

International Journal of Educational Review

Publishes original research both theory and practices in Educational Management; Social Studies Education; Educational Technology; Natural Science Education; Guidance and Counseling; Primary Education; Linguistics Education; Early Childhood Education; and Mathematics Education

E-ISSN 2685-709X

P-ISSN 2685-905X

Volume 2, Issue 1, January-June 2020

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International Journal of Educational Review is published by Doctoral Program, Faculty of Teacher Training and Education, Universitas Bengkulu, which disseminates the latest research findings from educational scientists in many fields of education. More detail, it focuses on publishing original research of educational management, social studies education, educational technology, natural science education, guidance and counseling, elementary education, linguistics education, early childhood education and mathematics education. It is a biannual journal issued on January and July. The editors welcome submissions of papers describing recent theoretical and experimental research related to (1) theoretical articles; (2) empirical studies; (3) practice-oriented papers; (4) case studies; (5) review of papers, books, and resources.

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Android-Based National Examination: Honest Character Applicator

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Received February 22, 2020; Revised February 27, 2020; Accepted March 18, 2020

Abstract: This research originated from concerns about the opportunity to cheat if the test was conducted on computer media and smartphones (Android). This study aimed at determining the process of implementing computer-based and Android-based National Examination (USBN), constraints that may be faced, whether or not there are opportunities for examinees to cheat, effective or not, and whether or not *USBN*-based and computer-based USBN is efficient. In this study, researchers used descriptive research methods by collecting data on interviews, documents, and library sources as primary data sources and secondary data. The implementation of USBN CBT (National Standard School Exams Based Test) is an alternative in minimizing paper use. USBN CBT is more effective and efficient than USBN PBT (Paper Based Test). The results of the study found that: 1) the process and technical implementation of computer-based and android-based USBN in 9 high schools throughout the Banyuasin District of South Sumatra Province differed from one another, 2) There were no severe constraints, 3) There was no opportunity for exam participants to cheat, 4) Very effective because it is easier to practice, 5) Very efficient because it can minimize the use of paper and electricity, especially in USBN based on Android. In the following years, it was strongly recommended to implement computer-based and android-based USBN both in the high school environment throughout the Banyuasin District, in South Sumatra and throughout Indonesia in general.

Keywords: USBN, Android Based, Honest Character Applicator

1. Introduction

Students faced by educators today are generations of Z who were born in the internet era (Kristiawan et al, 2019). Also referred to as the millennial generation born in the era of the 2000s. This generation is a generation that can not be separated from the gadget and Android, which are technology products in the digitalization era. So it is natural that educators must be able to implement technology-based learning. The application of this technology can be in the form of technology-based learning media, technology-based learning methods, technology-based learning resources and can even be technology-based assessment forms.

Android is an operating system and programming platform developed by Google for smartphones and other mobile devices (such as tablets). Android can run on several

devices from many different manufacturers (Google Developer Training Team. 2016. Android Developer Fundamentals)

Science continues to develop in line with the times. The development of science gave birth to technologies that can simplify and improve human life. Innovations are created in the field of Information and Communication Technology (ICT) or also known as Information and Communications Technology (ICT) (Kristiawan, 2014; Kristiawan and Muhaimin, 2019). Innovation focuses on the existence of something that is observed as something new, both for individuals and for society in contrast to modernization that changes traditional to modern (Kristiawan, et al., 2018). The application of Android in USBN is a form of educational innovation.

Information and Communication Technology until now continues to develop and has a high level of mobility and benefits for stakeholders in learning. That is why many laptops are now replacing desktop computers. Likewise, gadgets, tablets or iPads with Android brains continue to replace the position of computers as excellent. When the advancement of Information and Communication Technology combines with Computer technology, it creates products that can answer a variety of possibilities that have not been answered from the original technology. Computer technology according to Rusman (2015) not only supports computing and word processing facilities but also as a multimedia learning tool that enables students to create engineering and design concepts and knowledge.

In other words, the combination of ICT advancements with computer advancements makes what was initially impossible possible. One of them is the implementation of computer and Android-based USBN which in previous eras became a form of evaluation that seemed impossible.

