DEVELOPING CHARACTERS THROUGH STEM
(Science, Technology, Engineering and Mathematics)

Theme
The Importance of STEM Learning in Early Years of Education: Pedagogies and Practices
BOOK OF ABSTRACTS

ICECED 2019
International Conference on Early Childhood Education

Developing Characters Through STEM (Science, Technology, Engineering, and Mathematics)

Banda Aceh, Aceh, Indonesia
November 22-23, 2019
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5. Yusliana
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Seksi Publikasi

1. Tati Ariana
2. Al Bahri, S. ST., M. T.
3. Ruhul Hafiz
Seksi Proceeding
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4. Dra. Saudah Anggota
5. Salma Anggota
FOREWORD
Rector of Syiah Kuala University

Dear all participants. Welcome to Aceh, and enjoy your visit and stay in Banda Aceh, the capital city of Aceh, Indonesia. We also welcome you to Syiah Kuala University, a university that started its missions as the center for spreading Islam to the Nusantara in the early 1600s when it was under the Al-Jami‘atul Baitur Rahman (Al-Jami‘atul means a university) with its 17 faculties and 68 departments. This university with its library were located adjacent to the Baiturrahman Mosque and had published thousands of books on Shahadah, Tauhid, Ibadah, Sciences, and others, and sent them to other parts of the countries in the Nusantara.

This university continued to be the center of sciences until it was burned down, together with its library, when the Dutch army stormed Banda Aceh on April 10th, 1873. It was later rebuilt in 1961, and now, with its student population of 32,000, it continues to flourish its teaching, research and community development for the welfares of the Acehnese and Indonesians.

This conference, themed “the Importance of STEM learning in Early Years of Education”, is conducted jointly between Syiah Kuala University and the Aceh Family Welfare and Empowerment (PKK Aceh), aiming at developing awareness among families and other stakeholders of education in Aceh on how important the character is for building our nation. This is the fourth activity where Syiah Kuala University collaborates with PKK Aceh. The first one was on Developing Innovative Pedagogy for Special Education followed by providing services to children with learning disabilities, the second was on Developing Strategic Pedagogies in Teaching STEM (Science, Technology, Engineering, and Mathematics) for teachers of primary and secondary school teachers of Banda Aceh and Aceh Besar, and the third one was on the Roles of Parents in Shaping the Children’s Characters. We have conducted three main events for 2018 alone. We will continue working together with PKK Aceh in empowering women in Aceh.

We do hope that the participants enjoy the presentations from the conference keynote speakers: the Coordinator of Indonesian SEAMEO, the Deputy Rector of International Relations of Fatoni University in Pattani, Thailand, the Fellow Researcher at the Center for Guidance and Counseling of the Sultan Idris Education University, Malaysia, the Deputy Chairwoman of PKK Aceh, and one of the academicians from Syiah Kuala University. Family, as the Prophet Rasulullah SAW said, is the foundation of a nation and the role of PKK Aceh is laying down and developing a strong foundation of our nation.

The university would also like to thank to all members of PKK Aceh, the staff of Syiah Kuala University, the alumni of the Sultan Idris Education University, and to all committee members who have been specifically assigned for this conference. May Allah bless us all.

Banda Aceh, November 22, 2019

Prof. Dr. Ir. Samsul Rizal, M. Eng.
Rector of Syiah Kuala University
FOREWORD
Aceh Family Welfare and Empowerment

The Aceh Family Empowerment and Welfare (PKK Aceh) is working closely with Syiah Kuala University in empowering and in developing the welfare of women in Aceh by expanding its programs beyond its regular ones, focusing on developing awareness among its members on theories and foundations of education for the purposes of laying down characters as guided by the Presidential Decree No. 87, 2017, issued on September 6, 2017. The Deputy Rector of Syiah Kuala University for International Affairs and his special staff is assigned by the Rector of Syiah Kuala University to work closely with us in developing education-related programs. Among the programs that we have been working together this year are: (1) Innovative Pedagogies for Teaching Students with Special Needs followed by providing services to the parents and pupils with special needs, 2) Strategies for Teaching STEM (Science, Technology, Engineering and Mathematics) for teachers of primary and junior high schools of Aceh, and (3) this conference on the Roles of Parents in Shaping Children’s Characters.

The participants for this conference are mostly the members of PKK Aceh, followed by the teachers and lecturers of state and private universities in Aceh, the educators and all stakeholders of education in this province, and international participants from countries in South-East Asian countries. The main purposes of conducting this conference are to expand the horizons of the members of PKK Aceh beyond its regular programs and develop links with other teacher training institutions in Indonesia and abroad. There is also a special workshop on Prodigy participated by selected participants, school principals and STEM teachers held in Banda Aceh. PKK Aceh extends its thanks and appreciations to Syiah Kuala University.

PKK Aceh would also like to thank to its member who has been working closely with Syiah Kuala University, to the special staff of Syiah Kuala University, to the alumni of the Sultan Idris Education University, and others who have been working hard to make this conference a successful forum for our members in expanding their links with national and international education institutions. We would also like to express our appreciations to Dr. Gatot Hari Priowirjanto, Coordinator of Indonesian SEAMEO; Prof. Dr. Shukree Langputeh, Fatoni University, Thailand; Dr. Salbiah……Encik Aziz Mohd Yatim, the Fellow Researcher at the Center for Guidance and Counseling of the Sultan Idris Education University, Malaysia; and to Dr. Qismullah Yusuf as one of the academicians from Syiah Kuala University who have made themselves available to give keynote speeches and provide as well as organise workshop at this conference.

