculoskeletal disorders on work and home life*. The Work Foundation, Lancaster University.

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Effect of Mobile Phone Usage on Students during the Pandemics Covid-19

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Abstract- Our aim was to know the effect of mobile phone during lockdown among students. A total number of 108 students completed the questionnaire. The questions were asked related to mobile phone usage. Students of secondary, Higher secondary and higher education were the sample of the study. Online survey was conducted, finding of the study showed that all students in the study were using mobile phone, majority of students were using their mobile phone more than before the lockdown. During the pandemic they are spending more time on their mobile phone for different purposes like studies, entertainment, for gaming etc. Result of the study also revealed that students are facing problem like eye irritation, neck pain etc.

Keywords: *mobile phone, usage, pandemics covid-19, students (secondary, higher secondary and higher education).*

GJHSS-G Classification: *DDC Code: 823.8 LCC Code: PR5819*



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Effect of Mobile Phone Usage on Students during the Pandemics Covid-19

Kusum Sajwan Negi [α] & Prof. Sunita Godiyal [σ]

Abstract- Our aim was to know the effect of mobile phone during lockdown among students. A total number of 108 students completed the questionnaire. The questions were asked related to mobile phone usage. Students of secondary, Higher secondary and higher education were the sample of the study. Online survey was conducted, finding of the study showed that all students in the study were using mobile phone, majority of students were using their mobile phone more than before the lockdown. During the pandemic they are spending more time on their mobile phone for different purposes like studies, entertainment, for gaming etc. Result of the study also revealed that students are facing problem like eye irritation, neck pain etc.

Keywords: mobile phone, usage, pandemics covid-19, students (secondary, higher secondary and higher education).

I. Introduction

Appropriate to the ease of access of communication technology, Mobile phone become increasingly significant in everyday life. Due to the Covid-19 pandemic, the whole world understands the importance of Digital Media, Digital learning, and online teaching. Suddenly, the world as a whole comes under lockdown, and the education field rapidly transformed from face-to-face teaching to online teaching. Since the Digital learning speeding up persists, it moreover pitches brightness on Digital break in India. Still, students starting isolated districts and individuals belonging to poor societies, require communications, so this indicates to collect online learning advantages.

Telecom Regulatory Authority of India in their report on 31 January 2021 mentioned that in our country 118.34 crores people owned mobile phones and internet connection reached to 75.74 crores and the ratio of consumer of Delhi is highest in the country. (*Source Amar Ujjala dated 18 March 2021*). Mobile phone possession is virtually all over the place; Secondary, higher Secondary and higher level students and very much of the enlargement in youngster Mobile phone possession has been ambitious by approval with the youths. Every day, latest technologies are being created and nowadays inventions rapidly develop into previous time's reports. Although these technologies confine awareness, include utility and the facility of day by day our life.

As we all know mobile phone users all over the world increasing day by day but after the lockdown imposed in the country and world it became more essential than ever before. Mobile phone became the only tool through which we operates most of our activities like we bought things online we teach and learn by this tool only and many other things. Now it became a boon for mankind because outside there is nothing to do.

Authors conducted online survey among students, pursuing graduation, post graduation, higher secondary and secondary classes.

II. Review of Literature

Aoki and Downes (2004), studied social as well as developmental features on Mobile phone tradition with college students. They recognized numerous attitudinal issues supported on the investigative study counting, essential in modern times, price effectiveness as balanced in landline phone, protection with security and enslavement.

Matthews (2004), fulfilled Australian pubescent do not create in excess of per day 5 calls taking regular and SMS used 85% of their less than 5 times a day. Studies prove femininity correlated variations with youthful users of Mobile phones.

Montgomery (2007), studied latest Digital atmosphere obtainable an excellent collection of potential for statement, interface and information repossession at the sensitive was never previous to presented.

Chen et al. (2007), projected essential of Mobile phones for college students to stay contact through their family. Mobile phones use to complete family responsibilities near allocation their understandings by receiving an emotional and supernatural prop up from their family.

Remya Lakshmann (09April, 2020), has studied how is Covid-19 impacting online education. The countrywide COVID-19 lockdown has compulsory schools and universities to close and more than 91% of the globes student population has online teaching-learning classes at home. The closing has sited exceptional faces on administrations, institutions, professors, faculty, parents and concern contributors throughout the world. The progress to secluded teaching learning has been facilitated by some online method likely Google

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classroom, digital blackboard, Zoom and Microsoft Teams, YouTube etc every one of vital role in this renovation.

