ROLE OF GROWING-UP EXPERIENCES ON MENTAL RESILIENCE AND CREATIVE THINKING OF NIGERIAN YOUTHS

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ABSTRACT: *Nigerian youths either surrender to hopelessness, helplessness, or engage in ill-conceived risk-taking. Nigerian society (leaders) hardly plan for youths. This study examined role of growing-up experiences on mental resilience and creative thinking of Nigerian youths, psychometric properties of 101 participants, mean-age 21.74, SD 2.50, cross-sectional design, descriptive and MANOVA statistics, plus cluster and incidental sampling methods. Findings were: "Growing-up experiences" significantly influenced Nigerian youths' "mental resilience" (P< 0.011 < 0.05, F = 6.723, N = 101, df = 1;101); "Growing-up experiences" had non-significant influence on Nigerian youths' "creative thinking style" (P< 0.539 > 0.05, F = 0.381, N = 101, df = 1;101); Gender had non-significant influence on Nigerian youths' "mental resilience" (P< 0.436 < 0.05, F = .613, N = 101, df = 1;101); and Gender had non-significant influence on Nigerian youths' "creative thinking style" (P< 0.222 > 0.05, F = 1.511, N = 101, df = 1;101). Recommendations were made to create enabling opportunities to improve creative thinking prowess of female gender; check growing-up experiences of drug-use and sexual activities of youths; curb different abuses experienced by growing-up persons; and check youths' obsession with "Technology Abuse".*

KEYWORDS: Growing-Up-Experience, Mental Resilience, Creative-Thinking, Nigerian Youths

INTRODUCTION

Creative thinking (also known as creative problem-solving) is the ability to come up with unique and original solutions. Creative thinking is a valuable and marketable soft skill in a wide variety of careers and situations. The level of a nation's development depends on the extent of the mental resilience and creative thinking of her population, particularly the youths (Ayasrah, Obeidat, Katatbeh, Aljarrah, & AL-Akhras, 2023). Growing up experiences equip youths with various mental scripts associated with creative thinking. These experiences also reflect in the youths' mental resilience. Mental resilience stimulates creative thinking style that helps in solving problems.

This is because mental resilience and creative thinking can be inculcated, natured, and practiced. It entails that mental resilience and creative thinking of youths can be influenced in the course of their growing up. This is why the current study has considered it very imperative investigating the influence of growing-up experiences on the mental resilience and creative thinking of Nigerian youths.

Rise in mental health disorders is attributed to a decline over decades in opportunities for growing up children and teens to play, roam and engage in activities independent of direct oversight and control by adults (Gray, Lancy & Bjorklund, 2023). Although well intended, adults' drive to guide and protect children and teens has deprived them of the independence they need for mental health, contributing to record levels of anxiety, depression, and suicide among young people (Gray, Lancy & Bjorklund, 2023).

Parents today are regularly over concerned about the dangers that might befall unsupervised growing up children and the value of high achievement in school. But they hear little of the countervailing messages that if children are to grow up well-adjusted, they need ever-increasing opportunities for independent activity, including self-directed play and meaningful contributions to family and community life,

which are signs that they are trusted, responsible, and capable. They need to feel they can deal effectively with the real world, not just the world of school (Gray, Lancy & Bjorklund, 2023).

While people are growing up, there is need for freedom to engage in activities that involve some degree of risk and personal responsibility away from adults also has declined over the decades. Some risky play while growing up helps protect children from developing phobias and reduces future anxiety by boosting self-confidence to deal with emergencies. Among the many constraints that impact independent activity in children while growing up include increased time they spend in school and on schoolwork at home. "Growing-up" safety and the value of adult guidance need to be tempered by recognition that as children grow, they need ever increasing opportunities to manage their own activities independently (Gray, Lancy & Bjorklund, 2023).

Increase in school time and pressure to achieve over decades may have impacted mental health not just by detracting from time and opportunity for independent activities but also because fear of academic failure, or fear of insufficient achievement, is a direct source of distress (Gray, Lancy & Bjorklund, 2023).It was observed by Gray, Lancy and Bjorklund (2023) that there is large decline over decades in children's and youths' opportunities for independent activity, as well as a large decline over the same decades in young people's mental health. These series of decline on independent activities affect children's happiness, and building of long-term psychological and mental resilience.

Mental resilience is an individual's ability to adapt to and cope with difficult situations, so as to function well. A person with good mental resilience keeps functioning effectively both physically and psychologically. Mental resilience helps a lot in adaptive necessity in the course of life's stress, adversity, trauma, anger, grief, pain and many other problems in living (Padmanabhanunni, Pretorius & Khamisa, 2023).

Mental resilience facilitates the ability to adapt to life's misfortunes and setbacks (Mayo Clinic, 2023). When something goes wrong, a person with tend to bounce back or fall apart. Mental resilience helps to harness the inner strength that helps one to rebound from a setback or challenge, such as a job loss, an illness, a disaster or a loved one's death. An individual who lacks mental resilience, finds it difficult to cope with problems, feel victimized, become overwhelmed or turn to unhealthy coping mechanisms, such as substance abuse, eating disorders or risky behaviors. Mental resilience does not make problems go away, but resilience can give you the ability to see past them, find enjoyment in life and better handle stress. If a person is not as mentally resilient as should be, he or she can develop and learn skills to become more resilient.

Mental resilience is not about putting up with something difficult, being stoic or figuring it out on your own. In fact, being able to reach out to others for support is a key part of being mentally resilient. Mental resilience can help protect a person from various mental health conditions, such as depression and anxiety. Mental resilience can also help offset factors that increase the risk of mental health conditions, such as being bullied or previous trauma. If a person has an existing mental health condition, being mentally resilient can improve your coping ability. Mental health literacy, an important way to promote mental health, may mediate the effect of mental resilience on psychological distress (Zhang, Ji, & Zhou, 2023).

Mental resilience can be acquired through a number of psychological resources (Han, Duan, Huang & Wang, 2023). It can be acquired by getting connected. Building strong, positive relationships with loved ones and friends can provide a person with needed support, guidance and acceptance in good and bad times. Establish other important connections by volunteering or joining a faith or spiritual community. Mental resilience can also be acquired by making every day meaningful. It entails doing something that gives a sense of accomplishment and purpose every day. It also involves setting clear, achievable goals to help look toward the future with meaning. Furthermore, mental resilience can be acquired by learn from experience. It is necessary to think of how one has coped with hardships in the past.

It is necessary to consider the skills and strategies that helped one through difficult times. One might even write about past experiences in a journal to help one identify positive and negative behaviour patterns and guide one's future behaviour (Mayo Clinic, 2023).

Mental resilience can be acquired by remaining hopeful. An individual cannot change the past, but the person can always look toward the future. Being proactive also promotes mental resilience. Lack of mental resilience can reduce work performance and social functioning and poses a significant economic burden to society if left untreated (Chang, Yang & Hsieh, 2023).

Achieving mental resilience takes time, practice, strength, and help from people around you. When successfully achieved, it facilitates the mental, emotional, and behavioral flexibility and ability to adjust to both internal and external demands. It is important to note that being mentally resilient requires a skill set that you can work on and grow over time. Demonstrating mental resilience includes working through emotional pain and suffering, so as to find solutions to challenges.

Youths who show emotional resilience tend to have reduced stress and a more positive life satisfaction overall during the early stages of challenges. People who had attempted suicide had significantly lower resilience scale scores than people who had never attempted suicide. Mental resilience empowers youths and individuals generally to accept and adapt to a situation and move forward. That is why Sood (2023) explains mental resilience as the core strength one uses to lift the load of life.

Mentally resilience contributes a lot in the improvement of quality of life, and mental health (Chuang, Wu & Wang, 2023). The promotion of resilience is important to enhance the quality of life among youths. Youths with lower resilience tended to have lower coping abilities (Moosa, Ng, Aau, Goy, Yang, Sim, Wee & Tan, 2023). Youths' mental resilience that affects creativity must pay increased attention to sources of young people's adaptation to distress. Those psychological resources that young people identify for themselves while facing challenges need to be reinforced (Shanahan, Johnson-Ferguson, Loher, Steinhof,

Bechtiger, Murray, Hepp, Ribeaud & Eisner, 2023). Such psychological resources could facilitate creative thinking in the course of growing up of an individual.

Creative thinking is the ability to come up with unique and original solutions. Also known as creative problem-solving, creative thinking is a valuable and marketable soft skill in a wide variety of human endeavours (Kaplan, 2023). How is it that some people always seem to be able to generate new ideas and think creatively, and others seem to struggle to do so? The answer lies in their ability to use creative thinking. Creative thinking is the ability to look at things differently, and find new ways of solving problems. Creative thinking skills are definitely not just for 'creative types' of people. Everyone can benefit from creative thinking from time to time.

Regardless of whether an individual view himself or herself as a creative type or not, a person can learn some useful skills and techniques that enhance creative thinking. This learning will enable the person to tap into that creative 'right brain' thinking and bring a new perspective to innovation, problem-solving and managing change. This is synonymous with developing competencies for creative thinking of youths (Luesia, Benítez, Company-Córdoba, Gómez-Gómez & Sánchez-Martín, 2023).

Creative thinking is the ability to make something new. Creative thinking is the ability to think differently. It is to see a problem or issue from a new angle or perspective. This often allows a person find a new solution, or even to see that the problem does not necessarily need a solution. The need for creative thinking arises because our brains naturally tend to fall into certain 'short cuts'. Once a person has a piece of information, he or she tends to use it again. That is how a person learns, thereby indicating that creative thinking can learned (Tam, 2023), especially when a person is growing up.

Of course, it is possible to think creatively all the time. There are some people who simply fizz with new ideas and seem to see everything slightly differently from those around them. These are the people who are always asking '*Why?*', and '*Why not?*'. They are natural problem-solvers and innovators. However, for

most people, creative thinking requires more effort. They prefer to save their creative thinking for when it is really necessary.

Typical examples of times when a person might take the time to use creative thinking techniques include: When he/she is facing a major problem or issue, and cannot see an obvious way forward. At times of change, when it is hard to see what might lie ahead, and a person wants to think about possible scenarios. When there is a lot of disagreement about what needs to happen next, and no compromise seems possible without a lot of effort. When a person needs something new, that has not been tried before, but he/she is not sure what. On occasions like this, it may be worth it for the youths to try doing some 'formal' creative thinking, and using a trained facilitator to help the group get the most out of the session.

There are a number of tools and techniques that you can use to stimulate creative thinking. These include brainstorming, drawing techniques such as mind-mapping and rich pictures, role-play techniques, cooperative learning, and jigsaw (Silva, Lopes, Morais, & Dominguez, 2023). There is undoubtedly considerable skepticism about many of these techniques. However, most if not all have some science behind them, and certainly some evidence that they work. It is worth keeping an open mind when you try them.

Beyond 'formal' creative thinking opportunities, there are also things that one can do to help oneself think more creatively on a routine basis. These include:

(a). *Spreading one's social wings* to get to know a wider and more diverse group of people. We all tend to get on best with people who are like us, and particularly people with the same background and overall views on life. However, associating with people who are like us tends to mean that our thinking gets a bit 'lazy'. Our assumptions go unchallenged, and our views tend to get reinforced. Taking time to actively go out and meet new people - and particularly more diverse people, who are not so like you—will help you to challenge your assumptions. Without even realizing that you are doing so, you will start to think more widely, and see things differently.

That, of course, is the first step in starting to think more creatively.

(b). *Embracing new opportunities and trying new things:* One particular research study tested creativity among people who had lived abroad, and those who had not lived outside their birth country. The study found that people who had lived abroad were better able to think creatively to solve a problem. Obviously not everyone can go and live abroad for a period, but actively seeking out and taking up opportunities to do something new could have the same effect. It is worth challenging yourself to learn a new skill and new ways of doing things (Elbyaly & Elfeky, 2023), or do something you find difficult, simply for the effect it will have on your thinking!

(c). *Challenging stereotypes and forcing oneself to think beyond the obvious:* Another study found that people who were asked to think about people who did not fit a stereotype (such as a male midwife) were better able to think creatively than people asked to think about someone who fitted the stereotype. This is a very small thing, but it shows the effect of conventional thinking on our ability to think more creatively. Ability to manifest flexibility, diversity of interaction patterns, and adapting to learning promote various responses in various situations, associated with creative thinking in persons (Elbyaly & Elfeky, 2023).

(d). *Engaging with art, theatre and music:* It seems that people who visit the theatre, go to concerts, or engage with other cultural activities are also more able to think creatively. The thinking is that these activities help to see things from a new perspective, and to think more creatively. They help to feel more connected, and generally kinder. Taking time to enjoy arts or create something in your leisure time will help you to broaden your horizons more generally. There are huge benefits to learning to think a little differently. It will help improves problem-solving ability (Agustina, Masrukan & Walid, 2023), and helps to see others' perspectives. In an increasingly global world, broader horizons and an ability to think more widely is never going to hurt.

Statement of Problem

Growing up experiences of people could impact on their mental resilience, which in turn

separately and jointly impact on creative thinking of the people. The alarming rate at which Africans take dangerous migration trips to Europe and America makes one believe that the mental resilience is there in the youths to withstand, endure and cope with the adversities and risks of such trips, though the mental resilience is negatively channeled. Such trips do not connote creative thinking. The present study therefore aims at investigating the role of growing-up experiences on mental resilience and creative thinking of Nigerian youths.

The success and development of any society depend on the extent of the creative thinking of her youths. Strategically, the youths are the human resources for the sustainability of the success of future generation. In the course of growing up, the mental resilience of the youths is developed. Growing up in Nigeria is challenged by many developmental factors and experiences that affect creative thinking of Nigerian youths. It has been noted that the level of a nation's development depends on the extent of the mental resilience and creative thinking of her population, particularly the youths (Ayasrah, Obeidat, Katatbeh, Aljarrah, & AL-Akhras, 2023).

The massive joblessness and exploding population in African, Nigeria in particular, has instigated the curiosity to examine the extent of mental resilience obtainable in the society. The study also aims at examining the role of growing up experiences on the creative thinking of the Nigerian youths. Nigerian society is a very challenging one which is presumed to be affecting the psychological attributes of the citizens.

Purpose of Study
The study aims at investigating the following objectives:
1. Investigate whether growing-up experiences of Nigerian youths impact on their mental resilience.
2. Examine if growing-up experiences of Nigerian youths impact on creative thinking style.
3. Examine the extent of the mental resilience of Nigerian youths.
4. Explore the creative thinking style of Nigerian youths.
5. Explore the gender variations in mental resilience of Nigerian youths.
6. Investigate gender variations in creative thinking styles among Nigerian youths.

Research Questions
1. How does growing-up experiences of Nigerian youths impact on their mental resilience?
2. How does growing-up experiences of Nigerian youths impact on creative thinking style?
3. What is the extent of mental resilience of Nigerian youths?
4. What is the creative thinking style of Nigerian youths?
5. What is the nature of gender variations in mental resilience of Nigerian youths?
6. What are the gender variations in creative thinking styles among Nigerian youths.

Significance of the Study
The study is significant on the following grounds.
1. The study will be very crucial in child training. This is because the knowledge derived from the study will help immensely in inculcating in the Nigerian child creative thinking attitude early in childhood.
2. The knowledge from the study will help in harnessing mental resilience of Nigerian child in course of their growing up. This will further be very instrumental in linking mental resilience with creative thinking.
3. The study will highlight the extent of mental resilience and creative thinking in Nigerian youths. This is very important considering the fact that well-channeled mental resilience and creative thinking are the soft skills for the development of any nation.

Operational Definitions of Measurable Variables of the Study
1. **Growing up experience:** It is the experiences of life individuals encountered while growing up, as measured with the Growing-Up Experiences Questionnaire by Nwankwo (2023).

2. **Mental resilience:** This is an individual's functional prowess of withstanding adversity and persist in finding solutions or making efforts to overcome challenges, as measured with Mental Resilience Scale of NIEHS Version 2.0 (2023).

