Research Article

Exploring Transitions: Young Adult Development from A Psychological Perspective

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Article Info

Abstract

Received: June 20, 2024 Revised: June 30, 2024 Accepted: June 30, 2024 Online Version: June 30, 2024

This research aims to describe the development of young adults from a psychological perspective. This research uses literature review research, namely conducting library searches and research by reading various kinds of books, journals and other library publications related to the topic under study. Data analysis techniques used in this research is a content analysis method. Meanwhile, the data sources used are books and research journals. The results of this research are that early adulthood is also known as the transition from adolescence to adulthood, which occurs approximately between the ages of 20 and 40 years. The transition from dependence on others to independence, both in terms of economics, freedom of self-determination, and views of the future, as well as changes in physical, intellectual, social roles, psychology, and reproductive abilities. However, early adulthood is considered an immature age in terms of social relationships, because the busyness of pursuing a career, working, getting married, and involvement in activities outside the home decreases. As a result, early adult individuals will experience social isolation for the first time, this is known as a competitive crisis by Erickson.

Keywords: Adult, Development, Young



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Journal Homepage How to cite:	<u>https://journal.ypidathu.or.id/index.php/ijeep</u> ISSN: (P: <u>3047-843X</u>) - (E: <u>3047-8529</u>) SM, K & Latipah, E. (2024). <i>Exploring Transitions: Young Adult Development from A</i>
	Psychological Perspective. International Journal of Educatio Elementaria and
	Psychologia, 1(3), 159–172. https://doi.org/10.70177/ijeep.v1i3.1087
Published by:	Yayasan Pendidikan Islam Daarut Thufulah

INTRODUCTION

Every person certainly experiences a process of physical and psychological development during their life cycle (Yang, Chang, Hwang, & Zou, 2020). If we look at a baby's self-portrait, we will know that the baby has changed (Chen, Xie, Zou, & Hwang, 2020). For example, from

being helpless to becoming a student. In this case, it shows that humans experience development from infancy, childhood, adolescence, adulthood, until old age.

All aspects of physical, intellectual, social, moral, language, emotions, feelings, interests, motivation, attitudes, personality, talents and creativity change during the development process (Safavi, Yahyavi, Narab, & Yahyavi, 2019). Where each element basically produces a new combination or relationship that forms different physical and psychological specializations between one individual and another.

Someone who has reached adulthood, it is clear that their roles and responsibilities are also increasing (Reddy, Sharma, & Chaudhary, 2020). Not only that, he is also no longer dependent on his parents economically, sociologically and psychologically. Becoming an independent adult child is a challenge for them (Hong, Ko, Mesicek, & Song, 2021). If he experiences problems in his life, he will probably solve them himself without the help of other people, including his parents (Ren, Hao, Xu, Wu, & Ba, 2021). Various experiences, both successful and unsuccessful, can make someone more mature, resilient and take responsibility for their future.

Physically, young adults have an ideal profile because growth and physiological development have reached their peak (Kitsios, Giatsidis, & Kamariotou, 2021). They appear brave, creative, fast and proactive because they have endurance and excellent health (Luo dkk., 2019). The majority of young adults (young adulthood) are between 20 and 40 years old. In the book on the psychology of young adult development by Agoes Dariyo, developmental psychologist Santrock says that young adults are a period of transition, including physical transition, cognitive transition and social role transition.

Human development from birth to old age goes through various long phases in each life span. Starting from babies, children, teenagers, adults and the elderly go through different phases. Each phase of development has developmental tasks that must be fulfilled to achieve happiness and avoid problems (Wang dkk., 2020). Developmental tasks in young adulthood are tasks that must be fulfilled in young adulthood to achieve success in developmental tasks in the next phase.

Based on the background explanation above, problem can be formulated the author's reference for writing this article includes (Zulfikar & Emawati, 2020): definition of young adult development, physical development of young adults, cognitive development of young adults, psychological development of young adults, and social development of young adults.

RESEARCH METHOD

In analyzing the development of young adults, researchers use a type of library research or what is better known as library research, namely, research whose object of study uses library data in the form of books as a data source, reading, reviewing and analyzing various literature (Ibda, Wijanarko, Azizah, Amnillah, & Ro'uf, 2024). There is, to obtain information and data from libraries such as magazines, journals, historical stories, etc (Muhammad Mustofa, et al, 2023:189)

Then, the data analysis techniques used in This research is a content analysis method. In this research, researchers analyzed books and literature related to problem formulation (Wahab, 2022). Data sources in research literature consists of primary data sources and secondary data sources (Al Eid, Arnout, & Almoied, 2021). Understanding of data Primary is data obtained by researchers through various methods, such as observation, surveys, interviews, field testing,

laboratory testing, or in the form of literature containing knowledge or ideas. Primary data sources are also referred to as first data, namely data collected directly from research subjects as a source of information.