Recently 9 high schools in Banyuasin Regency in South Sumatra province conducted Computer-based and Android-based National Standard School Exams or *Ujian Sekolah Berstandar Nasional (USBN)* on March 19-25, 2019. This was an innovation in the implementation of *USBN* in 2019 which had previously used paper and pencil. Android-based *USBN* is implemented in several high schools, especially for ready schools.

The implementation of the *USBN* is part of the assessment. Assessment as one of the 8 National Education Standards along with the Graduation Criteria Standard or *Standar Kelulusan (SKL)* has a very important role in improving the quality of Indonesian education. Therefore, the implementation of computer-based *USBN* and Android is in line with government policies that continue to innovate in the implementation of the assessment of high school education by

creating standardization assessments in the form of issuing policies on the National Examination or *Ujian Nasional (UN)* and School Examinations or *Ujian Sekolah (US)*.

Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System Article 1 defines the evaluation of education as an activity of controlling, guaranteeing and determining the quality of education for various components of education at each track, level and type of education as a form of accountability for the implementation of education.

According to the Law of the Republic of Indonesia Number 20 of 2003 concerning National Education System Article 57 I Paragraph (1), evaluation is carried out in the framework of controlling the quality of education nationally as a form of accountability of education providers to interested parties, including among students, institutions and educational programs.

Sukardi (2011) revealed that there are 3 important scopes in education evaluation namely learning evaluation, program evaluation, and system evaluation. National Exams and School Exams as part of government policy are part of the evaluation of learning, program evaluation as well as evaluation of the education system in Indonesia.

Based on the results of the author's initial interview with one of the representatives of the Banyuasin district high school curriculum in the South Sumatra Province education service environment on February 14, 2019, there were 9 schools in Banyuasin that carried out the Computer-Based School Test or *Ujian Sekolah Berbasis Komputer (USBK)* and Android with the Computer Based Test system (*CBT*) on March 18-25, 2019. Arikunto (2012) defines the test as a tool to find out something in an atmosphere by means and various rules that have been determined. This test is the latest innovation in the implementation of the US in 2019 in the South Sumatra provincial education department.

The *USBN* questions were divided into two, namely multiple choice questions and essay questions. Budiyo (2015) classifies the types of tests into two, namely the constructed-response test and the selected response test. Based on these classifications, multiple-choice tests can be categorized in the test of choosing answers and essay tests including the test of building answers.

However, there were further concerns about cheating during the implementation of the *USBN* because the use of smartphone media equipped with various specs was feared that it would make it easier for examinees to commit dishonest and fraudulent actions.

The *USBN* with CBT itself has been implemented in several schools in Java. One of them at SMAN 1 Sidoarjo since 2017 has been 100% the implementation of *USBN* using computers. Although the implementation is partly still borrowing students' laptops. (Jawapos, March 21, 2017).

The implementation of computer-based *USBN* and Android has even been carried out in the Ministry of Religion of Wajo Regency, South Sulawesi Province in the 2017/2018 school year. (East-Tribune, 9 April 2018).

The implementation of Android-based *USBN* is also carried out in the province of East Java, which claims East Java to be the only province that runs an Android-based *USBN* in 2019 (medcom.id, March 4, 2019). As the first implementation of *USBN CBT* or *USBK* (Computer Based School Examination) in Banyuwangi Regency, South Sumatra Province, evaluation is certainly needed as one of the considerations in the implementation of similar education policies in the future.

2. Literature Review

Until now, the implementation of assessment standardization in the form of the National Examination is still a polemic even though the National Examination has been held in Indonesia since 2005 replacing the National Examination or *Ujian Akhir Nasional*

(*UAN*). Some circles agree with the *UN* policy as standardization of Indonesian education which certainly has an impact on improving the quality of Indonesian education. Some others do not agree with the implementation of the National Examination because the setting of the same national standards in this country is considered to be incompatible with the diversity of the archipelago. Both in terms of Natural Resources (*SDA*) and Human Resources (HR).

This relates also to public accountability. According to Buhory (2007), public accountability is an obligation for policymakers (making, implementing, and evaluating) to take responsibility for all their actions to the public. With the *UN* and *USBN*, educational policymakers can assess the extent of the impact of the implementation of education policies, including the implementation of the curriculum in Indonesia as a form of responsibility.