Banda Aceh, 22 November 2019

Dr. Ir. Dyah Erti Idawati, M.Eng.
Deputy Chairwoman of Aceh Family Welfare and Empowerment
# Conference Schedule

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<td>08.45 – 08.50</td>
<td>Lagu Indonesia Raya</td>
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<td>Speaker 1. Prof. Dr. Salbiah binti Mohamad Hasim</td>
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<td>Universiti Pendidikan Sultan Idris, Malaysia</td>
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<td>Speaker 3: Dr. Qismullah Yusuf, M.Ed.</td>
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<td>On Behalf of Prof Shukree Langputeh</td>
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<td>Fatoni Universiy, Thailand</td>
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<td>12.00 - 14.00</td>
<td>ISHOMA</td>
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<tr>
<td>14.00 – 16.00</td>
<td>Parallel Session (5 rooms)</td>
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<td>16.01 – 16.30</td>
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<td>Demonstrasi peralatan STEM</td>
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| **Day 2: Sabtu, 23 Nov 2019** |                                                                 |
| 09.00 – 12.30 | Workshop Prodigy                                                           |
| 12.30 – 14.00 | ISHOMA                                                                       |
| 14.00 – 17.00 | Workshop Prodigy                                                           |
| 17.00         | Penutup                                                                      |
ABSTRACT
Every year, suicide claims the lives of tens of thousands of young people worldwide. Despite its high prevalence and known risk factors, suicidality is often undetected. Early identification of suicide risk may be an important method of mitigating this public health crisis. Screening youth for suicide may be a critical step in suicide prevention. This paper reviews suicide screening in three different settings: schools, primary care clinics and emergency departments (EDs).

This paper reviews suicide screening in school settings. The tool is valid, brief and easy-to-administer screening tools can be utilized to detect risk of suicide in children and adolescents. Targeted suicide screening in schools may be the most effective way to recognize and prevent self-harm. These settings must be equipped to manage youth who screen positive with effective and timely interventions. Most importantly, the impact of suicide screening in various settings needs to be further assessed.

Keywords: Suicide, screening, tool, school
URGENCY OF STEM LEARNING APPLICATION IN EARLY CHILDHOOD EDUCATION: A REVIEW OF LITERATURE

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Abstract
The issue of the existence of the technological revolution 4.0 amid Indonesian society, especially Aceh, encouraged educators to continue to transform the education system. It is, of course, related to the challenges of teachers' readiness, including early childhood teachers, in shaping a smart and intelligent generation of Aceh in the global industrial era 2045. In the future, each generation of Aceh will become a public need and is expected to be able to compete from all sides of life both locally and internationally. With the rapid development of appropriate technology in education, the skills of early childhood teachers are needed in modifying learning. Thus, it can sharpen the mind of students in the fields of science, technology, language, and art. Based on today's data, education in Aceh is left behind than that of other regions in Indonesia. This is far from reality and expectation of the motto "Aceh Carong". This phenomenon continues to motivate educators to renovate and find solutions until the education system can educate its generation according to technological needs. The application of the STEM approach is seen as an innovation in modern education to improve scientific and creative thinking skills. This literature study can answer the objectives, potential, and challenges of STEM application in early childhood education. The study findings are also expected to increase teacher understanding of the importance of applying this approach in early childhood learning and to support the practice of teacher professional development in the future.

Keywords: STEM, Challenges, Objective, Potential
STUDY OF INCLUSION EDUCATION BY USING BEYOND CENTERS AND CIRCLE TIME (BCCT) METHOD IN PAUD GRIYA CERIYA BANDA ACEH

By;
Dian Ayuningtyas¹, Rahmad Syah Putra², Zubaidah³,
Cut Intan Salasiyah⁴, Della Defyanti⁵
STAIN Teungku Dirundeng Meulaboh¹ Universitas Islam Negeri Ar-Raniry Banda Aceh² ³ ⁴ ⁵
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ABSTRACT
This article concerns on The Application of Inclusive Education by using Learning Beyond Centers and Circle Time (BCCT) in PAUD Griya Ceria Banda Aceh. The objectives of this study are to find out two things; First the implementation of inclusive education in BCCT learning in Griya Ceria PAUD Banda Aceh; Second, What kinds of the achievement improved by students after the application of the above method specifically in inclusive education at Griya Ceria Banda Aceh PAUD. The choice of place as a research location is based on several considerations, including: diversity of students which is the philosophy of Integrated Griya Ceria PAUD, so students have the same learning opportunities regardless who they are. PAUD Griya Ceria also recruits children who have special needs (inclusive students). Then, the curriculum applied by Griya Ceria Integrated PAUD also uses the BCCT method. The main data collection techniques in this study are interviews, observation, and study documentation. The results showed that: The implementation of Griya Ceria Integrated PAUD inclusive PAUD education has a very significant progress; and the results achieved in the implementation of inclusive education at Griya Ceria Integrated PAUD bring positive changes in cognitive, affective, and psychomotor of the students when Beyond Centers and Circle Time (BCCT) applied at that school.