While secondary data is types of indirect data obtained by researchers such as reference books, or also known as supporting data from main data. Here researchers use data sources from books and also literature related to research (Muhammad Mustofa, et al, 2023:147-148)

RESULTS AND DISCUSSION

A. Young Adult Development

Young adulthood or early adulthood, is referred to as the transition from adolescence to adulthood (Paul-Binyamin & Haj-Yehia, 2019). The transition from dependence on others to independence, both in terms of economics, freedom of self-determination, and views of the future, as well as changes physically, intellectually, in social roles, psychologically, and in reproductive abilities as we get older (Hadjipanayis dkk., 2019). Excellent physical strength and motivation to achieve something are very strong in young adulthood. The search for self-identity which begins gradually according to age is also a sign of the transition from adolescence ("Madrasah Accountability in Increasing the Interest of New Students in Continuing Education," 2022). Young adulthood is a period of adjustment to social demands and new lifestyles (Andi Thahir, 2022:174)

According to Santrock, becoming an adult requires a long transition period for most people. Young adulthood is also known as the transition from adolescence to adulthood, which occurs at the age of 18 to 25 years (Thomaz, Salge, Karahanna, & Hulland, 2020). The characteristics of recent adults are exploration and experimentation (Egerer, Ordóñez, Lin, & Kendal, 2019). Many people are still considering the career path they want, the identity they want, and the type of life they want, for example, single or married.

There are five main characteristics of young adulthood, including:

- 1. Exploration of identity, especially in terms of feelings and work. Many people experience significant identity changes during young adulthood.
- 2. Uncertainty. In young adulthood, changes in residence reach their peak, and instability also often occurs in terms of feelings, work, and education.
- 3. Concentrate on yourself. Emerging adults are self-focused in the sense that they have few social obligations, few obligations and commitments to others, giving them a great deal of autonomy in running their own lives.
- 4. Feeling in between. Many emerging adults do not think of themselves as teenagers or adults.
- 5. Possible age, which is an opportunity where someone has the opportunity to change their life. Young adulthood is an age of possibility (Fidan & Tuncel, 2019): (i) many emerging adults are optimistic about their future, and (2) for emerging adults who experienced adversity growing up, young adulthood provides them with an opportunity to chart a life course them in a more positive direction (Santrock, 2016:405)

Apart from the characteristics above, young adulthood also contains the following characteristics:

1. Regulatory Period

At this time, before finding a suitable meaning, one will "trial and error" (Blanco & Ramirez, 2019). When he finds a lifestyle that he thinks meets his needs, he will likely develop attitudes, behaviors, and values that will be characteristic of him throughout his life.

2. Productive age

At this age is the right time to get married and have children.

3. Troubled Times

This is a difficult and challenging time. This is because a person has to adjust to his new position, whether it is a job or a marriage. There would be problems if he couldn't solve it.

4. Period of Emotional Tension

When someone is 20 years old or before 30 years old, their emotions are out of control. He is irritable, restless and easily rebellious. At this time, a person's emotions are also very turbulent and easily tense. In addition, he was worried about his position as a parent and his low job status. However, a person's emotions tend to be stable and calm after the age of 30.

5. A Time of Social Alienation

The isolation crisis occurs in early adulthood. They are isolated from their social group. Pressure from work and family life gets in the way of social activities. Apart from that, relationships with peers become less close. The competitive spirit and desire for a career leads to isolation.

6. Commitment Period

At this time, a person begins to realize how important commitment is. He begins to develop new lifestyles, tasks and commitments.

7. Dependency Period

A person remains dependent on parents or organizations that bind him from early adulthood until the end of his 20s.

8. Value Change Period

A person's values change due to broader experiences and social relationships. Positive consciousness can increase with changed values. In addition, someone may more easily accept or be guided by conventional values in terms of beliefs. When he marries, egocentrism will turn social.

