

PEMBANGUNAN KERANGKA PENYELESAIAN MASALAH
***ProSkiND* BERASASKAN PERMAINAN BUKAN DIGITAL BAGI**
KANAK-KANAK PRASEKOLAH

SITI KHADIJAH BINTI ANIS

Tesis ini dikemukakan sebagai
memenuhi syarat penganugerahan
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ABSTRAK

Kemahiran penyelesaian masalah merupakan kemahiran yang penting bagi kanak-kanak. Namun masih tidak terdapat panduan untuk guru menjalankan aktiviti penyelesaian masalah. Oleh itu, tujuan kajian ini adalah untuk membangunkan Kerangka Penyelesaian Masalah Berasaskan Permainan Bukan Digital Bagi Kanak-Kanak Prasekolah. Kajian ini menggunakan pendekatan *Design and Development Research Approach type II (DDR)* yang terdiri daripada tiga fasa utama. Fasa pertama, fasa analisis keperluan menggunakan kaedah tinjauan dengan mengedarkan borang soal selidik kepada 130 orang guru prasekolah. Analisis deskriptif digunakan untuk menganalisis data dalam bentuk peratusan, skor min dan sisihan piawai. Dapatan menunjukkan terdapat keperluan untuk membangunkan kerangka ini. Fasa kedua, fasa reka bentuk dan pembangunan komponen utama dan elemen dengan menggunakan *Nominal Group Technique (NGT)* dan *Interpretive Structural Modelling (ISM)* melibatkan 12 orang pakar. Komponen utama dan elemen diterima berdasarkan kepada peratus persetujuan pakar iaitu lebih besar atau sama dengan 70% dan kedudukan setiap elemen berdasarkan kuasa memandu dan kuasa pergantungan adalah berdasarkan undian kesepakatan pakar. Dapatan menunjukkan lima komponen utama serta elemen-elemen telah dibangunkan. Fasa ketiga, fasa penilaian kebolegunaan menggunakan kaedah *Fuzzy Delphi Method (FDM)* berdasarkan pandangan 25 orang pakar melalui borang soal selidik. Dapatan menunjukkan konsensus yang tinggi terhadap kebolegunaan kerangka telah dibangunkan. Pembangunan kerangka penyelesaian masalah ini mempunyai lima komponen utama dan elemennya adalah objektif aktiviti, persediaan guru, peranan guru, peranan kanak-kanak dan penilaian aktiviti mampu menjadi panduan kepada guru dalam melaksanakan aktiviti penyelesaian masalah menggunakan permainan bukan digital. Kajian ini memberi implikasi terhadap kajian iaitu implikasi terhadap amalan, teori, metodologi dan Pendidikan Awal Kanak-Kanak. Oleh yang demikian, guru boleh menggunakan kerangka ini untuk mensimulasikan kemahiran penyelesaian masalah kanak-kanak dengan menggunakan permainan bukan digital dalam aktiviti penyelesaian masalah.

ABSTRACT

Problem-solving skills are essential for children. However, there is still no guide available for teachers to carry out problem-solving activities. Hence, the purpose of this study is to develop a Problem-solving Framework based on Non-Digital Games for Preschool Children. This study was conducted using the *Design and Development Research Approach type II (DDR)* which comprises of three main phases. The first phase, the need analysis phase, used survey method through the distribution of survey forms to 130 preschool teachers. Descriptive analysis was used to analyse data in the form of percentages, mean scores and standard deviations. Findings show that there is a need to develop this framework. The second phase, which is design and development of the main components and elements using *Nominal Group Technique (NGT)* and *Interpretive Structural Modelling (ISM,)* involved 12 experts. The main components and elements are accepted based on the percentages of expert agreement which is greater or equal to 70%, and the rank of each element based on the driving power and dependence power is determined via expert consensus votes. Findings show that five main components and elements were developed. The third phase, usability evaluation phase was carried out using *Fuzzy Delphi Method (FDM)* based on the opinions of 25 experts obtained through survey forms. Findings show a high consensus towards the usability of the framework developed. The development of problem-solving framework based on non-digital games which consists of five key components and their elements namely activity objectives, teacher preparations, teacher roles, children roles and activity assessments could serve as a guide for teachers in implementing problem-solving activities using non-digital games. This study gives an implication towards the practice, theory, methodology and Early Childhood Education. Therefore, teachers could use this framework to simulate children's problem-solving skills using non-digital games in problem-solving activities.