However, in line with the changing times and after going through various evaluations of the implementation of the *UN*, a Computer-Based National Examination (*UNBK*) system was replaced by the Paper and Pencil-based National Examination or *Ujian Nasional Berbasis Kertas dan Pensil* (*UNKP*). Where in the course of the *UN* and the *US* are no longer the only benchmark for the graduation of students since 2015. Graduation of students is no longer based on a single factor, namely the National Examination score, but also based on the learning process for attending high school from semester 1 to semester 6. The value of student report cards while studying in high school is evidence of the learning assessment process. So the foundation of students' graduation is not only oriented towards results but on the learning process itself. This procedural transformation later became a polemic reliever arising from the implementation of *UN* policies.

The implementation of *UNBK* will naturally undergo gradual reform and preparation. Beginning with the increase in

UNBK supporting facilities such as computer equipment to servers.

Previously, the *Ujian Nasional Berbasis Kertas dan Pensil (UNKP)* or Paper Based Test (PBT) was simultaneously held throughout Indonesia. Subsequently, this policy was changed to the Computer-Based National Examination (*UNBK*), although not all schools implemented it. This depends on the capabilities and supporting facilities that each school has.

As mentioned on the Ministry of Education and Culture's *UNBK* website. That the *UNBK* is held online for the first time in 2014 and is only limited to Singapore Indonesia Middle School and Kuala Lumpur Indonesia Middle School (*SIKL*). It turns out that the results obtained that the implementation of *UNBK* in both schools are quite encouraging. This is increasingly encouraging to increase students' literacy towards ICT (Information and Communication Technology). Furthermore, gradually in 2015, the *UNBK* pilot was conducted.

The improvement of human resources supporting the implementation of *UNBK* is also a particular concern. Various educational institutions continue to improve, from the central to the regional level. From the island of Java to crossing the islands outside Java such as Kalimantan, Sulawesi, Sumatra, Papua and other islands outside Java continue to improve themselves by equipping their respective educational institutions with IT support facilities.

Previously there had been development research that produced android-based national examination applications such as those conducted by Coal and Indra (2018). This application is designed using a hybrid application development method that is by implementing HTML 5, CSS 3, JavaScript and Java. Based on the results of his research found that this application is quite good and suitable to be used as a medium of learning and strengthening the National Examination. Therefore the use of Android as a *USBK* media can be a solution to the effectiveness

and efficiency of the test implementation. Meanwhile, Rahmah and Susilowibowo (2018) in their research found that Android-based educational games are very suitable for use as enrichment media based on the results of data analysis obtained from validation instruments by material experts and media experts. Besides that, the media of "Android-based educational games as enrichment media" can provide motivation and increase students' interest in participating in learning enrichment activities. Therefore it is very possible to carry out Android-based School Exams in Banyuasin district, South Sumatra.

The transformation in the implementation of the *UN* in Indonesia so far has continued to experience good development. Therefore, the government also made a breakthrough by changing the School Examination (*US*) with an education unit standard into the National Standard School Examination (*USBK*) since 2017. This change increases students' learning motivation towards subjects that are not *UN*-subject due to questions that are done in a national standard *USBK* as well as in the *UN*.

The results of *USBK* scores are also the most important part of the recapitulation of 6th-semester report cards in addition to the daily scores. Furthermore, the results of the recap of students' grades from semester 1 to semester 6 plus the results of the *UN* scores become a major consideration for students' graduation. So the results of the *UN* score is not the only consideration for graduation. This policy was very much approved by various groups, both observers, researchers, academics, and education practitioners.

Although it continues to be a conversation from time to time the implementation of the *UN* and the *US* continues to prove its existence by innovating. Innovation in its implementation is adapted to the spirit of the educational age oriented to technology and information to produce the Computer-Based School Examination (*USBK*).

The development of technology created to facilitate human life. Along with the development of generations of technological sophistication continues to innovate and evolve. The variety of technologies and their utilization is determined by the generation that creates and uses it.

The generation that was born in the 2000s has become a millennial generation that cannot be separated from the sophistication of smart mobile communication devices (smartphones). The android brain is the mainstay of every smartphone. Even the existence of this smartphone tends to be an indicator of the existence of the millennial generation.

