

CAKRAWALA PENDIDIKAN

FORUM KOMUNIKASI ILMIAH DAN EKSPRESI KREATIF ILMU PENDIDIKAN

Peran Pendidikan Karakter dalam Rangka Meningkatkan Kecerdasan Emosi Mahasiswa

Peran Keluarga dalam Pencapaian Tujuan Pendidikan

Pembelajaran sebagai Pemberdayaan Diri

Enhancing Students' Comprehension in Grammar by Using Hotpotatoes 6

Budaya Politik Indonesia dan Kewarganegaraan

Meningkatkan Partisipasi Politik Masyarakat melalui Optimalisasi Fungsi Partai Politik

Hubungan Pendidikan Karakter dengan Kecerdasan Emosional (EQ)

Meningkatkan Kemampuan Berfikir Mahasiswa dengan Menggali Potensi Diri melalui

Pertanyaan atau Gagasan Tertulis dan Memecahkan Masalah Sendiri secara Kelompok

Analisis Perilaku Siswa Kelas IV SD dalam Memecahkan Soal Cerita Matematika

Berdasarkan Tahapan Analisis Kesalahan *Newman*

Implementasi Pembelajaran *Questioning & Claryfying*
untuk Meningkatkan Pemahaman Matakuliah Geometri

Implementasi Kemandirian Belajar dan Prestasi Belajar Mahasiswa

Stylistic Aspect in Scott Peck's in Heaven as On Earth

Penerapan Pembelajaran Terpadu *Guided Exploration-Connecting* pada Mahasiswa
pada Materi Trigonometri dalam Pemecahan Masalah

The Predictibility of the Students' Intelligence Quotient,
and the National Examination

Scores to the Students' English Achievement at SMA

Pembelajaran Pemecahan Masalah pada Sistem Persamaan Linear Dua Variabel
bagi Siswa Kelas VIII Madrasah Tsanawiyah

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Daftar Isi

Peran Pendidikan Karakter dalam Rangka Meningkatkan Kecerdasan Emosi Mahasiswa <i>Ekbal Santoso</i>	1
Peran Keluarga dalam Pencapaian Tujuan Pendidikan <i>Endang Wahyuni</i>	10
Pembelajaran sebagai Pemberdayaan Diri <i>Kadeni</i>	17
Enhancing Students' Comprehension in Grammar by Using Hotpotatoes 6 <i>M Ali Mulhuda</i>	22
Budaya Politik Indonesia dan Kewarganegaraan <i>M. Syahri</i>	27
Meningkatkan Partisipasi Politik Masyarakat melalui Optimalisasi Fungsi Partai Politik <i>Miranu Triantoro</i>	41
Hubungan Pendidikan Karakter dengan Kecerdasan Emosional (EQ) <i>Udin Erawanto</i>	49
Meningkatkan Kemampuan Berfikir Mahasiswa dengan Menggali Potensi Diri melalui Pertanyaan atau Gagasan Tertulis dan Memecahkan Masalah Sendiri secara Kelompok .. <i>Agus Budi Santosa</i>	58
Analisis Perilaku Siswa Kelas IV SD dalam Memecahkan Soal Cerita Matematika Berdasarkan Tahapan Analisis Kesalahan <i>Newman</i> <i>Enditiyas Pratiwi</i>	67
Implementasi Pembelajaran <i>Questioning & Claryfying</i> untuk Meningkatkan Pemahaman Matakuliah Geometri Transformasi <i>Kristiani dan Cicik Pramesti</i>	74
Implementasi Kemandirian Belajar dan Prestasi Belajar Mahasiswa <i>Masruri</i>	83
Stylistic Aspect in Scott Peck's in Heaven as On Earth <i>R. Hendro Prasetyanto</i>	88
Penerapan Pembelajaran Terpadu <i>Guided Exploration-Connecting</i> pada Mahasiswa pada Materi Trigonometri dalam Pemecahan Masalah <i>Riki Suliana</i>	97
The Predictibility of the Students' Intelligence Quotient, and the National Examination Scores to the Students' English Achievement at SMA <i>Saiful Rifa'i</i>	106
Pembelajaran Pemecahan Masalah pada Sistem Persamaan Linear Dua Variabel bagi Siswa Kelas VIII Madrasah Tsanawiyah..... <i>Suryanti</i>	121

Petunjuk Penulisan Cakrawala Pendidikan

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3. Semua karangan ditulis dalam bentuk *esai*, disertai judul subbab (*heading*) masing-masing bagian, kecuali bagian pendahuluan yang disajikan tanpa judul subbab. Peringkat judul sub-bab dinyatakan dengan jenis huruf yang berbeda, letaknya rata tepi kiri halaman, dan tidak menggunakan nomor angka, sebagai berikut.

