Environment and Social Psychology (2024) Volume 9 Issue 7
doi: 10.59429/esp.v9i7.2845

RESEARCH ARTICLE

Towards inclusive education: A simulation study on improving the education experience of Children with Special Needs (CSN) in inclusive schools in South Kalimantan

Amka*, Mirnawati, Siti Jaleha

Faculty of Teacher Training and Education, University of Lambung Mangkurat, Banjarmasin

*** Corresponding author:** Amka, amka.plb@ulm.ac.id

ABSTRACT

Education is an essential part of the nation's life, and everyone has the right to get an education, including children with special needs and people with disabilities. Children with Special Needs (CSN) experience longstanding physical, intellectual, mental, or sensory limitations that make them different from ordinary people. This study aims to present the best system for children with special needs in inclusive schools in South Kalimantan using the Causal Loop Diagram (CLD) model, which highlights cause-and-effect relationships between system components, as illustrated in the diagram. This research adopts a System Dynamics approach focusing on understanding the behavioral implications emerging from existing structures and uses Powersim software as an instrumental tool. The results showed that the increase in the number of Special Assistance Teachers (SAT) and the increase in individual facilities and programs for Children with Special Needs (CSN) in South Kalimantan increased the number of CSN attending inclusive schools by 8% to 6,387 the following year. This is due to the average of one SAT accompanying one CSN, so the system implemented has succeeded in improving the quality of inclusive education for CSN.

Keywords: inclusive education; children with special needs; system dynamics; special teacher; inclusive schools

1. Introduction

Education is an important part of the survival of a nation and has become an obligation to pay attention to. Education is used as a strategic guideline to develop the quality of education[1]. Children have a period that we call the golden age[2], which will determine the next development of children[3]. Childhood is an ideal time to form the foundation of physical, language, social-emotional, self-concept, artistic, moral, and religious values[4,5]. This is also true in education, where everyone, including children, has equal education rights. Parents and educators in schools are essential to achieving children's educational success[6]. Parents and teachers synergize to optimize development by knowing children's problems[7,8]. The role of power in the education system and its application to schools, teachers, students, and parents greatly influences the education system[9]. However, in achieving education, students face obstacles to achieving their dreams, including children with special needs[10].

Children with special needs experience longstanding physical, intellectual, mental, or sensory

ARTICLE INFO
Received: 25 May 2024 | Accepted: 20 June 2024 | Available online: 26 July 2024

CITATION
Amka, Mirnawati, Jaleha S. Towards inclusive education: A simulation study on improving the education experience of Children with Special Needs (CSN) in inclusive schools in South Kalimantan. *Environment and Social Psychology* 2024; 9(7): 2845. doi: 10.59429/esp.v9i7.2845

limitations that make them different from ordinary people in doing certain things[11]. By law, education for children with special needs (CSN) in Indonesia is regulated by various laws and regulations, which include: 1) Articles relating to human rights, including the right to education for every individual, as stated in Article 28C paragraph (1) of the Constitution of the Republic of Indonesia (RI) 1945. 2) Law of the Republic of Indonesia Number 4 of 1997 concerning persons with disabilities. 3) Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, 4) Regulation of the Minister of National Education Number 70 of 2009 concerning inclusive education for children with special needs and children with special intelligence and special talents. Furthermore, the implementation of inclusive education is further regulated by Regional Regulations in every region in Indonesia[12-13].

According to[14] Mardi Fitri precisely, The classification of disorders of children with needs consists of attention deficit disorder or hyperactivity, behavioral disorders, learning disabilities, mental retardation, and autistic disorders[15]. Baharun, H., and Awwaliyah[15] classifies children with special needs as follows: (1) Sensory disorders, such as vision or hearing disabilities; (2) Mental deviations, including gifted and mental retardation, (3) Communication disorders, including language and speech problems; (4) Learning disabilities, including serious learning problems due to physical abnormalities; (5) Deviant behavior, including emotional disturbances; and (6) Physical and health disabilities, including neurological, orthopedic, and other diseases such as leukemia and developmental disorders.

Each individual with special needs or disabilities has different characteristics, which indicate that each type of Disability has its definition. These individuals need help and support to achieve optimal growth and development. The types of people with mental disabilities and physical disabilities, according to[16] Nanda, A. R., and Herawati, R. are: Mental Disabilities consist of various kinds, including (1) Individuals with High Intellectual Abilities, which are often referred to as intellectually gifted people. They have above average intellectual abilities, coupled with creativity and responsibility towards tasks; (2) Individuals with Low Intellectual Abilities, who have below average intellectual capacity or IQ. This group is divided into two categories: slow learners, who have IQs between 70 - 90, and children with special needs, who have IQs below 70; (3) Individuals with Specific Learning Difficulties, who have difficulty achieving expected learning achievements.

Physical Disability consists of (1) Body Disorders (Disabilities) characterized by movement disorders caused by neuro-muscular disorders and bone structures that are congenital due to diseases or accidents, such as polio and paralysis; (2) Impaired Sense of Vision (Blind) which refers to individuals who experience obstacles in vision. These can include total blindness and low vision, (3) Hearing Impairment (Deafness), which is characterized by obstructions in hearing, either permanent or not. Individuals with deafness may have difficulty speaking, often called speech impairment. (4) Speech Disorder (Speech impairment), which refers to a person's difficulty in expressing thoughts through verbal language, may be caused by deafness or impairment of the speech organs (5) Double impairment (multiple Disability), in which a person experiences more than one type of Disability, both physical and mental[17-19].

