LAPORAN AKHIR PENELITIAN TAHUN TUNGGAL

ID Proposal: 899c239d-d99d-452d-99d3-3be146e293f3
Laporan Akhir Penelitian: tahun ke-1 dari 1 tahun

1. IDENTITAS PENELITIAN

A. JUDUL PENELITIAN

Pengembangan Modul Bahasa Inggris Berbasis Model Pembelajaran Jigsaw Untuk Meningkatkan Pemahaman Grammar Siswa Paket B PKBM Wilayah Pariaman

B. BIDANG, TEMA, TOPIK, DAN RUMPUN BIDANG ILMU

Bidang Fokus RIRN / Bidang Unggulan Perguruan Tinggi	Tema	Topik (jika ada)	Rumpun Bidang Ilmu
Sosial Humaniora, Seni Budaya, Pendidikan Penelitian Lapangan Dalam Negeri (Menengah)	Pendidikan	Teknologi pendidikan dan pembelajaran	Pendidikan Bahasa (dan Sastra) Inggris

C. KATEGORI, SKEMA, SBK, TARGET TKT DAN LAMA PENELITIAN

Kategori (Kompetitif Nasional/ Desentralisasi/ Penugasan)	Skema Penelitian	Strata (Dasar/ Terapan/ Pengembangan)	SBK (Dasar, Terapan, Pengembangan)	Target Akhir TKT	Lama Penelitian (Tahun)
Penelitian Kompetitif Nasional	Penelitian Dosen Pemula	SBK Riset Pembinaan/Kapasitas	SBK Riset Pembinaan/Kapasitas	3	1

2. IDENTITAS PENGUSUL

Nama, Peran	Perguruan Tinggi/ Institusi	Program Studi/ Bagian	Bidang Tugas	ID Sinta	H-Index
WIENDA GUSTA Ketua Pengusul	Universitas Putra Indonesia Yptk Padang	Teknik Informatika		6653650	0
DIAN CHRISTINA S.Pd.I, M.Pd Anggota Pengusul 1	Universitas Putra Indonesia Yptk Padang	Teknik Informatika		6192107	0

3. MITRA KERJASAMA PENELITIAN (JIKA ADA)

Pelaksanaan penelitian dapat melibatkan mitra kerjasama, yaitu mitra kerjasama dalam melaksanakan penelitian, mitra sebagai calon pengguna hasil penelitian, atau mitra investor

Mitra	Nama Mitra

4. LUARAN DAN TARGET CAPAIAN

Luaran Wajib

Tahun Luaran	Jenis Luaran	Status target capaian (*accepted, published, terdaftar atau granted, atau status lainnya*)	Keterangan (*url dan nama jurnal, penerbit, url paten, keterangan sejenis lainnya*)
1	Prosiding dalam pertemuan ilmiah Internasional	sudah terbit/sudah dilaksanakan	

Luaran Tambahan

Tahun Luaran	Jenis Luaran	Status target capaian (*accepted, published, terdaftar atau granted, atau status lainnya*)	Keterangan (*url dan nama jurnal, penerbit, url paten, keterangan sejenis lainnya*)
1	Publikasi Ilmiah Jurnal Internasional	accepted/published	

5. ANGGARAN

Rencana anggaran biaya penelitian mengacu pada PMK yang berlaku dengan besaran minimum dan maksimum sebagaimana diatur pada buku Panduan Penelitian dan Pengabdian kepada Masyarakat Edisi 12.

Total RAB 1 Tahun Rp. 19,460,000

Tahun 1 Total Rp. 19,460,000

Jenis Pembelanjaan	Item	Satuan	Vol.	Biaya Satuan	Total
Analisis Data	Transport Lokal	OK (kali)	2	200,000	400,000
Analisis Data	HR Pengolah Data	P (penelitian)	6	150,000	900,000
Analisis Data	Biaya konsumsi rapat	OH	6	100,000	600,000
Analisis Data	Honorarium narasumber	OJ	8	150,000	1,200,000
Bahan	ATK	Paket	7	200,000	1,400,000
Bahan	Bahan Penelitian (Habis Pakai)	Unit	30	75,000	2,250,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Biaya seminar internasional	Paket	1	2,500,000	2,500,000
Pelaporan, Luaran Wajib, dan Luaran Tambahan	Publikasi artikel di Jurnal Internasional	Paket	1	3,500,000	3,500,000
Pengumpulan Data	HR Petugas Survei	OH/OR	2	300,000	600,000
Pengumpulan Data	Transport	OK (kali)	2	430,000	860,000
Pengumpulan Data	HR Pembantu Peneliti	OJ	3	150,000	450,000
Pengumpulan Data	Uang Harian	OH	6	50,000	300,000
Pengumpulan Data	Biaya konsumsi	OH	6	200,000	1,200,000
Sewa Peralatan	Peralatan penelitian	Unit	4	425,000	1,700,000
Sewa Peralatan	Transport penelitian	OK (kali)	4	400,000	1,600,000

6. HASIL PENELITIAN

A. RINGKASAN: Tuliskan secara ringkas latar belakang penelitian, tujuan dan tahapan metode penelitian, luaran yang ditargetkan, serta uraian TKT penelitian.

Pendidikan di Indonesia saat ini dapat dikelompokkan menjadi tiga kategori yakni pendidikan formal, non formal dan informal. Pendidikan non formal diselenggarakan bagi mereka yang belum mampu menyelesaikan pendidikan formalnya dengan baik seperti kejar paket yang salah satunya Paket B setara dengan pendidikan sekolah menengah pertama. Pada dasarnya tidak terdapat perbedaan materi yang diajarkan pada pendidikan formal maupun non formal, seperti salah satu contoh dalam pelajaran bahasa Inggris. Pelajaran bahasa Inggris memiliki tujuan agar siswanya mampu menguasai beberapa keterampilan seperti listening, reading dan pengetahuan grammar. Grammar adalah salah satu keterampilan yang membutuhkan kemampuan analisis dari siswa berkaitan dengan pola dan penyusunan kalimat. Fakta yang ditemukan di lapangan khususnya pada pendidikan di paket B, pengetahuan grammar siswa masih rendah. Hal ini disebabkan oleh beberapa faktor, diantaranya intensitas waktu pertemuan pembelajaran yang singkat, terbatasnya bahan ajar yang digunakan dalam pemantapan pengetahuan grammar siswa serta kurang bervariatifnya guru dalam menggunakan model pembelajaran. Penelitian ini bertujuan untuk menghasilkan Modul Bahasa Inggris Berbasis Model Pembelajaran Jigsaw Untuk Meningkatkan Pemahaman Grammar Siswa Paket B Program Kelompok Belajar Masyarakat (PKBM) Wilayah Pariaman.Jenis penelitian adalah penelitian dan pengembangan (R&D).Model pengembangan yang dipilih adalah ASSURE. Instrumen penelitian yang digunakan sebagai berikut: lembar observasi, angket, lembar validitas ahli, praktikalitas dosen, praktikalitas siswa dan guru, lembar penilaian hasil belajar siswa. Luaran wajib dari penelitian ini adalah mengikuti prosiding internasional serta luaran tambahan dapat menerbitkan jurnal internasional terindeks.

B. KATA KUNCI: Tuliskan maksimal 5 kata kunci.

Modul, Jigsaw, pemahaman grammar, Paket B

Pengisian poin C sampai dengan poin H mengikuti template berikut dan tidak dibatasi jumlah kata atau halaman namun disarankan seringkas mungkin. Dilarang menghapus/memodifikasi template ataupun menghapus penjelasan di setiap poin.