3. **Creative thinking:** This is an individual's ability to generate various ideas of achieving envisioned goals, as measured with the Creative Thinking Styles Inventory adapted from the Creative Thinking Skills Self-Assessment of the SkillsYouNeed.Com (2023)

LITERATURE REVIEW
Conceptual Review
Growing Up Experiences

Growing up experiences involve the study of human development across many stages of life span. Developmental psychology incorporates understanding and classification of biological, psychological, and social aspects of how people grow and what it takes to adjust, adapt, and even thrive in different periods of life (ALICE, 2023).

Growing up, like a lot of other aspects of evolving identity, can be thought of as a spectrum. The feeling of moving from childhood into adulthood can take many forms and can even change for an individual throughout their lifespan. To that end, both physiological changes in the body and attributes acquired over time likely contribute to the feeling and experience of "growing up." And while various cultures may define adulthood differently. Actually, growing up carries with it a range of behaviors and abilities that demonstrate emotion and intellectual capacity. These characteristics can include ability to learn from mistakes, take accountability for actions, and appreciate the reality of the present while also planning for the future.

As people grow, their bodies go through certain physiological changes that can be thought of as signs of growing up, one of these changes being brain development. As the frontal lobe, particularly the prefrontal cortex, continues to mature and grow, the ability to control impulses, assess risk versus reward, plan, and make decisions begins to improve as well. However, this brain development is just one component of how people "grow up". While the brain stops growing in the early- to mid-twenties, emotional and psychological development continues throughout a person's life. The ability to balance responsibility with fun, immediate desires with long-term needs, and other seemingly conflicting priorities is a trait that may only begin to be appreciated and fully understood with age and as independence and life experiences broaden.

Furthermore, one may be familiar with the phrase "grow up", typically used in conversation to imply a person should be more mature in one way or another. But what exactly makes a person seem mature? One way to qualify maturity is to consider what unique qualities a "mature person" might embody. Some of these characteristics may include (ALICE, 2023):

1. **Humility:** Being able to put yourself "in someone else's shoes" and understand their perspective on certain topics or issues is often times associated with maturity.

2. **Gratitude:** Being able to appreciate the little and grand "gifts" of life, whether they are material or not.

3. **Emotional control:** Having the ability to not be overwhelmed by certain feelings, like anger, and allow those feelings to control you.

4. **Self-confidence:** Being optimistic about one's ability to perform and overcome obstacles while, at the same time, not being egotistical and self-absorbed.

5. **Self-acceptance:** Having an appreciation for their own flaws and strengths, while also having the ability to change and grow.

6. **Responsibility:** Being accountable and actively engaged in the work necessary to support and sustain themselves, as well as their community and surrounding environment.

7. **Authenticity:** Living in accordance with a certain set sincere beliefs and values that have been gained through lived experience, while also presenting themselves honestly and with genuine intentions.

8. **Consideration:** Having an understanding of each person's impact on the larger community, while performing actions that reflect thoughtfulness of that understanding.

Having an appreciation of the joys and simple pleasures in life - things we readily delighted in as children, but sometimes take for granted as adults - is viewed by many as equally as important as managing responsibility and obligations of adulthood. Key to "growing up" and developing maturity is finding a definition that is based on characteristics you admire. No matter your age, hopefully you strive for a balance of living and self-reflection that allows for enjoyment and appreciation of life's many experiences, whether they be in the past, present, or future.

Some of the many changes associated with growing up include (Cherry, 2023):
1. Cognitive development during childhood and throughout life
2. Developmental challenges and learning disabilities
3. Emotional development
4. Language acquisition
5. Moral reasoning
6. Motor skill development
7. Personality development
8. Self-awareness and self-concept
9. Social and cultural influences on child development

By better understanding how and why people change and grow, developmental psychologists help people live up to their full potential. Understanding the course of normal human development and recognizing potential problems early on can prevent difficulties with depression, low self-esteem, frustration, and low achievement in school (Cherry, 2023).

Mental Resilience

People face all kinds of adversity in life. There are personal crises, such as illness, loss of a loved one, abuse, bullying, job loss, and financial instability. There is the shared reality of tragic events in the news, such as terrorist attacks, mass shootings, natural disasters, a global pandemic, and war. People have to learn to cope with and work through very challenging life experiences.

Building mental resilience can help you enhance your focus, improve your relationships, and increase your productivity. The SMART program, designed by Dr. Amit Sood, breaks resilience into four key areas: **(i) Gratitude, (ii) Mindful Presence, (iii) Kindness, and (iv) Resilient Mindset** — presenting insights and corresponding exercises to help you build your resilience. While taking only about five minutes a day, these practices, now tested in over 30 clinical trials, use the concept of neuroplasticity to help you "rewire your brain" to better handle life's stressors and enjoy each day more.

These practices provide opportunities to sprinkle "RUM moments" (Rest, Uplifting emotions & Motivation) throughout your day to address the main struggles of the brain which deplete energy and resilience — focus, fatigue, and fear (Sood, 2023). Below is are the expose made by Sood on how to harness mental resilience:

Gratitude: Our brains struggle with focus, fatigue, and fear, that causes stress and burnout, and depletes our resilience. Stronger attention naturally focuses on positivity and gratitude builds resilience. Morning Gratitude: Before you get out of bed and cede control of the day to email, to-do lists and the demands of others, think of 5 people you appreciate and send them a silent gratitude.

Mindful Presence: The brain notices what it finds of value (i.e. things that are interesting or threatening). Over time, what was once interesting and attractive loses novelty, and you notice it less. This weakens attention. Practicing mindful presence enables you to regain novelty and focus on what is truly important and meaningful. This will strengthen your attention. 2-Minute Rule: Give at least 2 minutes of undivided attention to someone in your life who deserves that attention but is not getting it. Do not try to improve or change the other person in that time. Curious Moments: Observe what's around you with a more engaged presence and a deeper sense of curiosity.

Kindness: Just like a muscle, areas of the brain that you use more become stronger/better connected. By cultivating kind thoughts, you can

change your brain's innate wiring to move past the tendency toward negativity and fear. In addition, when you are kind toward others, you become kinder toward self. Self-kindness, in turn, can nurture every aspect of your life. Kind Attention: Assume most people you meet or see (even those who are difficult) are special and have struggles. Treat them with kind attention by sending them a silent good wish. Kindness to Self: Self-kindness can take many forms, including regulating your intake of "toxic news," periods of prolonged sitting, and mindless multi-tasking.

Resilient Mindset: The same event can be thought of in many different ways, depending on your mindset. A mindset guided by your core values is important to resilience and happier life. Resilient Thinking: Integrate these five timeless values into your mindset: (i) Gratitude, (ii) Compassion, (iii) Acceptance, (iv) Meaning, and (v) Forgiveness. Consider assigning each of them one day per week, or one week per month, during which you will focus on that value. An individual can develop a practical approach to experiencing their day with the five principles of gratitude, compassion, acceptance, meaning, and forgiveness. This approach helps to lower stress, increase well-being, and diminish the constant rumination that is our brain's default.

Resilience has many paths. Here are the five suggested steps by Sood (2023):

1. **Answer why** — From a scientific and spiritual standpoint, think of good reasons why you want to be stronger. I find great inspiration from the quote, "Carry many with you as you cross the river. Be a ship, not a lone swimmer." I see tremendous struggles in the world around me, many of which are optional. I surround myself with thoughts and images of suffering to remain inspired to make a difference. Once your why is answered, the how becomes much easier.

2. **Cultivate awareness** — The next step is to become aware of why I am not as resilient as I could be. It converges to the design and operation of the human brain. Our brains struggle with focus and spend more time running away from fear rather than chasing meaning. The more we become aware of our neural traps, the more we are empowered to make a difference for ourselves and others. Every time I give a talk and share the related neuroscience, I hear people say, "I wish I knew this when I was in college."

3. **Take back control of attention** — This is step 3. At any moment, billions of bytes of data are striking your sensory system. You can experience a tiny fragment of it. It is your attention that controls what you experience. Presently, most of us have weak attention that is wandering all the time. Taking back control of the attention will empower you to influence every aspect of your life — emotional, cognitive, physical, social, occupational, and spiritual. That's the reason helping people take back control of their attention is an essential part of our approach to resilience training.

4. **Develop a resilient mindset** — Our brain by design is a conflicted organ. When you look at a donut, a part of you wants the donut, while another part reminds you of its calories. No other part of our body is conflicted like this. The brain thus needs a construct it can trust. I have found five principles that help me here — gratitude, compassion, acceptance, meaning, and forgiveness. Feeling grateful for a deep breath, recognizing that someone upset is actually seeking help, knowing that with two thirds of the earth covered with clouds it will rain on my backyard someday, keeping your North Star in focus through your life's journey, and recognizing that by forgiveness you are taking back control of your narrative and giving the person who doesn't belong an eviction notice from your brain — these are all a resilient way of responding and living.

5. **Find good role models** — Our world desperately needs good role models! Keep inspiring people who were/are firm in principles in your thoughts. They will help you remain anchored in higher values, particularly during the tempting moments. I also follow the "lottery test" for personal connections — Let's say you win a large sum of money. How many people you can call knowing they will be very happy for you but not want a dime. These are the people you want to be part of your inner circle.

While individuals process trauma and adversity in different ways, there are certain protective factors that help build resilience by improving coping skills and adaptability. These are: **Social Support:** Social systems that provide support in times of crisis or trauma support mental resilience in the individual. Social support can include immediate or extended family, community, friends, and organizations (Sippel, Pietrzak, Charney, Mayes & Southwick, 2015). **Realistic Planning:** The ability to make and carry out realistic plans helps individuals play to their strengths and focus on achievable goals. **Self-Esteem**: A positive sense of self and confidence in one's strengths can stave off feelings of helplessness when confronted with adversity. **Coping Skills Coping**: Coping and problem-solving skills help empower a person who has to work through adversity and overcome hardship. **Communication Skills**: Being able to communicate clearly and effectively helps people seek support, mobilize resources, and take action. **Emotional Regulation**: The capacity to manage potentially overwhelming emotions (or seek assistance to work through them) helps people maintain focus when overcoming a challenge.

Resilience theory shows that it is imperative to manage an individual's immediate environment and promote protective factors while addressing demands and stressors that the individual faces. In other words, resilience isn't something people tap into only during overwhelming moments of adversity. It builds as people encounter all kinds of stressors on a daily basis, and protective factors can be nurtured.

Importance of Resilience

Resilience is what gives people the emotional strength to cope with trauma, adversity, and hardship. Resilient people utilize their resources, strengths, and skills to overcome challenges and work through setbacks. People who lack resilience are more likely to feel overwhelmed or helpless, and rely on unhealthy coping strategies (such as avoidance, isolation, and self-medication). One study showed that patients who had attempted suicide had significantly lower resilience scale scores than patients who had never attempted suicide (Xu, Zhang, Zhou, Zhang, Li, Lu, Tian, Huang, Li, Schinke, Yuan, Yin & Lin, 2023).

Resilient people do experience stress, setbacks, and difficult emotions, but they tap into their strengths and seek help from support systems to overcome challenges and work through problems. Resilience empowers them to accept and adapt to a situation and move forward. Resilience is "the core strength you use to lift the load of life," (Sood, 2023).

What Are the 7 Cs of Mental Resilience?

Pediatrician Ginsburg (2023) who specializes in adolescent medicine at the Children's Hospital of Philadelphia, developed the 7 Cs model of resilience to help kids and teens build the skills to be happier and more resilient. The 7 Cs of resilience illustrate the interplay between personal strengths and outside resources, regardless of age (Ginsburg, 2023).

The 7 Cs model is centered around two key points as given below:

1. Young people live up or down to the expectations that are set for them and need adults who love them unconditionally and hold them to high expectations.
2. How we model resilience for young people is far more important than what we say about it.

The American Academy of Pediatrics summarizes the 7 Cs as follows (Ginsburg, 2023):

1. **Competence**: This is the ability to know how to handle situations effectively. To build competence, individuals develop a set of skills to help them trust their judgments and make responsible choices.
2. **Confidence**: Ginsburg (2023) says that true self-confidence is rooted in competence. Individuals gain confidence by demonstrating competence in real-life situations.
3. **Connection:** Close ties to family, friends, and community provide a sense of security and belonging.
4. **Character:** Individuals need a fundamental sense of right and wrong to make responsible choices, contribute to society, and experience self-worth.
5. **Contribution:** Ginsburg (2023) says that having a sense of purpose is a

powerful motivator. Contributing to one's community reinforces positive reciprocal relationships.

6. **Coping:** When people learn to cope with stress effectively, they are better prepared to handle adversity and setbacks.

7. **Control:** Developing an understanding of internal control helps individuals act as problem-solvers instead of victims of circumstance. When individuals learn that they can control the outcomes of their decisions, they are more likely to view themselves as capable and confident.

Types of Resilience

The word resilience is often used on its own to represent overall adaptability and coping, but it can be broken down into categories or types:

1. **Psychological Resilience:** Psychological resilience refers to the ability to mentally withstand or adapt to uncertainty, challenges, and adversity. It is sometimes referred to as "mental fortitude." People who exhibit psychological resilience develop coping strategies and capabilities that enable them to remain calm and focused during a crisis and move on without long-term negative consequences.

2. **Emotional Resilience:** There are varying degrees of how well a person copes emotionally with stress and adversity. Some people are, by nature, more or less sensitive to change. How a person responds to a situation can trigger a flood of emotions. Emotionally resilient people understand what they're feeling and why. They tap into realistic optimism, even when dealing with a crisis, and are proactive in using both internal and external resources. As a result, they are able to manage stressors as well as their emotions in a healthy, positive way.

3. **Physical Resilience:** Physical resilience refers to the body's ability to adapt to challenges, maintain stamina and strength, and recover quickly and efficiently. It's a person's ability to function and recover when faced with illness, accidents, or other physical demands. Physical resilience plays an important role in healthy aging, as people encounter medical issues and physical stressors. Healthy lifestyle choices, building connections, making time to rest and recover, deep breathing, and engaging in enjoyable activities all play a role in building physical resilience.

4. **Community Resilience:** Community resilience refers to the ability of groups of people to respond to and recover from adverse situations, such as natural disasters, acts of violence, economic hardship, and other challenges to their community. Research into what promotes resiliency supports the idea that certain protective resources, rather than the absence of risk factors, play a significant role in a person's capacity to confront and work through stressors (Friborg, Hjemdal, Rosenvinge & Martinussen, 2003).

Things like social support, adaptive coping skills, and the ability to tap into one's inner strengths can help develop and strengthen resiliency in an individual. When it comes to the idea of "natural resilience," or a person's innate ability to recover from adversity, the research is mixed. Mental resilience in the face of loss or potential trauma is more common than is often believed, and there are multiple and sometimes unexpected pathways to resilience (Bonanno, 2004).

Mental Resilience Training

The good news is that resilience can be learned. For example, people can build up social support networks or learn to reframe negative thoughts. Learning to be resilient doesn't mean figuring out how to "grin and bear it" or to simply "get over it." It's not about learning to avoid obstacles or resisting change. Building resilience is a process by which people utilize flexibility to reframe thought patterns and learn to tap into a strengths-based approach to working through obstacles.

How to Build and Cultivate Resilience

The following are steps that can help build mental resilience over time:

1. **Develop self-awareness**: Understanding how you typically respond to stress and adversity is the first step toward learning more adaptive strategies. Self-awareness also includes understanding your strengths and knowing your weaknesses.
2. **Build self-regulation skills:** Remaining focused in the face of stress and adversity is important but not easy. Stress-reduction techniques, such as guided imagery, breathing exercise, and mindfulness training, can help individuals regulate their emotions, thoughts, and behaviors.
3. **Learn coping skills:** There are many coping skills that can help in dealing with stressful and challenging situations. They include journaling, reframing thoughts, exercising, spending time outdoors, socializing, improving sleep hygiene, and tapping into creative outlets.
4. **Increase optimism:** People who are more optimistic tend to feel more in control of their outcomes. To build optimism, focus on what you *can* do when faced with a challenge, and identify positive, problem-solving steps that you can take.
5. **Strengthen connections:** Support systems can play a vital role in resilience. Bolster your existing social connections and find opportunities to build new ones.
6. **Know your strengths:** People feel more capable and confident when they can identify and draw on their talents and strengths.