Ankita Sharma (09 May, 2020), has calculated digital health in the consequences of Covid-19. For the first time, government of India is permitting Indian Universities to recommend an online degree as formerly be restricted to foreign Universities. Nowadays, 20% to 100% courses motivate and expand the entrance to higher education by online platform.

Subjected to Literature review, subsequent two research questions were raised in this study:

RQ1: Are students using Mobile phones?

RQ2: How many hours they spent on their Mobile phone before the lockdown and during lockdown?

III. Methodology

Online survey was conducted through Google form. To determine the level of engagement of Students towards their mobile phone during the pandemic. Researchers sent questionnaire to many students and got responses from the students produced suitable sample. Authors tested to confine a model that is a truthful demonstration of the persons pretentious by Mobile phone usage. A sample of students (Graduate, Post Graduate and Others) is preferred. Here 108 retorts from online inspection queries were deliberate to presume Mobile phone routine, purpose of use Mobile phones and time using before, during the Covid-19 lockdown period. Also, problem facing by students while using Mobile phone. Authors found number of comments of students regarding the Mobile phone usage.

Here online survey consists of *10* Questions and got *108* responses from students. Majority of students that is (*100* percent) owned a Smartphone. We have discussed online survey questions as following:

Objective: To know the mobile phone usage by students during the lockdown period.

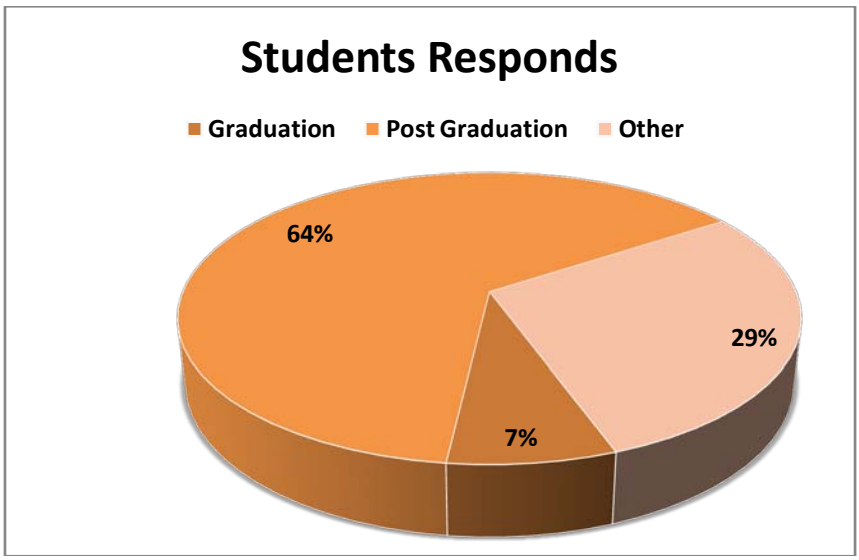
Here, first five questions were related to student's information likely: 1. Name, 2. Mobile number, 3. E-mail address, 4. Mobile phone usage and 5. Name of their respective College/Institutions (*HNBGU-SRT Campus Tehri, Beehive College Dehradun, Doon University Dehradun, NIT Kurukshetra, Vivekananda Sankul high school Sanpada, Mumbai. K.V.F.R.I. Dehradun and GIC Maujkhal Rudraprayag uttarakhand*). The total numbers of students were 108 (One hundred eight). The interpretation of question six to ten is following:

Question 6: Your Qualification?

Table 1: Students Qualification.

Answer	Students Responds
Graduation	69 (63.89%)
Post Graduation	08 (7.41%)
Other	31 (28.70%)
Total	108

Note: All figures in parenthesis represent percentage.



Graph 1: Students Qualification.