This is inversely proportional to human history since humans were familiar with writing and since the Han Dynasty of Ancient, Chinese Civilization introduced papers. Since then human life is inseparable from all forms written on paper. The first revolution in the field of literacy. As it is known that the raw material for making paper comes from wood. Paper production on a large scale raises its problems in terms of forest exploitation for the use of wood as the main basic material in the production of papermaking. Even though trees are a renewable natural resource, the process takes a long time.

The use of paper as a media for exam questions is a problem in itself. This is considered as a form of waste of paper. Besides, the process of distributing paper-based and pencil or pen-based examinations is also a matter of educational funding. Not to mention the problems regarding the systematic correction which certainly relates again to the problem of education funding. Based on these complex problems the government continues to evolve in terms of the implementation of computer-based examinations in stages by encouraging each school to prepare facilities to support the implementation of *UNBK*.

The availability of school facilities and infrastructure according to Siregar (2001) is one of the non-social factors originating from

outside the students and can influence learning conditions.

Several schools also collaborated with parents and the local community in terms of providing support facilities for the implementation of the *UNBK*. The schools that already have complete *UN* supporting facilities and declare themselves ready to run the *USBK* (Computer Based School Examination) are what subsequently carry out the *USBK*.

As what has been done by SMKN 1 Jakarta in 2017 it has held the Android-based *US*. Students who have an HP iPhone OS or Symbian OS and others that support applications by accessing IP addresses on school WiFi devices. Even if an HP error occurs, it is directed at the school computer. (smkn1jakarta.sch.id, 4 April 2017)

Thus through the implementation of *USBK* students can implement digital literacy knowledge that will be very useful for competence and competition later.

This is following the *UNBK* and *US POS* 2019 in the mode of implementation of the *USBK* stated that *USBK* can be carried out by paper-based test mode, computer-based test or a combination of computer and paper. The implementation of computer-based *USBK* considers several things including the following: *USBK* questions must still include multiple-choice forms and description matters, infrastructure readiness, application readiness, and resource readiness.

The implementation of Android and computer-based *USBK* could cause concern in several circles. They are worried that cheating will occur during the *USBK* process, especially Android-based *USBK*. Fraud is an act that does not reflect an honest character. The cultivation of good character must be carried out by changing the habits of bad characters in a mental revolution. As mentioned by Kristiawan (2015) that one way to change the mentality of the nation as part of a culture is through education. During the educational process goes mental revolution that instills the value of good character can be continuously instilled. Even in the process of

evaluating learning as in the process of implementing *USBN*.

It is feared that the use of Android will make it easier for examinees to cheat because of the ease and diversity of access to social media, browsing, searching, and exploring contained in an android device. It is feared that inculcation of character education, especially honest characters, will be hindered by the presence of this computer-based *USBN* and Android. Departing from the concerns of several parties, the writer took the initiative to conduct this research. This research is expected to be able to answer these concerns.

This study aims to determine the process of implementing computer-based *USBN* and Android, the obstacles that may be faced, whether or not there are opportunities for exam participants to cheat, effective or not, and whether or not the implementation of computer-based *USBN* is based on Android and Android.

3. Research Method

This research used descriptive activity analysis research method (activity analysis) to analyze the activities carried out in the implementation of the task (Sukmadinata, 2009). As one form of descriptive research activity analysis, this study uses data collection techniques through interviews, documents and literature studies.

At the interview stage, a systematic one-sided question and answer were guided by the research objectives (Riyanto, 2010). Interviews were conducted by asking questions to several teachers and principals who were implementing computer-based *USBN* and Android. Next is the document data collection. Documents according to Sugiyono (2010) are records of events that have passed in the form of writings, drawings or monumental works. Documents collected in this study include photographs of activities and other supporting documents. While in the literature study the authors collect sources

obtained from the internet, literature, books and other literature relating to research.

The data that was successfully classified based on the collection of data included primary data and secondary data. Primary data were obtained from interviews and documents on the implementation of computer and android-based *USBN* in Banyuasin Regency, South Sumatra Province in 2019. While secondary data were obtained from the results of studies of reference books and other literature that supports research.

4. Results and Discussion

The implementation of computer-based *USBN* and Android at the high school level in Banyuasin district, South Sumatra province, was held for 7 consecutive days from Monday 18 March to Monday 25 March 2019. Subjects tested were all subjects taught in each education unit not only subjects that are *UN*-course.