How Mentally Resilient is a Person? Resilience is not a permanent state. A person may feel equipped to manage one stressor and overwhelmed by another. Remember the factors that build resilience, and try to apply them when dealing with adversity. In general, resilient people have many of the following characteristics:

1. Locus of Control Focus on how you, as opposed to external forces, can control the outcome of events.
2. Social Support Rely on family, friends, and colleagues when needed.
3. Problem-Solving Skills Identify ways within your control to work and resolve a problem.
4. Optimism When the going gets tough, believe in your ability to handle it.
5. Coping Skills Find techniques to reduce stress and anxiety.
6. Self-Care Make your mental, emotional, and physical health top priorities.
7. Self-Awareness Know your strengths and weaknesses and how to put internal resources to work.

The APA lists 10 tips for building resilience in young people:

1. Foster social connections
2. Help children by having them help others
3. Maintain a daily routine
4. Take breaks from sources of stress
5. Teach self-care
6. Set realistic goals
7. Nurture a positive self-image
8. Keep things in perspective
9. Encourage self-discovery
10. Accept change as part of life

There is no universal formula for building resilience in young people. If a child seems overwhelmed or troubled at school and at home, parents might consider talking to someone who can help, such as a counselor, psychologist, or other mental health professional. Developing resilience is both complex and personal. It involves a combination of inner strengths and outer resources, and there is not a universal formula for becoming more resilient. APA (2023) identifies top key factors that build/contribute to one's personal resilience include:

1. The ways someone views and engages with the world;
2. The availability and quality of social resources; and
3. Specific coping strategies.

Creative Thinking

Creative thinking is all about developing innovative solutions to problems. Creative thinkers brainstorm not only a large number of ideas but also a variety and range of them. Once they've brainstormed their ideas, creative

thinkers will experiment with them. They look at ideas from multiple perspectives and examine how their solutions fit into the scope of what they're working on. Creative thinkers aren't afraid to take risks and try new ideas. In fact, this ability to develop, test, and implement original solutions makes them a valuable asset to just about any workplace. Creative thinking manifests in the following ways:

1. Holding an interactive brainstorm to gather initial thoughts on a project
2. Evaluating a current process and offering suggestions on how to improve it
3. Researching other ways to market a product and leading experiments on new marketing channels
4. Developing an innovative way to reach out to prospective clients
5. Identifying a unique opportunity to promote the company brand and developing a strategy to do so

Creative thinking includes the process of innovative problem-solving — from analyzing the facts to brainstorming to working with others. Examples of these skills include **analytical skills, innovation,** and **collaboration**.

Analytical Skills: Analytical skills are problem-solving skills that help you sort through facts, data, and information to develop rational solutions. These skills aid you in the first part of the creative thinking process as you brainstorm and start to generate ideas. Analytical skills include:

- Data analysis
- Research
- Forecasting
- Reporting
- Interpreting
- Communication

Innovation: Innovation is the ability to come up with something new; however, you don't need to develop the first flying car to be an innovative thinker. "Something new" at work might mean a method you haven't tried before or experimenting with an unfamiliar process. Innovators in the workplace aren't afraid to step away from tradition and explore something original, even if it might fail. Innovation skills include:

- Risk-taking

- Brainstorming
- Imagining
- Critical thinking
- Ambition
- Resilience

Collaboration: Creative thinking doesn't have to happen alone; you might have your most creative ideas when bouncing your work off others. Collaboration skills ensure you consider multiple perspectives and ways of thinking when you develop and refine ideas.

Collaboration skills include:

- Written and verbal communication
- Active listening
- Empathy
- Feedback
- Inclusivity

Ways to Improve Creative Thinking

Step outside of your comfort zone: Research has proven that one of the biggest obstacles for creativity is working or thinking within ideas we're already familiar with. In an experiment, a group of college students were asked to imagine, sketch out, and describe extraterrestrial animals. As it turned out, most of the animals they initially created were very similar to the earthly ones. The more "limitations" researchers imposed on students (e.g. animals have to have feathers *and* be able to survive in certain conditions), the more creative the students' ideas became. When you're facing a creative challenge, try to constrain your work to a certain level (for instance, when making a presentation, force yourself to begin each slide with a verb in active voice, or set a more stringent word count limit on your writing assignment). This way, you will encourage your brain to come up with creative solutions to work around the limitations you've set for yourself (Tomaszewski, 2023).

Switch up Your Routine: Routine can be a great productivity booster, but it also can get in the way of your creativity. So, switch up your routine for one project, day, or even an hour. This can be something as small as where you're physically sitting when you do your work or something as big as your process for approaching projects. Challenging yourself to do something different will help you find creative ways to adapt to your new environment.

Challenge What's Currently Working: Think about how you might expand or improve upon a current process. What would you do if you had more resources, whether that's time, money, or another expert? What would you do if you had fewer resources? If this project was taking place at a different time of year? If the target audience was different? Imagining these different potential scenarios will force you to problem-solve and adjust for various (very possible!) circumstances.

Find Inspiration: Creative thinking doesn't happen in a bubble. It's vital to ask for others' opinions, ideas, and feedback. Creative thinkers consider multiple perspectives and are curious about how others think. Ask your colleague about their work processes, whether it's how they research for a client deliverable or how they approach meeting an external buyer.

Brainstorm: Brainstorming is a perfect combination of creative thinking skills and teamwork. It's based on thinking about a solution to a problem or a creative task, and jotting down *all* ideas any member suggests—regardless of how preposterous or out-of-place these might seem. Out of all the ideas, some will most likely be both possible *and* innovative. But you can add an interesting twist to brainstorming - Instead of picking the best ideas and trying to develop them further, pick *the worst ones*. Then, focus on these ideas and try to find their good features. *Or* try to come up with solutions to transform a terrible idea into a good one. I guarantee, you'll find out something creative you'll be able to transfer over to the good ideas (Tomaszewski, 2023).

Force yourself to work when you are feeling uninspired: As a professional writer, I have to find ways to overcome writer's block—otherwise, there would be *weeks* when I wouldn't write a single word. Even when you feel like creative work is the last thing, you are capable of on a given day, commit to doing it anyways, but work in limited, short periods of time (for example, 20 minutes). During these periods, don't let anything distract you, don't try to do anything else—just work on the thing you've committed to do. If you write only 5 words, draw just two lines, or note down a single idea that doesn't even make sense, it's fine. Once the 20 minutes are over, take a break. Whenever you feel

ready, start another 20 minutes. After a few iterations, you'll notice that you get more and more done within the set chunk of time *and* you'll no longer feel relieved when it's time for a break. Soon, you'll be back to your creative best (Tomaszewski, 2023).

Aspire and work for it: Many studies have suggested that disconnecting mentally, daydreaming, dancing, or even simply napping helps enhance creative thinking skills. But there's only one study I found that highlights a very important aspect of daydreaming: it only works once you've already invested a considerable amount of time in a given project. The deeper you are in the creative process, the more unplugging for a while or daydreaming can help you further (Tomaszewski, 2023).

Theoretical Review

Growing Up Experiences

Psychosocial Development Theory of Erik Erikson (1902-1994): Erik Erikson is best known for his famous theory of psychosocial development and the concept of the identity crisis. His theories marked an important shift in thinking on personality. Instead of focusing simply on early childhood events, his psychosocial theory looks at how social influences contribute to our personalities throughout our entire lifespans (Cherry, 2023).

Erikson's stage theory of psychosocial development generated interest and research on human development through the lifespan. An ego psychologist who studied with Anna Freud, Erikson expanded psychoanalytic theory by exploring development throughout life, including events of childhood, adulthood, and old age. Erikson stated that hope is both the earliest and the most indispensable virtue inherent in the state of being alive. If life is to be sustained hope must remain, even where confidence is wounded, trust impaired. Erickson contributed several theories to the field of psychology. Two of his best-known deal with psychosocial development and identity (Cherry, 2023).

Eight (8) Stages of Psychosocial Development: Erikson was a Neo-Freudian psychologist who accepted many of the central tenets of Freudian theory but added his own ideas and beliefs. His theory of psychosocial

development is centered on what is known as the *epigenetic principle*, which proposes that all people go through a series of eight stages. At each psychosocial stage, people face a crisis that needs to be successfully resolved in order to develop the psychological quality central to each stage. The eight stages of Erik Erikson's psychosocial theory are something that every psychology student learns about as they explore the history of personality psychology.

Much like psychoanalyst Sigmund Freud, Erikson believed that personality develops in a series of stages. Erikson's theory is important because it marked a shift from Freud's psychosexual theory in that it describes the impact of social experience across the whole lifespan instead of simply focusing on childhood events. While Freud's theory of psychosexual development essentially ends in early adulthood, Erikson's theory described development through the entire lifespan from birth until death (Cherry, 2023).

The eight key stages he described were:

1. **Trust vs. Mistrust:** This stage occurs between the ages of birth and 1.5 years and is centered on developing a sense of trust in caregivers and the world. Children who receive responsive care are able to develop the psychological quality of hope.
2. **Autonomy vs. Shame and Doubt:** This stage takes place between the ages of 18 months and 3 years and involves gaining a sense of independence and personal control. Success in this stage allows people to develop will and determination.
3. **Initiative vs. Guilt:** Between the ages of 3 and 6 years, children begin to explore their environment and exert more control over their choices. By successfully completing this stage, children are able to develop a sense of purpose.
4. **Industry vs. Inferiority:** The stage that takes place between the ages of about 6 and 12 years is focused on developing a sense of personal pride and accomplishment. Success at this point in development leads to a sense of competence.

5. **Identity vs. Confusion:** The teen years are a time of personal exploration. Those who are able to successfully forge a healthy identity develop a sense of fidelity. Those who do not complete this stage well may be left feeling confused about their role and place in life.
6. **Intimacy vs. Isolation:** The stage that takes place in early adulthood is all about forging healthy relationships with others. Success leads to the ability to form committed, lasting, and nurturing relationships with others.
7. **Generativity vs. Stagnation:** At the stage occurring during middle adulthood, people become concerned with contributing something to society and leaving their mark on the world. Raising a family and having a career are two key activities that contribute to success at this stage.
8. **Integrity vs. Despair:** The final stage of psychosocial development takes place in late adulthood and involves reflecting back on life. Those who look back and feel a sense of satisfaction develop a sense of integrity and wisdom, while those who are left with regrets may experience bitterness and despair.

Cognitive Developmental Theory by Jean Piaget (1896-1980): Cognitive theory is concerned with the development of a person's thought processes. It also looks at how these thought processes influence how we understand and interact with the world. Theorist Jean Piaget proposed one of the most influential theories of cognitive development. Piaget proposed an idea that seems obvious now, but helped revolutionize how we think about child development: *Children think differently than adults*. His cognitive theory seeks to describe and explain the development of thought processes and mental states. It also looks at how these thought processes influence the way we understand and interact with the world (Cherry, 2023).

His early work with Binet's intelligence tests led Piaget to conclude that children think differently than adults. While this is a widely accepted notion today, it was considered

revolutionary at the time. It was this observation that inspired his interest in understanding how knowledge grows throughout childhood. Schemas: Piaget used the concept of schema to suggest that children sort the knowledge they acquire through their experiences and interactions into groupings known as schemas. When new information is acquired, it can either be assimilated into existing schemas or accommodated through revising an existing schema or creating an entirely new category of information (Cherry, 2023).

Piaget then proposed a theory of cognitive development to account for the steps and sequence of children's intellectual development.

1. **Sensorimotor Stage:** A period of time between birth and age two during which an infant's knowledge of the world is limited to his or her sensory perceptions and motor activities. Behaviors are limited to simple motor responses caused by sensory stimuli.
2. **Pre-Operational Stage:** A period between ages 2 and 6 during which a child learns to use language. During this stage, children do not yet understand concrete logic, cannot mentally manipulate information, and are unable to take the point of view of other people.
3. **Concrete Operational Stage:** A period between ages 7 and 11 during which children gain a better understanding of mental operations. Children begin thinking logically about concrete events but have difficulty understanding abstract or hypothetical concepts.
4. **Formal Operational Stage:** A period between age 12 to adulthood when people develop the ability to think about abstract concepts. Skills such as logical thought, deductive reasoning, and systematic planning also emerge during this stage.

Resilience Theory by Garmezy (1991a & b): Resilience theory was formulated by by Garmezy (1991a & b). The theory refers to the ideas surrounding how people are affected by and adapt to challenging things like adversity, change, loss, and risk. Resilience theory has been studied across different fields, including psychiatry, human development, and change management. Resilience theory tells us that resilience is not a fixed trait (you can grow your capacity to practice resilience). Resilience theory argues that it's not the nature of adversity that is most important, but how we deal with it.

When we face adversity, misfortune, or frustration, resilience helps us bounce back. It helps us survive, recover, and even thrive in the face and wake of misfortune, but that's not all there is to it. It is not constant, in that you might demonstrate a lot of resilience when it comes to one challenge you're faced with, but struggle more with being resilient when it comes to another stressor you're up against.

Flexibility, adaptability, and perseverance can help people tap into their resilience by changing certain thoughts and behaviors. Research shows that when students believe that both intellectual abilities and social attributes can be developed and improved, they increase their own resilience, showing a lower stress response to adversity and improved performance. People experience all kinds of adversity in life. There are personal experiences, such as illness, loss of a loved one, abuse, bullying, job loss, and financial instability.

There is the shared reality of tragic events in the news, such as terrorist attacks, mass shootings, and natural disasters. People have to learn to cope with and work through very challenging life experiences. Resilience theory refers to the ideas surrounding how people are affected by and adapt to things like adversity, change, loss, and risk. Being resilient does not mean that people don't experience stress, emotional upheaval, and suffering. Some people equate resilience with mental toughness, but demonstrating resilience includes working through emotional pain and suffering.

A combination of factors contributes to building resilience, and there is not a simple to-do list to work through adversity. Mental resilience is also something that you develop over time. Mental resilience is what gives people the emotional strength to cope with trauma, adversity, and hardship. Mentally resilient people utilize their resources, strengths, and skills to overcome challenges and work through setbacks.

People who lack resilience are more likely to feel overwhelmed or helpless and rely on unhealthy coping strategies (such as avoidance, isolation, and self-medication). Lacomba-Trejo, Mateu-Mollá, Bellegarde-Nunes & Delhom (2022) suggested that people with resilience, coping capabilities, and emotional intelligence are more likely to have better overall well-being than those with lower resilience, and better life satisfaction.

Componential Theory of Creativity/Creative Thinking by Teresa Amabile (1983, 2012): The componential theory of creativity was articulated by Teresa Amabile. This theory that was postulated in 1983 has undergone significant evolution and the recent version (2012) can be considered a 21st century theory of creativity. Teresa Amabile defined Creativity as the production of a novel and appropriate response, product, or solution to an open-ended task. Componential theory shared some sentiment with historical creativity theory perspectives. For instance, componential theory agrees with Carl Roger's theory of creativity that some individuals are talented and their uniqueness is useful for innovation of a novel product. Also, componential theory shares the sentiment of Koestler that creative level is in hierarchy.

Nevertheless, componential theory is a more comprehensive model of social and psychological components necessary for an individual/team to achieve creative productivity. The theory prescribed that creativity demand the convergence of four components: three individual attributes 'Intrinsic motivation, domain expertise, creative thinking skill', and an external factor 'a motivated environment for creativity'. Intrinsic motivation is the personal desire to achieve success, it can be driven by pleasure, curiosity, or personal sense of challenge. Domain expertise is the basic knowledge, technical skills or special talent required to function effectively in a domain, and creative thinking skills is related to cognitive abilities and personality traits which include self-discipline, tolerance for ambiguity, perseverance in the face of frustration, and ability to take risk.

Componential theory argued that the higher the level of these creative inspiration components, the higher the level of creativity in an individual or team. To be creative, the overlapping of these three individual/team characteristics is needed in a conducive environment for creativity.

Stage Theory of Critical Thinking by Linda Elder, Richard Paul, and Bartell Ted (1997): The theory was formulated by Elder, Paul and Bartell (1997). Though most teachers aspire to make critical thinking a primary objective of their instruction, most also do not realize that, to develop as thinkers, in the course of growing up must pass through stages of development in critical thinking. That is, most teachers are unaware of the levels of intellectual development that people go through as they improve as thinkers. We believe that significant gains in the intellectual quality of student work will not be achieved except to the degree that teachers recognize that skilled critical thinking develops, only when properly cultivated, and only through predictable stages.