C. HASIL PELAKSANAAN PENELITIAN: Tuliskan secara ringkas hasil pelaksanaan penelitian yang telah dicapai sesuai tahun pelaksanaan penelitian. Penyajian dapat berupa data, hasil analisis, dan capaian luaran (wajib dan atau tambahan). Seluruh hasil atau capaian yang dilaporkan harus berkaitan dengan tahapan pelaksanaan penelitian sebagaimana direncanakan pada proposal. Penyajian data dapat berupa gambar, tabel, grafik, dan sejenisnya, serta analisis didukung dengan sumber pustaka primer yang relevan dan terkini.

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... Penelitian ini bertujuan untuk melihat perbedaan kemampuan grammar siswa yang belajar di Paket B PKBM Bina Saiyo Pariaman saat sebelum dan sesudah penggunaan modul bahasa inggris berbasis model Jigsaw. Pembelajaran dilaksanakan dalam tiga tahap, yaitu pengenalan materi, penjabaran materi dan latihan soal. Keseluruhan kegiatan pembelajaran telah tergambar dengan baik dalam modul bahasa inggris berbasis model pembelajaran Jigsaw. Untuk menilai keefektifan modul secara statistik, dilakukan analisis berupa kegiatan pengujian normalitas data, homogenitas data dan pengaruh penggunaan produk dalam kegiatan pembelajaran.

Pada tahap awal yaitu tahap analisis, sebelumnya sudah dilakukan beberapa analisa untuk mencapai tujuan penelitian ini, yaitu: analisa kurikulum, analisa peserta didik, dan analisa materi.

Tahap ke 2: Design (desain)

Pada tahap ini, dilakukan desain untuk produk yang akan dikembangkan. Desain yang dilakukan berupa desain cover serta lembar kerja peserta didik yang dibuat semenarik mungkin, sehingga peserta didik termotivasi untuk belajar. Latihan-latihan yang terdapat dalam modul juga didesain kekinian sehingga siswa tidak bosan dalam membaca modul yang diimplementasikan dalam kegiatan pembelajaran. Aktivitas pengerjaan latihan didukung dengan kemudahan dalam pembagian tugas, siswa dibagi menjadi dua kelompok yaitu kelompok ahli dan kelompok asal. Peningkatan pemahaman grammar akan sangat didukung oleh aktivitas jigsaw ini, karena masing-masing siswa memilki kontribusi dan tanggung jawab agar siswa lain dalam kelompok asal paham akan materi yang telah di diskusikannya dalam kelompok ahli.

Tahap ke 3: Develop (Pengembangan)

Hasil dari penelitian yang telah dilakukan dalam mengembangkan modul Bahasa Inggris berbasis model pembelajaran koperatif jigsaw untuk meningkatkan pemahaman grammar siswa Paket B PKBM Bina Saiyo Pariaman, yaitu pada tahap validitas yang dilakukan oleh 2 orang validator terdapat pada Tabel. 1

Tabel 1. Hasil Validasi

No	Validator	Hasil (%)
1	DMP	85
2	EK	86,6
Rata-rata		85,8 (Valid)

Berdasarkan hasil yang diperoleh dari 2 orang validator tersebut, maka validitas dari modul berbasis model pembelajaran koperatif jigsaw untuk meningkatkan pemahaman siswa dalam grammar pada mata pelajaran Bahasa Inggris memperoleh nilai rata-rata 85.8% yang berarti valid. Adapun beberapa saran yang diberikan oleh validator yaitu memperjelas petunjuk penggunaan pada modul dan memperhatikan struktur kalimat yang digunakan secara grammatikal.

Hasil dari validitas modul Bahasa Inggris dengan model pembeljaran jigsaw untuk meningkatkan pemahamn siswa dalam grammar, digunakan untuk tahap selanjutnya yaitu melihat praktikalitas dan efektivitas produk yang akan digunakan oleh siswa Paket B PKBM Bina Saiyo Kota Pariaman.

Sebelum dilakukan analisis data untuk mengetahui apakah terdapat perbedaan yang signifikan antara sebelum dan sesudah penggunaan modul terhadap pemahaman grammar siswa, kelompok data terlebih dahulu dilakukan uji prasyarat yaitu salah satunya uji normalitas. Uji normalitas adalah sebuah uji yang dilakukan dengan tujuan untuk menilai sebaran data pada sebuah kelompok data atau variabel, apakah sebaran data tersebut berdistribusi normal ataukah tidak. Uji normalitas berguna untuk menentukan data yang telah dikumpulkan berdistribusi normal atau diambil dari populasi normal.

Untuk melakukan analisis uji normalitas, digunakan aplikasi SPSS dengan menggunakan tipe uji Kolmogorov-Smirnov. Hasil analisis uji normalitas untuk kelompok data sebelum dan sesudah perlakuan disajikan dalam Tabel 1.

Table 1. Result of Analysis One-Sample Kolmogorov-Smirnov Test Before Treatment

Variabel		Nilai
N		15
Normal Parametersa	Mean	5.1333
	Std. Deviation	1.35576
Most Extreme Differences	Absolute	0.205
	Positive	0.132

	Negative	-0.205
Kolmogorov-Smirnov Z		0.795
Asymp. Sig. (2-tailed)		0.552

Berdasarkan Tabel 1, kesimpulan mengenai hasil analisis uji normalitas dapat dilakukan dengan membandingkan nilai sig 2 tailed yang didapat dengan nilai alfa (α = 0.05). Data berada dalam kategori normal apabila nilai sig. 2 tailed > dari 0.05. Mengacu kepada hasil pada tabel 1, terlihat bahwa nilai sig. 2 tailed = 0.552 > dari 0.05. Hal ini menandakan bahwa kelompok data sebelum diberikan perlakuan terdistribusi normal. Selanjutnya untuk melengkapi uji prasyarat dilakukan uji normalitas untuk kelompok data sesudah diberikan perlakuan. Hasil analisis uji normalitas data setelah diberikan perlakuan tersaji dalam Tabel 2.

Table 2. Result of Analysis One-Sample Kolmogorov-Smirnov Test After Treatment

Varibel		Nilai
N		15
Normal Parametersa	Mean	7.0000
	Std. Deviation	1.30931
Most Extreme Differences	Absolute	0.167
	Positive	0.167
	Negative	-0.167
Kolmogorov-Smirnov Z		0.645
Asymp. Sig. (2-tailed)		0.799

Tabel 2 menunjukkan hasil bahwa nilai sig. 2 tailed kelompok data setelah diberikan perlakuan lebih besar dari nilai 0.05. Kesimpulan yang dapat diambil adalah kelompok data setelah diberikan perlakuan terdistribusi normal. Syarat pertama untuk pelaksanaan uji efektifitas telah terpenuhi, yaitu kedua kelompok data telah terdistribusi normal. Uji prasayarat lanjutan yang dilakukan adalah homogenitas. Uji homogenitas adalah pengujian mengenai sama tidaknya variansi-variansi dua buah distribusi atau lebih. Uji homogenitas dilakukan untuk mengetahui apakah data dalam variabel bersifat homogen atau tidak. Hasil uji homogenitas data dapat dilihat pada Tabel 3.

Table 3. Result of Homogenity Test Before anda After Treatment

Variables	Values
Levene Statistic	0.220
df1	1
df2	28
Sig. 2 Tailed	0.643

Hasil uji homogenitas data menunjukkan bahwa kelompok data hasil test siswa sebelum dan sesudah diberikan perlakuan bersifat homogen. Hasil ini diperkuat oleh analisis statistic menggunakan SPSS yang menunjukkan bahwa nilai sig 2 tailed data > nilai alfa. Kesimpulan yang dapat ditarik adalah kelompok data sebelum dan sesudah perlakuan menunjukkan bahwa sifat data adalah homogeny. Selanjutnya akan dilakukan uji paired sample t-test untuk melihat bagaimana pengaruh penggunaan modul bahasa inggris berbasis model Jigsaw terhadap pemahaman grammar siswa paket B di PKBM Bina Saiyo. Hasil analisis data menggunakan uji paired sample t-test ditunjukkan pada tabel 4.