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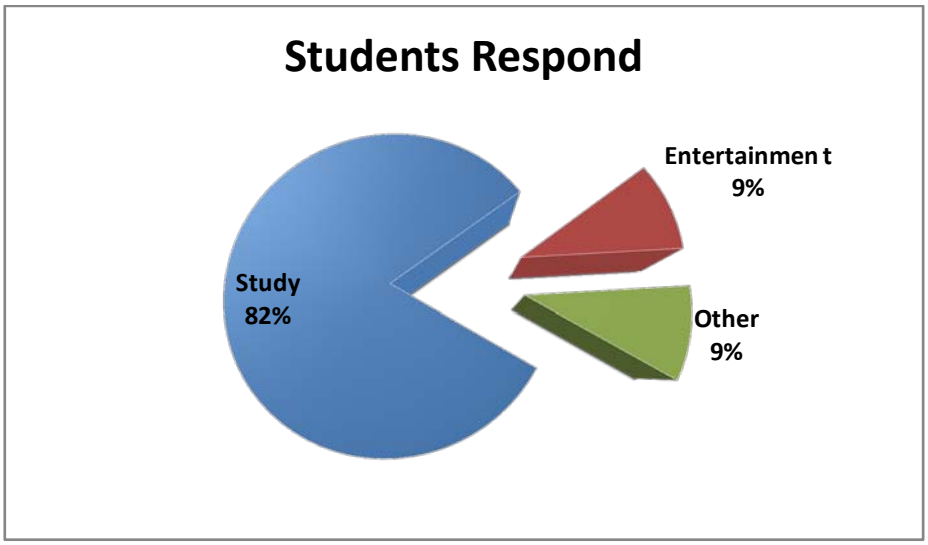
Table-1 and graph-1, showed the qualification of students, in which 64% students were graduate, 7% postgraduate and 29% others students.

Question 7: For what purpose do you use Mobile phone the most?

Table 2: Purpose of use Mobile phone the most

Answer	Students Responds
Study	88 (81.48%)
Entertainment	10 (9.26%)
Other	10 (9.26%)
Total	108

Note: All figures in parenthesis represent percentage.



Graph 2: Purpose of use Mobile phone the most

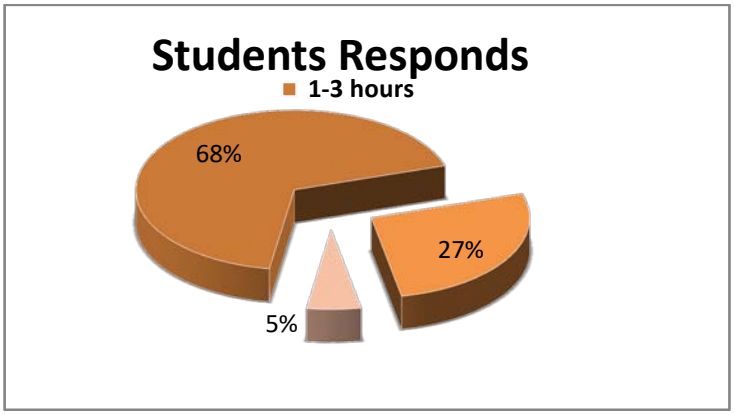
Table-2 and graph-2, revealed that most of students that is 82% were using mobile phone for studies, 9% students using mobile phone for Entertainment and 9% using mobile phone for other things.

Question 8: How many hours you spent on your Mobile phone before lockdown?

Table 3: Hours spent on Mobile phone before lockdown

Answer (Time)	Students Responds
1-3 hours	73 (67.59%)
3-5 hours	29 (26.85%)
More than 5 hours	06 (5.56%)
Total	108

Note: All figures in parenthesis represent percentage.