PERINGKAT 1 (HURUF BESAR SEMUA TEBAL, RATA TEPI KIRI)

Peringkat 2 (Huruf Besar-kecil Tebal, Rata Tepi Kiri)

Peringkat 3 (Huruf Besar-kecil Tebal, Miring, Rata Tepi Kiri)

4. Artikel konseptual meliputi (a) judul, (b) nama penulis, (c) abstrak (50–75 kata), (d) kata kunci, (e) identitas penulis (tanpa gelar akademik), (f) pendahuluan (tanpa judul subbab) yang berisi latar belakang dan tujuan atau ruang lingkup tulisan, (g) isi/pembahasan (terbagi atas sub-subjudul), (h) penutup, dan (i) daftar rujukan. Artikel hasil penelitian disajikan dengan sistematika: (a) judul, (b) nama (-nama) peneliti, (c) abstrak, (d) kata kunci, (e) identitas peneliti (tanpa gelar akademik) (f) pendahuluan (tanpa judul subbab) berisi pembahasan kepustakaan dan tujuan penelitian, (g) metode, (h) hasil, (i) pembahasan, (j) kesimpulan dan saran, dan (k) daftar rujukan.
5. Daftar rujukan disajikan mengikuti tatacara seperti contoh berikut dan diurutkan secara alfabetis dan kronologis.

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6. Naskah diketik dengan memperhatikan aturan tentang penggunaan tanda baca dan ejaan yang dimuat dalam *Pedoman Umum Ejaan Bahasa Indonesia yang Disempurnakan* (Depdikbud, 1987).

THE PREDICTIBILITY OF THE STUDENTS' INTELLIGENCE QUOTIENT, AND THE NATIONAL EXAMINATION SCORES TO THE STUDENTS' ENGLISH ACHIEVEMENT AT SMA

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Abstrak: Tujuan dari penelitian ini adalah untuk mengetahui: 1) apakah IQ siswa dan nilai ujian nasional bahasa Inggris berpengaruh terhadap prestasi bahasa Inggris siswa, 2) apakah nilai ujian nasional bahasa Inggris mempunyai pengaruh yang dominan terhadap prestasi bahasa Inggris siswa. Hasil penelitian menunjukkan: 1) nilai F_{hitung} 213.049 dengan derajat kebebasan (dk) 2 dengan 125, dan probabilitasnya adalah 0.000. karena F_{hitung} 213.049 > 3.06 F_{table} maka dapat disimpulkan bahwa IQ siswa dan nilai ujian nasional bahasa Inggris berpengaruh terhadap prestasi bahasa Inggris siswa; 2) hasil penelitian menunjukkan bahwa koefisien $\hat{\alpha}$ dari nilai ujian nasional bahasa Inggris = 0.659 > $\hat{\alpha}$ dari IQ siswa = 0.342. sehingga dapat disimpulkan bahwa nilai ujian nasional bahasa Inggris memiliki pengaruh yang dominan terhadap prestasi bahasa Inggris siswa.

Kata kunci: prediksi, tingkat kecerdasan, nilai ujian nasional dan prestasi siswa.

Abstract: The purposes of this research tries to know : 1) Whether the students' IQ and UN scores have significant influence simultaneously to the students' English achievement, 2) Whether the UN scores have dominant influence to the students' English achievement. The results of the research, 1) it is found that $F_{observed}$ is 213.049, degrees of freedom (df) are 2 versus 125, and the probability (sig) is 0.000. Since $F_{observed}$ is 213.049 > 3.06 F_{table} with degrees of freedom (df) 2 versus 125, it can be concluded that the hypothesis is accepted, or on the other words, UN score and IQ have significant influence simultaneously to the students' English achievement; 2) it is clear that coefficient of $\hat{\alpha}$ of UN score = 0.659 > $\hat{\alpha}$ of IQ = 0.342 so it can be concluded that the hypothesis is accepted, or on the other words, UN score has dominant influence to the English achievement..

Key words: the predictability, intelligence quotient, national examination score and students' achievement.

INTRODUCTION

Language plays a very important role in human life. As social creatures, people need to communicate, to interact with others, to convey their thought, to express wishes, and

to give information. Human beings, therefore, have to have and use language to make communication easier. Spolsky (in Ashari: 2007) says that one principal use of language is to communicate the meaning, but also to estab-

lish and to maintain relationship. Asrul (2008) also says that Language is instrument of communication and we need it in social relationship.

Bloomfield (in Ashari: 2007) states that English is used widely all over the world, it is used for business, diplomacy, science, culture, and education. To improve the students' competence in English, our government keeps on developing the educational curriculum and trying to find out the most suitable methods and testing techniques to succeed the teaching and learning process.

Testing technique is a way of measuring the students' mastery of the instructional objectives for the sake of evaluation. Brown (2004: 3) states that a test, in simple terms, is a method of measuring a person's ability, knowledge, or performance in a given domain. Ary (2002: 216) has said that a test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned. Next, Some tests measure general ability, while others focus on very specific competencies. Brown (2004: 4) says that a well-constructed test is an instrument that provides an accurate measure of the test-taker's ability with in particular domain. The components of test are an instrument, a set of techniques, procedures, items, and the performance on the part of test taker. The types of the test are multiple-choice questions with prescribed correct answers; a writing prompt with a scoring rubric; an oral interview based on a question script and a checklist of expected responses to be filled in by the administrator. There are many kinds of tests, each of which with a specific purpose and a particular criterion to be measured in language curriculum: entrance test, placement test, pre- tests, formative test, achievement test, and National examination.

National examination or the so called *Ujian Nasional* which is usually abbreviated into UN is the evaluation system done nationally by the government beginning from elementary upto Senior High Schools. In accordance with the Educational Law number 20, in the year of 2003, the purpose of the UN is to control the quality of the education nation-

ally. Furthermore, the UN is held periodically, thoroughly, transparently and systematically to measure the result of the national standard of education.