Table 4. Result of Paired Sample t-test Before and After Treatment

Variables	Values
Mean	4.567
Std. Deviation	1.382
Std. Error Mean	.252
T	18.102
Df	29
Sig. (2-tailed)	0.000

Uji paired sample t-test nantinya akan mempertegas kesimpulan penelitian bahwa terdapat perbedaan hasil yang signifikan antara sebelum dan sesudah diberikannya perlakuan dalam kegiatan pembelajaran. Kesimpulan dapat diambil dengan membandingkan nilai sig 2 tailed dan nilai alfa yang telah ditetapkan. Berdasarkan hasil analisis dapat disimpulkan bahwa terdapat perbedaan yang signifikan antara pengetahuan grammar siswa sebelum dan sesudah menggunakan modul bahasa inggris berbasis model pembelajaran Jigsaw. Hasil peningkatan rata-rata yang signifikan juga dapat dilihat dari nilai sebelum dan sesudah diberikan perlakuan.

Peningkatan pemahaman grammar siswa menggunakan modul Bahasa Inggris berbasis model pembelajaran Jigsaw dapat teramati selama kegiatan penelitian. Konsep pembelajaran yang sistematis dan terstruktur membuat proses pembelajaran menjadi lebih terarah. Pemahaman grammar sangat didukung oleh ketersediaan informasi awal yang diberikan oleh guru secara sistematis dan adanya kegiatan latihan untuk melatih pemahaman grammar siswa. Penggunaan modul Bahasa Inggris berbasis model Jigsaw terbukti secara signifikan dan diperkuat oleh analisis statistik dapat meningkatkan pemahaman grammar siswa.

Penerapan modul Bahasa Inggris berbasis model Jigsaw dapat meningkatkan minat pengerjaan latihan siswa karena dalam pembelajarannya siswa dibagi menjadi beberapa kelompok serta masing-masing anggotanya memiliki peran yang berbeda. Kekuatan modul Bahasa Inggris yang dikembangkan ini terletak pada pengintegrasian model Jigsaw dalam aktivitas pembelajaran. Model Jigsaw secara teori dan praktis dapat memudahkan siswa mengerjakan latihan serta dapat mengefisienkan waktu.

Modul yang dikembangkan didesain semenarik mungkin dilengkapi dengan kata kunci sehingga memudahkan siswa mengingat materi. Latihan-latihan yang terdapat dalam modul juga didesain kekinian sehingga siswa tidak bosan dalam membaca modul yang diimplementasikan dalam kegiatan pembelajaran. Aktivitas pengerjaan latihan didukung dengan kemudahan dalam pembagian tugas, siswa dibagi menjadi dua kelompok yaitu kelompok ahli dan kelompok asal. Peningkatan pemahaman grammar akan sangat didukung oleh aktivitas jigsaw ini, karena masing-masing siswa memilki kontribusid dan tanggung jawab agar siswa lain dalam kelompok asal paham akan materi yang telah di diskusikannya dalam kelompok ahli.

Peran dan tanggung jawab siswa dalam menguraikan materi latihan kepada teman menjadi salah satu poin yang akan berdampak meningkatnya pemahaman grammar siswa baik itu bagi dirinya sendiri ataupun siswa lain. Pada dasarnya pemahaman siswa akan menjadi lebih baik apabila siswa itu mampu mengulang dan menjelaskan ulang materi yang telah ia pahami tersebut kepada teman lainnya. Pemahaman materi grammar juga dapat dibangun tidak hanya melalui interaksi antara guru dengan siswa, tapi juga siswa dengan siswa. Hal ini didukung oleh teori konstruktiv sosial yang menyatakan bahwa konsep pembelajaran itu tidak hanya merupakan hasil pemahaman sendiri melainkan merupakan hasil interaksi antara siswa dengan lingkungan sosialnya, baik itu pengetahuan yang dibangun berdasarkan pemahaman dengan siswa/teman lain, guru, lingkungan masyarakat dan lain-lain.

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D. **STATUS LUARAN**: Tuliskan jenis, identitas dan status ketercapaian setiap luaran wajib dan luaran tambahan (jika ada)yang dijanjikan pada tahun pelaksanaan penelitian. Jenis luaran dapat berupa publikasi, perolehan kekayaan intelektual, hasil pengujian atau luaran lainnya yang telah dijanjikan pada proposal. Uraian status luaran harus didukung dengan bukti kemajuan ketercapaian luaran sesuai dengan luaran yang dijanjikan. Lengkapi isian jenis luaran yang dijanjikan serta mengunggah bukti dokumen ketercapaian luaran wajib dan luaran tambahan melalui Simlitabmasmengikuti format sebagaimana terlihat pada bagian isian luaran

... Untuk luaran wajib yaitu mengikuti The Eight International Conference on Language and Learning Arts (ICLA 2019) diadakan pada tanggal 17-18 Oktober 2019. Saat ini status luaran adalah accepted ditandai dengan adanya email berupa LOA dari pihak panitia tertanggal 11 September 2019. Dan seminar prosiding sudah selesai dilaksanakan pada hari Kamis tanggal 17 September 2019.

The Committe of the 8th International Conference on Languages and Arts (ICLA 8th)
Faculty of Languages and Arts, Universitas Negeri Padang
" Research and Education Innovation on Languages and Arts in the Era 4.0"
Universitas Negeri Padang, 17-18 October 2019

Padang, September 10, 2019

No : 005/UN35.5/PPCI-FBS/VIII/2019

Ref : Paper Acceptance and Invitation

Dear Wienda Gusta, Dian Christian, and Zakirman,

Congratulations!

Your abstract **"THE IMPLEMENTATION OF MODULE BASED ON JIGSAWLEARNING MODEL TOIMPROVE STUDENTS' GRAMMAR UNDERSTANDING FOR NON FORMAL SCHOOL (PACKAGE B) STUDENTS IN PARIAMAN CITY"** has been accepted for presentation at the International Conference on Languages and Arts which is being held on Oct 17-18, 2019 at Hospitality Center Universitas Negeri Padang. Therefore, we invite you to present your paper at the conference as scheduled by the committee. We kindly remind you to be mindful of the following items:

(i) Full paper must be submitted based on the **template provided** at the website before **September, 30 2019**.
(ii) All presenters must attend the two-day conference and participate actively during the event.
(iii) The conference fee/payment must be transferred no later than **October 5, 2019** to:

Bank BNI Kantor Cabang Padang
Acc No: 0668110902
Acc Holder: RPL 010 BLU UNP Untuk DKE

(iv) The conference fee/payment is applicable **each presenter attending** the conference (including co-author(s))
(v) All inquiries regarding the seminar can be addressed to icla@fbs.unp.ac.id or contact Dini Faisal (WA: +62813 20 582 048) or David Ardi (WA: +62852 29 289 435)

Thank you and looking forward to meeting you in the event.

Sincerely yours,

Heldi, Ph.D.
Chair Person of ICLA 8th UNP

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E**. PERAN MITRA:** Tuliskan realisasi kerjasama dan kontribusi Mitra baik *in-kind* maupun *in-cash* (jika ada). Bukti pendukung realisasi kerjasama dan realisasi kontribusi mitra dilaporkan sesuai dengan kondisi yang sebenarnya. Bukti dokumen realisasi kerjasama dengan Mitra diunggah melalui Simlitabmas mengikuti format sebagaimana terlihat pada bagian isian mitra

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F. **KENDALA PELAKSANAAN PENELITIAN**: Tuliskan kesulitan atau hambatan yang dihadapi selama melakukan penelitian dan mencapai luaran yang dijanjikan, termasuk penjelasan jika pelaksanaan penelitian dan luaran penelitian tidak sesuai dengan yang direncanakan atau dijanjikan.