Schools that implement computer and android-based *USBN* in Banyuasin Regency, South Sumatra Province are SMAN 1 Banyuasin III, SMAN 3 Banyuasin III, SMAN 1 Betung, SMAN 1 Talang Kelapa, SMAN 1 Pulau Rimau, SMA Plus Negeri 2 Banyuasin III, SMAS Al-Mashri, SMA Al-Ihsan dan SMAN 1 Air Saleh.

The implementation of computer-based *USBN* and Android so far has not experienced significant obstacles, both on the part of the students who lack knowledge of the technology and on the part of the exam supervisor. The application used did not experience significant obstacles. However, at SMAN 1 Betung on the first day, Monday, March 18, 2019, it had experienced signal problems, although it was finally overcome. The constraints of natural resources in the form of electricity availability have been overcome by the provision of generators in each school in the event of a power outage.

Meanwhile, the questions are provided in the form of multiple choices where the value comes out immediately when the students finish working on the questions from

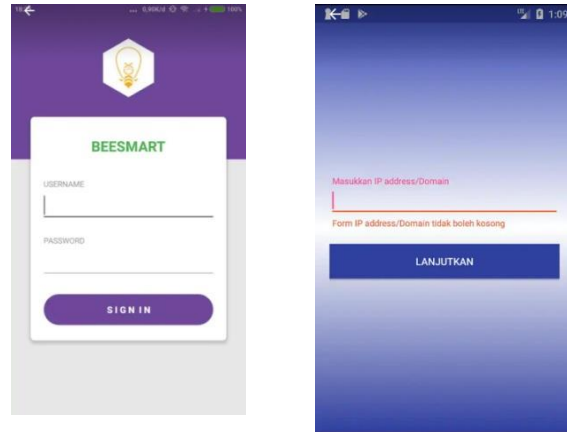
each of their androids as happened in SMAN 1 Betung. This is following *Petunjuk Operasional Standar Ujian Nasional* or *POS UN* and *USBN* 2019. Whereas the essay correction was done manually.

For schools that implement computer-based *USBN* like in SMAN 1 Air Saleh, the implementation process uses a server with a complementary UTP (Unshielded Twisted Pair) cable or twisted/twisted pair cable that functions as a substitute for WiFi networks. UTP is one of the computer hardware in the form of a cable that is used as a liaison or data transmission on a network.

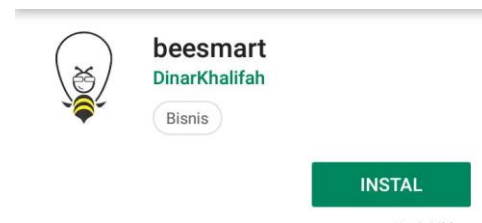
This UTP has advantages compared to WiFi which is an embodiment of wireless internet connection. One of the advantages is that this cable (wire) device speeds up internet connection compared to the connection via wifi as the media.

SMAN 1 Pulau Rimau has used the application "*BEESMART*" through Android by connecting a server on a wireless router that connects multiple computers with internet access. The router functions to divide the network and then forward data from one network to another. This network is in the form of ethernet which is a computer network for local area networks (LAN / Local Area Networks). This network is often referred to as local wifi. As for SMAN 1 Talang Kelapa, which has been running an Android-based *USBN* using the *ZAMBRO* application. The application can be installed easily from Google Play store.

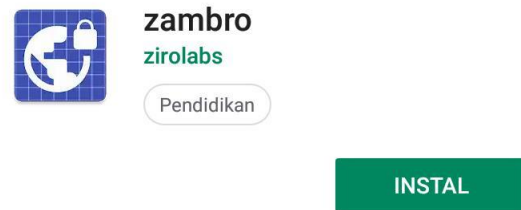
In line with SMAN 1 Pulau Rimau, SMAN 1 Banyuasin III, SMAN 3 Banyuasin III, SMAN 1 Betung, dan SMA Plus Negeri 2 Banyuasin III have implemented Android-based *USBN* with the *BEESMART* application. Meanwhile, SMAN 1 Air Saleh has implemented Computer-based *USBN*.