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SENARAI SINGKATAN*Design and Development Research**DDR**Fuzzy Delphi Method**FDM**Interpretive Structural Modelling**ISM**Nominal Group Technique**NGT*

Standard Kualiti Pendidikan Malaysia Gelombang 2

SKPMg2



PTTA UTHM
PERPUSTAKAAN TUNKU TUN AMINAH

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BAB 1

PENGENALAN

1.1 Pengenalan

Pendidikan Prasekolah adalah merupakan satu program yang menyediakan pengalaman pembelajaran kanak-kanak yang berumur empat hingga enam tahun dalam jangka masa satu tahun atau lebih sebelum memasuki ke Tahun Satu (Kementerian Pendidikan Malaysia). Kementerian Pendidikan Malaysia (KPM) mula terlibat secara langsung dalam pelaksanaan Pendidikan Prasekolah setelah mendapat kelulusan Mesyuarat Jemaah Menteri pada 18 Disember 1991 untuk melaksanakan program Prasekolah yang telah dirancang dan dimulakan bagi tahun 1991/1992 (Kementerian Pendidikan Malaysia). Program Prasekolah di bawah Kementerian Pendidikan Malaysia diperluaskan di seluruh negara secara berperingkat-peringkat mulai tahun 2002. Akta Pendidikan 1996 (Akta 550), memperuntukkan Pendidikan Prasekolah dalam Sistem Pendidikan Kebangsaan. Melalui Dasar Pendidikan Prasekolah, Kementerian Pendidikan Malaysia bertanggungjawab untuk memberikan pendidikan prasekolah kepada kanak-kanak yang berumur empat hingga enam tahun.

Selari dengan tujuan program ini, Pelan Pembangunan Pendidikan Malaysia (PPPM) 2013-2025 juga turut mengambil kira kepentingan Pendidikan Prasekolah. Dalam Anjakan Satu PPPM 2013-2025 telah menggariskan tentang penyediaan kesamarataan akses kepada pendidikan berkualiti bertaraf antarabangsa. Sasaran di bawah anjakan ini adalah untuk meningkatkan kualiti prasekolah (Kementerian Pendidikan Malaysia, 2013). Berdasarkan kepada kenyataan tersebut jelas menunjukkan bahawa terdapat kepentingan untuk menyediakan pendidikan yang berkualiti terhadap Pendidikan Prasekolah terutamanya kanak-kanak yang berumur

empat hingga enam tahun. Berdasarkan kepada kepentingan tersebut maka kurikulum prasekolah telah digubal di mana fokus kurikulum ini adalah untuk melahirkan kanak-kanak yang mempunyai kebolehan dan bersosialisasi dengan yakin. Selain itu, kurikulum ini juga berhasrat untuk melahirkan kanak-kanak yang mampu untuk menghadapi cabaran, penyelesaian masalah, berkeinginan untuk belajar dan bersedia untuk belajar seterusnya (Kurikulum Standard Prasekolah Kebangsaan, 2017).

Kurikulum Standard Prasekolah Kebangsaan (KSPK) telah dilaksanakan pada 2010 dan telah disemak semula di bawah dasar baru Pelan Pembangunan Pendidikan Malaysia (PPPM) 2013-2025 yang memenuhi keperluan semasa supaya KSPK ini mencapai standard setanding antarabangsa. Semakan semula KSPK dilakukan pada tahun 2017 dan kemudian standard ini dikenali sebagai KSPK 2017 yang mengandungi standard kandungan, standard pembelajaran dan standard pentaksiran. Dokumen kurikulum ini dinamakan Dokumen Standard Kurikulum dan Pentaksiran (DSKP) yang merangkumi enam tunjang iaitu Tunjang Komunikasi (Bahasa Melayu, Bahasa Inggeris, Bahasa Cina dan Bahasa Tamil), Tunjang Kerohanian, Nilai dan Sikap, Tunjang Kemanusiaan, Tunjang Perkembangan Fizikal dan Estetika, Tunjang Sains dan Estetika, Tunjang Sains dan Teknologi dan Tunjang Ketrampilan Diri. DSKP dan KSPK merupakan panduan utama kepada guru dalam merealisasikan usaha negara bagi menyediakan pendidikan prasekolah bertaraf dunia.

KSPK 2017 memberi penekanan terhadap Kemahiran berfikir Aras Tinggi (KBAT). Kemahiran berfikir Aras Tinggi (KBAT) ialah keupayaan untuk mengaplikasikan pengetahuan, kemahiran dan nilai dalam membuat penaaakulan dan refleksi bagi penyelesaian masalah, membuat keputusan, berinovasi dan berupaya mencipta sesuatu. Tahap pemikiran yang terdapat dalam Kemahiran berfikir Aras Tinggi (KBAT) adalah seperti kemahiran berfikir kritis, kemahiran berfikir kreatif, kemahiran menaakul dan strategi berfikir (Kurikulum Standard Kebangsaan Prasekolah, 2017). Ianya merupakan subkemahiran dalam kemahiran penyelesaian masalah yang perlu dikuasai oleh kanak-kanak yang berumur empat hingga enam tahun. Selain itu, kemahiran ini juga merupakan kemahiran yang perlu dikuasai oleh kanak-kanak untuk mereka mencapai tahap kemahiran penyelesaian masalah secara maksimum (Wallace et al. 1993; Clavio & Fajardo, 2008; Wallace, Cave, & Berry, 2009). Florenge dan Khairul Anuar (2021) menegaskan bahawa untuk mencapai Kemahiran Berfikir Aras Tinggi (KBAT) salah satu kemahiran yang perlu dikuasai oleh murid adalah kemahiran penyelesaian masalah.