Keyword: Inclusive Education, BCCT, and PAUD
Architectural Designs for Disabled to learn STEM: Between Indoor and Outdoor Space

Dyah Erti Idawati, Cut Dewi, Fitriani Insanuri, Muna, Sarah

Abstract

This paper is an ongoing project about the ways architectural designs may facilitate learning and therapy space for disabled children. It evaluates the potentials of outdoor as well as indoor spaces and presents some alternative designs based on this evaluation. A number of observations were conducted at disabled schools in Banda Aceh, Indonesia. They are Kiddos English School and The Nanny Children Center. The literature on relevant studies on schools around the world were also studied as comparisons. The analysis focused on how the schools act as a learning space for disabled children through the implementation of architectural designs. Thus far, the preliminary findings show that outdoor learning has equal, if not even more, potentials as a conventional indoor learning because it enables children to feel the tactile of nature and is a powerful medium through which children can expand cognitive capabilities and authentic experience of the nature at very low cost. Moreover, architectural design may enhance these potentials by creating a user friendly built environment.

WORK FAMILY CONFLICT OF WORKING MOTHER: THE CHALLENGE TO FOSTER HAPPY FAMILY

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Abstract

Number of working mothers continuously increasing year by year. Married woman has chosen to work with the aim that knowledge obtained during study can be applied to daily life. Married woman have other roles beside being a worker, that is as a wife and mother at home. Many role can lead interrole conflict that affected to their work and become stressful. The objective of this research is to examine empirically source of interrole conflict between work and family on working mother. The sampling technique used was quota sampling. The sampling is 200 women whose working on government and company in Banda Aceh, have a husband and children. Measuring instrument used is Work-Family Conflict and Family-Work Conflict Scale developed by Netemeyer, Boles, and McMurray (1996). Data analysis result found that 48% of subjects had higher WFC values, 24% had higher FWC values while the remaining 28% had the same WFC and FWC values. This shows an indication that working mothers in Aceh are more vulnerable to work problems that interfere with family activities than family problems which then interfere with work.

Keywords: work-family conflict, women employee, working mother
Mental Health Literacy for Students and Teachers:
A “School Friendly” Approach

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Abstract

Mental health literacy (MHL) encompasses four components: understanding how to obtain and maintain good mental health, understanding mental illness and treatment, reducing stigma, and promoting help-seeking efficacy. MHL is foundational to mental health promotion, early identification/prevention and intervention. A “School Friendly” MHL intervention, Mental Health and High School Curriculum Guide (the Guide), for secondary school students and teachers, designed to be embedded into the existing school curriculum. In this paper try to outline its impact on knowledge, attitudes, and help-seeking efficacy among students (grades 9 and 10) and teachers in Schools. We also looked at feedback from educators who taught the Guide with regards to the content, lesson plans, and format of the Guide for its future revisions. The Guide may be a “School Friendly” approach to improving both student and teacher MHL, and building the foundation needed for improving mental health outcomes for young people. Its implication can be such recommendations for improving secondary school curriculum in Aceh.

Keywords: Mental health literacy, student, teacher, school
TEACHING EFFICACY TEACHING STRESS OF PRIME SCHOOL TEACHERS

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Abstract

Teaching Stress is a condition caused by the interaction between the individual and the work environment one of them on the limits of teaching activities that have an impact on the psychological and biological aspects of the individual. One of factors that can minimize the stress is teaching efficacy. Teaching efficacy is the teaching ability which includes the ability to determine the success of the students, giving instructing strategic, and capable in the classroom management. The purpose of this study was to explore the relationship between teaching efficacy and teaching stress at teachers high school excellence in Banda Aceh. The participants were 155 teachers high school excellence in Banda Aceh that selected using the Proportionate Stratified Random Sampling. The data were obtained by using Teacher Sense of Efficacy Scale (TSES) that developed by Tschannen-Moran and Hoy (2001) and the scale of teaching stress compiled by researchers based on the theory Sarafino and Smith (2011). The data analyzed by using Pearson Product Moment Correlation showed that there were a significant negative correlation (r = -0.538 p = p <0.05) between teaching efficacy with teaching stress at teachers high school excellence. This illustrates that the higher teaching efficacy and the lower teaching stress obtained. Moreover, the study showed that there were different of teaching efficacy and teaching stress in terms of teaching experience. In general, the research found that the teaching efficacy contribute to teaching at the teachers high school excellence in Banda Aceh.

Keywords : Teaching Efficacy, teaching stress, Teachers High School Excellence Banda Aceh
Curriculum design is not only done by teachers in the formal education environment but it can also be done by parents and children at home. Nowadays with a variety of busy activities of parents, an accompaniment in children's activities was certainly very limited and not maximally done together. Preliminary studies found that the factor was that there was no customization and scheduling of agreed time-sharing together, some were even caused by parents who did not have journal guidelines to start joint activities. Therefore, those children are offered instant media such as television, gadgets and video games at home. So that children are negligent with activities that have been available online. A virtual visual media presentation will be positive if the media can provide services that are appropriate to the age and needs of the child. But it would be very dangerous if the child's not accompanied by parents, because it will make addictions in their childhood. The wrong service will harm children's development. The future of a child is very dependent on the experience gained by the child in the family. Parents as the main motor in building a real family curriculum according to the needs of children. Therefore, the involvement of parents in designing activities with children in an attempt to familiarize the role according to the needs of children freely, real, and able to stimulate the intelligence of life skills. The selection of the steam curriculum is an interesting project to be implemented on a weekend vacation with simple activities, from objects available at home which can be explored by parents with children at home and the environment. The design of activities in this article is a model for parents who want to implement a fun curriculum design with children at home in the success of care and education. The process of implementing education in harmony covers all the efforts made in the process of care, parenting by creating a positive environment where children can explore experiences that can provide opportunities for children to know, understand, provide experience and life skills that are the basis for further development.