Pictures of initial display of the *BEESMART* and *ZAMBRO* application



Picture of Display *BEESMART* application on google play store



Picture of Display of *ZAMBRO* application on google play store

Because the writing of essay answers done by students is long, both in computer-based *USBN* such as SMAN 1 Air Saleh and in android-based *USBN* such as SMAN 1 Betung, the answers to essay questions are still written manually on a piece of paper. Correcting the answer is also done manually, not computerized as in multiple-choice questions.



Implementation of Android-Based *USBN*

The use of android as a media for this test is based on recommendations from the South Sumatra Province Education Office for schools and students who 100% have an android. There is no mandatory element in it because there are still many schools that still apply the PBT (Paper Based Test) *USBN*.

This is done because not all schools have adequate human resources and natural resources to support the implementation of computer-based *USBN* and Android. It must also be supported by whether or not the principal is available and not all student schools have an android.

The use of computers and androids as *USBN* media turned out to have a positive impact on honest character education. The implementation in the field shows that this computer-based *USBN* and Android can be an honest character education applicator because exam participants cannot open other applications besides the question application. They can't open search engines like google or social media like WhatsApp which allows cheating and cheating to be far from honest character education.

Other applications besides the exam application will be closed because what is used is the ethernet network, not the internet. The implementation of computer-based *USBN* and Android is the answer to

fears of cheating during exams. From fellow examinees also experienced difficulties when they would cheat because the questions worked on by each examinee were different. Questions are randomized into several problem packages.

Learners focus too much on examinations, both those using computers and those using Android because answers are directly clicked on the application. The processing time is also limited because there is no additional time.

The implementation of the *USBN* CBT has also become an important alternative in efforts to minimize paper use. By *USBN* CBT is more effective and efficient compared to *USBN* PBT.

5. Conclusion

Based on the results of the study of the implementation of computer-based *USBN* and Android in the high school education environment of Banyuasin district, South Sumatra Province, it was concluded that: 1) There are differences in the process and technical implementation of computer-based *USBN* and Android in 9 high schools in Banyuasin Regency, South Sumatra Province, 2) There are no severe constraints, constraints in the form of signal and electricity availability can be overcome properly, 3) There is no opportunity for exam participants to cheat because the *USBN* application automatically closes other applications by using an ethernet connection, 4) *USBN* Computer and Android-based is very effective because it is more easily practiced, 5) Computer-based *USBN* and Android is very efficient because it can minimize paper usage and does not require a lot of electricity, especially in Android-based *USBN*.

In the following years it is strongly recommended that other high schools implement computer and Android-based *USBN* both in the Banyuasin Regency environment in particular as well as in the environment of South Sumatra Province and

throughout Indonesia in general because their effective and efficient levels have a significant effect on the application of honest character education. because there are no opportunities for exam participants to cheat the answers of friends or searching on the internet.

Acknowledgment

The authors gratefully acknowledges the Doctorate Program of Islamic Management Education, Universitas Islam Negeri Sulthan Thaha Jambi, which provided opportunity for this research project. Secondly, we would like to thank for all of the head of the research and social service Board Universitas Islam Negeri Sulthan Thaha Jambi who coordinated and facilitated administration of this research project. Lastly, we would like to thank to Rector IAIN Lhokseumawe who had given supports.