Kemahiran penyelesaian masalah adalah merupakan salah satu kemahiran yang penting dan perlu dikuasai oleh kanak-kanak (Clavio & Fajardo, 2008; Sun & Rao, 2011; Artut, 2015; Keen, 2014; Shiakalli, 2014; Nachiappan, Osman, Masnan, Mustafa & Suffian, 2019) dan ianya juga merupakan salah satu kemahiran yang penting untuk dikuasai sebelum mereka melangkah ke alam persekolahan yang sebenar (Keen, 2014; Akcoaglu, 2015). Kenyataan ini turut dibuktikan bahawa kemahiran penyelesaian masalah merupakan salah satu kemahiran yang diberi penekanan dalam Kurikulum Standard Kebangsaan Prasekolah (2017). Kepentingan kemahiran ini telah dibuktikan melalui kajian-kajian lalu (Wallace et al. 1993; Clavio & Fajardo, 2008; Shiakalli, 2014; Keen, 2014; Akcoaglu, 2015) di mana penguasaan kemahiran penyelesaian masalah dapat membantu diri kanak-kanak untuk cemerlang dalam bidang akademik, membantu mereka untuk berfikir dan membuat keputusan dengan cepat dan pantas, dapat membantu mereka untuk meningkatkan perhatian, sebagai perangsang untuk berfikir secara menaakul dan logik, dapat meningkatkan memori, dapat membangunkan daya kreativiti, serta menggalakkan kanak-kanak untuk meneroka (Wallace et al. 2004; Clavio & Fajardo, 2008; Shiakalli, 2014).

Pendekatan belajar melalui bermain merupakan salah satu pendekatan yang sesuai dengan peringkat umur dan tahap perkembangan kanak-kanak (Piaget, 1951; Bruner, 1966; Vygotsky, 1978). Ini kerana menurut Pierce (2013) pendekatan ini dapat memberi kesan yang positif terhadap tahap perkembangan kanak-kanak yang berumur empat hingga enam tahun iaitu tahap perkembangan kognitif (Piaget, 1951), psikomotor (Gallahue & Ozmun, 2006) serta sosio-emosi (Erikson, 1980). Ianya juga diberi penekanan di dalam Standard Pengajaran dan Pembelajaran Kedua yang terkandung di dalam Dokumen Standard Kurikulum dan Pentaksiran (2017) di mana ianya memberi penekanan kepada guru untuk menggunakan pendekatan yang sesuai dengan tahap perkembangan kanak-kanak dan pendekatan belajar melalui bermain adalah merupakan salah satu pendekatan yang dititikberatkan bagi guru melaksanakan pembelajaran dengan menggunakan pendekatan ini.

Pendekatan belajar melalui bermain merupakan pendekatan yang terbaik untuk meningkatkan kemahiran penyelesaian masalah bagi kanak-kanak (Mohammad, Osman & Abdul Aziz, 2021; Hanifah, Vincent, & Muhammad, 2019; Baker, 2014). Oleh itu penggunaan permainan merupakan bahan bantu mengajar yang sesuai digunakan dalam pendekatan ini. Maka permainan yang boleh digunakan oleh guru dalam pendekatan belajar melalui bermain dan selari dengan tahap perkembangan

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VITA

Penulis dilahirkan di Batu Pahat, Johor, Malaysia pada 28 Mac 1985. Beliau mendapat pendidikan pertama di Sek. Keb. Bukit Soga, Batu Pahat, Johor dan mendapat pendidikan sekolah menengah di S.M.K Munshi Sulaiman, Batu Pahat, Johor dan Sekolah Menengah Teknik Batu Pahat, Johor. Beliau telah menyambung pelajaran ke Kolej Matrikulasi Johor, Johor dalam jurusan Sains Fizikal. Seterusnya beliau menyambung pengajian ke peringkat Sarjana Muda Pendidikan Dengan Teknologi (Kejuruteraan Awam) di Fakulti Pendidikan, Universiti Teknologi Malaysia (UTM). Selepas graduan, beliau menyambung pelajaran ke peringkat Sarjana dan dianugerahkan Sarjana Pendidikan Teknikal (Kejuruteraan Awam) di Universiti Tun Hussein Malaysia (UTHM) pada tahun 2011. Beliau berpengalaman mengajar di tiga buah sekolah menengah sekitar negeri Johor. Sepanjang perkhidmatan, beliau juga terlibat aktif dalam bidang *Sciences, Technology, Engineering, Mathematics (STEM)* sama ada di peringkat kebangsaan, negeri dan juga daerah. Pada tahun 2017, Puan Siti Khadijah Anis telah melanjutkan pengajian pada peringkat Doktor Falsafah Pendidikan di Fakulti Pendidikan Teknikal dan Vokasional, Universiti Tun Hussein Onn Malaysia. Dalam tempoh pengajian, beliau telah menghasilkan beberapa buah jurnal scopus dan juga prosiding dalam bidang Pendidikan Awal Kanak-Kanak, Kemahiran Penyelesaian Masalah, Permainan dan *Design and Development Research (DDR)* Selain itu juga, beliau juga aktif melibatkan diri dalam pertandingan sama ada di peringkat antarabangsa dan juga peringkat universiti.