The school uses the score of *Ujian Nasional* (UN) to select new students. The school must also be required to hold Intelligence Quotient (IQ) test. Mingroni (2007) finds that Some researchers believe that modern education has become more geared toward IQ tests, thus rendering higher scores but not necessarily higher intelligence. Moreover, in teaching-learning process students are influenced by external factors and internal factors. External factors consist of conditions surrounding the students, e.g. their family, economic condition, their friends, environment, and etc. The America Association Psychological (1989) found that individual differences in intelligence are substantially influenced by genetics and that both genes and environment, in complex interplay, are essential to the development of intellectual competence. Internal factors are factors which come from the students' themselves. They include the students' intelligence. Wikipedia (2010) defines Intelligence Quotient (IQ), a measure of intelligence, as a score derived from a set of standardized test that are developed with the purpose of measuring a person's cognitive abilities ("intelligence") in relation to their age group.

Intelligence is not the same at different ages and every individual has own ability. The American Psychological Association (1995) report: Individuals differ from one another in their ability to understand of complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning, and to overcome obstacles by taking thought. Although these individual differences can be substantial, they are never entirely consistent: a given person's intellectual performance will vary on different occasions, in different domains, as judged by different criteria. Concept of "intelligence" are attempts to clarify and organize this complex set of phenomena.

Intelligence is an umbrella term describing a property of the mind including related abilities, such as the capacities for abstract

thought, understanding, communication, reasoning, learning, learning from past experiences, planning, and problem solving (Wikipedia: 2010). According to Spearman (1994) that intelligence is a person's capacity to (1) acquire knowledge (i.e. Learn and understand), (2) apply knowledge (solve problems), and (3) engage in abstract reasoning. And intelligence is the basic capital for the students to develop their achievement at school, including in English lesson. To develop the students' English achievement is not easy, it is not like to turn the palm of one's hand. It requires spirit, attention, hard working, sacrifice and a good comprehension about education. In this process. Teachers have to direct the students to reach the goal of education and to assist students to have competency and capability in their areas.

Intelligence is an important factor in teaching and learning process, because it is one of the most important dimension of human beings in relation with educational achievement. Many people learn about intelligence and its influence on students' success. Test of intelligence is drawn on many skills, which predict students' academic achievement. Sternberg (1997) has been reported that over the years, many studies using a variety of intelligence ('IQ') tests and different methods of assessing language learning have found that IQ scores were a good means of predicting how successful a learner would be. Spearman (1994) states that IQ tests as predictors of social achievement are not biased against people of African descent since they predict future performance, such as school achievement, similarly to the way they predict future performance for people of European descent. High IQ score is not a guarantee that a student will have higher achievement. Wyatt (1930) suggests that Intelligence, especially as measured by verbal IQ tests, may be a strong factor when it comes to learning which involves language analysis and rule learning, intelligence may play a less important role in classrooms where the instruction focuses more on communication and interaction. It is important to keep in mind that

'intelligence' is complex and that individuals have many kinds of abilities and strengths, not all of which are measured by traditional IQ tests. In our experience, many students whose academic performance has been weak have experienced considerable success in second language learning. Beside intelligence, is complex is also an important factor which can improve learning process. Teacher should be able to motivate the students in learning activities. Many students have higher IQ, however, they get lower achievement in some of subjects also in English.

Since in selecting new students, SMA N 1 Kademangan uses the result of National examination or the so called the score of *Ujian Nasional* (UN) from Junior High School and Intelligence Quotient (IQ), the researcher is interested to investigate the effect of the National Examination or the UN scores and intelligence Quotient (IQ) scores to the students English achievement at SMA N Kademangan Kab. Blitar. In this research, the researcher formulates the research problem as follows: 1) Do the students' IQ and UN scores have significant influence simultaneously to the students' English achievement? 2) Do the UN scores have dominant influence to the students' English achievement? The purposes of this research tries to know: 1) Whether the students' IQ and UN scores have significant influence simultaneously to the students' English achievement, and 2) Whether the UN scores have dominant influence to the students' English achievement

Based on the theoretical references, the researcher formulates the following hypothesis: 1) The students' IQ and UN scores have significant influence simultaneously to the students' English achievement, and 2) The UN scores have dominant influence to the students' English achievement

The variables of this research are intelligence quotient (IQ scores), UN scores, and achievement on English test. The research subjects are the second semester students of SMA N Kademangan Kab. Blitar. They are divided into 8 classes, consisting 32 students in every class, so there are 256 students who

are used as the subject of the research. In this research, the researcher uses documentary and test as instrument to collect the data. The data is the result of IQ test and UN score. The English achievement score of the second semester is gained by giving the students English test administered by the researcher. Because of having some limitations, the researcher realize that some methodological weaknesses. The researcher took IQ scores conducted by SMA N Kademangan Kab.Blitar and supported by Malang University, the UN scores were taken from documentation test, and achievement test scores were taken from the result of the English test given by the researcher.

THEORITICAL REFERENCES

National Examination

In the period of 1965-1971 the *Ujian Negara* (State Exam) was done for almost all subjects for students at the end of each of the school level, elementary, middle school and high school. In that period, the schools were given the authority to design and hold the final exam based on the guidelines from the central government. In 1980, the exam system in Republic of Indonesia was changed to be the *Evaluasi Belajar Tahap Akhir Nasional* (National Final Learning Evaluation), commonly shortened as Ebtanas. This exam system (Ebtanas) was implemented for twenty-one years.