Keywords: STEAM, curriculum, project, parental involvement.
Active Learning Media for Electricity Current Topics to Fostering Positive Scientific Character Building at Early Childhood Education in the 21st Century

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Abstract

Based on the results of school monitoring done by the authors, most available props at Early Childhood Education (PAUD) Institutions are passive geometrical objects such as cubes, donuts, and balls, or objects for mechanics activities. In fact, there are many interesting objects can be used as learning props to make children more interested and happy in learning science. For example, the interactive props for learning electrical currents or dynamic electricity. Even though electricity is so close to our lives, we generally did not teach our children to understand it. Considering the importance of teaching electricity and providing learning props for young children, the STEM Research Center of Universitas Syiah Kuala made a simple kit consisting of batteries, flashlights, LED lights, push switches, sliding switches, and three pieces of wire with the tip of a crocodile clip. The kit was adopted from the 2015 ISLE Physware workshop, Preparing 21st Century Physics Teacher held at ICTP Italy, January 25-30, 2015. The prepared props and worksheets were successfully applied at Bungong Seuleupok Kindergarten, Darussalam, Banda Aceh. Results of teachers’ and observers’ monitoring showed that the props and worksheets are extraordinarily attractive to students. The young students’ interest in these new things can foster the character of curiosity as one of the essential characters to become scientists. On the other hand, they worked in groups in a collaborative learning setting. We observed that students developed the skills of sharing and showing mutual respect to their friends during the activities. Good characters and behaviors instilled since PAUD are individual capitals for facing the 21st century’ challenges. Therefore, preparing our young generation to have positive characters will benefit the nation in the future.

Keywords: Early childhood education, STEM electric props, scientific character
THE INFLUENCE OF DHIKRULLAH BREATHING TECHNIQUES IN IMPROVING RELAXATION IN THE BRAIN TO BUILD CHILDREN CHARACTER

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Abstract
Dhikrullah as the main worship in Islam has not been applied in increasing relaxation of emotions as an important element in shaping the character of children. The topic of dhikrullah’s relationship with children's emotions needs to be raised because there are billions of children who need serious attention about their emotional development. This study is an academic response in explaining the influence of Dhikrullah in forming of children's character. Qualitative data to find the Dhikrullah model and quantitative data to see the effect of Dhikrullah on human brain waves. Samples were obtained from 10 subjects by recording dhikrullah aloud using Electro Encephalo Graf (EEG). The results of the study showed 3 main findings. First, Dhikrullah is useful for presenting alpha waves that have an emotional connection with the subject's brain. Second, the dhikrullah breathing technique is able to influence the emotions of subjects. Third, the dhikrullah breathing technique can increase relaxation that affects emotions in the child's brain. Therefore, the authors consider that dhikullah breathing technique to build children's character is a new approach. The UNICEF can use dhikullah's breathing techniques to help the development of emotions to build the character of children around the world through the dhikrullah approach.

Keywords: breathing, dhikrullah, brain, relaxation, emotions.
Abstract

Nowadays, a lot of anxiety faced in government, academia and industry in preparing next generation workplace skills that are able to compete in the future. The 21st centuries fields work are not only limited to the STEM knowledge area, but rather than that. STEM is not only translated into the fields of Science, Technology, Engineering and Mathematics, but far beyond developing children characters that are needed to be struggle and competent in the future. Being a successful person in daily life activities, characters play an important role especially in 21st century. The characters needed in 21st century learning such as collaborative, communicative, creative and innovative, also critical thinking. Working with other must be able to collaborate and adapt with theirs perspectives, respect the opinion or coordinate with each other. Critical thinking help workers to find the solutions for solving every problem faced. Communication not only about reading, writing, active listener, understanding the document, but also the ability to communicate in front of others confidently. Creative and innovative characters are one component that needed for developing the country especially in technology. These characters must to be train starting from preschool level and must be applied in everyday life. The characters can easily apply throughout learning in the school environment, family daily activities or communities. Characters development can be achieved when all parties such as family, school, community and country can seriously prepare it.

Keywords: STEM Education, School and Family Involvement, Developing, Early Childhood, 4Cs of 21st Century Learning
Abstract

Article 24 of the United Nations Convention on the Rights of Persons with Disabilities declares children and adolescents with disabilities have the right to be part of regular classroom programs, to have reasonable accommodations made for them, and to have “effective individualized support measures in environments that maximize academic and social development, consistent with the goal of full inclusion.”

In this paper, I would like to outline way in which this important goal can be actualized, which is the screening special children in elementary school. First, the evaluation describes the student. It talks about the student's strengths and weaknesses. It looks at the student's development in many different ways. The goal is to learn all of the different ways that the student's disability gets in the way of learning. Second, it figures out what the student needs in order to learn. By knowing the student's strengths and weaknesses, the school can figure out the best ways to help the student learn.

Screening procedures are an important part of the assessment process to identify children and youth who have disabilities. Such procedures must be used with care, however, as they provide only a preliminary sign that a child has a disability. Additional testing is required to affirm or disprove the presence of a handicapping condition. If a disability is identified during follow-up assessment, the focus shifts to providing the student with an appropriate education.