- 9. Period of Adjustment to New Life When a person becomes an adult, he must be more responsible because he has the role of parent and worker.
- 10. Creative

It is considered creative because someone can do what they like. However, creativity depends on interest, potential, and opportunity.(M. Shoffa Saifillah Al-Faruq and Sukatin, 2021:231-232)

According to Elizabeth B. Hurlock, quoted by Yudrik Jahja, in a book on developmental psychology, adulthood consists of three parts, including:

1. Young Adulthood

Young adulthood between the ages of 21 and 40 is a time of independence and reproduction, full of emotional problems and tension, social isolation, commitment and dependency, creativity, changing values, and adjusting to a new lifestyle.

2. Middle Adulthood (Middle Adulthood)

Middle adulthood is forty to sixty years old. Middle adulthood is the period of life where men and women leave behind the physical characteristics and behavior of adulthood and start a new period with new physical characteristics and behavior. Compared with the past, they are more interested in religion. Sometimes, his interest and attention to religion is caused by personal and social needs.

3. Advanced Adulthood (Older Adult)

This period, which begins at the age of 60 years until the end of life, is characterized by progressive physical and psychological changes. There are changes in motor abilities, physical strength, psychological function, nervous system, and appearance related to personal and social adjustment. (Yudrik Jahja, 2015:246)

Then according to RJ Havigurst quoted by Andi Thahir in the book on developmental psychology, optimizing the development of young adults refers to the developmental tasks of young adults, including (Pan dkk., 2020): 1) Choosing friends to hang out with (as future husband or wife), 2) Learning to live together with their husband or wife. wife, 3) start living in a family or family life, 4) Learn to care for children, 5) Manage the household, 6) Start working, and start taking responsibility as a good citizen, and 7) Find a social group that is in harmony with its principles (Andi Thahir, 2022:181)

B. Physical Development of Young Adults

Each person's physical development determines the development of other components, including young adulthood (Egerer dkk., 2019). A person's intellectual, emotional, social and religious development tends to develop normally if their physical development is good and normal (Watkins dkk., 2019). Young adults usually have a normal body, a high level of self-confidence, stable emotions, and the ability to socialize well (Maddux, Lu, Affinito, & Galinsky, 2021). They will be fun people. On the other hand, stunted and abnormal physical development causes a person to withdraw from society, feel low self-esteem, and often even experience unstable emotions.(Palasara Brahmani Laras, 2021: 6-7)

Physical development during this period changes little by little as we get older. In young adulthood, the motivation to achieve something is very great, because it is supported by excellent physical strength (Costa, Lee, Kim, Lee, & Lanceros-Méndez, 2019). So, there is a response that says that young adulthood is a time when physical strength is better than mental strength.

The characteristics of young adults' physical development include:

- 1. Physical efficiency reaches its peak, especially in the 23-27 year age range.
- 2. Their reproductive ability is at the highest level, in women there is a period of good fertility.
- 3. Energy and motor strength reach peak times.
- Physical health is in good condition.(Encep Sudirjo, and Muhammad Nur Alif, 2018:91-92)

When someone enters young adulthood, 20 or 21 years old. Rapid physical growth has been completed (Vasconcelos, 2020). This means that people in this young adult age are considered physically mature (Liang, Deng, Ma, Cheng, & Lin, 2020). Therefore, all their body functions function normally, and they have the ability to reproduce. If physical growth still occurs, it is very slow in young adulthood. According to Elizabeth B. Hurlock, growth is very slow compared to weight gain, at the age of 18 years for women and 20 years for men.

Individual physical development includes four aspects according to Kuhlen and Thompson, including:

- 1. The nervous system is a delicate organ located at the center of the brain tissue system. A child's intelligence or intelligence is greatly influenced by the development and growth of the nervous system. As the center of all development, the brain is the most important physiological part of the nervous system.
- 2. Muscles influence an individual's motor development and strength. Food, nutrition, health, and physical exercise such as exercise can influence muscle growth and changes. At the age of 30 years, this muscle strength reaches its peak and then gradually decreases at the age of 40 years.
- 3. Endocrine glands produce new patterns of behavior, such as feeling attracted to participate in a particular sporting activity (Granić & Marangunić, 2019). This means that each person's tendencies are different from each other. Several hormones are made by these endocrine glands. Among them are the hormone estrogen, which regulates sexual and reproductive growth in women, and the hormone testosterone, which is responsible for the growth of the male reproductive system (On behalf of the Mucositis Study Group of the Multinational Association of Supportive Care in Cancer/International Society for Oral Oncology (MASCC/ISOO) dkk., 2019). Hormones will continue to be produced from young to old age, and will end in women when they experience "menopause", or the cessation of menstruation, while men experience a decrease in sexual desire.
- 4. Physical structure consists of height and weight. There are two factors that influence the physical structure of young adults, namely:
 - a. Hereditary Factors. Tall children usually also have tall parents. Although very rare, exceptions like this are possible.
 - b. Environmental factor. The environment greatly influences the physical growth of young adults, including improving nutrition and food and health.(Palasara Brahmani Laras, 2021:7-9)

C. Young Adult Cognitive Development

According to Piaget's theory, the cognitive abilities that emerge during young adulthood are included in the formal operational stage (Fang, Chen, Wang, & Chen, 2019). At this stage, young adults have the ability to solve difficult problems and have the ability to think logically, abstractly, and rationally.