...Kendala yang dialami selama penelitian adalah heteregonitas siswa yang mana siswa tidak hanya berusia pada usia belajar sepertinya halnya pada sekolah reguler, tapi siswa juga ada yang usianya sudah berada pada tahap usia paruh baya. Hal ini menyebabkan kemampuan siswa dalam memahami materi yang diajarkan tidak merata disebabkan adanya faktor usia yang mempengaruhi daya tangkap siswa dalam menyerap pelajaran. Selain itu motivasi dan keinginan siswa dalam memahami pelajaran juga berbeda-beda. Siswa yang berusia paruh baya kurang memiliki motivasi dan semangat selama proses belajar, terlihat dari kurangnya keaktifan mereka selama pembelajaran.....
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G. **RENCANA TINDAKLANJUT PENELITIAN:** Tuliskan dan uraikan rencana tindaklanjut penelitian selanjutnya dengan melihat hasil penelitian yang telah diperoleh. Jika ada target yang belum diselesaikan pada akhir tahun pelaksanaan penelitian, pada bagian ini dapat dituliskan rencana penyelesaian target yang belum tercapai tersebut.

Tindak lanjut penelitian ini adalah mensosialisasikan kepada guru-guru bidang studi pada level menegah pertama atau setingkat SMP khususnya guru pada bidang studi Bahasa Inggris untuk dapat menggunakan metode pembelajaran dengan model pembelajaran Jigsaw, dimana metode Jigsaw memiliki beberapa kelebihan diantaranya yaitu penerapan modul Bahasa Inggris berbasis model Jigsaw dapat meningkatkan minat pengerjaan latihan siswa karena dalam pembelajarannya siswa dibagi menjadi beberapa kelompok serta masing-masing anggotanya memiliki peran yang berbeda. Kekuatan modul Bahasa Inggris yang dikembangkan ini terletak pada pengintegrasian model Jigsaw dalam aktivitas pembelajaran. Model Jigsaw secara teori dan praktis dapat memudahkan siswa mengerjakan latihan serta dapat mengefisienkan waktu.

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H. DAFTAR PUSTAKA: PenyusunanDaftar Pustaka berdasarkan sistem nomor sesuai dengan urutan pengutipan. Hanya pustaka yang disitasi pada laporan akhir yang dicantumkan dalam Daftar Pustaka.

[1] Ardiansyah, Reza dkk. (2017). Pengembangan Bahan Ajar Mutasi Genetik pada Mata Kuliah Genetika. Jurnal Pendidikan: Teori Pendidikan, dan Pengembangan Vol. 2. No.7 (Hal. 927-933). Doi: http://journal.um.ac.id/index.php/jptpp/

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2. Surat keterangan accepted dari editor

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Judul artikel: THE IMPLEMENTATION OF MODULE BASED ON JIGSAW LEARNING MODEL TO IMPROVE STUDENTS' GRAMMAR UNDERSTANDING FOR NON FORMAL SCHOOL (PACKAGE B) STUDENTS IN PARIAMAN CITY

THE IMPLEMENTATION OF MODULE BASED ON JIGSAW LEARNING MODEL TO IMPROVE STUDENTS' GRAMMAR UNDERSTANDING FOR NON FORMAL SCHOOL (PACKAGE B) STUDENTS IN PARIAMAN CITY

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Abstract:

This research is motivated by the limitation of English language teaching materials in a non-formal institution of Pariaman city that can improve students' grammar understanding. The purpose of this study is to see a comparison of students' grammar understanding before and after the implementation of a module based on the jigsaw learning model. The type of this research is quasi-experimental, with a total sample of 15 package B students enrolled in PKBM Center BKM Bina Saiyo in Pariaman with academic year of 2018/2019. The data analysis technique used is the parametric statistical test in the form of a paired sample t-test. The conclusion of this study is that there is a significant difference in grammar understanding before and after using the Jigsaw learning module.

Keywords: Module, Jigsaw, Grammar understanding, Package B

INTRODUCTION

Learning English means also learning about grammar. In English this is commonly called grammar. Grammar is the science of rules in forming and combining words into a sentence that has meaning. Furthermore, grammar is one of the skills that requires students' analytical skills related to the pattern and arrangement of sentences. By understanding grammar it will help students to improve their knowledge of English both verbally and in writing and be able to interpret English properly and correctly. In English lessons, grammar material is always included in the Package B learning program where the program is equivalent to junior high school.

The facts found in the field, especially in the pursuit of education package B PKBM Pariaman region that students' grammar knowledge is still low. This is evidenced by the short tests that have been conducted and it can be concluded that only 20% of students can answer correctly. The low knowledge of students' grammar can be caused by several factors including, the limited teaching materials used by teachers in English learning activities in

package B education programs, the intensity of meeting times that are not the same as formal education and the lack of variety of learning models used so that they cannot motivate students in learning activities. In addition, during the implementation of learning there were problems encountered by students, including the following: the activeness and interest of students in participating in learning was still lacking, the independence and responsibility of students in doing assignments was still low due to students' lack of understanding of the material presented. This illustrates the effectiveness of teaching and learning in the classroom is still low, causing student achievement is not optimal.

Teaching material is one of the important components needed in the learning process. Teaching materials are all materials arranged systematically that show a complete figure of the competencies that will be mastered by students and used in the learning process with the aim of planning and studying learning implementation. [1] Teaching material is basically a material specifically designed for learning purposes. Teaching material is also a set of materials arranged systematically so as to create an environment or atmosphere that allows students to learn well. The ability of teachers to design or compile material or teaching materials is one of the things that is very instrumental in determining the success of learning and learning processes [2]. Therefore, the teacher as the presenter of the material must be able to choose a method or approach that is in accordance with the conditions of students' abilities in the classroom, including suitability in developing teaching materials to support the learning activities. To address this, it is necessary to develop teaching materials so that students are able to find the concepts of the material being studied which can then convey concepts that are understood to others so that learning will become more meaningful. The good teaching materials include certain characteristics, they are: a) Giving interest in reading; b) Written and designed for students; c) Explain instructional objectives; d) Arranged based on flexible learning patterns; e) Structure based on student needs and the final competition to be achieved; f) Providing opportunities for students to practice; g) Accommodating student difficulties; h) Give a summary; i) Communicative and semi-formal writing style; j) Density based on student’s needs; k) Packed for instructional processes; l) Has a mechanism for collecting feedback from students; m) Explain how to study teaching materials [3]. Thus it can be concluded that the existence of appropriate teaching materials is expected to help smooth learning activities and the importance of teaching materials in the learning process is no doubt.

Good teaching materials will be used optimally if supported by learning models that can enable students to use these teaching materials. One of the learning methods that is

expected to improve thinking skills and analysis skills of students on grammar material is by using cooperative learning methods. Cooperative learning is a learning model that emphasizes group learning activities. Moreover, cooperative learning model as a learning strategy that involves students in group activities to complete certain tasks with the hope that all students contribute to the learning process and results obtained [4]. A group learning/ collaboration is believed to be the most effective way in teaching learning process because students are actively involved in sharing ideas and work to complete academic assignments [5]. The purpose of choosing this teaching model is to make the teaching and learning process more effective in order to increase students' absorption of the subject matter, because from the facts that are found in field, what is achieved is far from what is expected. One model of cooperative learning is the Jigsaw learning model. The Jigsaw model can be used effectively at every level where students have gained academic skills from understanding, reading and group skills to learn together [6].