Inclusive education as one of the educational innovations for people with disabilities first appeared in an international document in 1994, namely in the Salamanca Statement. Inclusive education aims to create an inclusive learning environment where all individuals can learn together, support each other, and reach their full potential[20,21]. Inclusive schools are regular educational institutions that provide inclusive education by considering all students, both those with special needs and those without[22]. Children with special needs refer to various circumstances and conditions, such as physical, intellectual, social, emotional, mental, intelligence, and special talents, as well as different backgrounds, such as isolated tribes, victims of natural or social disasters, and economically disadvantaged conditions. They can also include children with

differences in color, gender, ethnicity, race, language, culture, religion, place of residence, political group, orphan status, homelessness, or involvement in the juvenile court system. Children with special needs can also include children affected by armed conflict, children of beggars, children affected by HIV/AIDS, children of nomads, and various other circumstances, according to their individual needs and capacities[23] .The implementation of inclusive education in Indonesia is influenced by increasing awareness of the importance of providing equal opportunities to all students, including those with special educational needs. Inclusive education aims to create an inclusive learning environment where all individuals can learn together, support each other, and reach their maximum potential[24]. In Indonesia, the government has recognized the importance of inclusive education and published policies that support its implementation. Law No. 20 of 2003 concerning the National Education System affirms that all citizens have the right to proper and quality education, including those with special needs. However, in reality, many challenges still need to be overcome[25,26] .

Inclusion education is a program the government provides for children with special needs to get the same opportunities as regular students[27]. Inclusive education strives to build a school system that welcomes all students. An inclusive education system is where students with various educational needs can be served in public schools, so the school needs to design laws and education plans that can support students with and without special needs[28]. The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines inclusive education as an effort to strengthen the ability of education systems to include all learners. They explained that the term Special Educational Needs (SEN) refers to children with disabilities who are deemed to need additional support[29]. The challenges faced in education are considerable, especially regarding a broader understanding of inclusive education, availability of resources, and adequate support[30]. Learning and teaching must be tailored to students' needs, especially those with disabilities[31]. Parents of children with disabilities often experience unique challenges that can have a significant impact on their well-being, including a major psychological impact[32].

One of the main challenges is the limited human resources trained in inclusive education. Many teachers and educators do not have sufficient knowledge, skills, and understanding of inclusive teaching strategies and how to manage special educational needs in the classroom. This can affect the effectiveness of learning and engagement of learners with special needs[33]. In addition, the lack of adequate facilities and supporting facilities is also an obstacle to implementing inclusive education. Many schools are not equipped with adequate accessibility, such as ramphals and toilets that can be accessed by students with special needs[34]. In addition, hearing aids, technological devices, and other resources that support inclusive learning are also limited[35] .

There are also challenges in terms of stigma and discrimination against students with special needs. Sometimes, there are still negative perceptions or stereotyped views of their abilities, which can affect their participation in inclusive education. More significant efforts are needed to change perceptions and build awareness about the importance of inclusion in education[36,37]. The implementation of inclusive education in Indonesia is also faced with policy constraints. Although there are national policies that support inclusive education, their implementation still varies in different regions. There are differences in the approach, priorities, and resources allocated[38], for inclusive education in each region[39]. Based on estimates using assumptions from the United Nations, the number of Children with Special Needs (CSN) in Indonesia reaches around 4.2 million individuals. In South Kalimantan alone, the number of school-age children (5-14 years) is estimated to reach 84,078, or about 10% of the total number of school-age children in the region. Currently, the number of children receiving inclusive education in South Kalimantan is only around 5,111 or 6% and there are still 94% who have not received a proper education. So based on the description above,

researchers will make a "Simulation of Improving Education for Children with Special Needs in Inclusive Schools in South Kalimantan." So that it can improve access and quality of inclusive education in South Kalimantan by using a dynamic simulation approach

2. Methodology

This research uses a dynamic systems approach which according to[40] Sterman (2000) in "Business Dynamics: Systems Thinking and Modeling for a Complex World" System Dynamics is used to understand how policies affect complex systems by simulating interactions between various system components.

The System Dynamics approach is to create cause and effect relationships and relationships between several sub-systems that influence each other and form a new system in a circular manner[41]. This method is based on the consideration that the Dynamic Systems approach can represent the relationship of several variables in a system and simulate system behavior if intervention is carried out on the system[42]. This research emphasizes understanding how behavior arises in existing structures and how behavioral implications occur when a policy intervenes in existing structures. The research conducted states that the system dynamics method is an approach that effectively studies the structure and behavior of complex sociotechnical systems in the context of learning, decision making and policy determination in the real world.

Create a dynamic system simulation in inclusive education for children with special needs using powersim software. According to[43] Vennix (1996) in "Group Model Building" highlights the importance of using simulation software such as Powersim to facilitate the understanding and analysis of dynamic systems, allowing researchers to test various scenarios and policies.

The subjects in this study were 5111 Children with Special Needs (CSN) in Inclusive Schools in South Kalimantan based on factors that influence it, such as the number of South Kalimantan Population, South Kalimantan Birth and Death Rate, Children Aged 5-14 Years, CSN Children Aged 5-14 Years, Number of Inclusive Schools in Kalimantan and Number of Special Assistance Teachers. The instrument used in this study used Powersim Software. Data processing creates a causal loop based on components, variables, system attributes, and logical conclusions by looking at correlations. Then, the primary model is made based on its components: level, auxiliary, flow, and constant.

The instrument used in this research used Powersim software. The processing stages are first identifying variables in the system, second collecting data, third creating cause and effect relationships based on logical conclusions by looking at correlations, fourth creating a main model of the real system by entering the formula for each variable, fifth validating the real system, sixth creating a proposed simulation.