There are four stages of intellectual/cognitive development, including:

1. At the sensory motor stage (0-2 years). Experiential activity is based primarily on the senses, individuals are only able to see and absorb experiences, but are not yet able to categorize them. At this stage, all actions are still instinctive.

- 2. Preoperational stage (2-7 years). Characteristics of individuals involved in this preoperational stage include the ability to combine and transform a variety of information, the ability to reason their opinions, and an understanding of cause-and-effect relationships in certain situations.
- 3. Concrete operational stage (7-11 years). It has the characteristic that everything is understood in a visible or real way. Thus, the individual's way of thinking is far from abstract, even though their way of thinking seems logical and systematic at first.
- 4. In the formal operational stage (11-adult). Someone can achieve logic and reason and use abstraction, they begin to be able to think logically and create abstract objects, and begin to solve problems.(Nurhayani, and Dewi Salistina, 2022: 83-84)

Due to facing coercion in the reality of work, development experts say that young adult individuals experience a shift from idealistic thinking to more realistic and pragmatic thinking. In addition, due to the influence of cultural complexity in adolescence, absolute and dualistic ways of thinking change to reflective and relativistic (Amram, 2022). Reflective thinking means thinking continuously, and questioning things that are already known, so as to make conclusions.

The way adults solve problems varies, such as reflective, realistic, and pragmatic. Postformal thinking is flexible, open, adaptive, and independent. This thinking is based on intuition and emotion, as well as logic to help someone overcome problems. Like reflective thinking, post-formal thinking allows adults to bypass logical systems. In response to various events and interactions, post-formal thinking often emerges. This opens up an unusual and centered view of the world.

The cognitive phase of adulthood consists of several phases, namely:

- 1. Achieving Stage: The stage of achieving achievement which involves applying intellectual abilities to situations that can have a significant impact on achieving long-term goals, such as reaching the peak of career and in relationships.
- 2. Responsibility Stage: This phase occurs when a person begins to form a family and pays attention to the needs of their partner and offspring. This phase usually occurs in young adulthood and lasts until middle adulthood.
- 3. Executive Stage: This phase occurs when a person feels they have a responsibility to society and social organizations, such as the government or place of work.
- 4. Reintegrative Stage: This phase of cognitive development in young adults occurs when a person chooses to devote their time and attention to things and activities that are important to them.(Dyah Lutfhia Kirana, 2022:24-25)

Apart from that, the cognitive characteristics of young adults also include the following:

- 1. Transference: The ability to connect abstract reasoning with practical matters. This means that a person can not only think abstractly but can also transform abstract things, such as concepts or ideas, into things that can be used directly.
- 2. Problem Definition: The ability to define a problem by putting it into a certain category for logical problems and also making a definition of the scope of the problem.
- 3. Process: The ability to see the possibility of solving all problems well through concrete solutions.

- 4. Pragmatic: Can identify and choose the best solution to solve the problem with the aim of achieving the desired results, and can respect other people who have different solution choices from them.
- 5. Multiple Causes/Multiple Solutions: This characteristic of cognitive development in young adults allows them to understand a problem based on multiple factors and find multiple solutions.
- 6. Paradox Knowledge: Knowing that deciding a problem can lead to the emergence of paradoxical or contradictory things, such as favorable or unfavorable, positive or negative outcomes. Those who have these qualities are brave and firm in facing conflict without having to violate various values of justice and truth.
- 7. Self-Related Thought: By using post-formal thinking, a person has the awareness that he can also be the judge of whatever logic he uses.(Dyah Lutfhia Kirana, 2022:26)

D. Psychological Development of Young Adults

Young adults continually face problems and make many choices about how to live a lifestyle that will hopefully provide emotional satisfaction. To understand young adults' socioemotional development, emotional states and social relationships in previous phases should not be ignored. Social life and relationships in the previous phase will influence whether young adults can form close relationships or not in the future.