Graph 3: Hours spent on Mobile phone before lockdown

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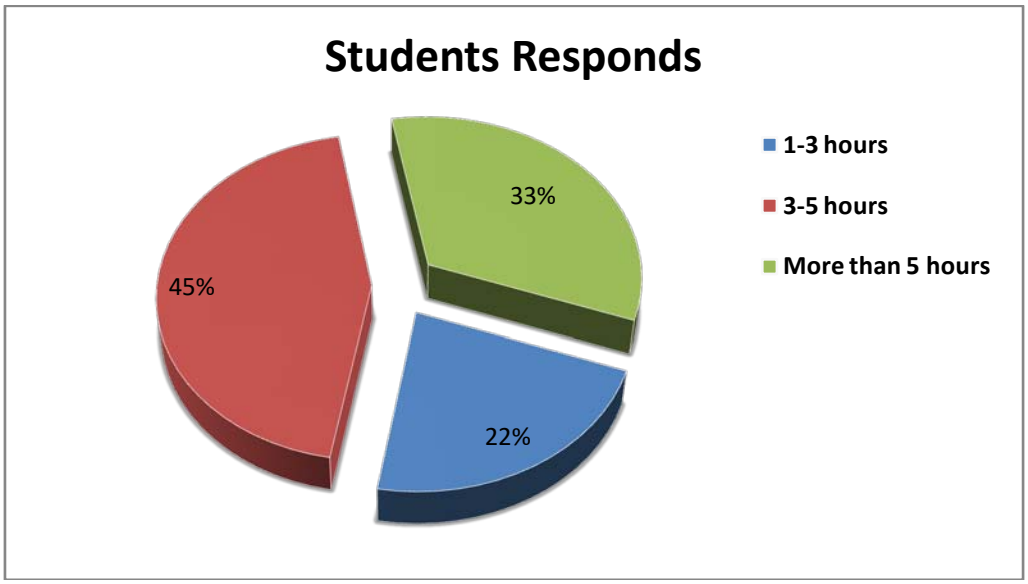
According to the table-3 and graph-3, most of the students 68% were using their mobile phones 1-3 hours before the lockdown, followed by 27% in 3-5 hours and 5% of the students were using their mobile phone in more than 5 hours.

Question 9: How many hours you are spending on your Mobile phone during the lockdown period?

Table 4: Hours spending on Mobile phone during the lockdown period.

Answer(Time)	Students Responds
1-3 hours	24 (22.22%)
3-5 hours	48 (44.44%)
More than 5 hours	36 (33.34%)
Total	108

Note: All figures in parenthesis represent percentage.



Graph 4: Hours spending on Mobile phone during the lockdown period.

Table-4 and graph-4, showed that only 22% students were using their mobile phones for 1-3 hours, 45% in 3-5 hours and 33% of the students were using their mobile phone in more than 5 hours. From the table and graph it can clearly observed that after imposed the lockdown in the country the mobile phone usage by students increased.

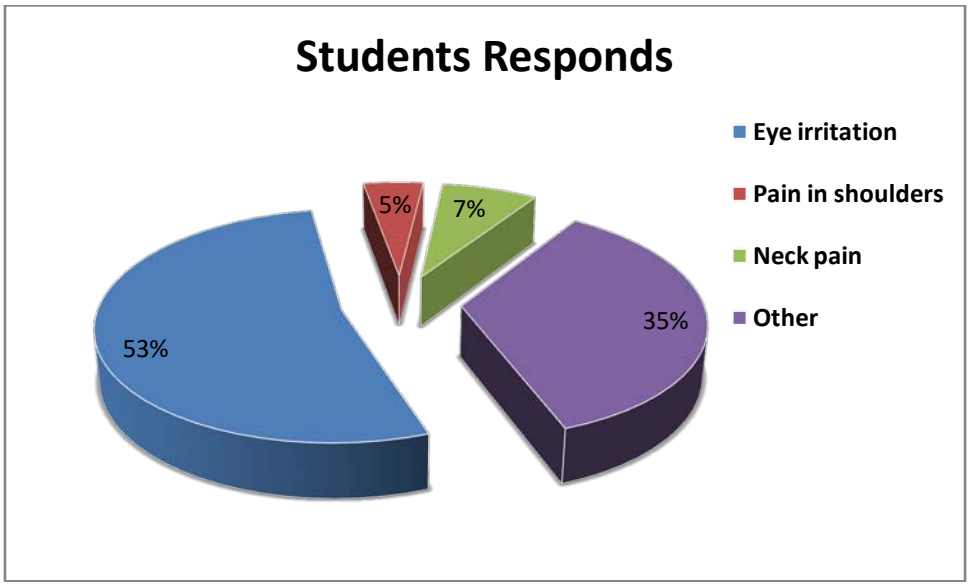
Question 10: What type of problems you are facing to use Mobile phone.

Table 5: Type of problems you are facing to use Mobile phone

Answer	Students Responds
Eye irritation	57 (52.78%)
Pain in shoulders	05 (4.63%)
Neck pain	08 (7.41%)
Other	38 (35.18%)
Total	108

Note: All figures in parenthesis represent percentage.