3. Findings and discussion

3.1. Population description

Causal loop diagrams (CLDs) focus on cause-and-effect relationships between system components described through curved lines connecting system components, marked with arrows. The arrow's tip with a sign (+) means that the cause affects the effect with the exact change, or the cause will increase the impact. While the (-) sign on the arrowhead can mean cause affects effect with opposite change, or cause will reduce effect. The following variables are linked to the Children with Special Needs (CSN) system in Inclusive Schools in South Kalimantan, namely birth rate, death rate, births, deaths, population, population aged 5-14 years, CSN Preschool 5-14 years, CSN Preschool 5-

6, CSN Enter Preschool, Preschool, Preschool CSN Teachers, CSN Inclusive Preschool, CSN Ends Preschool, CSN Enter Elementary School, Elementary School, Elementary School SCN Teachers, CSN Inclusive Elementary School, CSN Ends Elementary School, CSN Enter Junior High Shool, Junior High Shool, Junior High School CSN Teacher, CSN Inclusive Junior High Shool, CSN Ends Junior High Shool, CSN Enter Senior/ Vocational High School, Senior/ Vocational High School, CSN Teacher in Senior/ Vocational High School, CSN Inclusive Senior/ Vocational High School, CSN Ends Senior/ Vocational High School. The CLD picture of causal relationships between system components is depicted in a diagram as follows:

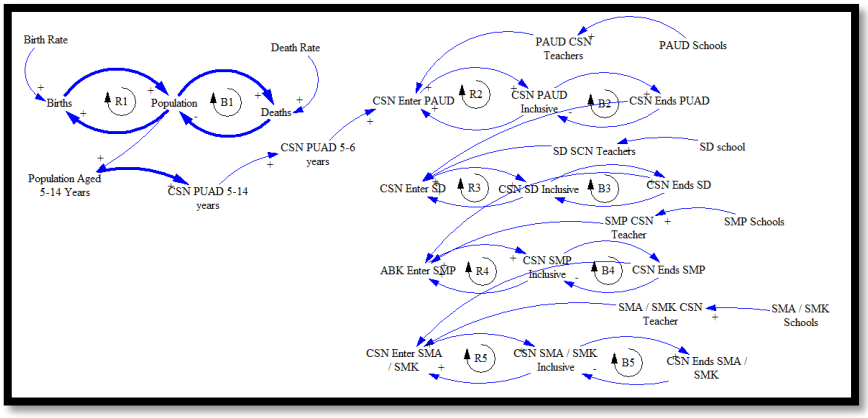


Figure 1. Cousal Loop Diagram (CLD).

A model is a representation or formalization in a particular language (agreed upon) of a real system with the expectation of describing the process of describing the operation of the actual system to explain or show the important relations involved. Furthermore, the data of each variable will be entered and connected in the form of the main model so that the simulation can be run. After that, the education system for children with special needs (CSN) in South Kalimantan Inclusive Schools underwent verification and validation. The simulation results showed that the number of CSN aged 5-14 years in South Kalimantan reached 80,145 people, while those who could access education in inclusive schools were only around 5,111 people or around 6%. More information on related charts, graphs, and tables can be found in the images below.

The main capitals, graphs, and tables can be seen in the picture below:

Symbol	Information
	Population Kalimantan Selatan
	CSN Inclusive Preschool
	CSN Inclusive Elementary School
	CSN Inclusive Junior High School
	CSN Inclusive Senior High School/ Vocational High School

Figure 2. Auxilary components.

Symbol	Information
	birth rate
	death rate
	population aged 5-14 years
	CSN Preschool 5-14 years
	CSN Preschool 5-6
	Preschool
	Preschool CSN Teachers
	Preschool
	Elementary School SCN Teachers
	Elementary School
	Junior High School CSN Teacher
	Junior High School Schools
	Senior High School/ Vocational High School CSN Teacher
	Senior High School/ Vocational High School
	Total CSN Attending Schools

Figure 3. Flow components.