In 1998, reform occurred in all sectors of development in Indonesia, including education. The initial reform effort in education touched a number of issues such as decentralized education system, school based management, competence-based curriculum, and portfolio-based assessment. The new form of nation-wide standardized exam was called *Ujian Akhir Nasional* (National Final Examination), popular with the acronym UAN. The subjects tested were Indonesian, English, and math. The government decision that changed National Final Learning Evaluation (*Ebtanas*) with National final Examination (UAN) had

an aim to increase education quality. It is based on the UU no 20/2003 about National Education System and *Kepmendiknas* no 153/U/2003 about National Final Examination (UAN).

In the year of 2003, the passing grade for National Final Examination was 3.01 out of 10.0. As everything was running as expected in 2004 the Ministry of Education decided to raise the minimum threshold for the passing to 4.01.

Under the new cabinet in 2005, the new Ministry of Education was still determined to conduct the similar form of tests, which is given a new name, *Ujian Nasional* (National Examination), shortened as UN. National Examination still uses the same format, testing three subjects, math, Indonesia language, and English to students at the last semester of middle school and high school. Moreover, UN raises the new minimum threshold, from 4,01 to 4.51. Moreover, in the year of 2007/2008, based on the Board of National Education Standard *Badan Standar Nasional Pendidikan* (BSNP) the passing grade of standardized testing was increased. Although the minimum grade was 4.51, the average grade of all subjects is 5.25.

In the year of 2008/2009, the minimum grade was 4.00 for mostly 2 subjects and 4.25 for other subjects. However, the average grade for all subjects increased to be 5.50.

In the year 2009/2010, the criterion of passing was still the same as the year of 2008/2009. The average grade for all subjects should be 5.50, with the minimum grade 4.00 for mostly two subjects and 4.25 for other subjects. English National Examination consist of 50 items, 15 items are for listening and 35 items are for reading comprehension. The test are in the form of multiple choice questions with five options. *Ujian Nasional* which is usually abbreviated into UN is the evaluation system done nationally by the government beginning from elementary upto Senior High Schools. In accordance with the Educational Law number 20, in the year of 2003, the purpose of the UN is to control the quality of the education nationally. Furthermore, the UN is

held periodically, thoroughly, transparently and systematically to measure the result of the national standard of education.

Intelligence

Gardner (1993) defines that a human intellectual competence must entail a set of skills of problem solving — enabling the individual to resolve genuine problems or difficulties that he or she encounters and, when appropriate, to create an effective product — and must also entail the potential for finding or creating problems — and thereby laying the groundwork for the acquisition of new knowledge.

Wechsler, D. (1994) defines also that intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment. Feuerstein, R. (1979) describes intelligence as “the unique propensity of human beings to change or modify the structure of their cognitive functioning to adapt the changing demands of a life situation.” Burt, C. (1931) quotes intelligence as innate general cognitive ability, and Soebroto (1971) says that commonly intelligence can be interpreted as an ability to make a combination, a way to think abstractly, and an ability to make a correction.

Moreover, the term ‘intelligence’ has traditionally been used to refer to performance on certain kinds of tests. These tests are often associated with success in school, and a link between intelligence and second language learning has sometimes been reported. Over the years, many studies using a variety of intelligence Quotient (‘IQ’) tests and different methods of assessing language learning have found that IQ scores were a good means of predicting how successful learner would be. Some recent studies have shown that these measures of intelligence may be more strongly related to certain kinds of second language abilities than to others.

New Views on Intelligence

Intelligence was once viewed strictly as the ability to perform (a) linguistic and (b) logi-

cal-mathematical problem solving. This “IQ” (intelligence quotient) concept of intelligence has permeated the Western world and its way of testing for almost a century. However, research on intelligence by psychologists likes Gardner (1983, 1999) in his theory of intelligence states that he accepted the traditional conceptualizations of linguistic intelligence and logical-mathematical intelligence on which standardizes IQ tests are based. He also included five other “frames of mind” in his theory of multiple intelligences. There are spatial intelligence, the ability to find your way around an environment, to form mental images of reality; Musical intelligence, the ability to perceive and create pitch and rhythmic patterns; body-kinesthetic intelligence, fine motor movement, athletic prowess; intrapersonal intelligence, the ability to understand others and how they feel, and to interact effectively with them; interpersonal intelligence, the ability to understand oneself and to develop a sense of self-identity. Sternberg (1988, 1997) also charted new territory in intelligence research in recognizing creative thinking and manipulative strategies as part of intelligence. All “smart” people aren’t necessarily adept at fast, reactive thinking. They may be very innovative in being able to think beyond the normal limits imposed by existing tests.

Measures of Intelligence Quotient

Intelligence measurement is used to identify the student need at school and intelligence is measured with IQ test. The test consist of “items” and sub scales that use questions or exercises which call upon the individual to make a response. The questions on these tests are arranged into groups that increase in difficulty (Berliner et al, 1984:75).

Binet (1916) has developed the first intelligence test that is called IQ test. For historical reason, the term “IQ” is often used to describe scores on test of intelligence (Neisser et al, 1995). Test of intelligence itself come in many forms. Some use only a single type of item or question; examples include the Peabody Picture Test (a measure of children’s verbal intelligence) and Raven’s progressive

matrices (a nonverbal, untimed test that requires reasoning about perceptual pattern). In IQ test, test-takers may be asked to give the meaning of words, to complete a series of pictures, to indicate which of several words does not belong with the others, and the likes. Their performance can then be scored to yield several sub scores as well as overall score (Neisser et al, 1995).