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Graph 5: Type of problems you are facing to use Mobile phone

According to the table-4 and graph (4.10.1), 53% students showed Eye irritation due to the use of mobile phone, 5% Pain in shoulders, 7% Neck pain and 35% other (Stressed, disconnected, alone etc.).

IV. Findings of the Study

1. All students were using Mobile phone.
2. The time of spending on Mobile phone increased during the lockdown.
3. Most of students are facing many problems like eye irritation and neck pain etc due to excessive use of Mobile phone.
4. Majority of students are using their mobile phone for studies because they are at Home. Mobile phone is very helpful for them to study in proper way.

V. Comments of Students

What time invited some comment about the topic, students granted number of reactions. One student said, *"Using mobile phone is good for our entertainment but as now a day we are spending more time on mobiles it's not good for our health". While another* student simply claimed: *"I cannot study by phone"; "I am facing no issue while using mobile phone"; "It is useful but has some side-effects also".*

Again, some students gave the nice comments that *"Full enjoy in lockdown my mobile was my strength during Covid-19"; "Only use mobile for study and Learning many things"; "During this pandemic mobile phones are very much useful to study"; "Colleges should be start soon because I am using phone excessively sometimes for studies sometimes for entertainment due to which I am having eye sight problems".*

VI. Conclusion

Online survey exposed that there are some negative possessions related to Mobile phone. As finding of the study showed that many students have eye irritation, many had neck pain and shoulder pain. Authors have also found that most of people are using their mobile phone for their studies and because of lockdown due to pandemic they are at home so their studies are totally online based so it is necessity of the time to use mobile phone but some students said that they use for entertainment and for time pass. On the basis of the answers of the students we can say that the tendency of using mobile phone is increased during this period because they can't go out so they all are depend on their mobile phone only.

To conclude we can say that, in the current situation mobile phone is very helpful as students can learn from their homes only and they can achieve their goals without stepping out, but extreme use of the Mobile phone can harm us. So we should use it in limit and in proper manner.

References Références Referencias

1. Taylor AS, Harper R (2001). Talking activity: young people and mobile phones Paper presented at CHI 2001 Workshop: Mobile Communications: Understanding Users, Adoption and Design.
2. Carroll J, Howard S, Peck J, Murphy J (2002). A Field study of perceptions and use of mobile telephones by 16-22 years old. Journal of Information Theory and Practice, 4: 49-61.
3. Aoki K, and Downes EJ (2004). An analysis of young people's use of and attitudes toward cell phones.Telemat. Info. 20: 349-364.

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4. Matthews R (2004). The Psychosocial aspects of mobile phone use among adolescents. In Psych., 26: 16-19.
5. James J, and Drennan J (2005). Exploring Addictive Consumption of Mobile Phone Technology,
6. Ling R (2005). "Mobile communications vis-à-vis teen emancipation, peer group integration and deviance." In The Inside Text: Social perspectives on SMS in the mobile age, edited by R. Harper, A. Taylor, and L. Palen. London: Klewer. pp.175 – 189.
7. Mozes, Alan (2013). Can Excessive Cellphone Use Become an Addiction? US News. U.S. News & World Report, 04 Dec. 2012.
8. Tessa Jones (2014), Student's cell phone addiction and their opinions. The Elon Journal of undergraduate research in communications, Vol. 5, No.1, pp. 74-80.
9. Krithika, M., & Dr. S. Vasantha (2013), The mobile phone usage among teens and young adults impact of invading technology., IJIRSET, Vol.2, Issue 12, pp. 7259-7265.
10. Hui-Jen Yang and Yun-Long Lay (2011), Factors affecting college student's mobile phone dependence and anxiety. Proceeding of the World congress on engineering and computer science (WCECS 2011), Vol. II, San Francisco, USA.
11. Pramod Mathew (March 30, 2020), India may escape a recession, but corona virus will show down growth further, Quartz.
12. Remya Lakshmann (09April, 2020), How is Covid-19 impacting online education, Timeline.
13. Ankita Sharma (09 May, 2020), Digital health in the aftermath of Covid-19, Invest.India.Gov.in.

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18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.
Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

19. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

20. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

21. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

22. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

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Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.



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Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.



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Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."



Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

The Administration Rules

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Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

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Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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