References

- Amaluddin. (March 4, 2019). *Jatim Provinsi Pertama Pakai Android untuk USBN* [East Java Province First Use Android for USBN]. picked April 15, 2019, from <https://www.medcom.id/pendidikan/news-pendidikan/ybJ9PjmN-jatim-provinsi-pertama-pakai-android-untuk-usbn> 4 Maret 2019
- Arikunto, S. (2012). *Dasar-dasar Evaluasi Pendidikan Edisi 2 [Basics of Educational Evaluation 2]*. Jakarta: Bumi Aksara.
- Batubara, M.D. and Indra, E. (2018). Perencanaan dan Pembuatan Aplikasi Pengerjaan Ujian Nasional Tingkat SMP Berbasis Android [Planning and Making of Android-Based National Examination Application for Junior High School Level]. *QUERY: Journal of Information Systems Volume: 02, Number: 02, October 2018 (online)*.
- Budiyono. (2015). *Pengantar Penilaian Hasil Belajar [Introduction to Learning Outcomes Assessment]*. Surakarta: UNS Press.
- Buhory, M.H. (2007). *Akuntabilitas Kinerja Pendidikan [Educational Performance Accountability]*. Malang: Penerbit Universitas Negeri Malang.
- Jawapos.com. (2017, March 21). *USBN Sudah CBT, tapi Pinjam Laptop Peserta didik [USBN is already CBT, but Borrowing Student Laptops]*. picked March 22, 2019, from <https://www.jawapos.com/pendidikan/02/02/2017/komputer-kurang-pinjam-laptop-siswa/?amp>
- Kristiawan, M. (2014). A Model for Upgrading Teachers Competence on Operating Computer as Assistant of Instruction. *Global Journal of Human-Social Science Research*.
- Kristiawan, M. (2015). Telaah Revolusi Mental dan Pendidikan Karakter dalam Pembentukan Sumber Daya Manusia Indonesia yang Pandai dan Berakhlak Mulia [Study of the Mental Revolution and Character Education in the Formation of Clever and Virtuous Indonesian Human Resources]. *Ta'dib Journal, Volume 18, No. 1 (June 2015)*.
- Kristiawan, M., Suryanti, I., Muntazir, M., & Ribuwati, A. (2018). *Inovasi Pendidikan [Educational Innovation]*. Ponorogo: Wade.
- Kristiawan, M., Nizarani., & Syamsidar. (2019). Role of School on Forming Character of Z-Generation Through Entrepreneurial Skills. *International Journal of Scientific & Technology Research*, 8(10).
- Kristiawan, M., & Muhaimin, M. (2019). Teachers' Obstacles In Utilizing Information and Communication Technology. *International Journal of Educational Review*, 1(2), 56-61.
- Rahmah, A. N. and Susilowibowo, J. (2018). Pengembangan Game Edukatif Berbasis Android sebagai Media Pengayaan pada Mata Pelajaran Akuntansi Perbankan Kelas XI Perbankan SMK Negeri 10 Surabaya

- [Development of Android-Based Educational Games as Enrichment Media in Banking Accounting Subjects for Class X Banking at SMK Negeri 10 Surabaya]. *Jurnal Pendidikan Akuntansi. Volume 6 Nomor 3 Tahun 2018*
- Riyanto, Y. (2010). *Metodologi Penelitian Pendidikan [Educational Research Methodology]*. Surabaya: SIC.
- Rusman et al., (2015). *Pembelajaran Berbasis Teknologi Informasi dan Komunikasi: Mengembangkan Profesionalitas Guru [Information and Communication Technology Based Learning: Developing Teacher Professionalism]*. Jakarta: Rajawali Press.
- Siregar, E and Hartini Nara. (2011). *Teori Belajar dan Pembelajaran [Learning Theory and Learning]*. Bogor: Penerbit Ghalia Indonesia.
- smkn1jakarta.sch.id. (April 4, 2017). *Pelaksanaan Ujian Sekolah (US 2017) Berbasis Android [School Examination (US 2017) Based on Android]*. picked March 22, 2019, <http://smkn1jakarta.sch.id/pelaksanaan-ujian-sekolah-us-2017-berbasis-android/>
- Sugiyono. (2010). *Memahami Penelitian Kualitatif [Understanding Qualitative Research]*. Bandung: Alfabeta.
- Sukardi, M. (2011). *Evaluasi Pendidikan: Prinsip dan Operasionalnya [Educational Evaluation: Principles and Operations]*. Jakarta: Bumi Aksara.
- Sukmadinata, N.S. (2009). *Metode Penelitian Pendidikan [Educational Research Methods]*. Bandung: Remaja Rosdakarya
- Tribun-Timur.com. (2018, April 9). *VIDEO: Kabid Pendidikan Madrasah Kemenag Sulsel Pantau USBN-MTs Berbasis Android di Wajo [VIDEO: Head of Madrasah Education Ministry of Religion in South Sulawesi, Monitoring USBN-MTs Android-Based in Wajo]*. picked March 22, 2019, from <http://makassar.tribunnews.com/2018/04/09/video-kabid-pendidikan-madrasah-kemenag-sulsel-pantau-usbn-mts-berbasis-android-di-wajo>
- UNBK.go.id. *Tentang UNBK [About UNBK]*. Typed April 15, 2019, from <https://unbk.kemdikbud.go.id/>