Keywords: students, special needs, inclusive education
Penerapan Inkuiri pada pembelajaran Sains berbasis STEM
Oleh: Maitanur, S.Pd,M.M

Abstract
Science Class enhances the Process of Critical Thinking in Dyslexic Children

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Abstrak

Critical thinking is to understand the problem deeper, able to solve problems with various approaches and perspectives. In children with dyslexia, critical thinking problems occur because they have difficulty thinking systematically and systematically. This is caused by neurological factors in children with dyslexia. Good and proper care will help children with dyslexia to solve problems according to their abilities. Fun learning models and applications for dyslexic children are one of the best methods for them because dyslexic children have a greater right hemisphere. The right hemisphere is related to intuition, creativity and visual abilities. So creative learning and innovation are the most effective ways to improve the critical thinking skills of those suffering from dyslexia. The purpose of this study is to find innovative and creative learning models or styles that are very attractive to dyslexic children to stimulate the development of their thinking. Learning science (science) through direct training in children allows children with dyslexia to learn in their own fun ways. This research is a classroom action research using the Kemmis and Taggart model which was conducted 12 times which is an approach that gives treatment to one group and then the results will be analyzed through Descriptive Statistical Analysis. Subjects in this study were dyslexic children with male sex aged 13 years from 2. This research is expected to create a new paradigm for the world of education, especially for children with dyslexia.

Keywords: Dyslexia, science class, critical thinking.
ANALYSIS OF TEACHERS’ EFFICACY IN DEVELOPING CHARACTER

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Abstract

Character development is crucially needed in Indonesia because of continuous moral degradation occurs among Indonesia young generation. However, not easy for a teacher to accomplish develop character. Teachers and educators, in general, should have solid confidence in order for them to be successful in promoting a good character to their students. The teacher’s perception of their teaching self-efficacy includes a whole set of beliefs about their own ability to teach and to exert a positive effect on student learning. These beliefs are linked to behaviour patterns that teachers show in the classroom, and that establish marked differences in the type of teaching and in the strategies and methodologies used by teachers in their daily practice. The aim of this study was to analyse teachers’ beliefs and their relationship to students’ perceived learning. Using quantitavive approach with descriptive analysis, this study examines 120 teachers from 23 districts in Aceh. Using the general efficacy scale, this study found the following: 1) there were 78.3% of teachers with high efficacy and 21.7% teachers with moderate efficacy. 2) Adult age teachers have higher self-efficacy than younger age teachers.

Keywords: Teacher, Efficacy, Aceh
Abstract

As time goes by, the world of telecommunications is growing, which is marked by the presence of various facilities in obtaining information and also the emergence of various digital media (channels) for communication. This digital communication certainly has an effect, one that captures the attention of many parents is the rise of cyberbullying behavior. Cyberbullying is bullying (or harassment) that is carried out in cyberspace (digital). This research was conducted on ... adolescents in Banda Aceh, using a Student Needs Assessment Survey (SNAS) prepared by Willard. The sampling technique is taken by using purposive sampling, and data analysis is done using qualitative approach. The results showed that most teenagers would avoid the behavior that has the potential to cause harassment so as not to become a victim. In addition, adolescents feel the problem will only get bigger when they tell the parents when they accept harassment in cyberspace.

Keywords: Adolescents, bully, cyberbullying, digital world, student needs assessment survey
GUIDING EFL STUDENTS IN LEARNING ENGLISH THROUGH HELLO ENGLISH ANDROID APPLICATION

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Abstract

Technology is transforming the way we communicate, socialize, play, shop and conduct business. Besides, the social networking revolution makes the world a small village and gives people opportunities to be independent learners rather than receiving knowledge merely from teachers in a traditional manner. These recent, profound changes place pressure on the traditional models of language learning and teaching, such as teaching in a formal classroom setting. They also present us with challenges to re-design the way we teach and learn English. One new faced of our life today is the widespread use of mobile phones. This widespread use of mobile phones makes it necessary for educationists to find means of utilizing this new trend in teaching. Mobile devices have become an important part of the processes of everyday life. Devices such as smartphones or tablets connect learners to vast information sources and allow for interactivity with others almost wherever they are. This device provides great memory storage, high performance and data transfer rates, which can ultimately be directed for educational purposes such as Hello English. This paper will describe how Hello English Application can help EFL students in learning English. This research was conducted using qualitative analysis methods by sorting out the respond from Hello English User, then analyzing them. In addition, interviews were also conducted with several of them. From the results of the analysis it can be seen that Hello English Can guiding EFL students in learning English because the application is interesting, complete material which also provide fun reinforcement through games and attractive test.

Keywords: EFL, Android, Android Application, Hello English
The effectiveness of newsbroadcasts in teaching listening comprehension: Students’ perception on ESP courses

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Abstract

The policy undertaken by the government at this time is to implement "Making Indonesia 4.0" where one of the targets is to make Indonesia among the top 10 countries with the strongest economy in the world by 2030. Indonesia is reforming its educational curriculum, which emphasizes the STEM (Science, Technology, Engineering, and Mathematics). The aim of this study is to find out students’ perception on using newsbroadcast in teaching listening comprehension for ESP courses. The method used in this study was qualitative approach in order to investigate the students’ perception and their difficulties of the ESP courses delivered in the selected academic units. The subjects of this research are chosen randomly where there were 35 third semester students of Politeknik Kutaraja Banda Aceh asked to respond to the questionnaires. They were considered to meet the criteria of ESP courses students. A questionnaire which was distributed to students comprised eighteen statements. The statements clustered into four parts: (1) Students’ prior knowledge on broadcasts news; (2) Students’ understanding on the structure of the news; (3) Students’ perception on listening to the news; and (4) Students’ difficulties in listening to the news. In addition, to triangulate the data, 4 interview was also employed in data collection process. The data were then analyzed using three-step analysis as suggested by Miles, Huberman, and Sheldon (2013). The results show that the students have positive perception toward the use of newsbroadcast in teaching listening comprehension for ESP courses. Their responses to particular questions also reflect positive evaluation of the course. Hence, it is recommended that teachers or lecturers of ESP courses should use authentic texts and authentic media to show real situations for facilitating learning of ESP because it specializes the vocabulary for particular fields of study.