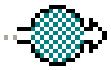
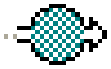
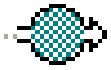
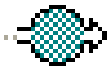
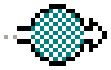
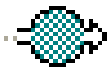
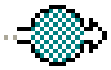
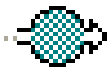
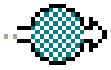
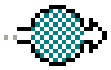
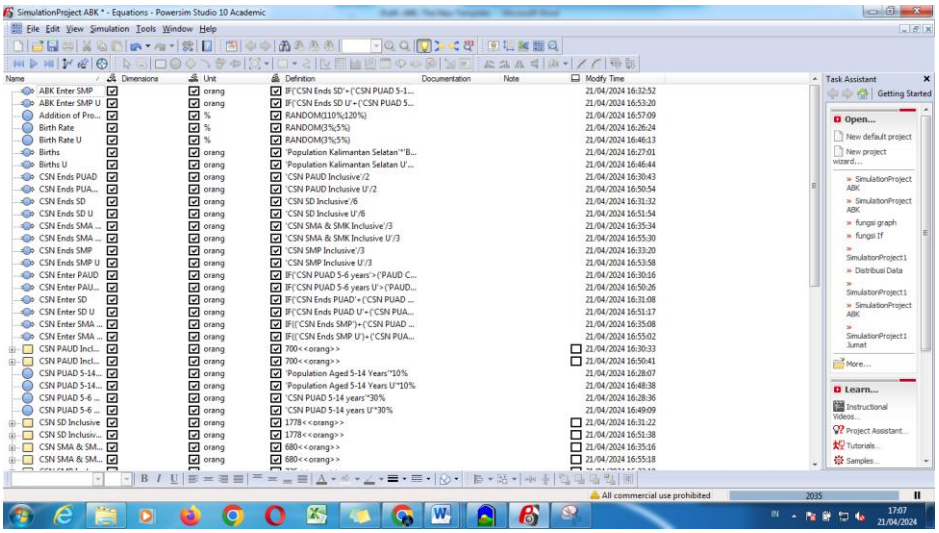
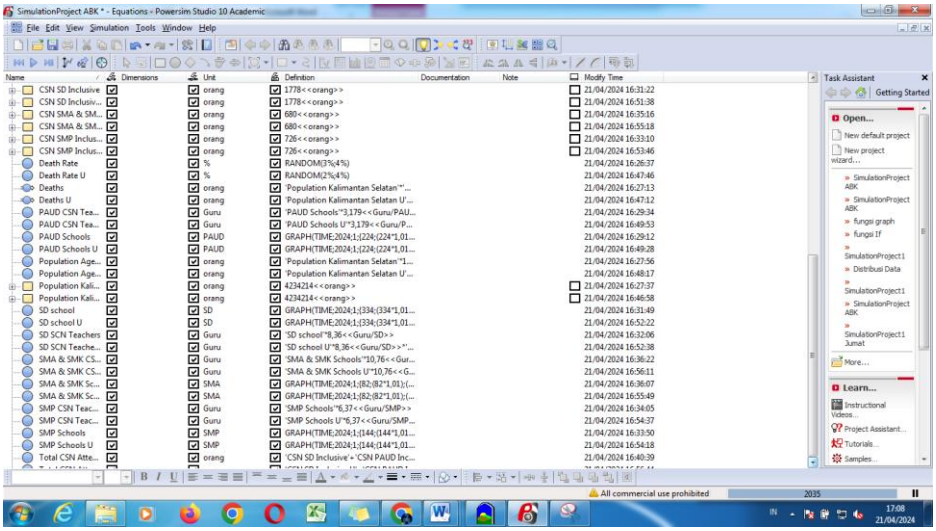
Symbol	Information
	Births
	Deaths
	CSN Enter Preschool
	CSN Ends Preschool
	CSN Enter Elementary School
	CSN Ends Elementary School
	CSN Enter Junior High School
	CSN Ends Junior High School
	CSN Enter Senior High School/ Vocational High School
	CSN Ends Senior High School/ Vocational High School

Figure 4. Flow components.

Tabel 1. Equation window software powersim.





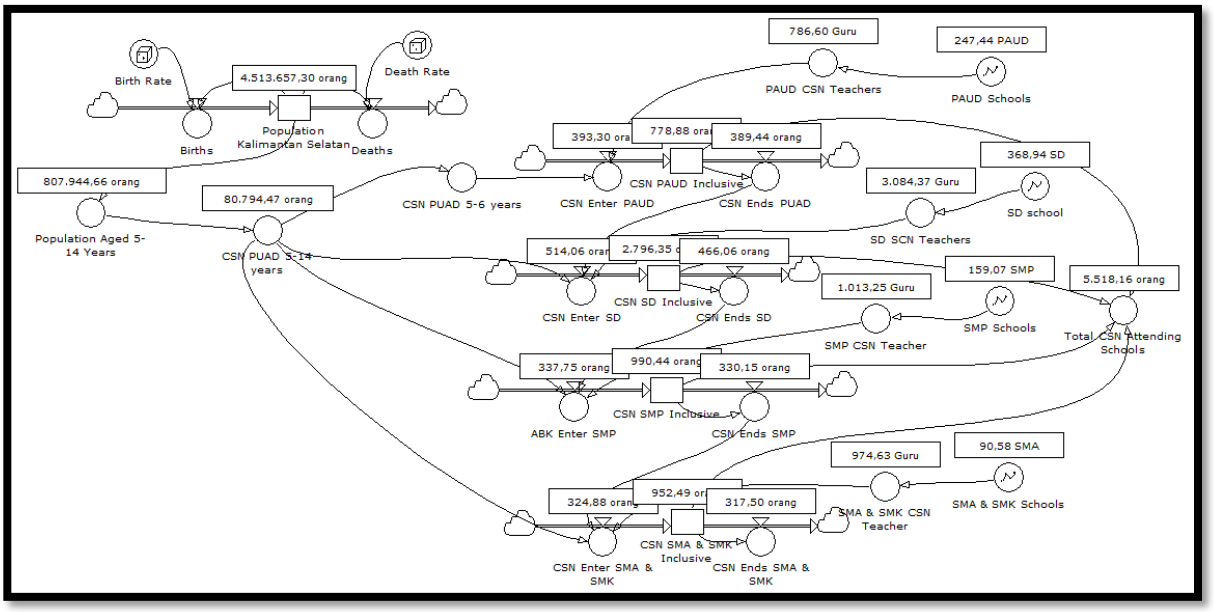


Figure 5. Equation window software powersim (Advanced).

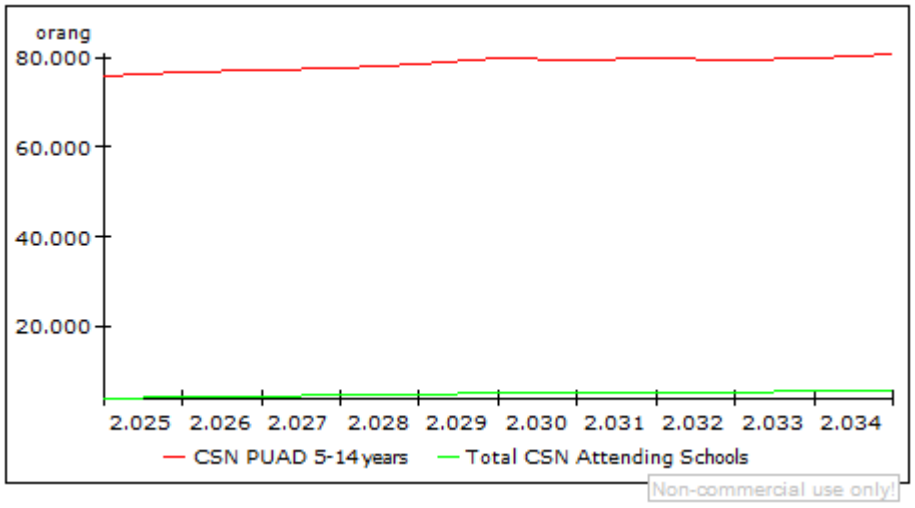


Figure 6. Real system simulation graph results.