Legally, young adulthood is defined as the period of education, namely when a person reaches cognitive, affective and psychomotor abilities as a result of training supported by readiness, or since a person turns 21 years old (even if they are not married). In young adulthood, psychological maturity will occur. The characteristics of young adult maturity are not much different from the characteristics of adolescence because young adulthood is a continuation of adolescence. The characteristics of young adulthood include:

- 1. Focus on the tasks and work they are doing, not on themselves or personal interests.
- 2. Efficient goals and work habits: a person in young adulthood sees the goals he wants to achieve clearly, can define goals carefully, knows what is appropriate and what is not appropriate, and works purposefully towards his goals.
- 3. Controlling personal feelings: A mature person can control his own feelings and is not influenced by his desires when doing things or dealing with other people, not caring about himself, but also considering the feelings of others.
- 4. Objective: Mature people have an objective attitude, which means they try to make decisions in the right situations.
- 5. Accepting Criticism and Suggestions: Mature people are realistic and realize that they are not always right. As a result, they are open to criticism and suggestions from others to help them improve.
- 6. Accountability for personal efforts: A mature person will give opportunities to others to help him achieve his goals. He accepts the help of others because he is aware that he cannot always provide correct judgment about some aspects of his efforts. However, he is still personally responsible for his efforts.
- 7. Realistic adaptation to new situations: People in young adulthood are able to adapt to new situations.

One of the characteristics that differentiates young adulthood from other periods is related to aspects of life, namely increased life challenges compared to late adolescence, and increased emotional tension.(Andi Thahir, 2022:175-176)

E. Young Adult Social Development

Social development starts from the dependency phase towards independence in a responsible environment. As various aspects of a person's personality develop, a person's level of dependence also decreases, almost disappearing when a person becomes independent. In addition, a child's social environment is influenced by his parents, peers, and community. A child's environment can achieve mature social development if the environment provides positive opportunities for the child's development. On the other hand, if the environment does not support the child's development, the child tends to show maladjusted behavior.

Young adulthood is defined as an age that is not yet mature in terms of social relationships, so that the development of the social spirit will continue to develop along with age. An inferior attitude, likes to be alone, lack of concern for other people, and maladjustment often occur in young adults, especially those who have just completed formal education. Relationships with peers become increasingly strained after adolescence ends and a person moves on to an adult lifestyle, such as pursuing a career, working or getting married. Due to busy careers, involvement in activities outside the home is decreasing. As a result, young adults will experience social isolation for the first time, this is known as a competitive crisis by Erickson.

At the age of 30, both men and women are young adults who have adjusted to various changes in the social activities they have just started. By the end of their 30s or approaching the age of 40, they have many friends, because at this age they have formed close relationships within their social groups, and at the age of 40 their social interests have also begun to stabilize.(Palasara Brahmani Laras, 2021:11-12)

Socioemotional development in young adulthood shows the adaptive integration of emotional experiences into satisfying daily life and good relationships with others. They also continue to face challenges and are presented with many lifestyle choices that are expected to provide emotional satisfaction. Learning to adapt to understand situations and feelings when interacting with people in their environment, such as parents, siblings and peers, is called socioemotional development. Socioemotional development consists of temperament, attachment, attraction, and openness.(Dyah Lutfhia Kirana, 2022: 28-33)

CONCLUSION

Based on the discussion above, it can be concluded that young adulthood is also called the transition from adolescence to adulthood, which occurs approximately between the ages of 20 and 40 years. Physically, young adults have an ideal profile because growth and physiological development have reached their peak. They appear brave, creative, fast and proactive because they have endurance and excellent health. According to Piaget's theory, the cognitive abilities that emerge during young adulthood are included in the formal operational stage. At this stage, young adults have the ability to solve difficult problems and have the ability to think logically, abstractly, and rationally. In young adulthood, psychological maturity will occur, including having characteristics that focus on the tasks and work they do, goals and efficient work habits, controlling personal feelings, being objective, accepting criticism and suggestions, being accountable for personal efforts, and adapting. realistic about new situations.

Young adulthood is defined as an age that is immature in terms of social relationships. An inferior attitude, likes to be alone, lack of concern for other people, and maladjustment often occur in young adults, especially those who have just completed formal education. Relationships with peers become increasingly strained after adolescence ends and a person moves on to an adult lifestyle, such as pursuing a career, working or getting married. Due to busy careers, involvement in activities outside the home is decreasing. As a result, young adult individuals will experience social isolation for the first time, this is known as a competitive crisis by Erickson. The socioemotional development of young adults consists of temperament, attachment, interest, and openness.