Keywords: Newsbroadcasts, Teaching, Listening Comprehension, English for Specific Purposes
Policewomen is part of the implementation of the task in providing protection and service to the community, policewomen are required to have totality in work and must be prepared when there is a sudden call of duty and guarding and escorting every day. This includes the type of work that creates multiple role conflicts. One of the factors that influence dual role conflict is the social support of partners, partner social support is encouragement or assistance given by individuals to others. The purpose of this study was to determine the relationship of social support of couples with multiple role conflicts in female police in Aceh police. The sampling technique used is incidental sampling. The research sample amounted to 100 respondents. Data collection using Social support Questionnaire and Work family conflict scale, this study uses Pearson correlation technique which shows the correlation coefficient on social support from (quantity aspect) with multiple role conflict ($r=-0.316$ ($p>0.05$)) while for social support from (quality aspect) with multiple role conflict ($r=-0.301$ ($p>0.05$)). So that it can be interpreted that there is a negative relationship between social support couples with multiple role conflicts in female police in Aceh police.

**Keywords**: Cousal social support, multiple role conflict, female police.
Kelas Beasiswa Disleksia Untuk Guru Aceh

Munadia
Email :

Abstract

Metode

Hasil
Guru Aceh yang ikut di KE sebanyak 200 orang guru dari 113 sekolah di Aceh dan lulus seleksi sebanyak 45 guru dari 28 sekolah yang berhak mengikuti “Workshop One Week Intensif Disleksia” selama satu minggu. Pemahaman guru Aceh terhadap kesulitan belajar secara umum dan disleksia masihlah tertinggal. Data ini diperoleh dari hasil pre dan post test secara online yang diadakan di KE oleh ADI. Evaluasi lanjutan keberhasilan program ini di 28 sekolah, dimana gurunya telah latih sedang dalam proses dengan menggunakan log book kegiatan dari ADI.

Keywords: kelas beasiswa, guru, asosiasi disleksia indonesia
Deteksi Dini Kesulitan Belajar Pada Usia Prasekolah Di PAUD Putik Meulu

Munadia, Eka Kartika Dewi

Belajar dini dapat dilihat dari proses perkembangan anak diusia bawah lima tahun (balita). Deteksi dini faktor kesulitan belajar sudah dapat dilakukan sejak anak usia prasekolah. Hal ini bisa dilakukan oleh guru prasekolah (guru Pendidikan Anak Usia Dini (PAUD)) dengan menguasai milestone development anak di area motorik, bahasa, sosial-perilaku dan kognitif. Kemampuan deteksi dini akan membantu anak mengurangi kesulitan belajar dengan cara memberikan intervensi segera secara terpadu bersama multidisiplin ilmu lainnya. **Tujuan:** melakukan Deteksi dini kesulitan belajar di usia pra sekolah

**Metode**


**Hasil**

Kemampuan deteksi dini perkembangan anak oleh guru PAUD Putik Meulu menggunakan milestone development sangat membantu guru dalam mengajar berdasarkan kebutuhan anak, memberi program tambahan dirumah dan menentukan target yang harus dikuasai anak. Anak yang tertinggal perkembangannya akan bisa diintervensi segera di masa krusial perkembangan, yang akan sangat membantu anak mengejar ketinggalannya dan mengurangi kesulitan belajar yang dihadapinya saat sekolah formal nanti.

**Keyword:** deteksi dini, guru, milestone development
STEAM LEARNING USING APE THROUGH BATIK TO INCREASE EARLY AGE CHILDREN CREATIVITY: A REVIEW OF LITERATURE

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Abstract

APE (Educational Game Tools) is tools and media that teacher could designed as a learning medium to enable learning while playing approaches. APE is usually used to improve the physical and psychological development of kindergarten children. The use of APE can also support the application of STEAM learning in early education. APE can be made using materials from the surrounding environment or from used items. The making of APE can enhance creativity of both teacher and children. Of many APE teacher can utilized in kindergarten leaning, Batik making is a relatively new approach in the utilization of APE. Batik itself is a cultural heritage of Indonesia that still survives and continues to grow through various creative works. Thereby introducing batik activities as APE can stimulate all aspects of the potential and creative power of young children, while fostering a sense of love to maintain the values of the uniqueness of the local culture. This article will cover literature review on how making batik activities benefited children learning as well as how teacher could plan learning activities using APE for batik making which stimulates critical thinking and creativity as a way in implementing science, technology, engineering, art and math learning method.

Keywords: STEAM, APE, batik, creativity
STEM AND LITERACY SKILL IN CHILDHOOD: PROMOTING THE ROLE OF SCHOOL LIBRARY

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Today schools are placing more emphasis on STEM (an approach of learning that based on an idea of educate students in four specific subject- science, Technology, Engeneering and Mathematics). This approach of learning is important because continual advances of technology that affect the way student learn and interact, and the world economy is changing as well. Current jobs may disappear and new job emerge as the impact of advance and automated system of technology. Through STEM students develop skills: problem solving, creativity, critical analysis, teamwork, independent thinking, initiative, communication and digital literacy. In line with above approach, a school library is as school’s physical and digital learning space where reading, inquiry, research, thinking, imagination, and creativity are central to students’ information-to-knowledge journey and to their personal, social, and cultural growth. Despite the emphasis on STEM, literacy skill through reading and writing are still important in curriculum. This article is based on the assumption rather than school choose between the priorities, literacy skill should be integrated with STEM through school library. School library plays its role to support school efforts to develop basic literacy skills of students: skills for finding, accessing and using information for their discipline of STEM from various sources for personal and academic reasons so that students will be information literate through information resources available in school library.