There have been six editions of the Binet scales, the first until the third edition, the Binet utilized the concept of Mental Age (MA) divided by their Chronological Age (CA). The formula is : $IQ = 100 \times \text{Mental Age} / \text{CA}$. In 1986, the fourth version employs percentile rankings that are converted to an equivalent IQ score, called a "deviation IQ". While the fifth edition of Binet Scales has the ability to identify children with relatively high mental ages and with special education needs. Binet Scales is a completely redesigned test, constructed, like the Wechsler test.

The Wechsler tests are considered today to be the standard by which other IQ tests are judged. Department of Education:2010 states that Wechsler scales are the most usual as an instrument to find the score to gifted students to describe the IQ. The wechsler tests consist of 10 or 11 subtests, the six of these are "verbal", meaning that these questions and their answers are transmitted verbally. The six verbal subtests are: information (measures the test-taker's store of general information), similarities (measures the test-taker's ability to categorize), Arithmetic (measures the test-taker's ability to solve arithmetic problem), Vocabulary (measures the test-taker's range of vocabulary), Comprehension (measures the test-taker's ability to answer common sense questions), Digit span (measures the test-taker's ability to recall a string of digits and to repeat them backward). The other five tests are "performance" (non-verbal). The five performance subtests are: Picture Completion (telling what's missing from various pictures), Coding (The test-taker is shown a table of digits and corresponding symbols, and is then asked to fill in digits for a "message" made up of a string of symbols), Picture Arrangement (arranging pictures so that they tell a story),

Block Design (arranging multi-colored blocks to fit a set of printed designs), Object Assembly (Putting puzzles together, as a measure on non-verbal fluid reasoning). As mentioned above, Wechsler-derived Iqs are adjusted for age to offset the cognitive decline that attends aging. In conducting IQ test, SMA Negeri I Kademangan Blitar is supported by Yayasan Jasa Psikologi Bina Asih Yogyakarta, the Head Office is on Jl Balirejo 1/33 Yogyakarta.

Definition of Achievement

Achievement is defined as something done successfully with effort and skill (Hornby, 1979:8). Another view considers 'Achievement is something achieved' (Brown, 1993). So, there are activities before reaching an achievement. Cambridge supports this definition. He states that achievement is a result brought by such qualities of determination, persistence or bravery (Cambridge, 1995). English achievement is defined as the student mastery of knowledge about the structure of the language and the four basic skills that have been taught by English teacher (Gardner, 1985:12).

According to Ary et al (2002), Achievement tests are widely used in educational research, as well as in school systems. They measure mastery and proficiency in different areas of knowledge by presenting subjects with a standard set of questions involving completion of cognitive tasks. Achievement tests have taken on an additional role of assessing proficiency of students. Proficiency is defined as the amount of grade-appropriate knowledge and skills a student has acquired up to the point of testing. Better teaching practices are expected to increase the amount learned in a school year, and therefore to increase achievement scores, and yield more "proficient" students than before (Wikipedia: 2010).

Achievement tests are designed to measure the knowledge and abilities of students in subject matter areas (Gronlund, 1990). Further, he clarifies "Achievement test is a set of question or problem design to determine how much and individual knows about some subject area". According to Brown (2004) an

achievement test is related directly to classroom lessons, units, or even a total curriculum. Achievement tests are (or should be) limited to particular material addressed in a curriculum within a particular time frame and are offered after a course has focused on the objectives in question. Brown (2004) also says, "Achievement tests can also serve the diagnostic role of indicating what a student needs to continue to work on in the future, but the primary role of an achievement tests to determine whether course objectives have been met...by the end of a period of instruction."

Furthermore, achievement tests are often summative because they are administered at the end of a unit or term of research. They also play an important formative role. An effective achievement test will offer wash-back about the quality of a learner's performance in subsets of the unit or course.

Based on those definitions above, it can be concluded that achievement is effort and skill that have been done successfully in learning English. It can be achieved by the students after they studied materials of lesson and doing the test.

Achievement Decisions

All language teachers are in the business of fostering achievement in the form of language learning. In fact most of the language programs is to maximize the students to achieve a high degree on language learning. Hence, most language teachers will be interested in making achievement decisions. Achievement decisions are decisions about the amount of learning that students have done. Such decisions may involve who will be advanced to the next level of research or which students should graduate. Moreover, decisions should most often be made with the aid of achievement test scores.

Making decisions about the achievement of students and about ways to improve that achievement usually involves testing to find out how much each person has learned within the program. Thus, an achievement test must be designed with very specific reference to a

particular course. This link with a specific program usually means that achievement test will be directly based on course objectives and will therefore be criterion-referenced. Such test will typically be administered at the end of a course to determine how effectively students have mastered the instructional objectives.

Furthermore, Achievement test must be not only very specifically designed to measure the objectives of a given course but also flexible enough to help teachers readily respond to what they learn from the test about the students' abilities, the students' needs and the students' learning of the course objectives. In other words, a good achievements and about the adequacy, of the course. Hence, while achievement test should definitely be used to make decisions about students' levels of learning, they can also be used to affect curriculum changes and to test those changes continually against the program realities.