AUTHOR CONTRIBUTIONS

Author 1: Project administration; Validation; Writing - review and editing. Author 2: Conceptualization; Data curation; In-vestigation.

CONFLICTS OF INTEREST

The author(s) declare no conflict of interest

REFERENCES

- Ajele, W. K., Oladejo, T. A., Akanni, A. A., & Babalola, O. B. (2021). Spiritual intelligence, mindfulness, emotional dysregulation, depression relationship with mental well-being among persons with diabetes during COVID-19 pandemic. *Journal of Diabetes & Metabolic Disorders*, 20(2), 1705–1714. <u>https://doi.org/10.1007/s40200-021-00927-8</u>
- Amram, Y. J. (2022). The Intelligence of Spiritual Intelligence: Making the Case. *Religions*, 13(12), 1140. <u>https://doi.org/10.3390/rel13121140</u>
- Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, 116, 183–187. <u>https://doi.org/10.1016/j.jbusres.2020.05.037</u>
- Chen, X., Xie, H., Zou, D., & Hwang, G.-J. (2020). Application and theory gaps during the rise of Artificial Intelligence in Education. *Computers and Education: Artificial Intelligence*, 1, 100002. <u>https://doi.org/10.1016/j.caeai.2020.100002</u>
- Costa, C. M., Lee, Y.-H., Kim, J.-H., Lee, S.-Y., & Lanceros-Méndez, S. (2019). Recent advances on separator membranes for lithium-ion battery applications: From porous membranes to solid electrolytes. *Energy Storage Materials*, 22, 346–375. https://doi.org/10.1016/j.ensm.2019.07.024
- Egerer, M., Ordóñez, C., Lin, B. B., & Kendal, D. (2019). Multicultural gardeners and park users benefit from and attach diverse values to urban nature spaces. *Urban Forestry & Urban Greening*, *46*, 126445. <u>https://doi.org/10.1016/j.ufug.2019.126445</u>
- Fang, Y.-C., Chen, J.-Y., Wang, M.-J., & Chen, C.-Y. (2019). The Impact of Inclusive Leadership on Employees' Innovative Behaviors: The Mediation of Psychological Capital. *Frontiers in Psychology*, 10, 1803. <u>https://doi.org/10.3389/fpsyg.2019.01803</u>
- Fidan, M., & Tuncel, M. (2019). Integrating augmented reality into problem based learning: The effects on learning achievement and attitude in physics education. *Computers & Education*, 142, 103635. <u>https://doi.org/10.1016/j.compedu.2019.103635</u>
- Granić, A., & Marangunić, N. (2019). Technology acceptance model in educational context: A systematic literature review. *British Journal of Educational Technology*, 50(5), 2572– 2593. <u>https://doi.org/10.1111/bjet.12864</u>