Students' knowledge of grammar can be improved by practicing analytical skills. Jigsaw learning model can make it easier for students to carry out analytical activities and can improve student understanding of material for better. Cooperative learning Jigsaw model is a teaching and learning model that focuses on student group work in the form of small groups. This Jigsaw cooperative learning model is a cooperative learning model by means of students learning in small groups consisting of four to six heterogeneous people and students working together positive interdependence and responsibility independently [7]. Jigsaw type cooperative learning models have differences with other learning models. The strength of Jigsaw is more effective and more efficient to apply in learning process. This is because in addition to better academic achievement of students, other things such as cooperation, intimacy, communication between students and teachers will be better along with the increase in student confidence [8]. In addition, Jigsaw as type of cooperative learning model has some advantages including: 1) Increasing students' sense of responsibility towards their own learning and also the learning of others. 2) Students not only learn the material given, but they must also be prepared to give and work on the material to other members of the group, so that their knowledge become increases. 3) Students are taught how to work together in groups. 4) Apply the guidance of fellow friends. 5) A deeper understanding of the material [9].

To facilitate teachers in implementing Jigsaw model based learning, teachers can arrange teaching materials such as modules. The modules compiled contain material, learning steps according to the Jigsaw model and learning outcomes assessment instruments

summarized in some practice questions at the end of each discussion chapter. Modules are a form of printed teaching material that is presented systematically, so users can learn with or without the teacher [10]. Learning by using modules aims to: (1) students are able to learn independently or with the help of the teacher to a minimum, (2) the role of the teacher does not dominate and is not authoritarian in learning, (3) trains student honesty, (4) accommodates various levels and speeds student learning, and (5) students can measure their own mastery of the material being studied [11]. Based on the explanations above it can be concluded that the module is one of alternative teaching materials that can be developed in supporting the learning process of students in achieving learning objectives.

RESEARCH METHOD

This type of research is a quasi-experiment involving 15 students of PKBM Bina Saiyo Pariaman City who were enrolled in the 2018/ 2019 school year as a research sample. The sampling technique used was purposive sampling because of the limitations of the classes available in the research area. The instrument of data collection in this study is a paper and pencil test. The conclusion of the study was taken by comparing the results of data analysis using paired sample t-tests and the findings obtained during the research activities.

RESULT AND DISCUSSION

This study aims to look at the differences in grammar abilities of students studying in the B B PKBM Bina Saiyo Pariaman Package before and after the use of a Jigsaw model based English module. Learning is carried out in three stages, namely introduction to the material, elaboration of the material and practice questions. Overall learning activities have been well illustrated in the English module based on Jigsaw learning models. To assess the module's effectiveness statistically, an analysis is carried out in the form of data normality testing activities, data homogeneity and the effect of product use in learning activities.

Before analyzing the data to determine whether there are significant differences between before and after the use of the module on students' grammar understanding, the data group is first subjected to a prerequisite test, one of which is the normality test. Normality Test is a test conducted with the aim to assess the distribution of data in a group of data or variables, whether the distribution of data is normally distributed or not. Normality Test is useful for determining data that has been collected in normal distribution or taken from a normal population.

To conduct a normality test analysis, the SPSS application is used using the Kolmogorov-Smirnov test type. The results of the normality test analysis for the data groups before and after treatment are presented in Table 1.

Table 1. Result of Analysis One-Sample Kolmogorov-Smirnov Test Before Treatment

Variabel		Nilai
N		15
Normal Parameters[a]	Mean	5.1333
	Std. Deviation	1.35576
Most Extreme Differences	Absolute	0.205
	Positive	0.132
	Negative	-0.205
Kolmogorov-Smirnov Z		0.795
Asymp. Sig. (2-tailed)		0.552

Based on Table 1, the conclusions regarding the results of the normality test analysis can be done by comparing the sig 2 tailed values obtained with the alpha value ($\alpha = 0.05$). Data is in the normal category if the value of sig. 2 tailed> from 0.05. Referring to the results in table 1, it appears that the value of sig. 2 tailed = 0.552> from 0.05. This indicates that the data group was given normal distribution before treatment. Furthermore, to complete the prerequisite test, a normality test for the data group after treatment is given. The results of the normality test data analysis after being given treatment are presented in Table 2.

Table 2. Result of Analysis One-Sample Kolmogorov-Smirnov Test After Treatment

Varibel		Nilai
N		15
Normal Parameters[a]	Mean	7.0000
	Std. Deviation	1.30931
Most Extreme Differences	Absolute	0.167
	Positive	0.167
	Negative	-0.167
Kolmogorov-Smirnov Z		0.645
Asymp. Sig. (2-tailed)		0.799

Table 2 shows the results that the value of sig. 2 tailed groups of data after treatment were given greater than the value of 0.05. The conclusion that can be drawn is the group of data after being given normal distributed treatment. The first requirement for carrying out the effectiveness test has been fulfilled, namely the two groups of data have been normally distributed. The next prerequisite test conducted was homogeneity. Homogeneity test is a test regarding whether or not the variances of two or more distributions are equal. Homogeneity test is performed to find out whether the data in the variables are homogeneous or not. Homogeneity test results can be seen in Table 3.

Table 3. Result of Homogenity Test Before anda After Treatment

Variables	Values
Levene Statistic	0.220
df1	1
df2	28
Sig. 2 Tailed	0.643

Homogeneity test results show that the group of students' test results before and after the treatment is homogeneous. This result is strengthened by statistical analysis using SPSS which shows that sig 2 value of tailed data> alpha value. The conclusion that can be drawn is the data group before and after treatment shows that the nature of the data is homogeneous. Furthermore, a paired sample t-test will be conducted to see how the influence of the use of English language modules based on the Jigsaw model on students' understanding of package B in PKBM Bina Saiyo. The results of data analysis using paired sample t-test are shown in table 4.

Table 4. Result of Paired Sample t-test Before anda After Treatment

Variables	Values
Mean	4.567
Std. Deviation	1.382
Std. Error Mean	.252
T	18.102
Df	29
Sig. (2-tailed)	0.000

Paired sample t-test will later confirm the conclusion that there are significant differences in results between before and after treatment is given in learning activities. Conclusions can be drawn by comparing the sig 2 tailed value and the alpha value that has been set. Based on the results of the analysis it can be concluded that there are significant differences between students' grammar knowledge before and after using an English module based on Jigsaw learning models. The results of a significant increase in average can also be seen from the values before and after treatment.

The application of Jigsaw learning model is one of the efforts that teachers can do to reduce student boredom which is the main problem in learning activities. The teacher's tendency to use the lecture method will have an impact on the understanding and mastery of student material [12]. The application of the lecture method has been considered the most practical in terms of preparation and implementation but has not been very effective in increasing students' independence in learning.

Increasing students' grammar understanding using English modules based on Jigsaw learning models can be observed during research activities. The concept of systematic and

structured learning makes the learning process more directed. Grammar understanding is strongly supported by the availability of preliminary information provided by the teacher systematically and the existence of training activities to train students' grammar understanding. The use of English modules based on the Jigsaw model is proven to be significantly and strengthened by statistical analysis can improve students' grammar understanding.

The main activities of students during the learning process using the Jigsaw model are listening to the teacher or other students' explanations, taking notes as needed, studying student worksheets/ teaching materials, discussing with other students. The teacher acts as a monitor, guide, and motivator [13, 14]. Student activities in the form of discussions in the original group and expert groups provide opportunities for students to express their opinions, so as to stimulate students to be active in learning activities [15]. The jigsaw learning model is also able to handle the problems of students who lack good cooperative attitude with their friends when in groups. In this model, students will collaborate with their friends because in the application of this jigsaw learning model, students are faced with two different groups namely the original group and the expert group [16].