Review of Previous Related Studies

Ashari, (2007). He found that: 1)Based on the data of F-test shows that the calculated F value is 3.904 with the significance value of F_{observed} is 0.014, which is smaller than alpha 5% (0.05). Therefore H_a is accepted and H_0 is rejected. The conclusion is that the hypothesis is accepted which means that the three independent variables simultaneously give significance influence to the dependent variable. 2)The proportion of variance of speaking which is attributable to the three predictors (adjusted R square) is about 15%. Further analyses of the relative importance of each predictors found that only interest with $t = 3.260, p < 0.02$) significantly contributes speaking performance.

Setiowati, (2006). She found that: The Correlation between students' intelligence and their English achievement was significant with correlation coefficient 0,25. Meanwhile, the correlation between students' interest and their English achievement was significant with correlation coefficient 0.401. at last, multiple correlation of students' intelligence, interest in learning English and English achievement was also significant with the correlation coefficient

0.42. the three correlation coefficients turn out to be higher than the critical coefficient, which was 0.232. So She concluded that intelligence and interest in learning English influenced students' English achievement at SMAN I Sekaran Lamongan.

Ajam, (2008). He found that: The result of the analysis stated that the students' perception toward the quality of English teaching correlates significantly to achievement. The correlation coefficient between achievement and perception score is .678. It means that there is a positive and strong correlation coefficient between achievement and perception. The correlation coefficient between attitude and achievement is .569. It means that there is a positive and moderate correlation coefficient between attitude and achievement. The result of the analysis stated that the perception and attitude are significant to achievement. The significant correlation $r_{X_1X_2Y}$ is .767 and the coefficient of determination (R) is .588. This indicates that 58.8% of the achievement is "accounted for" by perception and attitude and the other 41.2% being independent of perception and attitude.

Asrul, (2008). He found that: The finding of the research reveals that the correlation between the attitudes (X_1), motivation (X_2) and English achievement (Y) is significant. Since, the result shows that the score of $F_{observed}$ is 23.805, while the level of significant is 0.000. It means that attitude toward English learning and learning motivation are significant predictors of English achievement. Further analysis about the roles of attitude toward English Learning and Learning motivation shows that $t_{observed}$ are 2.818, while the level of significant is 0.008. It shows that attitude toward English learning and learning motivation correlates significantly with English achievement. Based on the result above, it can be concluded that: First, there is a correlation between attitude toward English Learning and English achievement of the students at SMA Negeri 1 Ternate. Second, there is correlation between learning motivation and English achievement of the students at SMA Negeri 1 Ternate. And, attitude toward English learning and learning motivation are significant predictors of stu-

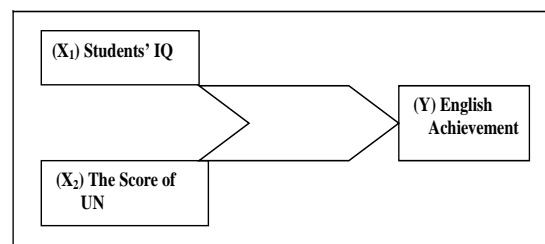
dents' English achievement at SMA Negeri 1 Ternate.

RESEARCH METHOD

Research Design

The research is causal relations between the independent and dependent variables. In this research, the researcher applies correlation and regression design. For the correlation design, the researcher wants to know how the independent variables correlate with the dependent variable while regression design the researcher wants to know how the dependent variable can be predicted by the independent variables, furthermore the researcher wants to know whether the regression analysis can be used to determine the increase and the decrease of the dependent variable, in other words, whether the dependent variable can be effected by the independent variables. The Independent or predictor variables are students' intelligence quotient (IQ); the scores of *Ujian Nasional* (UN), while the dependent variable is the students' English achievement. The following picture is the relation among the variables

Figure 3.1 The Relation between independent variables and the dependent variable



Where:

1. Independent or predictor variables:
 - a. X_1 : the students' IQ
 - b. X_2 :The scores of UN
2. Dependent variable:
 - a. Y : The students' English achievement

Population

The population of this research is all the eleventh year students of SMA N Kademangan Blitar. There are of 8 classes consisting 32 students each, so the total number of all students are 256 students.

Sample

The sampling technique used in this research is cluster proportional random sampling. For cluster sampling: the sample was taken from the students from 8 classes; for proportional sampling: every class consisting 32 students was taken 50%, so there were only 16 students taken as the sample; for random sampling: 16 students from every class was taken randomly. In short, the number of the sample for this research were 16 students x 8 classes = 128 students who were taken by using cluster proportional random sampling technique.

Instrument of the Research

To collect the data the researcher used a set of English test, the document of IQ scores and UN scores. To obtain the students' English achievement the researcher used objective test which was in line with the learning objective designed by the class teacher, while IQ and UN scores were taken from the school document. To find out a good English test, the researcher had measured the validity and reliability of the English test

Validity and Reliability Test

To compute the Validity of the English test the researcher applied Item-Total Correlation, while the reliability of the English test Split-half and Spearman Brown formula was applied and in order to get accurate result, SPSS version 13 was applied

Validity Test

Heaton (1975:153) says that the validity of a test (assessment instrument) is the extent of which it measures what it is supposed to measure and nothing else. According to Hadi (1986:111-116) there are five types of validity: (1) Face Validity, (2) Logical atau Construct Validity, (3) Factorial Validity, (4) Content or Curricular Validity, (5) Empirical Validity.