- Hong, J. Y., Ko, H., Mesicek, L., & Song, M. (2021). Cultural intelligence as education contents: Exploring the pedagogical aspects of effective functioning in higher education. *Concurrency and Computation: Practice and Experience*, 33(2), e5489. <u>https://doi.org/10.1002/cpe.5489</u>
- Ibda, H., Wijanarko, A. G., Azizah, F. N., Amnillah, M., & Ro'uf, A. (2024). Islamic moderation in elementary school: Strengthening the Aswaja Annadhliyah curriculum in preventing religious radicalism. *Journal of Education and Learning (EduLearn)*, 18(4), 1246–1253. <u>https://doi.org/10.11591/edulearn.v18i4.21821</u>
- Kitsios, F., Giatsidis, I., & Kamariotou, M. (2021). Digital Transformation and Strategy in the Banking Sector: Evaluating the Acceptance Rate of E-Services. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3), 204. <u>https://doi.org/10.3390/joitmc7030204</u>
- Li, X., Kang, B., Dong, F., Zhang, Z., Luo, X., Han, L., ... Wang, Z. L. (2021). Enhanced photocatalytic degradation and H2/H2O2 production performance of S-pCN/WO2.72 S-scheme heterojunction with appropriate surface oxygen vacancies. *Nano Energy*, 81, 105671. <u>https://doi.org/10.1016/j.nanoen.2020.105671</u>
- Liang, S., Deng, X., Ma, P., Cheng, Z., & Lin, J. (2020). Recent Advances in Nanomaterial-Assisted Combinational Sonodynamic Cancer Therapy. Advanced Materials, 32(47), 2003214. <u>https://doi.org/10.1002/adma.202003214</u>
- Liang, Z., Zhou, K., & Gao, K. (2019). Development of Virtual Reality Serious Game for Underground Rock-Related Hazards Safety Training. *IEEE Access*, 7, 118639–118649. <u>https://doi.org/10.1109/ACCESS.2019.2934990</u>
- Luo, J.-Q., Zhao, S., Zhang, H.-B., Deng, Z., Li, L., & Yu, Z.-Z. (2019). Flexible, stretchable and electrically conductive MXene/natural rubber nanocomposite films for efficient electromagnetic interference shielding. *Composites Science and Technology*, 182, 107754. <u>https://doi.org/10.1016/j.compscitech.2019.107754</u>
- Maddux, W. W., Lu, J. G., Affinito, S. J., & Galinsky, A. D. (2021). Multicultural Experiences: A Systematic Review and New Theoretical Framework. Academy of Management Annals, 15(2), 345–376. <u>https://doi.org/10.5465/annals.2019.0138</u>
- Madrasah Accountability in Increasing the Interest of New Students in Continuing Education. (2022). Journal of Higher Education Theory and Practice, 22(9). https://doi.org/10.33423/jhetp.v22i9.5366
- Moafi, F., Momeni, M., Tayeba, M., Rahimi, S., & Hajnasiri, H. (2021). Spiritual Intelligence and Post-abortion Depression: A Coping Strategy. *Journal of Religion and Health*, 60(1), 326–334. <u>https://doi.org/10.1007/s10943-018-0705-0</u>
- Muhamad, A. D., & Othman, M. R. (2020). PENGISLAHAN SISTEM PENDIDIKAN ISLAM DI TANAH MELAYU: PERANAN MUDIR MADRASAH AL-MASHOOR AL-ISLAMIAH PULAU PINANG, 1916-1957. Journal of Al-Tamaddun, 15. <u>https://doi.org/10.22452/JAT.vol15no1.9</u>
- On behalf of the Mucositis Study Group of the Multinational Association of Supportive Care in Cancer/International Society for Oral Oncology (MASCC/ISOO), Hong, C. H. L., Gueiros, L. A., Fulton, J. S., Cheng, K. K. F., Kandwal, A., ... Elad, S. (2019). Systematic review of basic oral care for the management of oral mucositis in cancer patients and clinical practice guidelines. *Supportive Care in Cancer*, 27(10), 3949– 3967. https://doi.org/10.1007/s00520-019-04848-4
- Pan, Y., Guan, H., Zhou, S., Wang, Y., Li, Q., Zhu, T., ... Xia, L. (2020). Initial CT findings and temporal changes in patients with the novel coronavirus pneumonia (2019-nCoV): A study of 63 patients in Wuhan, China. *European Radiology*, 30(6), 3306–3309. https://doi.org/10.1007/s00330-020-06731-x
- Paul-Binyamin, I., & Haj-Yehia, K. (2019). Multicultural education in teacher education: Shared experience and awareness of power relations as a prerequisite for conflictual

identities dialogue in Israel. *Teaching and Teacher Education*, 85, 249–259. https://doi.org/10.1016/j.tate.2019.06.021