The stage theory was based on the nearly twenty years of research of the Center for Critical Thinking and explain some of the theory's implications for instruction. The explanation shall be brief, concise, and to the point in our explanation with minimal theoretical elaboration. Furthermore, the "practicality" of the theory explained here is best tested in the classroom and in everyday life. The reader should be expressly aware that Elder, Paul and Bartell (1997) approached the human mind exclusively from an intellectual standpoint — not from a psychological standpoint. Each stage of intellectual development will be explained in terms of the following variables (Sanford, 2023):
1. Defining Feature
2. Principal Challenge
3. Knowledge of Thinking
4. Skill in Thinking
5. Relevant Intellectual Traits
6. Some Implications for Instruction

The theory makes the following assumptions: **(1)** that there are predictable stages through which every person who develops as a critical thinker passes, **(2)** that passage from one stage to the next is dependent upon a necessary level of commitment on the part of an individual to develop as a critical thinker, is not automatic, and is unlikely to take place "subconsciously," **(3)** that success in instruction is deeply connected to the intellectual quality of

student learning, and **(4)** that regression is possible in development.

Critical thinking is the ability and disposition to improve one's thinking by systematically subjecting it to intellectual self-assessment. It is important to recognize that on this view, persons are critical thinkers, in the fullest sense of the term, only if they display this ability and disposition in all, or most, of the dimensions of their lives (as a parent, citizen, consumer, lover, friend, learner, and professional). We exclude from our concept of the critical thinker those who think critically in only one dimension of their lives. We do so because the quality of one's life is dependent upon high quality reasoning in all domains of one's life, not simply in one dimension (Rather, 2023).

The stages go thus:
Stage One: The Unreflective Thinker
Stage Two: The Challenged Thinker
Stage Three: The Beginning Thinker
Stage Four: The Practicing Thinker
Stage Five: The Advanced Thinker
Stage Six: The Accomplished Thinker

Stage One: The Unreflective Thinker

Defining Feature: Unreflective thinkers are largely unaware of the determining role that thinking is playing in their lives and of the many ways that problems in thinking are causing problems in their lives. Unreflective thinkers lack the ability to explicitly assess their thinking and improve it thereby.

Knowledge of Thinking: Unreflective thinkers lack the knowledge that high quality thinking requires regular practice in taking thinking apart, accurately assessing it, and actively improving it. In fact, unreflective thinkers are largely unaware of thinking as such, hence fail to recognize thinking as involving concepts, assumptions, inferences, implications, points of view, etc. Unreflective thinkers are largely unaware of the appropriate standards for the assessment of thinking: clarity, accuracy, precision, relevance, logicalness, etc.

Skill in Thinking: Unreflective thinkers may have developed a variety of skills in thinking without being aware of them. However, these skills are inconsistently applied because of the lack of self-monitoring of thought. Prejudices and misconceptions often undermine the quality of thought of the unreflective thinker.

Stage Two: The Challenged Thinker

Defining Features: Thinkers move to the "challenged" stage when they become initially aware of the determining role that thinking is playing in their lives, and of the fact that problems in their thinking are causing them serious and significant problems.

Principal Challenge: To become initially aware of the determining role of thinking in one's life and of basic problems that come from poor thinking.

Knowledge of Thinking: Challenged thinkers, unlike unreflective thinkers are becoming aware of thinking as such. They are becoming aware, at some level, that high quality thinking requires deliberate reflective thinking about thinking (in order to improve thinking). They recognize that their thinking is often flawed, although they are not able to identify many of these flaws.

Challenged thinkers may develop an initial awareness of thinking as involving concepts, assumptions, inferences, implications, points of view, etc., and as involving standards for the assessment of thinking: clarity, accuracy, precision, relevance, logicalness, etc., though they have only an initial grasp of these standards and what it would take to internalize them. Challenged thinkers also develop some understanding of the role of self-deception in thinking, though their understanding is limited. At this stage the thinker develops some reflective awareness of how thinking operates for good or ill.

Skill in Thinking: Most challenged thinkers have very limited skills in thinking. However, like unreflective thinkers, they may have developed a variety of skills in thinking without being aware of them, and these skills may (ironically) serve as barriers to development. At this stage thinkers with some implicit critical thinking abilities may more easily deceive themselves into believing that their thinking is better than it actually is, making it more difficult to recognize the problems inherent in poor thinking. To accept the challenge at this level requires that thinkers gain insight into the fact that whatever intellectual skills they have are

inconsistently applied across the domains of their lives.

Relevant Intellectual Trait: The fundamental intellectual trait at this stage is intellectual humility, in order to see that problems are inherent in one's thinking. We must recognize the importance of challenging our students — in a supportive way — to recognize both that they are thinkers and that their thinking often goes awry. We must lead class discussions about thinking. We must explicitly model thinking (e.g., thinking aloud through a problem). We must design classroom activities that explicitly require students to think about their thinking. We must have students examine both poor and sound thinking, talking about the differences. We must introduce students to the parts of thinking and the intellectual standards necessary to assess thinking. We must introduce the idea of intellectual humility to students; that is, the idea of becoming aware of our own ignorance. Perhaps children can best understand the importance of this idea through their concept of the "know-it-all," which comes closest to their recognition of the need to be intellectually humble.

Stage Three: The Beginning Thinker

Defining Feature: Those who move to the beginning thinker stage are actively taking up the challenge to begin to take explicit command of their thinking across multiple domains of their lives. Thinkers at this stage recognize that they have basic problems in their thinking and make initial attempts to better understand how they can take charge of and improve it. Based on this initial understanding, beginning thinkers begin to modify some of their thinking, but have limited insight into deeper levels of the trouble inherent in their thinking. Most importantly, they lack a systematic plan for improving their thinking, hence their efforts are hit and miss.

Principal Challenge: To begin to see the importance of developing as a thinker. To begin to seek ways to develop as a thinker and to make an intellectual commitment to that end.

Knowledge of Thinking: Beginning thinkers, unlike challenged thinkers are becoming aware not only of thinking as such, but also of the role in thinking of concepts, assumptions, inferences, implications, points of view, etc.

Beginning thinkers are also at some beginning stage of recognizing not only that there are standards for the assessment of thinking: clarity, accuracy, precision, relevance, logicalness, etc., but also that one needs to internalize them and thus begin using them deliberately in thinking. They have a beginning understanding of the role of egocentric thinking in human life.

Skill in Thinking: Beginning thinkers are able to appreciate a critique of their powers of thought. Beginning thinkers have enough skill in thinking to begin to monitor their own thoughts, though as "beginners" they are sporadic in that monitoring. They are beginning to recognize egocentric thinking in themselves and others.

Relevant Intellectual Traits: The key intellectual trait required at this stage is some degree of intellectual humility in beginning to recognize the problems inherent in thinking. In addition, thinkers must have some degree of intellectual confidence in reason, a trait which provides the impetus to take up the challenge and begin the process of active development as critical thinkers, despite limited understanding of what it means to do high quality reasoning. In addition, beginning thinkers have enough intellectual perseverance to struggle with serious problems in thinking while yet lacking a clear solution to those problems (in other words, at this stage thinkers are recognizing more and more problems in their thinking but have not yet discovered how to systematize their efforts to solve them).

Once we have persuaded most of our students that much of their thinking — left to itself — is flawed and that they, like all of us, are capable of improving as thinkers, we must teach in such a way as to help them to see that we all need to regularly practice good thinking to become good thinkers. Here we can use sporting analogies and analogies from other skill areas.

Stage Four: The Practicing Thinker

Defining Feature: Thinkers at this stage have a sense of the habits they need to develop to take charge of their thinking. They not only recognize that problems exist in their thinking, but they also recognize the need to attack these problems globally and systematically. Based on their sense of the need to practice regularly, they are actively analyzing their thinking in a number

of domains. However, since practicing thinkers are only beginning to approach the improvement of their thinking in a systematic way, they still have limited insight into deeper levels of thought, and thus into deeper levels of the problems embedded in thinking.

Principal Challenge: To begin to develop awareness of the need for systematic practice in thinking.

Knowledge of Thinking: Practicing thinkers, unlike beginning thinkers are becoming knowledgeable of what it would take to systematically monitor the role in their thinking of concepts, assumptions, inferences, implications, points of view, etc. Practicing thinkers are also becoming knowledgeable of what it would take to regularly assess their thinking for clarity, accuracy, precision, relevance, logicalness, etc. Practicing thinkers recognize the need for systematicity of critical thinking and deep internalization into habits. They clearly recognize the natural tendency of the human mind to engage in egocentric thinking and self-deception.

Skill in Thinking: Practicing thinkers have enough skill in thinking to critique their own plan for systematic practice, and to construct a realistic critique of their powers of thought. Furthermore, practicing thinkers have enough skill to begin to regularly monitor their own thoughts. Thus, they can effectively articulate the strengths and weaknesses in their thinking. Practicing thinkers can often recognize their own egocentric thinking as well as egocentric thinking on the part of others. Furthermore, practicing thinkers actively monitor their thinking to eliminate egocentric thinking, although they are often unsuccessful.

Relevant Intellectual Traits: The key intellectual trait required to move to this stage is intellectual perseverance. This characteristic provides the impetus for developing a realistic plan for systematic practice (with a view to taking greater command of one's thinking). Furthermore, thinkers at this stage have the intellectual humility required to realize that thinking in all the domains of their lives must be subject to scrutiny, as they begin to approach the improvement of their thinking in a systematic way.

Students should now be developing the habit — whenever they are trying to figure something out — of focusing on: purpose, question, information, inferences, assumptions, concepts, point of view, and implications. The result of this emphasis in instruction is that students begin to see connections between all the subject matter they are learning.

Stage Five: The Advanced Thinker

Defining Feature: Thinkers at this stage have now established good habits of thought which are "paying off." Based on these habits, advanced thinkers not only actively analyze their thinking in all the significant domains of their lives, but also have significant insight into problems at deeper levels of thought. While advanced thinkers are able to think well across the important dimensions of their lives, they are not yet able to think at a consistently high level across all of these dimensions. Advanced thinkers have good general command over their egocentric nature. They continually strive to be fair-minded. Of course, they sometimes lapse into egocentrism and reason in a one-sided way.

Principal Challenge: To begin to develop depth of understanding not only of the need for systematic practice in thinking, but also insight into deep levels of problems in thought: consistent recognition, for example, of egocentric and sociocentric thought in one's thinking, ability to identify areas of significant ignorance and prejudice, and ability to actually develop new fundamental habits of thought based on deep values to which one has committed oneself.

Knowledge of Thinking: Advanced thinkers are actively and successfully engaged in systematically monitoring the role in their thinking of concepts, assumptions, inferences, implications, points of view, etc., and hence have excellent knowledge of that enterprise. Advanced thinkers are also knowledgeable of what it takes to regularly assess their thinking for clarity, accuracy, precision, relevance, logicalness, etc. Advanced thinkers value the deep and systematic internalization of critical thinking into their daily habits. Advanced thinkers have keen insight into the role of egocentrism and sociocentrism in thinking, as well as the relationship between thoughts, feelings and desires. They have a deep understanding of the powerful role that thinking

plays in the quality of their lives. They understand that egocentric thinking will always play a role in their thinking, but that they can control the power that egocentrism has over their thinking and their lives.

Skill in Thinking: Advanced thinkers regularly critique their own plan for systematic practice, and improve it thereby. Practicing thinkers regularly monitor their own thoughts. They insightfully articulate the strengths and weaknesses in their thinking. They possess outstanding knowledge of the qualities of their thinking. Advanced thinkers are consistently able to identify when their thinking is driven by their native egocentrism; and they effectively use a number of strategies to reduce the power of their egocentric thoughts.

Relevant Intellectual Traits: The key intellectual trait required at this stage is a high degree of intellectual humility in recognizing egocentric and sociocentric thought in one's life as well as areas of significant ignorance and prejudice.

In addition the thinker at this level needs: **a)** the intellectual insight and perseverance to actually develop new fundamental habits of thought based on deep values to which one has committed oneself, **b)** the intellectual integrity to recognize areas of inconsistency and contradiction in one's life, **c)** the intellectual empathy necessary to put oneself in the place of others in order to genuinely understand them, **d)** the intellectual courage to face and fairly address ideas, beliefs, or viewpoints toward which one has strong negative emotions, **e)** the fair-mindedness necessary to approach all viewpoints without prejudice, without reference to one's own feelings or vested interests. In the advanced thinker these traits are emerging, but may not be manifested at the highest level or in the deepest dimensions of thought.

Some Implications for Instruction: For the foreseeable future most of our students will not become advanced thinkers — if at all — until college or beyond. Nevertheless, it is important that they learn what it would be to become an advanced thinker. It is important that they see it as an important goal. We can help students move in this direction by fostering their awareness of egocentrism and sociocentrism in their thinking, by leading discussions on intellectual perseverance, intellectual integrity, intellectual empathy, intellectual courage, and fair-mindedness. If we can graduate students who are practicing thinkers, we will have achieved a major break-through in schooling. However intelligent our graduates may be, most of them are largely unreflective as thinkers, and are unaware of the disciplined habits of thought they need to develop to grow intellectually as a thinker.

Stage Six: The Accomplished Thinker

Defining Feature: Accomplished thinkers not only have systematically taken charge of their thinking, but are also continually monitoring, revising, and re-thinking strategies for continual improvement of their thinking. They have deeply internalized the basic skills of thought, so that critical thinking is, for them, both conscious and highly intuitive. As Piaget would put it, they regularly raise their thinking to the level of conscious realization. Through extensive experience and practice in engaging in self-assessment, accomplished thinkers are not only actively analyzing their thinking in all the significant domains of their lives, but are also continually developing new insights into problems at deeper levels of thought. Accomplished thinkers are deeply committed to fair-minded thinking, and have a high level of, but not perfect, control over their egocentric nature.

Principal Challenge: To make the highest levels of critical thinking intuitive in every domain of one's life. To internalize highly effective critical thinking in an interdisciplinary and practical way.

Knowledge of Thinking: Accomplished thinkers are not only actively and successfully engaged in systematically monitoring the role in their thinking of concepts, assumptions, inferences, implications, points of view, etc., but are also regularly improving that practice. Accomplished thinkers have not only a high degree of knowledge of thinking, but a high degree of practical insight as well. Accomplished thinkers intuitively assess their thinking for clarity, accuracy, precision, relevance, logicalness, etc. Accomplished thinkers have deep insights into the systematic internalization

of critical thinking into their habits. Accomplished thinkers deeply understand the role that egocentric and sociocentric thinking plays in the lives of human beings, as well as the complex relationship between thoughts, emotions, drives and behavior.

Skill in Thinking: Accomplished thinkers regularly, effectively, and insightfully critique their own use of thinking in their lives, and improve it thereby. Accomplished thinkers consistently monitor their own thoughts. They effectively and insightfully articulate the strengths and weaknesses inherent in their thinking. Their knowledge of the qualities of their thinking is outstanding. Although, as humans they know they will always be fallible (because they must always battle their egocentrism, to some extent), they consistently perform effectively in every domain of their lives. People of good sense seek out master thinkers, for they recognize and value the ability of master thinkers to think through complex issues with judgment and insight.

Relevant Intellectual Traits: Naturally inherent in master thinkers are all the essential intellectual characteristics, deeply integrated. Accomplished thinkers have a high degree of intellectual humility, intellectual integrity, intellectual perseverance, intellectual courage, intellectual empathy, intellectual autonomy, intellectual responsibility and fair-mindedness. Egocentric and sociocentric thought is quite uncommon in the accomplished thinker, especially with respect to matters of importance. There is a high degree of integration of basic values, beliefs, desires, emotions, and action.

We believe that the thinking of students will remain "invisible" to them unless they are supportively challenged to discover the problems in their thinking. This is not possible unless they receive careful introduction into the intellectual workings of the human mind. Of course, teachers need to take students through stages of intellectual development. For example, in elementary school an essential objective would be that students become "beginning" thinkers, that is, that they will be taught so that they discover that they are thinkers and that their thinking. Middle school and High School, on this model, would aim at helping all students become,

at least, "practicing" thinkers. Of course, students discover thinking only by discovering that thinking has "parts."