The application of an English module based on the Jigsaw model can increase students' interest in doing the exercises because in their learning students are divided into groups and each member has a different role. The strength of the developed English language module lies in the integration of the Jigsaw model in learning activities. Jigsaw models in theory and practically can make it easier for students to do the exercises and can make time efficient.

The modules developed are designed to be as attractive as possible with key words making it easier for students to remember the material. The exercises contained in the module are also designed so that students do not get bored reading modules that are implemented in learning activities. Workmanship activities supported by ease in the distribution of tasks, students are divided into two groups, namely the expert group and the home group. Increased understanding of grammar will be greatly supported by this jigsaw activity, because each student has a contribution and responsibility so that other students in the group origin understand the material they have discussed in the expert group.

The use of Jigsaw learning models can not only improve students’ 'grammar abilities, but can also trigger other impacts such as training students' writing skills. Writing skills are particularly very important for students in their schooling days. They are very often need to write reports and some other types of writing, so that writing activities cannot be avoided.

Within the university environments, the students have to deal with various types of written discourse including narration, description, exposition, and argumentation [17].

The role and responsibility of students in outlining the training material to friends becomes one of the points that will have an impact on increasing students' grammar understanding both for themselves and other students. Basically, students' understanding will be better if the student is able to repeat and explain the material he has understood to other friends. Understanding grammar material can also be built not only through interactions between teachers and students, but also students and students. This is supported by social constructive theory which states that the concept of learning is not only the result of one's own understanding but is the result of interaction between students and their social environment, both knowledge that is built based on understanding with students/ other friends, teachers, community environment and others .

The development of an English module based on the Jigsaw model is still limited in terms of material. The limitation of researchers who have only designed modules developed in package B, makes the context and impact of the modules developed not yet felt at other levels of education. In the future it is hoped that other researchers can develop English language modules based on the Jigsaw model in other educational materials or levels. In learning English, a support system such as media is also needed so that it can help the implementation of the Jigsaw model in its entirety [18]. Learning styles can also be one of the considerations in designing and designing these support systems [19].

CONCLUSION

The application of English modules based on Jigsaw models is theoretically proven and can improve students' understanding of grammar package B. The application of English modules based on Jigsaw models must be supported by careful planning by the teacher. Things that need to be considered during the learning activities using an English language module based on the Jigsaw model include: the availability of reference material as initial information for students in starting learning activities, facilities and infrastructure as well as the composition and mapping of student learning time.

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The Committe of the 8th International Conference on Languages and Arts (ICLA 8th)
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Dear Wienda Gusta, Dian Christina, and Zakirman,

Congratulations!

Your abstract **"THE IMPLEMENTATION OF MODULE BASED ON JIGSAWLEARNING MODEL TO IMPROVE STUDENTS' GRAMMAR UNDERSTANDING FOR NON FORMAL SCHOOL (PACKAGE B) STUDENTS IN PARIAMAN CITY"** has been accepted for presentation at the International Conference on Languages and Arts which is being held on October 17-18, 2019 at Hospitality Center, Universitas Negeri Padang. Therefore, we invite you to present your paper at the conference as scheduled by the committee. We kindly remind you to be mindful of the following items:

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IMPROVED STUDENT COLLABORATION SKILLS ON ENGLISH LEARNING USING JIGSAW MODELS

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Abstract
This research is backed by the low of a student collaboration in the language learning of Manfrom the non-formal education institute of Pariaman. A collaboration was repented to master the students due to the liquid part of the Top Skill in 2020. To enhance a collaborative student can in the cave design the breadth of learning by integrating the Jigsaw model. The samples in this study were 82 students of PKBM package B on non-formal educational institutions in the city of Pariaman.Referring to the data analysis results that have been done using a two-way anava test can be concluded that the application of the Jigsaw model in English learning proved to improve students ' skills, this is supported by the observation result Students ' collaborative skills using non-test instruments

Keywords: Collaboration skills, learning, English language, learning Model, Jigsaw

1. Introduction

At present the world has entered the era of the 4.0 generation industrial revolution marked by increased connectivity, interaction and development of digital systems, artificial intelligence, and virtual. With the convergence of boundaries between humans, machines and other resources, information and communication technology will also affect various sectors of life. One of them is the impact on the education system in Indonesia. Changes in this era can not be avoided by anyone so it requires the preparation of adequate human resources (HR) to be ready to adjust and be able to compete on a global scale. Improving the quality of human resources through education channels ranging from elementary and secondary education to higher education is the key to being able to follow the development of the Industrial Revolution 4.0. [1]

This era was also marked by advances in computerization of data, smart-phones, internet, artificial intelligence, biotechnology, robotization, and so on. The phenomenon of the industrial revolution 4.0 makes people dependent on technology, especially the internet, hence it is known as the internet of things, where the internet can facilitate human life in long distance communication, find various information using the internet, as a means of learning to increase literacy can be obtained through internet, internet is also used as the most widely used media for business, and various other advantages [2].

It affects all aspects of human life. Included in this case is education. This era is marked by the increasingly central role of cyber technology in human life. So do not be surprised if in the world of education the term "Education 4.0" appears. Education 4.0 (Education 4.0) is a general term used by educational experts to illustrate various ways to integrate cyber technology both physically and not into learning. Education 4.0 is a phenomenon that responds to the need for a fourth industrial revolution where humans and machines are aligned to get solutions, solve problems and of course discover new possibilities for innovation. The era of the industrial revolution 4.0 is an era marked by the advancement of cyber technology and robots (robotics) in human life [3].

Education 4.0 is a response to the needs of the 4.0 industrial revolution where humans and technology are aligned to create new opportunities with creative and innovative. There are nine trends related to education 4.0, which are as follows: First, learning at different times and places. Students will have more opportunities to learn at different times and places. E-learning facilitates opportunities for distance and independent learning. Second, individual learning. Students will learn with learning tools that are adaptive to their abilities. This shows that students at higher levels are challenged with

more difficult tasks and questions when after passing a certain degree of competence. Students who have difficulty with subjects will get the opportunity to practice more until they reach the required level. Third, students have choices in determining how they learn. Although each subject taught aims for the same goal, the way to that goal can vary for each student. Likewise with individualized learning experiences, students will be able to modify their learning process with tools they feel are necessary for them. Four, project based learning. Students must now be able to adapt to project-based learning, as well as work. This shows that they must learn how to apply their skills in the short term to various situations. Five, field experience. Technological advances enable effective learning of certain domains, thus giving more space to acquire skills that involve student knowledge and face-to-face interaction. Thus, field experience will be deepened through courses or exercises. Six, interpretation of data. The development of computer technology eventually took over the tasks of analysis performed manually (mathematically), and immediately handled each statistical analysis, describing and analyzing data and predicting future trends. Seven, varied judgments. Measuring students' abilities through conventional assessment techniques such as question and answer will no longer be relevant or not enough. Assessments must change, students' factual knowledge can be assessed during the learning process, and the application of knowledge can be tested when students work on their projects in the field. Eight, student involvement. The involvement of students in determining learning material or curriculum becomes very important. Student opinions are considered in designing and updating the curriculum. Their input helps curriculum designers produce contemporary, high-end, high-value curriculum. Finally, mentoring. Mentoring or providing guidance to students becomes very important to build student learning independence. The nine shifts in educational trends 4.0 above are the primary responsibility of teachers to students. Educators must play a role to support the transition and not consider it a threat to conventional teaching. This is a challenge that is exciting, stimulating to action, and massive. Adaptation to this educational trend guarantees individuals and society to develop a more complete set of competencies, skills and knowledge and unleash their full reactive potential. Based on the description above, the 4.0 industrial revolution marked by technology has significant implications for the education system [4]

In the context of pleasant learning conditions, it is emphasized that a learning activity does not always guarantee that students will be able to learn [5]. This shows that no matter how good a teacher is in designing and designing a learning program, it will not be able to optimally achieve the expected competency achievement if it is not supported by the selection as well as the proper use of methods. For this reason, the role of digital society in the era of the industrial revolution 4.0 is a challenge to build information technology-based education that is able to answer the challenges of the needs of the people of the industrial revolution era 4.0. [6].