In every research, it is not possible for the researcher to use all types of validity that is why, in this research, researcher used content validity and empirical validity.

Content or curricular validity is used by the researcher because this research concerns with English syllabus. Cronbach (1986:115)

item analysis (Item-Total Correlation) and there are only 38 items that are valid as they can be seen at the Corrected Item-Total Correlation table, where all scores $r_{count} > r_{tabel}$ 0,288 for N 45, at level of significant 0,05. So it can be concluded that 38 English items test are valid to obtain the data

Reliability of English Test

Lado (1961: 330) states that reliability has to do with the stability of scores for the same individuals. If the scores of students are stable the test is reliable; if the score tend to fluctuate for no apparent reason, the test is unreliable.

There are some techniques can be used to measure instrument reliability. Arikunto (2002:155) has divided the reliability to be two types (1) external reliability and (2) internal reliability. There are two techniques are used for external reliability: (1) double test double trial and (2) single test double trial. For internal reliability, the formula that are used: (1) Flanagan formula, (2) Rulon formula, (3) K-R 20 formula, (4) K-R 21 formula, (5) Hoyt, (7) Cronbach's Alpha formula, and Spearman Brown formula.

Ideally, external reliability yields better result of reliability compared with internal reliability. However, because of the limited time available, Spearman Brown formula is applied in this research.

To compute the data, the Statistical Product and Service Solution (SPSS) for window version 13.00 was applied, and the result of the computation can be seen in table 3.2, below.

Table 3.1 Summary of the Result of Reliability Statistic

Cronbach's Alpha		Part 1	Value	.969
			N of Items	23 ^a
		Part 2	Value	.961
			N of Items	22 ^b
		Total N of Items		45
Correlation Between Forms				.969
Spearman-Brown Coefficient	Equal Length			.984
	Unequal Length			.984
Guttman Split-Half Coefficient				.982

a. The items are: SOAL.1, SOAL.2, SOLA.3, SOAL.4, SOAL.5, SOAL.6, SOAL.7, SOAL.8, SOAL.9, SOAL.10, SOAL.11, SOAL.12, SOAL.13, SOAL.14, SOAL.15, SOAL.16, SOAL.17, SOAL.18, SOAL.19, SOAL.20, SOAL.21, SOAL.22, SOAL.23.

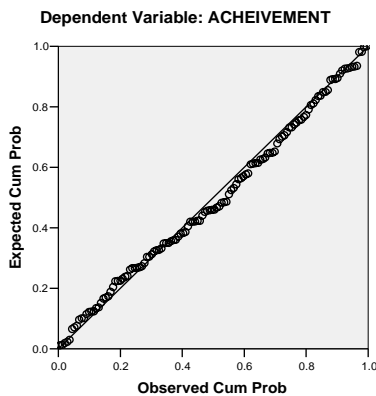
b. The items are: SOAL.24, SOAL.25, SOAL.26, SOAL.27, SOAL.28, SOAL.29, SOAL.30, SOAL.31, SOAL.32, SOAL.33, SOAL.34, SOAL.35, SOAL.36, SOAL.37, SOAL.38, SOAL.39, SOAL.40, SOAL.41, SOAL.42, SOAL.43, SOAL.44, SOAL.45.

In accordance the table 3.1 above, Reliability score of English achievement test shown by Spearman Brown formula is $0.984 > r_{table} 0.288$, for $N = 45$ and it means that 45 items test that is used to measure student achievement is very reliable.

Normality Test

Figure of Normal P-P plot of Regression Standardized Residual

Normal P-P Plot of Regression Standardized Residual



Based on the Figure 4.1 of Normal P-P Plot of Regression Standardized Residual, the distribution of the data is scattered near the regression line which is diagonal, it means that the data of the dependent variable are normally distributed

Hypothesis Testing

Hypothesis 1 which says that UN and IQ scores have significant influence simulta-

neously to the students' English achievement will be proved with F_{test} and the result of statistical calculation is as follows.

Based on the table above, it is found that $F_{observed}$ is 213.049, degrees of freedom (df) are 2 versus 125, and the probability (sig) is 0.000. Since $F_{observed}$ is $213.049 > 3.06 F_{table}$ with degrees of freedom (df) 2 versus 125, it can be concluded that the hypothesis is accepted, or on the other words, UN score and IQ have significant influence simultaneously to the students' English achievement

Hypothesis 2 which says that the UN Scores have dominant influence to the students' English achievement is shown in Beta ($\hat{\alpha}$) coefficient of the regression model, see the table.