Keyword: STEM, Literacy Skill, Information Resources, School Library,
USING of MANIPULATIVE PUZZLE to IMPROVE CRITICAL THINKING IN RA AL-IKHLAS SOUTH ACEH

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ABSTRACT
Think critically is one of the cognitive aspects to be developed in early childhood. Manipulative puzzle game is one of the Educational Game Tools that can be used to improve children's critical thinking skills. Based on preliminary observations at RA Al-Ikhlas South Aceh, children do not think critically in playing puzzles. Children have memorized the location of the puzzle as a whole because the tools used by the teacher is less interesting in learning, thus affecting the children's low critical thinking skills. The purpose of this study is to determine the efforts of teachers to improve children's critical thinking skills through manipulative puzzles, and to determine the increase in children's critical thinking skills through manipulative puzzles. The research method used was Classroom Action Research (CAR). The instruments used was the form of observation sheets of teacher activities and children's critical thinking skills. The results of the study in Cycle I showed that the activity of teachers was 3.0% and children's critical thinking skills 63.46%. The results of the study in Cycle II, the increase in teacher activity reached 4.0% (Very Good) and children's critical thinking skills 83.17% (Very Good). Comparison of research results shows that using of manipulative puzzle can improve teacher’s activity and children's critical thinking skills.

Keywords: Critical Thinking, Manipulative Puzzle
Relationship between Gratitude and Happiness in Nirmala Orphanage Adolescent in Banda Aceh City

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ABSTRACT

This study aims to determine how the relationship between gratitude and happiness in Nirmala Orphanage adolescents in Banda Aceh City. The approach in this study uses a quantitative method with non-random or purposive sampling technique. The population in this study are all students at the Nirmala Orphanage in Banda Aceh City, amounting to 91 people and the sample obtained is 81 teenagers. The results show that there is a very significant relationship between gratitude and happiness among Nirmala Orphanages in Banda Aceh City. In this study the value of $r = 0.632$ is obtained with $p = 0.000$ ($p < 0.05$) which illustrates that there is a very significant relationship between gratitude and happiness in adolescents of Nirmala Orphanage in Banda Aceh City. This identifies that high gratitude is followed by high happiness, whereas low gratitude is followed by low happiness in teenagers at the Nirmala Orphanage in Banda Aceh City. The relative contribution of gratitude to the happiness of adolescents in the Nirmala Orphanage in Banda Aceh City is 39.9% while 60.1% is influenced by other factors. The size of the relative contribution shows that gratitude contributes greatly to happiness.

Keywords: Gratitude, Happiness, Adolescent Orphanage
Using Robotics to Foster STEM Skills and Positive Characters in Early Childhood Education

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Abstract

Even though there are no consensuses in defining STEM (Science, Technology, Engineering, and Mathematics) skills in the 21st century education, critical thinking, problem solving, creativity, innovation, engineering design thinking, mathematics and statistics, communication, and collaboration are some skills that have been identified as important STEM skills. Studies showed that robotics education helps students develop essential STEM skills in a fun learning environment. In this study, a simple robotics lesson was developed and implemented at an early childhood education institution. A kindergarten class with students around age of six years old participated in the lesson. The goal of lessons are to develop STEM skills in Kindergarten students, to develop positive character in kindergarten students, and to instill pride of Islamic culture and the technological achievements of Muslim communities in the world, as well as to implant the character of loving science, innovation, and engineering. Not only teaching the students how to build a simple robot that can move and do certain maneuver, he instructor also introduced to the students a muslim polymath, Ismail Al Jazari, who lived in the 12th century and is known as one of the fathers of robot in the world. The students showed their excitement on the activities and we observed that they developed the essential STEM skills identified above. Responses of the questionnaire given the observers consisting of early childhood educators indicated that the lesson and module provided are well developed and students engaged well in the instruction. Furthermore, we also observed that students developed positive characters such as caring, sharing, cooperative, responsibility, curiosity, enthusiasm, self confident, proud of their identity as a muslim and loyalty.
Keywords: Early childhood education, STEM skills, positive characters
Parents play a significant role in young children education, including in shaping values. This present study was aimed to investigate how parents involve in value learning program through stem method that occupied at Arrisalah Bilingual Preschool, Aceh Besar and the impact on the students. Stem method was employed in shaping values on students through project base, that students were involved and they explore directly regarding to values that being applied. Parents were reviewed regarding to their involvement in the program. The present study utilized a single case study design with object study was 9 kindergarten B students and their parent at Arrisalah Bilingual Preschool. Data was conducted through observation and interview and analyzed using descriptive-narrative. The result of the present study show parents involvement in value learning program significantly affect students in applying value in their activity, students scored higher in applying values when their parents involve in the program.

Keywords: Parent Involvement, Value Learning, Stem
The Supervision of Parents towards Children’s Smartphone Activities through Family Link Application
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Abstract
Family Link is a parental control application that allows parents to block adult content and manage other applications towards children’s smartphone activities. This study aims to know the benefits of parental supervision towards children’s smartphone activities by using family link application and to explore the impact of using family link application on children. This study apply descriptive qualitative research utilizing interview as the instruments to collect data. The findings point that there are five benefits in using family link application such as alarm for resting, manage child’s schedule, set private content, filter application, and see the location of the child. In addition, the children feel not free because the parents supervise their smartphone usage activities through family but they don't feel pressured about it. The children know that this is one way parents love them.