Empirical Review

Growing-Up Experiences

A study was conducted by Gibbons, Sprong and Chzhen (2023) on growing up in the great recession. It aimed at investigating the effects of three dimensions of economic well-being on child behavioral difficulties from ages 3 to 17. Empirical research into the relationship between economic well-being and child outcomes has been limited by its cross-sectional nature, or its narrow focus on predominantly financial aspects of economic well-being. This article attempts to overcome these shortcomings by using data from the Growing Up in Ireland Cohort98 (age: 9–17; N = 5,748; female: 51.4%) and Cohort08 studies (age: 3–9 years; N = 7,208; female: 49.8%), which cover a period of large macroeconomic fluctuation (2007–2017). This fluctuation makes a robust fixed effects analysis feasible, allowing for economic well-being effects to be isolated by controlling for all time-invariant confounders. The article uses three different measures of economic well-being (subjective financial strain, material deprivation, income) to explore how distinct forms of economic well-being affect child behavior. The results suggest that household income is not related to behavioral difficulties, whereas subjective financial strain is predictive of externalized behavioral difficulties in adolescent boys. Material deprivation is predictive of externalized behavioral difficulties in adolescent boys and internalized behavioral difficulties in younger boys, but has no effect on girls' behavioral outcomes. The findings indicate that the relationship between economic well-being and child behavioral outcomes is complex, and requires multi-dimensional measures of economic well-being to accurately ascertain the different effects (Gibbons, Sprong & Chzhen, 2023).

Another study by Segundo-Marcos, Carrillo, Fernández and González (2023) age-related changes in creative thinking during late childhood, as well as the contribution of

cooperative learning. Creative thinking has been considered a human skill that is necessary for facing challenging situations that require adaptive solutions. From an educational perspective, creative thinking plays an important role in learning processes and is an issue of central importance within classroom methodology. In this regard, Cooperative learning (CL) has been studied as a methodology that enhances creative processes. CL methodology refers to teaching procedures based on organizing the class into small mixed-abilities groups where students work cooperatively to complete academic tasks and consolidate their learning. However, the impact of CL on creative thinking seems to have been insufficiently explored in late childhood, which is known as a transitory stage between childhood and adolescence. Using two tests (at 5th and 6th grades of Primary School), we examined the trajectory of creative thinking in fifty-three students from two different schools. Students were assessed by a divergent thinking task (CREA Test; Corbalán et al., 2015) at two time points: Test-1 (T^1), with a mean age of 9.81 years (*Sd*= 0.48), and Test-2 (T^2), with a mean age of 11.35 years (*Sd*= 0.52). Given the differences in methodology delivered in each school (Cooperative and individualistic learning), we also analyzed the effects of this variable on student creative thinking performance. We found significant improvements between testing in the two schools, although CL appeared to have a more positive effect than IL on creative thinking performance. Our finding highlights the importance of studying classroom methodology as a mediating factor in creative thinking development, which could be important in the learning processes as well as the integral development of the child (Segundo-Marcos, Carrillo, Fernández & González, 2023).

A study was conducted by Raby, Roisman, Labella, Martin, Fraley & Simpson (2019) the legacy of early abuse and neglect for social and academic competence from childhood to adulthood. This study used data from the Minnesota Longitudinal Study of Risk and Adaptation ($N = 267$) to investigate whether abuse and neglect experiences during the first 5 years of life have fading or enduring consequences for social and academic competence over the next 3 decades of life. Experiencing early abuse and neglect was consistently associated with more interpersonal problems and lower academic achievement from childhood through adulthood (32–34 years). The predictive significance of early abuse and neglect was not attributable to the stability of developmental competence over time, nor to abuse and neglect occurring later in childhood. Early abuse and neglect had enduring associations with social (but not academic) competence after controlling for potential demographic confounds and early sensitive caregiving(Raby, Roisman, Labella, Martin, Fraley & Simpson, 2019).

A study was conducted by Wängqvist, Lamb, Frisén and Hwang (2015) on child and adolescent predictors of personality in early adulthood. This study investigated development of the Big Five personality traits from early childhood into adulthood. An initial group of 137 Swedish children were assessed eight times between ages 2 and 29 years. Initial decreases in extraversion leveled off in early adulthood; agreeableness and conscientiousness increased from ages 2 to 29; neuroticism initially increased, leveled off in later childhood and adolescence, and decreased throughout early adulthood; while openness to experience showed an initial increase, then decreased and leveled off in early adulthood. Individual developmental trajectories varied significantly, particularly in relation to gender. Personality traits became increasingly stable, and the fact that childhood scores predicted scores in adulthood indicated that personalities are fairly stable across this portion of the life span (Wängqvist, Lamb, Frisén & Hwang, 2015).

Mental Resilience

A study was conducted by Padmanabhanunni, Pretorius and Khamisa (2023) to investigate mental resilience, stress resistance resources and social support. This was because mental resilience has been found to be important in promoting psychological well-being during the COVID-19 pandemic. However, most prior research studies have conceptualized mental resilience and stress resistance resource variables as having a mediating or moderating role. Cooper

(2018) proposed a model of the relationship between mental resilience, stress and health which posits that coping resources are always present and not only invoked in the face of adversity. The study hypothesized that coping resources are causally antecedent to stressors and influence well-being indirectly via the stressor. The study focused specifically on school teachers due to their being at the frontlines of service provision during the pandemic. Teaching was already identified as a highly stressful profession prior to COVID-19 and disease containment measures placed additional strain on teachers who had to adapt to emergency remote teaching. The current study tests this hypothesis by examining the indirect effects of resilience on indices of psychological health via role stress. Participants ($N = 355$) were teachers who completed the Connor-Davidson Resilience Scale-10, the Role Stress Scale, the Satisfaction with Life Scale, the State-Trait Anxiety Inventory-Trait Scale, and the Center for Epidemiological Studies Depression Scale. An electronic version of the questionnaires was distributed to teachers via Facebook and to officials from the Department of Education, who assisted with distribution of the electronic link to the survey. Participants were mostly women (76.6%) and mean number of years in the teaching profession was 15.7. Structural equation modelling results demonstrated significant direct effects of resilience on life satisfaction, anxiety, and depression, which indicates that resilience is beneficial for psychological health even in the absence of stress. Resilience also had a significant indirect effect on indices of psychological well-being via role ambiguity but not role conflict. These findings have theoretical implications for the understanding of the role of resilience in promoting psychological health among educators. Practical implications include an empirical contribution to education policy and information that can inform interventions aimed to promote resilience among educators (Padmanabhanunni, Pretorius & Khamisa, 2023).

A study was conducted by Zhang, Ji, and Zhou (2023) on mental (psychological) resilience and psychological distress. Zhang, Ji, and Zhou (2023) identified that psychological resilience plays an important role in relieving the psychological distress. However, little is known about its underlying mechanisms. Mental health literacy, an important way to promote mental health, may mediate the effect of psychological resilience on psychological distress. Tis study aimed to explore the relationship between mental health literacy, psychological resilience, and psychological distress and explore the mediating effect between psychological resilience and psychological distress. The design and methods were a cross-sectional study design. A total of 627 medical students were selected from one university. An electronic questionnaire was administered to collect information on the level of mental health literacy, psychological resilience, and psychological distress. Pearson's correlation analysis was used in analyzing the relationship, and the Bootstrap method was used to test the mediating effects. Findings showed that psychological distress significantly negatively correlated with mental health literacy and psychological resilience ($P < 0.001$). The indirect effect of mental health literacy accounted for 50.43% of the total effect between psychological resilience and psychological distress. Practical Implication is that psychological resilience decreased the level of psychological distress, and this relationship was partially mediated by mental health literacy. These findings showed that efforts aimed at enhancing the mental health literacy may prevent or reduce the prevalence of psychological distress symptoms among college students (Zhang, Ji, & Zhou, 2023).

A study was conducted by Han, Duan, Huang and Wang (2023) to examine the role psychological resource like mental resilience in coping with distress. This study explored the effects of coping style and two potential intermediately factors (cognitive reappraisal and psychological resilience) on the mental health of middle school students during the normalization of epidemic prevention and control in China. Answers on questionnaires designed to assess coping style, cognitive reappraisal, psychological resilience, and mental health among 743 middle school students (386 boys, 357 girls, 241 first graders, 235 second graders, and 267 third graders) were analyzed using structural equation modeling. The results showed that coping style,

cognitive reappraisal, and psychological resilience directly predicted mental health. The negative effect of a negative coping style on mental health was significantly stronger than the positive effect of a positive coping style. Coping style affected mental health through the independent mediating effects of cognitive reappraisal and psychological resilience and through their chain mediation. The use of positive coping styles by most students led to greater cognitive reappraisal, strengthened psychological resilience, and thus few mental health problems. These findings provide empirical evidence and may guide educators in the prevention and intervention of mental health problems among middle school students (Han, Duan, Huang & Wang, 2023).

A study was conducted by Chang, Yang and Hsieh (2023) on mental resilience and depression. Psychosocial factors, including life satisfaction, resilience, and social support, have been proposed to influence depressive symptom severity in adults because the age of onset of depressive disorders, i.e. adolescence to early adulthood, is associated with various impairments in psychosocial functioning. In this study, a psychosocial model was constructed to verify these relationships to prevent depression. For this study, 370 participants were recruited from the community via poster or online advertisements. They completed several questionnaires to assess depressive symptom severity: the Connor-Davidson Resilience Scale (CD-RISC), Satisfaction with Life Scale (SwLS), Peace of Mind (PoM) scale, Social Support Questionnaire (SSQ), and Beck Depression Inventory (BDI-II). A negative association was found between depressive symptom severity and all other variables, including PoM and CD-RISC scores, life satisfaction, and social support. Such factors can be considered protective against increased depressive symptom severity. In addition, indirect effects of PoM and resilience on the negative association between SwLS scores and depressive symptom severity were observed. Moreover, social support was found to mediate the correlation between PoM and resilience, implying that social support mediates the relationship between state of mind and resilience. The psychosocial model suggested that

depressive symptom severity is influenced by internal factors (an individual's state of mind, subjective view of events and their life) and external factors (including social support) (Chang, Yang & Hsieh, 2023).

A study was conducted by Lacomba-Trejo, Mateu-Mollá, Bellegarde-Nunes and Delhom (2022) on mental resilience, emotional intelligence (EI), and problem-oriented coping. Emotional intelligence (EI), problem-oriented coping, and resilience have been deeply studied as psychological predictors of wellbeing in stressful daily situations. The aim was to find out whether coping, EI, and resilience are predictors of well-being, using two statistical methodologies (hierarchical regression models and comparative qualitative models). With this objective in mind, we built an online evaluation protocol and administered it to 427 Spanish people, exploring these variables through a selection of validated tests. The extracted data were studied using linear predictive tests (hierarchical regression models), as well as fuzzy set qualitative comparative analysis. We found that EI variables had important associations with coping, positive affect, negative affect, and life satisfaction, and also acted as relevant predictors for all of them, together with resilience and problem-oriented coping. The fuzzy set qualitative comparative analysis showed a series of logical combinations of conditional causes and results of each potential configuration for these variables. The interaction between the presence of EI, resilience, and coping resulted in high levels of well-being. On the other hand, the presence of high emotional attention in interaction with low resilience and low coping abilities resulted in low well-being. These results increase knowledge about protective factors and allow for the creation of intervention programmes to enhance them (Lacomba-Trejo, Mateu-Mollá, Bellegarde-Nunes & Delhom, 2022).

A study by Hu, Ye, Yildirim and Yang (2023) focused on college students' mental resilience during the COVID-19 outbreak. The study aimed to develop and examine a moderated mediation model between perceived stress and life satisfaction, with social adaptation during COVID-19 as a mediator, and emotional resilience as a moderator. A sample of 1032

college students participated in this study and completed questionnaires regarding perceived stress, social adaptation during COVID-19, emotional resilience, and life satisfaction. Findings indicated that 1) social adaptation during COVID-19 partially mediated the association between perceived stress and life satisfaction; and 2) emotional resilience moderated the relationship between perceived stress and social adaptation during COVID-19 as well as perceived stress and life satisfaction. These two relationships became stronger for college students with lower levels of emotional resilience. The results were discussed to illuminate the mechanism in relation to theoretical and practical implication for improving college students' life satisfaction during the period of the COVID-19 outbreak (Hu, Ye, Yildirim & Yang, 2023).

Again, a study was conducted by Xu, Zhang, Zhou, Zhang, Li, Lu, Tian, Huang, Li, Schinke, Yuan, Yin and Lin (2023). This study aimed to explore differences between psychological resilience and problem-solving ability in grade one junior middle school adolescents with and without suicidal ideation, focusing on the relationship between these factors and suicidal ideation. Ninety-nine adolescents (aged 10 to 14) were divided into Suicidal Ideation (SI, $n = 49$) and Non-Suicidal Ideation (NSI, $n = 50$) grouped by the Self-rating Idea of Suicide Scale (SIOSS). The Psychological Resilience Scale (PRS) and Tower of Hanoi task (TOH) were applied to assess psychological resilience and problem-solving ability, respectively. The SI group scored significantly lower than the NSI group on PRS ($p < 0.001$) and performed more poorly on TOH than the NSI group, with more mistakes in the number of errors index ($p < 0.001$) and requiring a longer time in the task completion time index ($p < 0.05$). Among all the participants in this study, a significant negative correlation was observed between PRS and SIOSS ($r = -0.413, p < 0.01$). The sub-dimensions of PRS including emotional control, family support, and interpersonal assistance were significantly negatively correlated with the SIOSS total score ($r = -0.361, -0.360, -0.382; p < 0.01$). This study profiled the characteristics and differences in psychological resilience and problem-solving ability between adolescents with and without suicidal ideation. The data suggested adolescents with SI might have deficits in psychological resilience and problem-solving ability, which may serve as potential targets for suicide intervention (Xu, Zhang, Zhou, et al, 2023.

A study was conducted by Shanahan, Johnson-Ferguson, Loher, Steinhof, Bechtiger, Murray, Hepp, Ribeaud and Eisner (2023) into risk and resilience in young adults from the COVID-19 pandemic. Historic declines in young people's mental health began to emerge before the COVID-19 pandemic. In the face of this youth mental health crisis, the pandemic constituted a naturalistic stressor paradigm that came with the potential to uncover new knowledge for the science of risk and resilience. Surprisingly, approximately 19-35% of people reported better well-being in the frst few months of the COVID-19 pandemic than before. Therefore, in May and September 2020, we asked N=517 young adults from a cohort study to describe the best and the worst aspects of their pandemic lives (N=1,462 descriptions). Inductive thematic analysis revealed that the best aspects included the deceleration of life and a greater abundance of free time, which was used for hobbies, healthy activities, strengthening relationships, and for personal growth and building resilience skills. Positive aspects also included a reduction in educational pressures and work load and temporary relief from climate change concerns. The worst aspects included disruptions and changes to daily life; social distancing and restrictions of freedoms; negative emotions that arose in the pandemic situation, including uncertainty about the future; and the growing polarization of society. Science that aims to reverse the youth mental health crisis must pay increased attention to sources of young people's distress that are not commonly measured (e.g., their educational, work, and time pressures; their fears and uncertainties about their personal, society's, and the global future), and also to previously untapped sources of well-being – including those that young people identified for themselves while facing the COVID-19 pandemic (Shanahan, Johnson-Ferguson, Loher,

Steinhof, Bechtiger, Murray, Hepp, Ribeaud & Eisner, 2023).