Tabel 2. Real system simulation results.

year	l PUAD 5-14 ye	CSN PAUD Inclus	CSN SD Inclusive	CSN SMP Inclusive	SMA & SMK Inc	al CSN Attending Scho
2.025	75.792,43	700,00	1.778,00	726,00	680,00	3.884,00
2.026	76.787,23	709,61	1.951,69	787,91	750,38	4.199,60
2.027	77.403,13	718,01	2.101,14	837,18	800,27	4.456,60
2.028	77.779,19	725,84	2.230,42	873,15	836,53	4.665,94
2.029	78.733,66	733,43	2.342,96	900,27	863,74	4.840,39
2.030	79.690,93	740,92	2.441,58	921,54	884,93	4.988,97
2.031	79.312,19	748,41	2.528,65	938,93	902,16	5.118,15
2.032	79.751,88	755,94	2.606,15	953,77	916,76	5.232,62
2.033	79.548,77	763,52	2.675,72	966,94	929,65	5.335,83
2.034	79.719,86	771,16	2.738,74	979,03	941,43	5.430,36
2.035	80.794,47	778,88	2.796,35	990,44	952,49	5.518,16

year	PAUD Schools	PAUD CSN	SD school (S	SD SCN T	SMP Schools	SMP CSN	SMA & SMK S	SMA & SMK CS
2.025	226,24	719,22	337,34	2.820,16	145,44	926,45	82,82	891,14
2.026	228,50	726,41	340,71	2.848,36	146,89	935,72	83,65	900,05
2.027	230,79	733,67	344,12	2.876,85	148,36	945,07	84,48	909,06
2.028	233,10	741,01	347,56	2.905,62	149,85	954,53	85,33	918,15
2.029	235,43	748,42	351,04	2.934,67	151,35	964,07	86,18	927,33
2.030	237,78	755,90	354,55	2.964,02	152,86	973,71	87,04	936,60
2.031	240,16	763,46	358,09	2.993,66	154,39	983,45	87,92	945,97
2.032	242,56	771,10	361,67	3.023,60	155,93	993,28	88,79	955,43
2.033	244,99	778,81	365,29	3.053,83	157,49	1.003,22	89,68	964,98
2.034	247,44	786,60	368,94	3.084,37	159,07	1.013,25	90,58	974,63
2.035	247,44	786,60	368,94	3.084,37	159,07	1.013,25	90,58	974,63

The main real system model can be run and all variables that have a significant influence are connected. From the results of playing the real system model, it shows that the difference between the number of children with special needs in South Kalimantan and the number of children with special needs in inclusive schools is quite large, namely 94%.

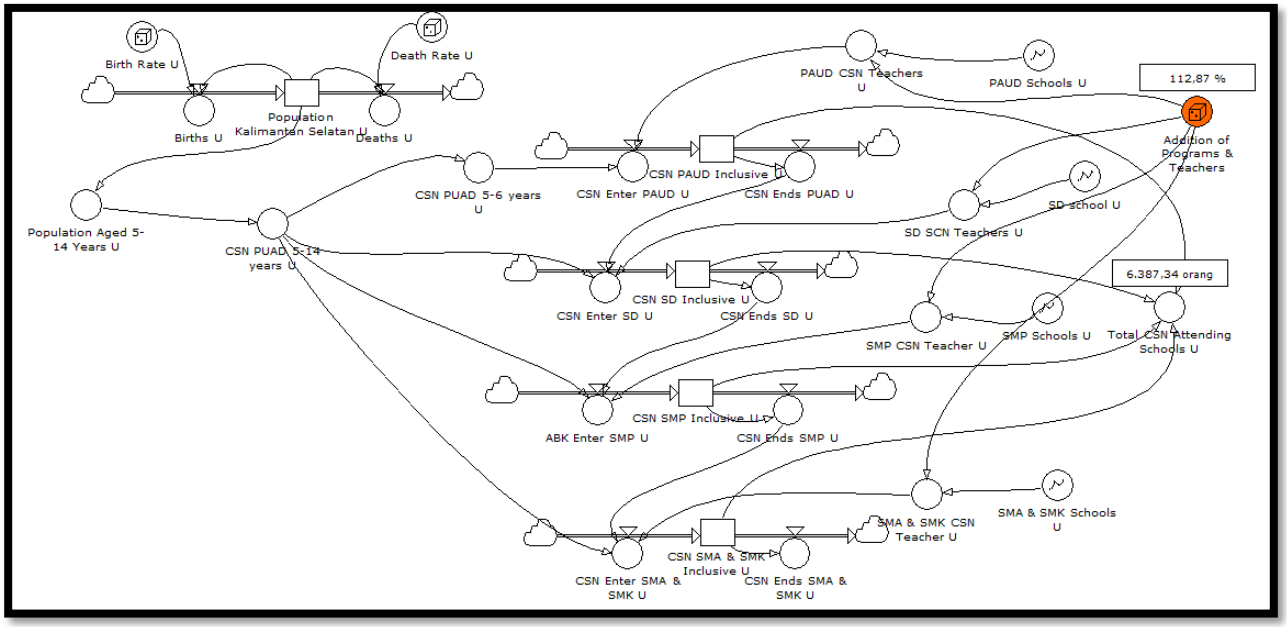


Figure 7. Main model simulation of proposed system.