There are three important study subjects in the context of 21st century skills, namely life and career skills, learning and innovation skills and information media and technology skills [7]. On the subject of learning and innovation skills or can be called learning and innovation skills are described as critical thinking skills, communication and collaboration, as well as creativity and innovation, which are taught in every context of the core fields of study and learning themes of the twenty-first century [8].

21st Century skills are skills that need to be given to students in order to prepare graduates who are able to work to become good citizens and able to face the effects of globalization, technological advancements, international competition, changes in global markets, transnational environments and political changes, so students progress in the future . From this explanation, teachers as educators should be able to develop and implement what is called 21st century skills to realize high-HR students, and be able to compete globally. [9]

Teachers need to develop 4C to students to support the new paradigm of 21st century learning, so that later students can develop more advanced. The 4Cs are Critical Thinking, Collaboration, Communication, and Creativity [10]. What is expected from the development of 4C, is to realize students who are able to think critically, able to collaborate, able to communicate multi-way, and also able to develop creativity. In developing the 4C (Critical Thinking, Collaboration, Communication, Creativity), the teacher as an educator must be able to know each student's abilities [11]. 4C capability is one of the capital in life that can produce knowledge personally and can be used in society. [12]

Important skills that are also needed by human resources in the 21st century are communication and collaboration skills. Communication and collaboration simultaneously reflect the adult world. In this context, effective communication and collaboration skills can help avoid misunderstanding and miscommunication. Collaboration is an effort to demonstrate the ability to work effectively and respectfully with diverse teams to achieve shared goals with shared responsibilities [13]. Collaboration and teamwork in the twenty-first century will be developed in schools, between schools, and between experiences outside of school and outside of school. The indicators for collaboration skills

include the ability of students to work together and group leadership, adapt to various roles and responsibilities, work productively with others, put empathy in their place, respect different perspective [1].

Collaborative learning is defined as a teaching method where the students conduct studies to help each other learn in small groups in line with the common goal [14].

Collaborative learning comprises "instructional methods in which teachers organize students into small groups, which then work together to help one another learn academic content" [15]. Jigsaw learning, one kind of cooperative learning method developed by Aronson, Blaney, Stepan, Sikes & Snapp which helps students break learning materials into manageable learning pieces, and then has students teach others the piece they have mastered, consequently combining these pieces into one whole [16]. Jigsaw learning is based on the perspective that each student will first become "an expert" in a small part of the whole learning material, and then teach other students in his group this part of the material.

The Jigsaw method of cooperative learning was employed for the first time in the mid-1970s and consists of the interdependence of the content studied by the group members, fitting together like a puzzle. It is divided into three stages.First, the students form base groups where they study and discuss a general topic. Second, students are relocated into expert groups, formed by an integral part of each group as a basis for studying a specific topic, that will assist them in understanding the general topic studied in the base group. Finally, the students return to the base groups and share their findings, to maximize their learning on the topic studied [17].

The technique of jigsaw based on cooperative learning is a kind of technique which has applications in different areas of science, language teaching, foreign language teaching, social sciences and medical science and has emerging examples of different in-class practices based on the developments in the course of time [18].

Jigsaw type cooperative learning model is learning that consists of the original group and the expert group. The origin group is a parent group consisting of students with diverse abilities and backgrounds, while the expert group is a group of students consisting of members of different origin groups who have the task and are responsible for learning and exploring certain topics and completing tasks related to the topic then to be explained to the group of origin. This is supported by the results of research which shows that the application of the Jigsaw cooperative learning model can increase learning activities and student cognitive skills [19]. Jigsaw cooperative learning groups can be very effective because students can establish a supportive, comfortable learning environment. They can be more actively engaged in the content of the course, and eventuality, they can experience greater gains in mastering the course content, which could translate into improved grades. An important part of the cooperative learning experience for most students is learning how to function successfully in a group [20].

2. Methodology

2.1 Research Question

2.1.1 Is there a significant difference in collaboration skills among students with high, moderate and low abilities?

2.1.2 Is there a significant difference in collaboration skills between students learning to use JIGSAW and conventional models?

2.1.3 Is there an interaction between the students ' ability and the use of models in influencing student collaboration skills?

2.2 Participants

In this study samples were used as much as 82 students, with details: 36 students who have high abilities, 30 students who have moderate ability and 16 students who have low ability. The entire sample was registered as an active learner at the non-formal educational institution of Pariaman in the 2019/2020 school year.

2.3 Procedures

The collaborative skills Data in this study were gathered using the Obervasi/non test instrument by involving the Observer as a team of the assessment. This study was conducted for 4 times meeting with meeting duration of 90 minutes each. In the learning activity is a comparison of student collaboration skills between students whose learning activities use the JIGSAW model and conventionally

3. Result

To test the research hypothesis used data analysis techniques using two-way anava. The use of a two-way Anava test has two prerequisites to be met i.e. data must be distributed normally and Homogeny

3.1 Data Normality test Result analysis

3.1.1 High proficiency students

The results of the test analysis of the normality of group students with the following high proficiency:

Table 1. One-Sample Kolmogorov-Smirnov Test

Variabel		Non Jigsaw	Jigsaw
N		18	18
Normal Parameters[a]	Mean	62.3889	82.7778
	Std. Deviation	8.21862	6.51293
Most Extreme Differences	Absolute	0.119	0.147
	Positive	0.119	0.147
	Negative	-0.086	-0.081
Kolmogorov-Smirnov Z		0.505	0.625
Asymp. Sig. (2-tailed)		0.960	0.830
a. Test distribution is Normal.			

The test results of the high-ability group data normality showed that the data group was distributed normally. Data will be distributed normally if the value of ASYMP. Sig. (2-tailed) > α value = 0.05

3.1.2 Moderate Ability Students

The results of test analysis of the normal group of students with moderate ability as follows:

Table 2. One-Sample Kolmogorov-Smirnov Test

Variabel		Non Jigsaw	Jigsaw
N		15	15
Normal Parameters[a]	Mean	51.3333	78.5333
	Std. Deviation	7.53721	8.58459
Most Extreme Differences	Absolute	0.134	0.140
	Positive	0.113	0.101
	Negative	-0.134	-0.140
Kolmogorov-Smirnov Z		0.518	0.543
Asymp. Sig. (2-tailed)		0.951	0.929
a. Test distribution is Normal.			

Test normality for student data groups with moderate ability shows the result that data has been distributed normally. The value of ASYMP. Sig. (2-tailed) is greater than 0.05, so it can be concluded that the value data of collaborative skills of students who have moderate ability has been distributed normally

3.1.3 Low-ability Students

The results of the test analysis of the normality group of students with low ability as follows:

Table 3. One-Sample Kolmogorov-Smirnov Test

Variabel		Non Jigsaw	Jigsaw
N		8	8
Normal Parameters[a]	Mean	47.6250	66.8750
	Std. Deviation	8.71677	10.24608
Most Extreme Differences	Absolute	0.243	0.198
	Positive	0.243	0.198

Table 3. One-Sample Kolmogorov-Smirnov Test

Variabel	Non Jigsaw	Jigsaw
Negative	-0.143	-0.192
Kolmogorov-Smirnov Z	0.688	0.559
Asymp. Sig. (2-tailed)	0.731	0.914
a. Test distribution is Normal.		