A study was conducted by Park, Naliboff, Shih, Presson, Videlock, Ju, Kilpatrick, Gupta, Mayer and Chang (2018) on bowel syndrome. Irritable bowel syndrome (IBS) is a stress-sensitive disorder associated with early adverse life events (EALs) and a dysregulated hypothalamic-pituitary-adrenal (HPA) axis. Resilience is the ability to recover and adapt positively to stress but has not been well studied in IBS. The aims of this study are to compare resilience in IBS and healthy controls (HCs) and to assess its relationships with IBS symptom severity, quality of life (QOL), EALs, and HPA axis response. Two hundred fifty-six subjects (154 IBS, 102 HCs) completed questionnaires for resilience (Connor-Davidson Resilience Scale [CD-RISC] and Brief Resilience Scale [BRS]), IBS symptoms, IBS-QOL, and EALs. Ninety-six of these subjects had serial serum adrenocorticotropic hormone (ACTH) and cortisol levels to exogenous corticotrophin-releasing hormone (CRH) and ACTH measured. The relationship between IBS status, resilience, and other variables of interest was assessed by regression analysis after adjusting for demographics and neuroticism, a predictor of resilience. Resilience was significantly lower in IBS compared to HCs (CD-RISC: 72.16±14.97 vs 77.32±12.73, P=.003; BRS: 3.29±0.87 vs 3.93±0.69, P<.001); however, only BRS was significant after controlling for neuroticism (P=.001). Lower BRS scores were associated with greater IBS symptom severity (P=.002), poorer IBS-QOL (P<.001), and a higher number of EALs (P=.01). There was a significant interaction between BRS resilience and IBS status for ACTH-stimulated cortisol response (P=.031); more resilient IBS subjects had lower cortisol response, and more resilient HCs had higher cortisol response. Lower resilience is associated with IBS status, worse IBS symptom severity, lower IBS-QOL, greater EALs, and stress hyperresponsiveness (Park, Naliboff, Shih, Presson, Videlock, Ju, Kilpatrick, Gupta, Mayer, & Chang, 2018).

In their study, King, Carr and Taylor (2019) examined depressive symptoms and the buffering effect of resilience on widowhood by gender. Spousal loss is a stressful life event that often results in significant depressive symptoms, with men often experiencing more significant depressive symptoms than women. Recent research suggests that psychological resilience may play a role in shaping how well people recover from the loss of a spouse. This study examined the moderating effect of resilience on widowhood in relation to changes in depressive symptoms for men and women. This study used data from the Health and Retirement Study to examine a change in depressive symptoms for men and women who experience spousal loss compared to those who remain continuously married (N = 5,626). The researchers used the Simplified Resilience Score, which is based on measures drawn from the psychosocial and lifestyle questionnaire. Ordinary least squares regression was used to assess depression following reported spousal loss for widows relative to their continuously married counterparts. Results show resilience moderated depressive symptoms following spousal loss, but these effects varied by gender. Resilience was significantly and negatively associated with depressive symptoms for married but not for widowed women. However, for widowed men, resilience was significantly and negatively associated with depressive symptoms, and a high resilience score buffered the effect of widowhood. The study suggests that having high levels of resilience prior to spousal loss may help offset persistent depressive symptoms, especially for men. Implications for future research and clinical practice are discussed (King, Carr & Taylor, 2019).

In their own study, Moosa, Ng, Aau, Goy, Yang, Sim, Wee and Tan (2023) examine mental resilience during COVID-19. The study aimed to determine the resilience of multi-ethnic, multi-cultural adolescent students in cosmopolitan Singapore, their coping abilities, and the impact on their social and physical activities during the COVID-19 pandemic and its association with their resilience. A total of 582 adolescents in post-secondary education institutes completed an online survey from June to November 2021. The survey assessed their sociodemographic status, resilience level using the Brief Resilience Scale

(BRS) and Hardy-Gill Resilience Scale (HGRS), the impact of the COVID-19 pandemic on their daily activities, life settings, social life, social interactions, and coping ability in these aspects of life. Poor ability to cope with school life (adjusted beta = − 0.163, 95% CI − 1.928 to 0.639, p < 0.001), staying home (adjusted beta = − 0.108, 95% CI = − 1.611 to − 0.126, p = 0.022), sports (adjusted beta = − 0.116, 95% CI − 1.691 to − 0.197, p = 0.013) and friends (adjusted beta = − 0.143, 95% CI − 1.904 to − 0.363, p = 0.004) were associated with statistically significant low resilience level measured with HGRS. About half and a third of the participants reported normal and low resilience, respectively, based on BRS (59.6%/32.7%) and HGRS (49.0%/29.0%) scores. Adolescents of Chinese ethnicity and low socioeconomic status had comparatively lower resilience scores. Approximately half of the adolescents in this study had normal resilience despite the COVID-19 pandemic. Adolescents with lower resilience tended to have lower coping abilities. The study did not compare changes in the social life and coping behaviour of the adolescents due to COVID-19, as data on these aspects prior to the pandemic was unavailable (Moosa, Ng, Aau, Goy, Yang, Sim, Wee & Tan, 2023).

A study was carried by Chung, Meldrum, Jones, Brown and Jones (2014) to understand perceived sources of stress and tools used to promote mental resiliency in African American men in South Los Angeles. Our study utilized a community-partnered participatory research approach to collect and analyze open-ended responses from 295 African American men recruited at a local, cultural festival in Los Angeles using thematic analysis and the Levels of Racism framework. Almost all men (93.2%) reported stress. Of those reporting stress, 60.8% reported finances and money and 43.2% reported racism as a specific cause. More than 60% (63.4%) reported that they perceived available sources of help to deal with stress. Of those noting a specific source of help for stress (n = 76), 42.1% identified religious faith. Almost all of participants (92.1%) mentioned specific sources of resiliency such as religion and family. Stress owing to psychosocial factors such as finances and racism are common among African American men. But, at the same time, most men found support for resiliency to ameliorate stress in religion and family. Future work to engage African American men around alleviating stress and supporting resiliency should both take into account the perceived causes of stress and incorporate culturally appropriate sources of resiliency support (Chung, Meldrum, Jones, Brown & Jones, 2014).

There was a study conducted by Chuang, Wu and Wang (2023) to examine resilience and quality of life in people with mental illness using a systematic review and meta-analysis. Resilience is viewed as an individual' positive adaptation and experiences of adversity. The maintenance and recovery of mental health in people with mental disorder is considered a sign of coping with adverse conditions. The purpose of the present meta-analysis was to examine the association between resilience and quality of life in individuals with mental disorders. Studies were included if research reported measures of association with resilience, as assessed using self-reported resilience scale and quality of life. Eight studies involving a total of 1439 patients were included in the meta-analysis. Assuming a random-effects model, the weighted mean Pearson correlation between resilience and quality of life was r = 0.551 (95% confidence interval [0.370; 0.691], p < 0.001). This association was moderate, although the heterogeneity among individual effect sizes was substantial (I^2 = 93.35%). Despite substantial heterogeneity across included studies, the findings suggest a strong association between resilience and quality of life in people with mental disorders. In clinical practice, the promotion of resilience is important to enhance the quality of life among people with mental illness (Chuang, Wu & Wang, 2023).

Creative Thinking

Creativity is essential for survival and it is the path to progress and prosperity. The creativity, innovation, invention and leadership measure the progress and development of nations. Creative thinking is one of the finest and highest skills and abilities that should be acquired by students in all different academic levels. Ayasrah, Obeidat, Katatbeh, Aljarrah and AL-

Akhras (2023) carried out a study ascertain the role of creative thinking in academic ambition of students. The main objective of this study is to disclose the extent of practicing creative thinking and its relationship to academic achievement among students of the Jordan University of Science and Technology. The study was conducted on a sample of 1159 male and female students, who were chosen randomly. The study involved the following main question: To what extent are students of Jordan University of Science and Technology practicing creative thinking? It also contained three hypotheses: 1) There is a significant difference of practicing creative thinking among the students of Jordan University of Science and Technology due to gender; 2) There is a significant difference of practicing creative thinking among students of Jordan University of Science and Technology due to academic year; 3) There is a significant correlation between practicing creative thinking among students of Jordan University of Science and Technology and academic achievement. The results of the study indicated that students of Jordan University of Science and Technology are practicing creative thinking at a moderate level reaching 2.96 at Likert scale. Moreover, it revealed that there is a statistically significant difference in the level of practicing creative thinking due to gender favoring male students. A close relationship between the level of practicing creative thing and academic achievement was found, where 20% of the research sample having high academic achievement showed moderate level of practicing creative thinking Ayasrah (Obeidat, Katatbeh, Aljarrah & AL-Akhras, 2023).

A study was conducted by Luesia, Benítez, Company-Córdoba, Gómez-Gómez and Sánchez-Martín (2023) to examine the impact of academic competencies on creative thinking of youths. The evaluation of students' competencies to face the challenges of university studies has mainly focused on the assessment of cognitive abilities through intelligence tests in the admission context. The results from previous studies demonstrate the predictive capacity of these abilities for subsequent university performance. However, current policies are aimed to identifying competencies from a broader approach, such as higher-order thinking skills (HOTS), that may influence college success in the admission testing context. A systematic review of the literature was carried out with the aim of extracting the most relevant competencies included in admission processes that predict academic success.

A total of 2681 original articles were identified. Of them, 42 met the inclusion criteria established according to the review carried out by two independent researchers. Following a peer-review procedure, the competencies assessed in incoming university students were coded and analyzed. Academic performance was explained by cognitive abilities, self-regulated learning (SRL) skills, and soft skills. Among the competencies assessed, the role of cognitive abilities such as numerical reasoning and verbal reasoning in academic success was highlighted. Within the SRL skills, the findings point to the relevance of critical thinking, effort regulation, time/study management, self-directed learning, leadership, and collaboration. Finally, soft skills such as conscientiousness, professionalism, internal locus of control, self-efficacy, and social responsibility, were also highlighted. The conclusions of the present study will help develop comprehensive competence assessments and educational resources focused on better preparing students before starting university studies, in line with the 21st century skills framework and 2030 Agenda policies (Luesia, Benítez, Company-Córdoba, Gómez-Gómez & Sánchez-Martín, 2023).

Tam (2023) conducted a study on integrating creative thinking skills pedagogies into a higher education visual arts course. As a member of a Community of Practice project that ran from spring 2021 to summer 2022 at my university, the researcher worked with ten university teachers from multiple disciplines to develop and implement instructional strategies to foster students' creative thinking skills. The paper documented the development, implementation and evaluation of creative thinking skills teaching strategies for a higher education course in visual arts. Both the development of the teaching strategies and the measurement of the impact on student learning have undergone vigorous research procedures and made reference to the

existing literature. The effectiveness of the activities was assessed using multiple methods including the Torrance Test of Creative Thinking, a self-report inventory, and a focus group interview.

The results indicated the new learning activities enhanced students' creative thinking skills. They also showed that creativity can be developed through teaching while revealing that playfulness, freedom and structure, group interactions, and problem-solving activities are beneficial for the development of creative thinking skills. Readers may better understand the different ways in which creative thinking skills instruction materials can be developed and incorporated into teaching of visual arts by making reference to the strategies suggested and the process of development in the paper (Tam, 2023).

A study was conducted by Silva, Lopes, Morais, and Dominguez (2023) on the effects of cooperative learning on the promotion of critical thinking skills in using 106 college students in Portugal. It employed a quasi-experimental design with a pretest and posttest using the Critical and Creative Thinking Test (CCT) and the Critical Thinking Dispositions Scale (CTDS) with equivalent groups and a control group. The results demonstrate that only the intervention groups had significantly higher scores in the CCT posttest than in the pretest. Implications and pedagogical suggestions are presented (Silva, Lopes, Morais, & Dominguez, 2023).

Elbyaly and Elfeky (2023) conducted research to explore the effectiveness of blended learning in developing creative thinking for students of the Master of Vocational Education Technologies Saudi Arabia. The research sample consisted of two groups, an experimental group that studied the interactive multimedia course using the blended learning method, and a control group that studied the course using the traditional method. Each group consisted of 31 students. The creative thinking test was used as a tool to achieve the objective of the research. The research concluded that the students of the experimental group (blended learning) excelled over the students of the control group (learning in the traditional way) in creative thinking (total score),

as well as in the axis of fluency, axis of flexibility, and axis of originality (Elbyaly & Elfeky, 2023).

A study was conducted by Agustina, Masrukan and Walid (2023) on the analysis of mathematical creative thinking ability in terms of self-regulated learning in creative problem-solving learning model with performance assessment. This study aims to (1) analyze the quality of Creative Problem Solving (CPS) learning model with performance assessment on students' mathematical creative thinking abilities; (2) analyze students' mathematical creative thinking abilities in terms of Self-Regulated Learning (SRL).

The results showed that (1) CPS learning with performance assessment has the quality in improving students' mathematical creative thinking abilities; (2) subjects with high SRL were able to fulfill all indicators of mathematical creative thinking abilities namely fluency, flexibility, originality, and elaboration; subjects with medium SRL only met fluency, originality, and elaboration; subjects with low SRL only met fluency and originality (Agustina, Masrukan & Walid, 2023).

Hypotheses

The following hypotheses were tested in the study.

1. Growing-up experiences of Nigerian youths will not significantly impact on their mental resilience.
2. Growing-up experiences of Nigerian youths will not significantly impact on their creative thinking style.
3. There will be no significant gender variations in mental resilience of Nigerian youths.
4. There will be no significant gender variations in creative thinking styles among Nigerian youths.

METHOD

This presents the sequence of the study. The stages of the study are divided into the participants, instruments, procedure, and design/statistics.

Participants: The participants for the study and their attributes are as given in the table 1 below.

Table 1: Participants Attributes

Category	Cluster	N
DEPARTMENTS	Psychology	84
	Mass Communication	6
	Economics	5
	English	1
	Political Science	5
FACULTY	Social Science	100
	Arts	1
YEAR OF STUDY	Year 1	1
	Year 2	7
	Year 3	85
	Year 4	6
	Year 5	2
GENDER	Male	32
	Female	69
EDUCATION LEVEL	BSc/HND	38
	NCE/DIPLOMA	34
	Secondary	29
STATE OF ORIGIN	Anambra	80
	Imo	9
	Ebonyi	1
	Enugu	8
	Abia	2
	Delta	1
COUNTRY	Nigeria	101
RELIGION	Christianity	99
	Traditional	1
	Secular	1
CHRISTIAN DENOMINATION	None	1
	Catholic	62
	Anglican	24
	Pentecostal	11
	Sabbath	2
	Unspecified	1
ISLAMIC DENOMINATIONS	None	101

SOURCE: Primary data from the research questionnaire

The participants were Nigerian youths sampled from the Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State, Nigeria. The participants were sampled with cluster and incidental sampling techniques. Both male and female youth were sampled across various levels (years) of study, Departments and Faculties. The mean age of the participants was 21.74 (18-35) years, while the SD was 2.50.

Instruments: The instruments for the study were Growing-Up Experiences Questionnaire (Nwankwo, 2023), Mental Resilience Scale (NIEHS, 2023), and Creative Thinking Styles Scale adapted from SkillsYouNeed.com (2023). The Growing-Up Experiences Questionnaire was measured on a 5-point rating scale of To a Large Extent (5), To Some Extent (4), Sometimes (3), Rarely (2), and Not at All (1). It (Growing-Up Experiences Questionnaire) had convergent validity of 0.83 with Life Distress Questionnaire (Nwankwo & Moneme, 2000), as well as split-half reliability of 0.77. Mental Resilience Scale was measured on 5-point rating scale of Not true at all (1), Rarely true (2), Sometimes true (3), Often true (4), and Always True (5). It (Mental Resilience Scale) had convergent validity of 0.87 with the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1986), as well as split-half reliability of 0.81. Creative Thinking Styles Scale was measured on 5-point rating scale of To a Large Extent (5), To Some Extent (4), Sometimes (3), Rarely (2), and Not at All (1). It (Creative Thinking Styles Scale) had convergent validity of 0.91 with Innovative Behaviour Scale (Officha, 2019), as well as Cronbach alpha reliability 0.78.

Procedure: The study was conducted among university youths of Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State, Nigeria. The setting of the study was the University Campus. The samples for the study were collected across various levels of study, Departments, and Faculties of the University. The participants were reached based on their availability and willingness to participate in the study. Research assistants knowledgeable in psychological researches and the aim of the current study were incorporated. Ethical considerations of confidentiality and informed consent were observed.