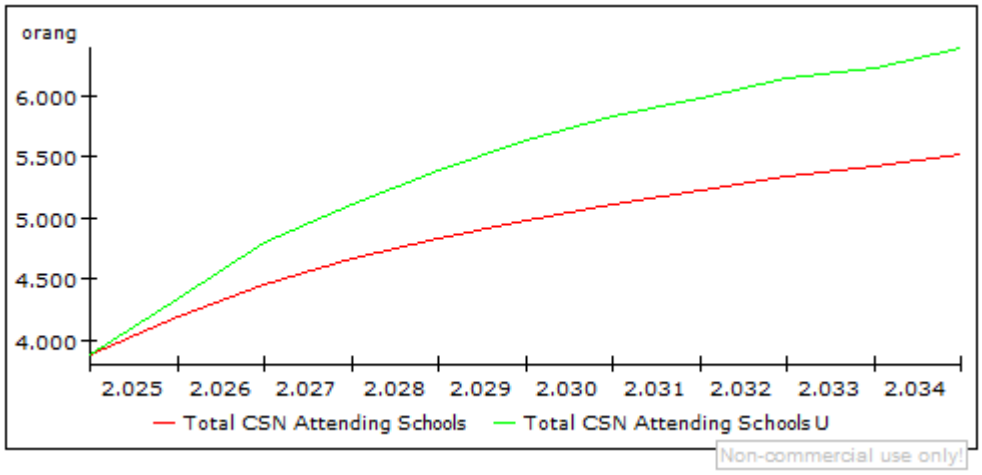


Figure 8. Results of comparison graph of real system simulation and proposed system.

year	:al CSN Attending Scho	Total CSN Attending Schools U
2.025	3.884,00	3.884,00
2.026	4.199,60	4.344,16
2.027	4.456,60	4.806,36
2.028	4.665,94	5.112,67
2.029	4.840,39	5.400,14
2.030	4.988,97	5.643,62
2.031	5.118,15	5.839,94
2.032	5.232,62	5.975,00
2.033	5.335,83	6.148,79
2.034	5.430,36	6.232,44
2.035	5.518,16	6.387,34

Figure 9. Comparison results of real system simulation and proposed system.

Based on the situation where the number of Children with Special Needs (CSN) attending inclusive schools is still relatively low, this study creates a proposed system to increase the number of CSN attending inclusive schools more quickly. One proposed policy is to increase the number of Special Education Teachers (SET) who graduated from S1 in special education or special education. This is due to the lack of SET currently available. SET is also accompanied by additional facilities and individual programs for CSN. In previous conditions, CSNs who attended inclusive schools only amounted to around 6% of the total number of CSNs in South Kalimantan. The proposed system is planned to increase CSN by 10%-20% of the current number of teachers in South Kalimantan. By evaluating the effect of increasing the number of special assistant teachers on the number of children with special needs who access inclusive education, this is in line with the increase in CSN attending inclusive schools by 8% or to 6,387 in the following year. Because, on average, one CSN accompanies one crew. This is in accordance with the findings of[44] Booth and Ainscow that an inclusive educational environment requires adequate resources and strong policy support.

Taking into account the average of the semester, the students show a lower per- formance in the first semester in contrast to the last semester, which shows the bestresults of the whole academic career

regardless of the mode of training; the class average of the first semester is 12.50 (Et 1.86) for the students who benefited from hybrid training, while it is 12.32 (Et 1.78) for those who were trained in classroom mode. These averages are not significantly different (p 0.05). As for the averages of the sixth semester, in the face-to-face learning mode, it is 13.88 (Et 1.22), and in the hybrid mode, it is 14.39 (Et 1.01). These means are significantly different (p 0.001). The strength of this relationship is very weak (Eta2 0.037). Comparing the averages across all semesters, students who received blended training had an overall average of 13.82 (Et 1.09), while those trained by face-to-face learning had an average of 13.14 (Et 1.28). There means are significantly different (p 0.001). Based on the analysis, the averages in the mixed mode are higher than those in the classroom learning mode across all semesters (refer to **Table 3**).

4. Conclusions

Children with Special Needs (CSN), or people with disabilities, replace the term "Extraordinary Children)" to indicate the presence of certain peculiarities or abnormalities. Each CSN has unique characteristics, requiring educational services tailored to their abilities and potential, both physical, emotional, mental, intellectual, and social. Education for CSN is included in the category of special education, which can consist of early childhood education, primary education, and secondary education, with learning tailored to individual needs and grouped according to their level of limitation or strength. To improve inclusive education for CSN, one of the proposed policies is to increase the number of Special Education Teachers (SET) S1 graduates in special education or special education. This is accompanied by improved facilities and individual programs for CSN, especially in South Kalimantan. With the addition of the number of CSN, there is expected to be a significant increase in the number of CSN attending inclusive schools, from around 8% to 6,387 in the following year. In principle, each SET will accompany one SET so that this system can improve the quality of inclusive education for CSN.

Biographical notes

Amka is renowed Professor in Special Education Management. His expansive knowledge in management and inclusive education enabled him to be a consultant in several projects.

Mirnawati is a specialist in special education and assessment at University of Lambung Mangkurat. She has researched extensively in inclusive education, assessment and intervention for special need children.

Siti Jaleha is specialist in special education and statistic. She has researched extensively in statistic, prevalence of children with special needs, and children with intellectual disabilities.

Conflict of interest

The authors declare no conflict of interest.