Keywords: Supervision of Parents, Family Link, Application
MENINGKATKAN NILAI GOTONG ROYONG MELALUI PEMBELAJARAN IPA KONSEP UJI MAKANAN DENGAN PROJECT BASED LEARNING

SYUKRI AMSYAH

Abstrak

Meningkatkan nilai karakter gotong royong siswa perlu ditingkatkan pada setiap pembelajaran di sekolah, khususnya bidang studi IPA. Rendahnya nilai gotong royong siswa di SMP Negeri 38 Takengon menjadi permasalahan yang harus di tangani, penelitian ini bertujuan untuk mengamati peningkatan nilai karakter gotong royong siswa melalui pembelajaran IPA konsep uji makanan menggunakan model pembelajaran Project Based Learning (PjBL). Penelitian ini menggunakan metode deskriptif kualitatif. Teknik pengumpulan data dengan cara wawancara, observasi, dan dokumentasi. Data yang diperoleh kemudian dianalisis menggunakan model analisis suharsimi Arikunto untuk selanjutnya diperoleh kesimpulan. Hasil penelitian pada penelitian ini ada peningkatan dari siklus I ke siklus II sebesar (9,82), pada siklus I nilai gotong royong siswa (75,70), sementara pada siklus II (85,52). artinya ada peningkatan yang signifikan secara klasikal pada siswa kelas VIII SMP Negeri 38 Takengon. Penelitian dikatakan berhasil apabila nilai karakter gotong royong siswa 80. Kesimpulan hasil penelitian yaitu adanya peningkatan nilai karakter gotong royong siswa di kelas VIII setiap siklusnya maka penelitian dihentikan sampai siklus II.

Kata Kunci: Peningkatan, Nilai Gotong Royong, Pembelajaran IPA
Influence of Discovery Learning Model on Ability of Mathematical Reasoning

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Abstract

The ability of mathematical reasoning is one of the abilities that must be possessed by every student in mathematics learning. However, the 8th grade of mathematics in Junior High School number 2 Pariaman, student's mathematical reasoning ability is not optimal. Discovery learning is one of the learning models that can improve the ability of mathematical reasoning. The purpose of this research is to see and describe the differences in the ability of student's mathematical reasoning using discovery learning model with the ability of student's mathematical reasoning using conventional learning. The type of this research is quasi-experiment with the Static Group Design. Based on data analysis the result of the last test that the ability of student's mathematical reasoning using discovery learning model is better than the ability of student's mathematical reasoning using conventional learning.

Keywords— Discovery Learning Model, Mathematics Learning, The Ability of Mathematical Reasoning.
Early childhood is the critical stage of birth to eight years old in developing physical, cognitive, language, social, and emotional aspects that is highly influenced by the environment. At this period, children might be introduced to the advance of technology to enhance their growth especially in language acquisition. The use of the technology supports the governmental program in Science, Technology, Engineering, and Mathematics for character development in the 4.0 era. This study aims to figure out whether YouTube channels are effective in early year children English acquisition as foreign language with 10 early year children and their mothers, living in Banda Aceh and Great Aceh, as the subject of the study. The research is conducted by using descriptive qualitative method through an open-ended interview. The interview guide consists of three main variables that are: (1) The early year children’s background; (2) The frequency, intensity, and monitoring of watching English YouTube channels; and (3) The benefits of English YouTube channels in children’s English acquisition. The significant of the study is to recommend the early childhood practitioners to campaign the advantages of YouTube channels in acquiring English as foreign language.

Keywords: YouTube channels, Early Childhood, English acquisition
STUDENTS' EFFICACY IN LEARNING: A CASE STUDY IN ACEH

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DEVELOPING LOGICAL THINKING ABILITY
EARLY CHILDHOOD THROUGH STEM-BASED CLASSIFICATION PLAY

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Abstract

The ability to think logically is one of the competencies of early childhood who must be developed early. The development of various early childhood competencies occurs through play. The world of children is the world of play. Therefore the game needs to be packaged so that it can develop optimal children's potential. The packaged game needs to be adapted to the present era, the era of the all-digital Industrial Reform 4.0. One way that can be done to develop children's logical thinking skills is through STEM-based classification play activities. The effect of this game is that children can group objects according to color, shape, and size.

Keywords: think logically, classification play activities, early childhood, STEM
SKILLS OF SCIENCE PROCESS IN DEVELOPING EARLY PROBLEM SOLVING SKILLS

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Abstract

This article discusses the application of science process skills in developing problem solving abilities in early childhood. Science is science that discusses nature. Science learning in early childhood has an orientation to learning while playing but does not concern the nature of science itself: science as attitude, process and product. Science learning that is carried out by the PAUD curriculum is involving children directly. So that the knowledge obtained by children is the result of their own formation through a series of investigation activities. Children are faced with a science problem that must be maintained to produce new knowledge. The most appropriate problem-solving effort is to use basic science process skills, beginning with (1) observation involving all five senses which are the basis of all investigative activities beginning with collecting data based on observations, (2) comparing, such as equations and differences from observed objects aimed at analyzing data (3) classifying / grouping objects based on certain characteristics as alternative in problem solving (4) measuring or assessing an object by using a measurement tool as a solution to the problem followed by making conclusions and ending with (5) communicating or conveying new information that was late to be obtained through a series of activities.

Keywords: Science Process Skills, Problem Solving Ability, Early Childhood