Design/Statistics: The study had cross-sectional design. A cross-sectional study is a type of research design in which data are collected from different individuals at a single point in time. In cross-sectional design, variables are observed and data collected without influencing them (Thomas, 2023). Cross-sectional study design is a type of observational study design. In a cross-sectional study, the investigator measures the exposures and the outcome in the study (participants) at the same time (Setia, 2016). The statistics for the study are both the descriptive and inferential statistics. While the descriptive

statistics were used for the examination of the descriptive performance of the participants, the inferential statistics of Multivariate Analysis of Variance (MANOVA) were used to test the hypotheses of the study. MANOVA is used when the procedure provides for regression analysis, or analysis of variance for multiple dependent variables (mental resilience and creative thinking of the current study) with one or more factors (independent) variables (growing up experiences of the current study) or covariates. MANOVA provides procedure tests for multiple dependent variables (DVs) and one or multiple independent variables (IVs) at the same time (Frost, 2023). One of the IVs can be continuous variable(s), and the continuous variable(s) is usually considered (entered) as covariate(s) (Frost, 2023). This helped to answer the research questions.

RESULTS

This chapter presents the results of tested hypotheses. Descriptive and inferential statistics were analyzed with SPSS version 25. Data were of primary source and attained interval measurement.

Table 2: Parameters Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
AGE	101	17	18	35	21.74	2.50	2.22	.24	8.48	.47
CREATIVE THINKING STYLE	101	110	91	201	166.14	19.05	-.90	.24	1.52	.47
Divergent Thinking	101	22	13	35	25.53	4.81	-.27	.24	-.53	.47
Conventional Thinking	101	33	12	45	29.31	5.98	.10	.24	.33	.47
Investigative Thinking	101	31	18	49	38.09	5.68	-.49	.24	.23	.47
Aesthetic Thinking	101	29	5	34	24.59	4.87	-.97	.24	2.47	.47
Systemic Thinking	101	28	5	33	23.66	4.83	-.89	.24	2.18	.47
Inspirational Thinking	101	21	16	37	26.82	4.47	-.11	.24	-.49	.47
MENTAL RESILIENCE	101	38	10	48	31.33	9.53	.11	.24	-.94	.47
GROWING-UP EXPERIENCE	101	123	21	144	61.16	21.89	.77	.24	1.37	.47
Mental Health Wellness	101	12	3	15	6.61	3.23	.81	.24	-.35	.47
Emotional Abuse	101	12	3	15	7.50	3.22	.52	.24	-.41	.47
Verbal Abuse	101	12	3	15	7.12	3.66	.81	.24	-.35	.47
Substance Use	101	17	3	20	5.82	3.74	1.62	.24	2.25	.47
Technology Abuse	101	12	3	15	6.66	3.33	.63	.24	-.62	.47
Sexual Activity	101	14	1	15	5.63	3.42	1.31	.24	1.01	.47
Physical Abuse	101	17	3	20	9.42	4.53	.74	.24	-.20	.47
Valid N (listwise)	101									

SOURCE: Primary data from the research questionnaire

Table 2 shows "Creative Thinking Style" had mean 166.14 of 201 above the average, indicating samples' high creative thinking. The SD of 19.05 indicated participants varied so much in their creative thinking style. Skewness (-0.90) is negative indicating pronounced negative creative thinking styles of the youths. However, the kurtosis of 1.52 (1.52<3) was positive indicating more creative thinking among the participants. The mean for "Mental Resilience" was 31.33 of 48 indicating above average mental resilience among the youths. The SD (9.53) showed less similarity in mental resilience of among the participants. The skewness (0.11) indicated outlier performance among the participants being on the positive side. The kurtosis of -0.94 (-0.94<3) indicated fewer outlier data. The mean for "Growing-Up Experiences" was 61.16 of 144, indicating below average growing-up experiences. The SD (21.89) showed high disparity in their growing-up experiences. The skewness (0.77) indicated greater data being on the positive side. The positive kurtosis of 1.37 (1.37<3) indicated increasing diversity in growing-up experiences.

Table 3: Gender Descriptive Statistics for Mental Resilience, Creative Thinking Style, & Growing-Up Experience

	GENDER	Mean	Std. Deviation	N
MENTAL RESILIENCE	Male	29.4375	10.86556	32
	Female	32.2174	8.79818	69
	Total	31.3366	9.53549	101
CREATIVE THINKING STYLE	Male	170.1250	17.04027	32
	Female	164.3043	19.76725	69
	Total	166.1485	19.05591	101
Divergent Thinking	Male	26.4063	4.24157	32
	Female	25.1304	5.03492	69
	Total	25.5347	4.81366	101
Conventional Thinking	Male	30.0625	5.91846	32
	Female	28.9710	6.03171	69
	Total	29.3168	5.98821	101
Investigative Thinking	Male	38.9063	4.88816	32
	Female	37.7246	6.01685	69
	Total	38.0990	5.68596	101
Aesthetic Thinking	Male	24.6250	5.08477	32
	Female	24.5797	4.81238	69
	Total	24.5941	4.87479	101
Systemic Thinking	Male	24.8437	4.65666	32
	Female	23.1159	4.84627	69
	Total	23.6634	4.83172	101
Inspirational Thinking	Male	25.7188	4.42307	32
	Female	27.3333	4.44134	69
	Total	26.8218	4.47749	101
GROWING-UP EXPERIENCE	Male	64.5625	17.04442	32
	Female	59.5942	23.75569	69
	Total	61.1683	21.89067	101
Mental Health Wellness	Male	6.3438	3.10680	32
	Female	6.7391	3.30175	69
	Total	6.6139	3.23101	101
Emotional Abuse	Male	7.0625	2.77009	32
	Female	7.7101	3.41752	69
	Total	7.5050	3.22684	101
Verbal Abuse	Male	6.5000	3.22290	32
	Female	7.4203	3.84021	69
	Total	7.1287	3.66514	101
Substance Use	Male	7.0312	4.35138	32
	Female	5.2609	3.31952	69
	Total	5.8218	3.74806	101
Technology Abuse	Male	6.9375	2.96145	32
	Female	6.5362	3.50453	69
	Total	6.6634	3.33250	101
Sexual Activity	Male	6.7500	3.31176	32
	Female	5.1159	3.37611	69
	Total	5.6337	3.42556	101
Physical Abuse	Male	9.3437	4.04498	32
	Female	9.4638	4.76686	69
	Total	9.4257	4.53067	101

SOURCE: Primary data from the research questionnaire

Table 3 showed mental resilience of female (32.2174) greater than that of male (29.4375). Female SD (8.79818) was more consistent than male (10.86556). Male (170.1250) performed better than female (164.3043) in "Creative Thinking". Microanalyses showed that female (27.3333) perform better than male (25.7188) in "inspirational thinking". Male (24.6250) and female (24.5797) performed equally in "Aesthetic Thinking". Male (64.5625) more than female (59.5942) had growing-up displeasing experiences. Male more than female had more growing-up displeasing experiences with "Substance Use" (male = 7.0312; female =

5.2609), and "Sexual Activity" (male = 6.7500; female = 5.1159). Female (7.4203) more than male (6.5000) had more growing-up "Verbal Abuse" experiences. Both genders experienced equal growing-up displeasing experiences in terms of "Mental Health Wellness", "Emotional Abuse", "Technology Abuse", and "Physical Abuse".

Figure 1: Mental Resilience Histogram
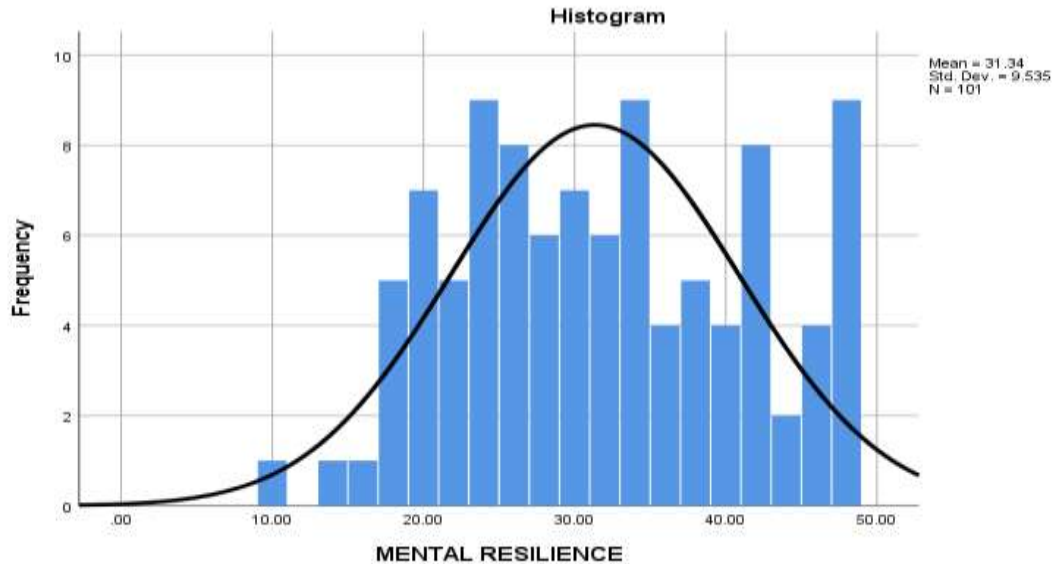
SOURCE: Primary data from the research questionnaire

Figure 1 had performance positively skewed of relatively uniform (SD = 9.535) "Mental Resilience" with few pronounced performances beyond the mean (31.34). Figure 1 is a mesokurtic (k = 3.0) curve accommodating greater performances at the base outside the average.

Figure 2: Creative Thinking Style Histogram
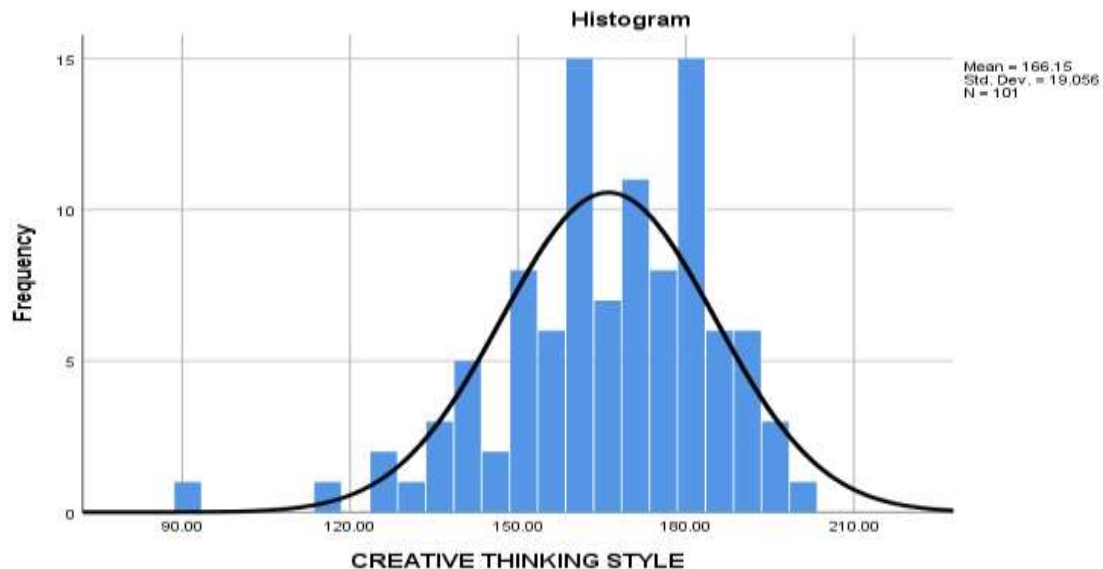
SOURCE: Primary data from the research questionnaire

Figure 2 showed serious variations (SD = 19.056) in "Creative Thinking Style" among the participants, with few performances beyond the mean (166.15). Figure 2 is a leptokurtic (k >3.0) curve which constricts more performances out of the average.
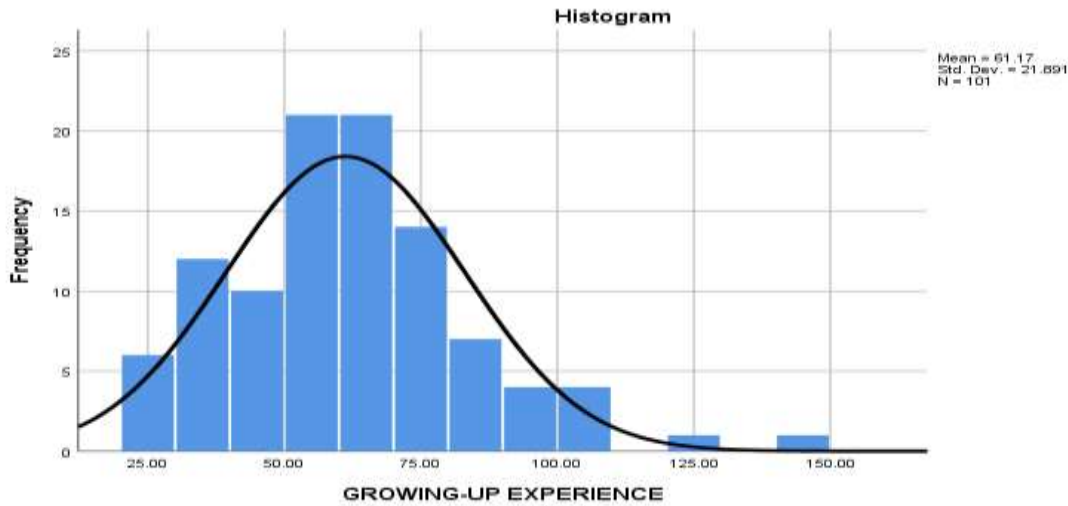
Figure 3: Growing-Up Experiences Histogram

SOURCE: Primary data from the research questionnaire

Figure 3 is a mesokurtic (k = 3.0) showing serious variations (SD = 21.891) in "Growing-Up Experiences".

Table 4: MANOVA Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Sqres	df	Mean Sqre	F	Sig.	Part. Eta Sqred	Non cent. Par	Obs Power[i]
Intercept	**MENTAL RESILIENCE**	5793.836	1	5793.836	80.154	.000	.47	80.15	1.00
	CREATIVE THINKING STYLE	260587.205	1	260587.205	761.554	.000	.89	761.55	1.00
	Divergent Thinking	5441.239	1	5441.239	256.605	.000	.74	256.61	1.00
	Conventional Thinking	7923.928	1	7923.928	211.374	.000	.70	211.37	1.00
	Investigative Thinking	14757.445	1	14757.445	501.305	.000	.85	501.31	1.00
	Aesthetic Thinking	4896.384	1	4896.384	192.581	.000	.68	192.58	1.00
	Systemic Thinking	5727.698	1	5727.698	247.278	.000	.73	247.28	1.00
	Inspirational Thinking	6700.055	1	6700.055	338.983	.000	.79	338.98	1.00
GROWING-UP	**MENTAL RESILIENCE**	485.930	1	485.930	6.723	.011	.07	6.72	.73
EXPERIENCE	**CREATIVE THINKING STYLE**	130.262	1	130.262	.381	.539	.00	.38	.10
	Divergent Thinking	89.839	1	89.839	4.237	.042	.04	4.24	.53
	Conventional Thinking	2.218	1	2.218	.059	.808	.00	.06	.06
	Investigative Thinking	12.493	1	12.493	.424	.516	.01	.42	.10
	Aesthetic Thinking	2.372	1	2.372	.093	.761	.00	.09	.06
	Systemic Thinking	5.784	1	5.784	.250	.619	.00	.25	.08
	Inspirational Thinking	46.514	1	46.514	2.353	.128	.03	2.35	.33
GENDER	**MENTAL RESILIENCE**	44.287	1	44.287	.613	.436	.01	.61	.12
	CREATIVE THINKING STYLE	516.935	1	516.935	1.511	.222	.02	1.51	.23
	Divergent Thinking	7.583	1	7.583	.358	.551	.00	.36	.09
	Conventional Thinking	12.495	1	12.495	.333	.565	.00	.33	.09
	Investigative Thinking	7.570	1	7.570	.257	.613	.00	.26	.08
	Aesthetic Thinking	.293	1	.293	.012	.915	.00	.01	.05
	Systemic Thinking	72.393	1	72.393	3.125	.080	.03	3.13	.42
	Inspirational Thinking	49.018	1	49.018	2.480	.119	.03	2.48	.34
Total	**MENTAL RESILIENCE**	108273.000	101						
	CREATIVE THINKING STYLE	2824451.000	101						
	Divergent Thinking	68171.000	101						
	Conventional Thinking	90393.000	101						
	Investigative Thinking	149838.000	101						
	Aesthetic Thinking	63468.000	101						
	Systemic Thinking	58890.000	101						
	Inspirational Thinking	74665.000	101						

**** significant @ P≤ 0.001; and * significant @ P≤ 0.05; Ho; N = 101; SOURCE: Primary Data from research questionnaire**

Hypothesis One: It states that **"**growing-up experiences of Nigerian youths will not significantly impact on their mental resilience" was rejected. Table 4 showed that growing-up experiences significantly influenced Nigerian youths' mental resilience (P< 0.011 < 0.05, F = 6.723, N = 101, df = 1;101). Growing-up experiences had 6.9% (η2 = 0.069) impact on mental resilience of Nigerian youths. The observed power of 0.728 showed high statistical strength of growing-up experiences in influencing mental resilience of Nigerian youths at P>0.05. The non-centrality parameter (δ = 6.723) was above 0, and it is a measure of the degree to which a null hypothesis is false.