References

1. Martyniuk, M., Kyrylenko, K., Krymets, L., Makhometa, T., & Madi, H. 2022. The Relationship of the Philosophy of Education and the History of Philosophy: A Forecast of Educational Trends 2022-2024. Wisdom, 83–91. https://doi.org/10.24234/wisdom.v4i3.835
2. Chapnick, A. 2020. The golden age. International Journal, 64(1), 205–221. https://doi.org/10.1177/002070200906400118

3. Hidayati, N. 2018. Pentingnya Peningkatan Kompetensi Bahasa. Al Hikmah: Indonesian Journal of Early Childhood Islamic Education, 2(1), 59–74.
4. Mukhtar Latif, Dkk. 2013 Orientasi Baru Pendidikan Anak Usia Dini. Jakarta: Kencana prenada Media Group.
5. Liu, A., Heath, M., & Grzywacz, J. G. 2024. Cultural meaning of education and parents' involvement in education: Perspectives of immigrant Latinos. Family Relations, 73(1), 262–281. https://doi.org/10.1111/fare.12940
6. Ria A. M., Dewi N., & Agus J. P., (2022) Teacher's Role: Learning Service of Children with Special Needs in Inclusive School, Journal of Psychology and Instruction, Vol. 06, No. 03 https://doi.org/10.23887/jpai.v6i3.59111
7. A. Nurhayati, Ni Nyoman, Ari Indra Dewi, Diah Widiawati Retnoningtias, 2023. Parenting anak usia dini: Memaksimalkan Potensi dan Pengembangan Karakter di Masa Golden Age (Vol. 4, Issue 1).
8. Darma, I. P., & Rusyidi, B. 2015. Pelaksanaan Sekolah Inklusi Di Indonesia. Prosiding Penelitian Dan Pengabdian Kepada Masyarakat, 2(2), 223–227. https://doi.org/10.24198/jppm.v2i2.13530
9. Bodfield, K. S., & Culshaw, A. 2024. Applying the power threat meaning framework to the UK education system. Pastoral Care in Education, 1–20. https://doi.org/10.1080/02643944.2024.2316589
10. Riley, E. 2018. CSAE Working Paper WPS/2017-13 Role models in movies: the impact of Queen of Katwe on students' educational attainment. 44(July 2017). www.csae.ox.ac.uk
11. Wati, H. Y., Hayati, R. M., & Tripitasari, D. 2024. Optimalisasi Parenting Orang Tua Untuk Anak Disabilitas: Sebuah Studi Eksplorasi Siswa Difabel Di Probolinggo. Journal of Contemporary Islamic …, 4(1), 115–124. https://www.academia.edu/download/106201390/988.pdf
12. Rahim, A. 2016. Dalam Mewujudkan Pendidikan Untuk Semua. trihayu: Jurnal Pendidikan Ke-SD-An, 3(1), 68–71.
13. Jaya, H., Haryoko, S., Saharuddin, Suhaeb, S., Sabran, & Mantasia. (2018). Life Skills Education for Children with Special Needs in order to Facilitate Vocational Skills. Journal of Physics: Conference Series, 1028(1). https://doi.org/10.1088/1742-6596/1028/1/012078.
14. Mardi Fitri, D. G. R. K. Z. P. 2021. Faktor Penyebab Anak Berkebutuhan Khusus Dan Klasifikasi Abk. Bunayya : Jurnal PendidikanAnak, 7(2),40. https://doi.org/10.22373/bunayya.v7i2.10424
15. Baharun, H., & Awwaliyah, R. 2020. Berkebutuhan Khusus Dalam Perspektif. MODELING: Jurnal Program Studi PGMI, 5(1), 57–71. http://ejournal.uin-suka.ac.id/tarbiyah/index.php/goldenage/article/download/1929/1408/
16. Nanda, A. R., & Herawati, R. 2021. Kendala Dan Solusi Bagi Penyandang Disabilitas Kota Semarang Dalam Mengakses Pekerjaan. Jurnal Pembangunan Hukum Indonesia, 3(3), 325–336. https://doi.org/10.14710/jphi.v3i3.325-336
17. Smith, R., Bryant, L., Reddacliff, C., & Hemsley, B. (2022). A review of the impact of food design on the mealtimes of people with swallowing disability who require texture-modified food. International Journal of Food Design, 7(1), 7–28. https://doi.org/10.1386/ijfd_00034_1
18. Effects, C., Siedler, M. R., Rodriguez, C., White, S. J., Tinoco, E., Dehaven, B., Brojanac, A., Lavalle, C., Rasco, J., Taylor, L. W., & Tinsley, G. M. (2023). Metabolism.
19. Riyadi, E. (2021). Pelaksanaan Pemenuhan Hak Atas Aksesibilitas Pendidikan Tinggi Bagi Penyandang Disabilitas Di Yogyakarta. Jurnal Hukum ius quia iustum, 28(1).
20. Setiawan, H., Aji, S. M. W., & Aziz, A. (2020). Tiga Tantangan Guru Masa Depan Sekolah Dasar Inklusif. BRILIANT: Jurnal Riset dan Konseptual, 5(2), 241-251.
21. Sutarman, 2009. Pengantar Teknologi Informasi. Yang Menerbitkan PT Bumi Aksara: Jakarta.
22. Jauhari, A. 2017. Pendidikan Inklusi Sebagai Alternatif Solusi Mengatasi Permasalahan Sosial Anak Penyandang Disabilitas. IJTIMAIYA: Journal of Social Science Teaching, 1(1).
23. Alimin, Z. dan Permanarian. (2005). Reorientasi Pemahaman Konsep Special Education ke Konsep Needs Education dan Implikasinya Layanan Pendidikan. Bandung: Jassi Astati.
24. Admalinda, A., Fitriani, W., & Khairat, A. 2023. Penyelenggaraan Pendidikan Inkluisif untuk Individu Berkebutuhan Khusus. Jurnal Pendidikan, 11(2),291–299. https://doi.org/10.36232/pendidikan.v11i2.3536
25. Mardi Fitri, D. G. R. K. Z. P. 2021. Faktor Penyebab Anak Berkebutuhan Khusus Dan Klasifikasi Abk. Bunayya : Jurnal Pendidikan Anak, 7(2), 40. https://doi.org/10.22373/bunayya.v7i2.10424
26. Umi Nadhiroh, A. A. 2024. Pendidikan Inklusif: Membangun Lingkungan Pembelajaran Yang Mendukung Kesetaraan Dan Kearifan Budaya. Ilmu Budaya, Jurnal Bahasa, Sastra, Seni, Dan Budaya, 8(2008), 11–22.
27. Bahri, S. 2022. EDUKATIF: JURNAL ILMU PENDIDIKAN Manajemen Pendidikan Inklusi di Sekolah Dasar. Jurnal Ilmu Pendidikan, 4(1), 210–219. https://doi.org/10.31004/edukatif.v4i1.1754
28. Akbar, D., Asbari, F., Paskah, G., Koba, L. B., & Harits, A. F. 2024. Literaksi : Jurnal Manajemen Pendidikan Hubungan Pengalaman Mengajar Dengan Pemahaman Pendidikan Inklusi. 02(01), 138–142.
29. Keles, S., Ten Braak, D., & Munthe, E. 2024. Inclusion of students with special education needs in Nordic countries: a systematic scoping review. Scandinavian Journal of Educational Research, 68(3), 431–446. https://doi.org/10.1080/00313831.2022.2148277