A third normality test is performed to see the group's data, which has low proficiency. Based on data analysis results it can be concluded that the student collaboration skills assessment data that has a low ability has been distributed normally

3.2Analysis results of Data Homogenization Test

Test the homogeneity in this study using the Levene equation. Data will be homogeny when the value of the Sig. Obtained is greater than α value = 0.05. Data of homogeneity test results as follows:

Table 4. Analysis results Test homogenization of Students ' collaborative skills assessment Data

No	Variabel	Value
1	F	0.570
2	df1	5
3	df2	76
4	Sig.	0.722

Based on the results of analysis of homogeneity test can be concluded that all three Homogeny data group, this is evidenced by the value of Sig. Obtained greater than the value of 0.05

3.3.Distribution of many samples in research for each group is presented as follows

Table 5. Between-Subjects Factors

Variable		Value Label	N
Students' ability	1	High	36
	2	Middle	30
	3	Low	16
Model	1	Non Jigsaw	41
	2	Jigsaw	41

Total sample Overall is 82 students, grouped into three categories that are students with a high proficiency of 36 people, low ability as much as 8 people and students with a capacity of 30 people

For research inquiries, analysis is conducted statistic using two-way anava. Testing using two-way Anava aims to see the contribution of students ' ability to influence the improvement of collaborative skills, the influence of the learning model in influencing collaborative skills as well as the interaction between ability Students and learning models in improving collaborative skills [25]. Summary of data analysis results using the two-way Anava test as follows:

Table 6. Tests of Between-Subjects Effects

Dependent Variable:Collaboration Skill

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13540.270[a]	5	2708.054	41.468	0.000
Intercept	306882.238	1	306882.238	4.699E3	0.000
Students' ability	2767.859	2	1383.929	21.192	0.000
Model	9035.266	1	9035.266	138.354	0.000
Students' ability * model	247.521	2	123.760	1.895	0.015

Table 6. Tests of Between-Subjects Effects

Dependent Variable:Collaboration Skill

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Error	4963.206	76	65.305		
Total	384327.000	82			
Corrected Total	18503.476	81			

a. R Squared = .732 (Adjusted R Squared = 0.714)

3.3.1 Testing Research Questions 1

To test the first research question, it is seen from the value of Sig. In table 6 third row. Based on the results of the analysis it appears that the value of GIS. (0.000) < α value = 0.05, so it can be concluded that there is a significant difference between student collaboration skills that are high, moderate and low

3.3.1 Testing Research Questions 2

Test hypotheses of second research questions, judging by the value of GIS. In the fourth row 6 table. Based on the analysis results it appears that the value of GIS. (0.015) < α value = 0.05, so it can be concluded that there is a significant difference between the collaboration skills of students learning with the JIGSAW and conventional models

3.3.1 Testing Research Questions

Test answered the third research question, judging by the value of GIS. In the Fifth Row 6 table. Based on the analysis results it appears that the value of GIS. (0.000) < α value = 0.05, so it can be concluded that the level of students ' ability and the use of interfacing learning models to improve student collaboration skills

4. Discussion

Jigsaw type cooperative learning models have differences with other learning models. The strength of Jigsaw is effective and efficient learning. This is because in addition to better academic achievement of students, other things such as cooperation, intimacy, communication between students and teachers will be better along with the increase in student confidence. In addition, it also suggested that the Jigsaw type of cooperative learning model has advantages including: 1) Increasing students' sense of responsibility towards their own learning and also the learning of others. 2) Students not only learn the material given, but they must also be prepared to give and work on the material to other members of the group, so that their knowledge increases. 3) Students are taught how to work together in groups. 4) Apply the guidance of fellow friends. 5) A deeper understanding of the material [21].

The obstacles encountered during implementation that can be a place to chat. this happens if group members do not have discipline in learning, such as arriving late, chatting that makes time pass so that the purpose for learning becomes useless and often trivial debates occur within the group. this debate often happens so time consuming.

In the learning process students will more easily understand the meaning or meaning contained in the message conveyed, if they are directly involved in the learning process. One way to overcome this situation is the selection of learning models that can enable students in learning activities to find their own knowledge through their interactions with the environment and also more directed to activities that encourage students to learn actively, physically, socially and mentally in understanding concepts.

The results of the studies in the field of learning English have proved that Jigsaw method provides a higher performance than traditional methods on students' both the theoretical and experimental learning. The results of this study are in line with the literature [22]. The results of this study regarding the significant effects of Jigsaw method based on cooperative learning on increasing the students' achievements in physics stem from enhancing the cooperative learning efforts of each student by making them responsible for teaching the material to the group members. In addition, students' gathering information in an autonomously and self–adjusted way and making explanations to each other contributed to the positive results of the study. In this way, it could ensure a meaningful set of information through the pieces of information by utilizing what individuals learn from others. Oral

language is mostly used in the student-student interactions of cooperative learning groups, and this issue affects the process of learning from each other in a negative way.

With this learning model students are given the opportunity not just to learn but also teach one another. Students not only share in the process of gaining knowledge. Furthermore, through the togetherness process will train students to develop social skills, respect for differences, increase motivation, positive attitudes, and reduce anxiety, so that it can ultimately improve student learning outcomes.

Cooperative learning is a learning model that involves more active interaction between students and students, students with teachers and students with their learning environment. Students learn together and make sure that each group member has really mastered the material being studied. The advantage that can be obtained from the application of cooperative learning is that students can achieve good learning outcomes because cooperative learning can increase student motivation which is one of the factors that influence learning outcomes.

Students can also accept learning that is used because of the physical contact between students. There are many types of cooperative learning, one of which is Jigsaw. Jigsaw cooperative learning is a learning model developed to be able to build classrooms as a learning community that values all students' abilities. The role and responsibility of students in outlining the training material to friends becomes one of the points that will have an impact on increasing students' English understanding both for themselves and other students. Basically, students' understanding will be better if the student is able to repeat and explain the material he has understood to other friends. Understanding English material can also be built not only through interactions between teachers and students, but also students and students. This is supported by social constructive theory which states that the concept of learning is not only the result of one's own understanding but is the result of interaction between students and their social environment, both knowledge that is built based on understanding with students/ other friends, teachers, community environment and others .

Cooperative learning by jigsaw students can individually develop their expertise in one aspect of the material being studied and explain their concepts and expertise to the group. Each group member in jigsaw cooperative learning studies different material and is responsible for learning their respective parts. Learning with cooperative jigsaw is expected to increase student motivation. In the future it is hoped that other researchers can develop English language modules based on the Jigsaw model in other educational materials or levels. In learning English, a support system such as media is also needed so that it can help the implementation of the Jigsaw model in its entirety [23]. Learning styles can also be one of the considerations in designing and designing these support systems [24].

5. Conclusion

The jigsaw Model is one part of cooperative learning that can be implemented to improve students' collaborative skills. Jigsaw learning models are proven in theory and statistic counts can improve students' collaborative skills. The use of Jigsaw models can direct students to discuss each other, communicating ideas and ideas and solving problems from the topics raised in learning. In the research that has been done, the student groups are distinguished into three categories that are groups of students with high, medium and low knowledge. There is a significant difference in collaboration skills between knowledgeable, moderate and low-level students. In the study that has been done also reveals that there are significant differences in collaboration skills between students who learn to use Jigsaw and conventional models. Learning and level of students ' ability to interact with each other and influence the improvement of collaboration skills in English language learning at non-formal education institutions Pariaman

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to me

Wienda Gusta:

Thank you for submitting the manuscript, "IMPROVED STUDENT COLLABORATION SKILLS ON ENGLISH LEARNING USING JIGSAW MODELS" to International Journal of English Language Teaching. With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal web site:

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If you have any questions, please contact me. Thank you for considering this journal as a venue for your work.

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