Hypothesis Two: It states that **"**growing-up experiences of Nigerian youths will not significantly impact on their creative thinking style" was accepted. Table 4 showed that growing-up experiences had non-significant influence on Nigerian youths' creative thinking style (P< 0.539 > 0.05, F = 0.381, N = 101, df = 1;101). Growing-up experiences had negligible 0.4% (η2 = 0.004) impact on creative thinking style of Nigerian youths. The observed power of 0.094 showed low statistical strength of growing-up experiences in influencing creative thinking style of Nigerian youths at P>0.05. The non-centrality parameter (δ = 0.381) was low comparatively to 0, and it is a measure of the degree to which a null hypothesis is false.

Hypothesis Three: It states that **"**there will be no significant gender variations in mental resilience of Nigerian youths." was accepted. Table 4 showed that gender had non-significant influence on Nigerian youths' mental resilience (P< 0.436 < 0.05, F = .613, N = 101, df = 1;101). Gender had 0.7% (η2 = 0.007) impact on mental resilience of Nigerian youths. The observed power of 0.121 showed low statistical strength of gender in influencing mental resilience of Nigerian youths at P>0.05. The non-centrality parameter (δ = 0.613) was above 0, and it is a measure of the degree to which a null hypothesis is false.

Hypothesis Four: It states that **"**there will be no significant gender variations in creative thinking styles among Nigerian youths" was accepted. Table 4 showed that gender had non-significant influence on Nigerian youths' creative thinking style (P< 0.222 > 0.05, F = 1.511, N = 101, df = 1;101). Gender had lowly 1.6% (η2 = 0.016) impact on creative thinking style of Nigerian youths. The observed power of 0.229 showed low statistical strength of gender in influencing creative thinking style of Nigerian youths at P>0.05. The non-centrality parameter (δ = 1.511) was comparatively above 0, and it is a measure of the degree to which a null hypothesis is false.

Summary of Findings
The following findings were made in the study.
Hypotheses (Inferential) Findings
1. "Growing-up experiences" significantly influenced Nigerian youths' "mental resilience".
2. "Growing-up experiences" had non-significant influence on Nigerian youths' "creative thinking style".
3. Gender had non-significant influence on Nigerian youths' "mental resilience".
4. Gender had non-significant influence on Nigerian youths' "creative thinking style".

Fallout (Descriptive) Findings
5. "Mental resilience" of female was greater than that of male.
6. Female was more consistent than male in "mental resilience" performance.
7. Male performed better than female in "Creative Thinking".
8. Female perform better than male in "inspirational thinking".
9. Male and female performed equally in "Aesthetic Thinking".
10. Male had more "growing-up" displeasing experiences than female.
11. Male had more "growing-up" displeasing experiences with "Substance Use" than female.
12. Male had more "growing-up" displeasing experiences with "Sexual Activity" than female.
13. Female had more growing-up "Verbal Abuse" experiences than male.

14. Both male and female genders had equal "growing-up" displeasing experiences of "Mental Health Wellness".

15. Both male and female genders had equal "growing-up" displeasing experiences of "Emotional Abuse".

16. Both male and female genders had equal "growing-up" displeasing experiences of "Technology Abuse".

17. Both male and female genders had equal "growing-up" displeasing experiences of "Physical Abuse".

DISCUSSION

The findings of the study are briefly discussed below. The implications of the findings are also made. Previous studies are as well referred to in discussing the current findings. Hypothesis One of the current study states that **"**growing-up experiences of Nigerian youths will not significantly impact on their mental resilience". The hypothesis was rejected. Finding showed that growing-up experiences significantly influenced Nigerian youths' mental resilience. Growing-up experiences had impact on mental resilience of Nigerian youths. Statistical power efficiency showed high statistical strength of growing-up experiences in influencing mental resilience of Nigerian youths. The of this hypothesis for the current study supports the earlier finding by Chuang, Wu and Wang (2023) that quality of life while growing up impacts on mental resilience.

Hypothesis Two states that **"**growing-up experiences of Nigerian youths will not significantly impact on their creative thinking style". The hypothesis was accepted. By this, growing-up experiences had non-significant influence on Nigerian youths' creative thinking style. The result showed that growing-up experiences had negligible impact on creative thinking style of Nigerian youths. The statistical power efficiency showed low statistical strength of growing-up experiences in influencing creative thinking style of Nigerian youths. The non-centrality parameter was comparatively low comparatively. The finding of the current study is not in consonance with the earlier finding by Segundo-Marcos, Carrillo, Fernández and González (2023) that growing-up experiences improves creative thinking.

Hypothesis Three states that **"**there will be no significant gender variations in mental resilience of Nigerian youths." The hypothesis was accepted. The implication was that gender had non-significant influence on Nigerian youths' mental resilience. Gender had negligible impact on mental resilience of Nigerian youths. The statistical power efficiency showed low statistical strength of gender in influencing mental resilience of Nigerian youths. Further fallout finding showed that "mental resilience" of female was greater than that of male. Again, female was more consistent than male in "mental resilience" performance. The finding of the current study is at variance with the previous finding by King, Carr and Taylor (2019) that there were gender differences in mental resilience for gender. On the other hand, studies have found that women are approximately twice as likely as men to develop mental resilience problems after a traumatic event (Zarulli, Jones, Oksuzyan, Lindahl-Jacobsen, Christensen & Vaupel, 2018).

Hypothesis Four states that **"**there will be no significant gender variations in creative thinking styles among Nigerian youths" was accepted. The finding showed that gender had non-significant influence on Nigerian youths' creative thinking style. Gender had lowly impact on creative thinking style of Nigerian youths. The statistical power efficiency showed low statistical strength of gender in influencing creative thinking style of Nigerian youths. Further finding showed that male performed better than female in "Creative Thinking". However, female perform better than male in "Inspirational Thinking Style". Male and female performed equally in "Aesthetic Thinking Style". The finding of this current study is in agreement with that of Ayasrah, Obeidat, Katatbeh, Aljarrah and AL-Akhras (2023) that both genders perform equally in creative thinking.

More fallout findings showed that male had more "growing-up" displeasing experiences with "Substance Use" than female. Male had more "growing-up" displeasing experiences with "Sexual Activity" than female. Female had more growing-up "Verbal Abuse" experiences than male. Both male and female genders had equal "growing-up" displeasing experiences of "Mental

Health Wellness". Both male and female genders had equal "growing-up" displeasing experiences of "Emotional Abuse". Both male and female genders had equal "growing-up" displeasing experiences of "Technology Abuse". Both male and female genders had equal "growing-up" displeasing experiences of "Physical Abuse". These outcomes could have resulted from the earlier finding by Jiang and Jiang (2023) in which it was stated that family functioning plays a very important role the growing-up experiences (either for good or bad) of youths.

Summary

The current study is on role of growing-up experiences on mental resilience and creative thinking of Nigerian youths. The following findings were made in the study: "Growing-up experiences" significantly influenced Nigerian youths' "mental resilience". "Growing-up experiences" had non-significant influence on Nigerian youths' "creative thinking style". Gender had non-significant influence on Nigerian youths' "mental resilience". Gender had non-significant influence on Nigerian youths' "creative thinking style". "Mental resilience" of female was greater than that of male. Female was more consistent than male in "mental resilience" performance. Male performed better than female in "Creative Thinking". Female perform better than male in "inspirational thinking". Male and female performed equally in "Aesthetic Thinking".

Male had more "growing-up" displeasing experiences than female. Male had more "growing-up" displeasing experiences with "Substance Use" than female. Male had more "growing-up" displeasing experiences with "Sexual Activity" than female. Female had more growing-up "Verbal Abuse" experiences than male. Both male and female genders had equal "growing-up" displeasing experiences of "Mental Health Wellness". Both male and female genders had equal "growing-up" displeasing experiences of "Emotional Abuse". Both male and female genders had equal "growing-up" displeasing experiences of "Technology Abuse". Both male and female genders had equal "growing-up" displeasing experiences of "Physical Abuse".

It is recommended that enabling opportunities need to be created that will help
improve the creative thinking prowess of the female gender. Again, there is the need to check growing-up experiences of drug use and sexual activities the youths. Furthermore, efforts should be made to curb various forms of abuse experienced by growing-up persons. Finally, youths are obsessed with "Technology Abuse", and a check has to be put on this.

Limitations of the Study

1. The scope of the study was among university undergraduates. Other youths outside the undergraduates were not used. Hence, the coverage may have samples implications.

Implications of the Findings

The findings of the study have the following implications:

1. The findings will practical in training the young persons. This is bearing in mind that their growing up experiences have behavioural implications later in life.
2. Parents will find the findings invaluable in modelling their children.
3. Teachers will also find the findings useful in training the children.
4. The findings of the study will also be very useful to the government. Planning for the future generation depends on the knowledge derived from this type of study on the youths who are the future generations and leaders. Improved mental resilience and creative thinking prowess of the youths will make tremendous contributions to the future development of the society.

Recommendations

With the successful completion of the study, the following recommendations are proffered.

1. Enabling opportunities need to be created that will help improve the creative thinking prowess of the female gender.
2. There is the need to check growing-up experiences of drug use and sexual activities of the youths.
3. Efforts should be made to curb various forms of abuse experienced by growing-up persons.

4. The youths are obsessed with "Technology Abuse", and a check has to be put on this.

Suggestions for Further Studies

1. Future studies should explore issues like the role of culture in mental resilience and creative thinking. It is suspected that culture may play a great role in youths' mental resilience and creative thinking.

2. Further studies may also explore the role of internet sociability in youths' mental resilience and creative thinking. The rate at which youths get engulfed with internet may unknowingly impact on their mental resilience and creative thinking. These perspectives need to be explored.

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GROWING-UP EXPERIENCES QUESTIONNAIRE

		To a Large Extent (5)	To Some Extent (4)	Sometimes (3)	Rarely (2)	Not at All (1)
MENTAL HEALTH WELLNESS						
1	I often feel very sad about how I was treated during my younger years.					
2	Whenever I remember my younger years experiences, I do become anxious.					
3	How I was treated during my younger years makes me feel like harming myself.					
EMOTIONAL ABUSE						
4	When I was growing up, I was often blamed for what I did not do.					
5	During my younger years, I accused of some wrongs I did commit.					
6	My freedom was highly restricted during my younger years.					
VERBAL ABUSE						
7	I was often called bad names during my younger years.					
8	During my younger years, I was usually shouted at on minor issues					
9	I was well-insulted during my younger years.					
SUBSTANCE USE						
10	I started tasting alcohol at a very young age.					
11	I tasted cigarette at a very young age.					
12	At a younger age, I had already started using drugs.					
TECHNOLOGY ABUSE						
13	I started experiencing cyberbullying at a younger age.					
14	Texting and Chatting have been part of me since my growing years.					
15	I have addicted to technology since my younger years.					
SEXUAL ACTIVITY						
16	My first sexual experience was forced on.					
17	I have had some unprotected sex when growing up.					
18	During my younger years, I did not have the will-power to say no to sex.					
PHYSICAL ABUSE						
19	When I was growing up, I was often abuse with hitting.					
20	As growing up person, I was severally slapped.					
21	As a growing up person, I had been pushed.					
22	My movement had been restrained during my younger years.					

SOURCE: Nwankwo, O.D. (2023). Department of Psychology, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State, Nigeria.

MENTAL RESILIENCE SCALE

		Not true at all (1)	Rarely true (2)	Sometimes true (3)	Often true (4)	Always True (5)
1	It is easy for me to adapt when changes occur.					
2	I can deal with whatever comes my way.					
3	I try to see the humorous side of things when I am faced with problems.					
4	Having to cope with stress can make me stronger.					
5	I tend to bounce back after illness, injury, or other hardships.					
6	Obstacles don't discourage me from pursuing my ambitions.					
7	I am able to handle unpleasant or painful feelings like sadness, fear and anger					
8	Under pressure, I stay focused and think clearly.					
9	I am a strong person when dealing with life's challenges and difficulties.					
10	Failure do not discourage me at all.					

SOURCE: National Institute of Environmental Health Sciences (NIEHS), Version 2.0 (2023). Clinical Exam: Mental Health Questionnaire. https://gulfstudy.nih.gov/en/docs/Mental%20Health%20Questionnaire.pdf

CREATIVE THINKING STYLES

		To a Large Extent (5)	To Some Extent (4)	Sometimes (3)	Rarely (2)	Not at All (1)
DIVERGENT THINKING						
1	I deliberately try to break my routine.					
2	Usually, I keep on trying until I make meaning out of what is ambiguous.					
3	I enjoy discussions with people with different viewpoints.					
4	New ideas that challenge the way I think is still tolerable to me.					
5	When I have a problem, I talk to lots of people about it to know their views.					
6	I make an effort to use techniques that help me think differently.					
7	It is not ideal to me to solve problem with first solution that comes.					
CONVENTIONAL THINKING						
8	Constant changes don't interest me.					
9	I dislike breaking my routine.					
10	Anything that is difficult is not for me.					
11	It is not easy for me to cut off from my old friends.					
12	New options that will challenge my life pattern is not acceptable to me.					
13	I don't normally try out new ways of doing things.					
14	I fear new experiences that I can't control.					
15	New challenges are not inspiring to me.					
16	I try new ways of doing things only when I am sure of it.					
INVESTIGATIVE THINKING						
17	Common ways of doing things don't interest me.					

18	I make effort to take on new challenges.					
19	To find solutions, I must explore as many options as possible.					
20	I like discussing with new people, not just old friends.					
21	Completely new options are what I look for in whatever I do.					
22	I try out new ways of doing things.					
23	To explore new avenues, I often deliberately break my routine.					
24	I try to find ways of doing things even when they sound impossible.					
25	Finding out more about things that are new is like a hobby to me.					
26	I am prepared to try things even if I find them difficult.					
AESTHETIC THINKING						
27	Beauty is my primary focus in whatever I do.					
28	I take up new enjoying activities or hobbies on a regular basis.					
29	How to improve on my wrongs is of great concern to me.					
30	I usually try to imitate others' success.					
31	Holiday is of great priority to me.					
32	I prefer to talk with people who give me joy.					
33	People who are not predictable are boring to me.					
SYSTEMATIC THINKING						
34	I easily understand how things are interrelated and linked together.					
35	I find that others see patterns and similarities much more easily than I do.					
36	The first solution that comes to mind usually explains the problem.					
37	I like activities that involve patterns, such as crosswords and jigsaw puzzles.					
38	Changing my routine is worrisome to me.					
39	I like trying to solve difficult life or game problems.					
40	Connections and similarities between things are enjoying to me.					
INSPIRATIONAL THINKING						
41	Insight easily occurs to me.					
42	I spend time reflecting on my past.					
43	It is inspiring to me to learn new things.					
44	I tend to quickly generate many ideas to problems.					
45	My mistake pushes me for higher attainments/goals.					
46	I am skeptical about the benefits of new thinking techniques.					
47	Talk over problems with other people can be discouraging.					

SOURCE: Adapted from the SkillsYouNeed.com (2023), Creative Thinking Skills Self-Assessment.
https://www.skillsyouneed.com/quiz/979666