Based on the result of the partial regression shown in the table above it is clear that coefficient of $\hat{\alpha}$ of UN score = 0.659 $>$ $\hat{\alpha}$ of IQ = 0.342 so it can be concluded that the hypothesis is accepted, or on the other words, UN score has dominant influence to the English achievement

Theoretical Implication

The question in this section states: "Do the students' IQ and UN score have significant influence simultaneously to the students' English achievement?" In answering this question, an alternative hypothesis has been formulated. The hypothesis is; The students' IQ and UN score have significant influence simultaneously to the students' English achievement

The result of the analysis shows that that $F_{observed}$ is 213.049, degrees of freedom (df) are 2 versus 125, and the probability (sig) is 0.000. Since $F_{observed}$ is $213.049 > 3.06 F_{table}$ with degrees of freedom (df) 2 versus 125, it can be concluded that the hypothesis is accepted, or on the other words, UN score and IQ have significant influence simultaneously to the students' English achievement. In other words it can be said that the UN score and IQ are significant predictor to the students' English achievement

The present finding is in line with the fol-

Table of Analysis of Varian (Anova)

ANOVA ^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3264.923	2	1632.462	213.049	.000 ^a
	Residual	957.795	125	7.662		
	Total	4222.719	127			

a. Predictors: (Constant), IQ, UN_SCORE

b. Dependent Variable: ACHEIVEMENT

Table of Beta Coefficient

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.418	2.911		4.266	.000
	UN_SCORE	5.587	.415	.659	13.479	.000
	IQ	.152	.022	.342	6.996	.000

a. Dependent Variable: ACHEIVEMENT

lowing experts' opinion, Lightbown et al (1999: 52) has reported that over the years, many studies using a variety of intelligence ('IQ') tests and different methods of assessing language learning have found that IQ scores were a good means of predicting how successful a learner would be. The American Psychological Association's (1995) states that IQ tests as predictors of social achievement are not biased against people of African descent since they predict future performance, such as school achievement, similarly to the way they predict future performance for people of European descent. This is also in line with the finding of Setiowati, (2006) further, in Multiple Correlation of students' Intelligence, Interest in Learning English and English Achievement at SMAN I Sekaran, Lamongan stated that the correlation between students' intelligence and their English achievement was significant with correlation coefficient 0,25. And multiple correlation of students' intelligence, interest in learning English and English achievement was also significant with correlation coefficient 0.42.

The Question states: "Do the UN scores have dominant influence to the students' En-

glish achievement scores?" In answering this question, an alternative hypothesis has been formulated. The hypothesis says that UN scores has dominant influence to the students' English achievement.

The result of the analysis of Beta Coefficient ($\hat{\alpha}$) of UN score = 0.659 > $\hat{\alpha}$ of IQ = 0.342 so it can be concluded that the hypothesis is accepted, or on the other words, UN score has dominant influence to the English achievement

The present finding is in line with statement of *UU 20 2003* Chapter 57 that UN is used to control of the education quality nationally and as the form of the accountability of the implementation of education.

Practical Implication

The implication of the finding, that schools are recommended to use UN score in selecting new students, because it has been proved that UN score has dominant influence to the English achievement

In summary, the finding of this research has shown that UN scores and IQ have significant influence simultaneously to the stu-

dents' English achievement. In other words, UN scores and IQ are significant predictors of the students' English achievement scores, and also students' English achievement can be predicted from entrance test scores and IQ. Furthermore, UN scores has dominant influence to the English achievement scores. Intelligence quotient correlates with outcomes such as job performance, social pathologies, or academic achievement (Wikipedia, 2010).

CONCLUSION

- (1) The students' intelligence quotient(IQ), and UN scores have significant influence simultaneously to the students' English achievement scores, in other words, the student' intelligence quotient(IQ), and UN scores are significant predictor to the students' English achievement scores.
- (2) UN scores has dominant influence to the English achievement

In conclusion,. This research has proved that, the students' intelligence quotient(IQ),, and UN scores have significant influence simultaneously to the students' English achievement, in other words, students' intelligence quotient, and entrance test scores can predict the students' English achievement, it can be concluded that students' intelligence quotient, and UN scores have significant influence simultaneously to the students' achievement at SMA Negeri Kademangan Blitar, and also UN score has dominant influence to the English achievement. Therefore, UN scores is useful in selecting new students . Further, intelligence quotient (IQ) is helpful for deciding the students program to higher grade, in other words, intelligence quotient can decide what program the students will be placed

Some Recommendations

Based on the findings, it may be reasonable to recommend the following points:

- (1) Since UN score has dominant influence to the students' achievement. It is recommended that UN score is useful to select new students, beside academic test.

- (2) In applying the intelligence quotient test, It is recommended that the tests must be socialized to school environment, parents, and students themselves.

Areas for Future Research

Based on the research findings, the researcher thinks that there are some limitations found in this research. There are many factors which should have been included, yet could not covered in the research. Therefore, the following points are worth considering for the future research.

- (1) This research is limited only to the second semester students numbering 256 and only 128 students taken as the sample of this research. Therefore, the result of this research is not perfect enough, it is suggested that this research can also be expanded to include more population and sample.
- (2) This research was only done for the second semester. Therefore, it is suggested that the future research will cover all semesters.
- (3) The instruments for this research is a multiple-choice type. This instrument may have different results with the other types of test for the same purposes. Therefore, it is recommended, for the future research, to use other types of test, such as cloze test-type or other types of test. This suggestion is based on the idea that different type of test may give different effects with the same purposes.
- (4) Since the subject of the research were the students of eleventh grade, therefore, it is recommended that, for the future research, the subjects of the research are students from the twelfth grade.

In conclusion, there are many future studies that can possibly be conducted. This research has given the basis for the future research. Since the students' intelligence quotient, and entrance test scores have significant influence simultaneously to the students' English achievement, the future research with similar direction may be conducted. The findings of the researchers will be very useful for

the students as orientation in teaching learning process in the future. The future research with the same direction is most welcome in order to confirm, modify, or reject the finding of the research.

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