30. Harris, D. N. 2024. How Free Market Logic Fails in Schooling—And What It Means for the Role of Government. Educational Researcher, 53(2), 111–122. https://doi.org/10.3102/0013189X231216953
31. Ashworth, E., Bray, L., Alghrani, A., & Kirkby, J. 2024. 'Trying to stay afloat': Education professionals' perspectives on the impact of the COVID-19 pandemic on children with special educational needs and disabilities. Journal of Research in Special Educational Needs, January, 1–13. https://doi.org/10.1111/1471-3802.12647
32. Rakap, S., & Vural-Batik, M. 2024. Mitigating the impact of family burden on psychological health in parents of children with special needs: Buffering effects of resilience and social support. Journal of Applied Research in Intellectual Disabilities, 37(1), 1–13. https://doi.org/10.1111/jar.13179
33. Juntak, J. N. S., Rynaldi, A., Sukmawati, E., Arafah, M., & Sukomardojo, T. 2023a. Mewujudkan Pendidikan Untuk Semua: Studi Implementasi Pendidikan Inklusif di Indonesia. Jurnal Birokrasi & Pemerintahan Daerah, 5(2), 205–214.
34. Collins, A., Azmat, F., & Rentschler, R. (2019). 'Bringing everyone on the same journey': revisiting inclusion in higher education. Studies in Higher Education, 44(8), 1475- 1487.
35. Riyadi, E. (2021). Pelaksanaan Pemenuhan Hak Atas Aksesibilitas Pendidikan Tinggi Bagi Penyandang Disabilitas Di Yogyakarta. Jurnal Hukum IUS QUIA IUSTUM, 28(1).
36. Shaw, A. (2021). Inclusion of disabled Higher Education students: why are we not there yet?. International Journal of Inclusive Education, 1-19.
37. Septikasari, Z., Retnowati, H., & Wilujeng, I. 2022. Pendidikan Pencegahan Dan Pengurangan Risiko Bencana (PRB) Sebagai Strategi Ketahanan Sekolah Dasar Dalam Penanggulangan Bencana. Jurnal Ketahanan Nasional, 28(1), 120. https://doi.org/10.22146/jkn.74412
38. Apriani, M. S., Rianasari, V. F., & Julie, H. (2021). Indonesian Mathematics Teachers' Responses to the Continuity of the Students Learning during Pandemic. Edumatica: Jurnal Pendidikan Matematika, 11(03), 1-10.
39. G. Azmat, D. Fougère, A. Lermite, C. Lobut, and A. Touw, Note D'information: Évaluation multidimensionnelle de l'impact d'équipements numériques mobiles sur les apprentissages des élèves : Premiers résultats des effets du Plan numérique de 2015. Direction de l'évalu- ation de la prospective et de la performance, Ministère de l'Éducation nationale, de la Jeunesse et des Sports, France, 2021
40. Sterman, J. D. (2000). "Business Dynamics: Systems Thinking and Modeling for a Complex World." McGraw-Hill. https://www.researchgate.net/publication/44827001_Business_Dynamics_System_Thinking_and_Modeling_for_a_Complex_World
41. Lintang. 2020. Pemodelan Sistem Dinamis Untuk Meningkatkan Produktivitas di CV. ABC Dynamic System Modeling to Increase Productivity at CV. ABC. Integrasi Jurnal Ilmiah Teknik Industri, 1(1), 1. http://jurnal.um-palembang.ac.id/index.php/integrasi
42. Darmono, R. 2020. Pemodelan System Dynamics Pada Perencanaan Penataan Ruang Kota. Seminar Nasional Aplikasi Teknologi Informasi, 1(1), 5–10..
43. Vennix, J. A. M. (1996). "Group Model Building: Facilitating Team Learning Using System Dynamics. "Wiley. https://www.wiley.com/en-gb/Group+Model+Building+%3A+Facilitating+Team+Learning+Using+System+Dynamics-p-9780471953555
44. Booth, T., & Ainscow, M. (2002). "Index for Inclusion: Developing Learning and Participation in Schools." Centre for Studies on Inclusive Education. https://www.eenet.org.uk/resources/docs/Index%20English.pdf