- Pires, A. C., Bakala, E., González-Perilli, F., Sansone, G., Fleischer, B., Marichal, S., & Guerreiro, T. (2022). Learning maths with a tangible user interface: Lessons learned through participatory design with children with visual impairments and their educators. *International Journal of Child-Computer Interaction*, 32, 100382. https://doi.org/10.1016/j.ijcci.2021.100382
- Reddy, P., Sharma, B., & Chaudhary, K. (2020). Digital Literacy: A Review of Literature. *International Journal of Technoethics*, 11(2), 65–94. <u>https://doi.org/10.4018/IJT.20200701.oa1</u>
- Ren, S., Hao, Y., Xu, L., Wu, H., & Ba, N. (2021). Digitalization and energy: How does internet development affect China's energy consumption? *Energy Economics*, 98, 105220. <u>https://doi.org/10.1016/j.eneco.2021.105220</u>
- Safavi, M., Yahyavi, S., Narab, H., & Yahyavi, S. (2019). Association between spiritual intelligence and stress, anxiety, and depression coping styles in patients with cancer receiving chemotherapy in university hospitals of Tehran University of medical science. *Journal of Cancer Research and Therapeutics*, *15*(5), 1124. https://doi.org/10.4103/jcrt.JCRT_382_17
- Sweller, J. (2020). Cognitive load theory and educational technology. *Educational Technology Research and Development*, 68(1), 1–16. https://doi.org/10.1007/s11423-019-09701-3
- Thomaz, F., Salge, C., Karahanna, E., & Hulland, J. (2020). Learning from the Dark Web: Leveraging conversational agents in the era of hyper-privacy to enhance marketing. *Journal of the Academy of Marketing Science*, 48(1), 43–63. <u>https://doi.org/10.1007/s11747-019-00704-3</u>
- Vasconcelos, A. F. (2020). Spiritual intelligence: A theoretical synthesis and work-life potential linkages. *International Journal of Organizational Analysis*, 28(1), 109–134. <u>https://doi.org/10.1108/IJOA-04-2019-1733</u>
- Wang, H., Qian, C., Liu, J., Zeng, Y., Wang, D., Zhou, W., ... Zhao, Y. (2020). Integrating Suitable Linkage of Covalent Organic Frameworks into Covalently Bridged Inorganic/Organic Hybrids toward Efficient Photocatalysis. *Journal of the American Chemical Society*, 142(10), 4862–4871. <u>https://doi.org/10.1021/jacs.0c00054</u>
- Watkins, C. E., Hook, J. N., Owen, J., DeBlaere, C., Davis, D. E., & Van Tongeren, D. R. (2019). Multicultural Orientation in Psychotherapy Supervision: Cultural Humility, Cultural Comfort, and Cultural Opportunities. *American Journal of Psychotherapy*, 72(2), 38–46. <u>https://doi.org/10.1176/appi.psychotherapy.20180040</u>
- Yang, Q.-F., Chang, S.-C., Hwang, G.-J., & Zou, D. (2020). Balancing cognitive complexity and gaming level: Effects of a cognitive complexity-based competition game on EFL students' English vocabulary learning performance, anxiety and behaviors. *Computers* & Education, 148, 103808. <u>https://doi.org/10.1016/j.compedu.2020.103808</u>
- Zulfikar, T., & Emawati, E. (2020). Islamic Education and Religiosity: Voices of the Indonesian Muslim Communities in Australia. *Ulumuna*, 24(1), 24–56. <u>https://doi.org/10.20414/ujis.v24i1.388</u>
- Purba, A. M. (2021). Whatsapp Grup Sebagai Media Komunikasi Kuliah on Line Dengan E-Learning Di Masa Pandemi Covid 19. Jurnal SOMASI (Sosial Humaniora Komunikasi), 2(2), 87–100. <u>https://doi.org/10.53695/js.v2i2.520</u>
- Ramakrishnan, P., Balasingam, B., & Biondi, F. (2021). Cognitive load estimation for adaptive human-machine system automation. Dalam *Learning Control* (hlm. 35–58). Elsevier. <u>https://doi.org/10.1016/B978-0-12-822314-7.00007-9</u>
- Richter, K. P., Clark, L., Wick, J. A., Cruvinel, E., Durham, D., Shaw, P., Shih, G. H., Befort, C. A., & Simari, R. D. (2020). Women Physicians and Promotion in Academic Medicine.

New England Journal of Medicine, *383*(22), 2148–2157. <u>https://doi.org/10.1056/NEJMsa1916935</u>

- Scherer, R., Siddiq, F., & Tondeur, J. (2019). The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers & Education*, 128, 13–35. <u>https://doi.org/10.1016/j.compedu.2018.09.009</u>
- Siddiqui, M. S., Yamada, G., Vuppalanchi, R., Van Natta, M., Loomba, R., Guy, C., Brandman, D., Tonascia, J., Chalasani, N., Neuschwander-Tetri, B., Sanyal, A. J., Allende, D., Dasarathy, S., McCullough, A. J., Penumatsa, R., Dasarathy, J., Lavine, J. E., Abdelmalek, M. F., Bashir, M., ... Yates, K. (2019). Diagnostic Accuracy of Noninvasive Fibrosis Models to Detect Change in Fibrosis Stage. *Clinical Gastroenterology* and *Hepatology*, 17(9), 1877-1885.e5. https://doi.org/10.1016/j.cgh.2018.12.031
- Van Laer, T., Feiereisen, S., & Visconti, L. M. (2019). Storytelling in the digital era: A metaanalysis of relevant moderators of the narrative transportation effect. *Journal of Business Research*, 96, 135–146. <u>https://doi.org/10.1016/j.jbusres.2018.10.053</u>
- Vasan, N., Baselga, J., & Hyman, D. M. (2019). A view on drug resistance in cancer. *Nature*, 575(7782), 299–309. <u>https://doi.org/10.1038/s41586-019-1730-1</u>

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