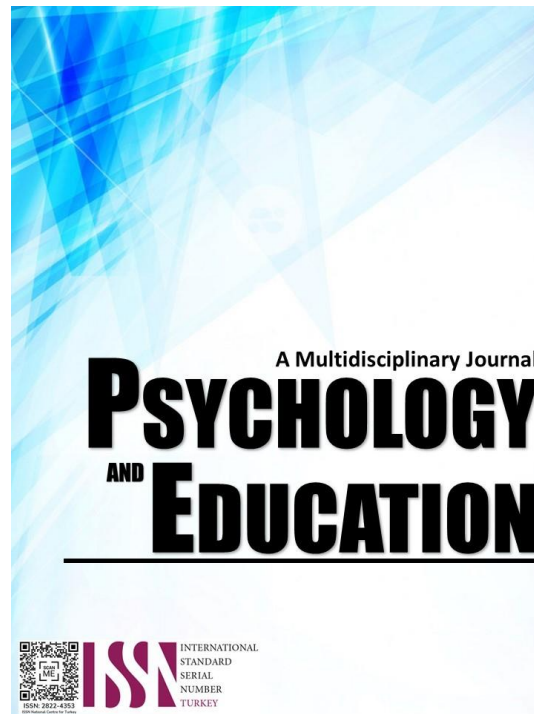


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PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

2022

Volume: 6

Pages: 1310-1328

Document ID: 2022PEMJ428

DOI: 10.5281/zenodo.7447063

Manuscript Accepted: 2022-13-12

Skills, Challenges, and Academic Performance of 21st-Century Learners of Solo Parents

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Abstract

The paper examined the socio-demographic profile of respondents and the extent of the 21st century skills of the respondents. It further investigated the challenges encountered by the respondents. The academic performance of the respondents is statistically measured through the general weighted average. Significant differences in the respondents' skills and socio-demographic profile, and the relationship to academic performance were also inquired. The paper aimed to emphasize the interventions to cater learners' needs. The respondents were the one hundred ten students from Augurio Marañon Abeto National High School (AMANHS) and Binalbagan National High School (BNHS) who were raised by a solo parent. The study purely used descriptive survey with a self-made questionnaire. It has been found out that majority of the respondents were female, aged twelve to fifteen years old, family earned income of three thousand one to six thousand monthly, the solo parents were undergraduate college level, and majority were in Grade 10. The respondents were moderately skilled in critical thinking and communication skills, and highly skilled in collaboration and self-direction skills. Despite the challenges encountered by the respondents, they were proficient in their academic performance. There is no significant difference between the 21st century skills of the respondents and school, and none as to sex, grade level, educational attainment and age. On the academic performance and sex, there is a significant difference found, while none in grade level, educational attainment, family monthly income, and age. There is a significant relationship between 21st century skills and academic performance.

Keywords: *academic performance, challenges, skills, solo parents, 21st century learners*

Introduction

Society keeps on evolving, ever since the world existed, a lot of developments have occurred. The transformation of devices that from gigantic supercomputers to tablets are signs of change this is brought about by the evolution of how people think towards the 21st century.

Students these days know that they live in a world where there are diversity and a lot of issues to address an issue or achieve a certain project. Students think critically and creatively, communicates and collaborates with others, creates-ready and prepared for life and eyes on the prize (Dublin, 2015).

These skills were put into strands which are innate; all humans are born with a conformity bias; that is a tendency to adopt and repeat established norms and behaviors. Conformity promotes cooperation bias; that is efficiency, and predictability (Dunbar, Barret, & Lycett, 2007). Critical thinking skills, collaboration skills, communication skills, creativity and innovation skills, and self-direction skills that with these solo parenting plays a crucial role that molds to the progression of their skills and academic performance (Wagner, 2008).

Along with substantial prevalence of solo-parenthood there are consequences of growing up with a solo parent for children's education (Scott, 2004) from

observations, students of single parent families are at risk of low academic performance and acquire greater chances of dropping out of school due to financial constraints for low income single parents could not be in the position to suffice all the needs which can be amplified when school distance mediate and with these conditions it may stand as great challenge to their skills.

There are so many researches on the positive influence of parental involvement on children's educational outcomes. Yet, the present study investigated on the level of parental involvement among solo-parent families which is considered as another major reason for educational outcomes of children, and the overall relationship between a parent and his or her child which likely affects psychological well-being and thus ultimately educational outcomes of the child. This clearly manifest the reason of the conduct of the present study.

Research Questions

The study sought to investigate the skills of 21st century learners of solo parent which targets to seek the answers of the following questions:

1. What is the demographic profile of respondents when grouped according to:
 - a. Sex;
 - b. Age;
 - c. Parents' Monthly Income;

- d. Highest Educational Attainment, and
- e. Grade Level?
2. What is the extent of the 21st century skills of the respondents when grouped according to:
 - a. Critical Thinking;
 - b. Collaboration Skills;
 - c. Communication Skills;
 - d. Creativity and Innovation Skills; and
 - e. Self-Direction Skills?
3. What are the challenges experienced by learners of solo parent?
4. What is the academic performance of 21st century learners of solo parent?
5. Is there a significant difference on the 21st century skills of the learners when grouped according to their demographic profile?
6. Is there a significant difference on the academic performance of the respondents when grouped according to their profile?
7. Is there a significant relationship between 21st century skills and academic performance of the learner?

Literature Review

The current section reviews literature, conceptual and research, taken from local as well as foreign sources. The reviewed material has added more understanding and insights on the topics being investigated and helped shed light on concepts and issues which were not very clear. Literature on various issues related to the topics under investigation is also presented which have bearings on the issues at hand.

21st Century Skills

The identified skills of 21st century learners are innate; all humans are born with a conformity bias; that is a tendency to adopt and repeat established norms and behaviors. Conformity promotes cooperation, collaboration, efficiency, and predictability (Dunbar, Barrett, & Lycett, 2007). Critical thinking and problem-solving, Collaboration across networks and leading by influence, Agility and adaptability, Initiative and entrepreneurialism, Effective oral and written communication, Accessing and analyzing information and Curiosity and imagination (Wagner, 2008).

Critical Thinking Skills

21st-century learners can process the information that they receive, ask questions, analyze them and make arguments, beliefs or decisions based on this

information. They do not limit themselves to becoming one-trick ponies only. They often think outside the box, not only sticking to a single approach to attacking a dilemma, (Dublin 2015). More recently, critical thinking has been compared to rational thinking, defined as “adopting appropriate goals, taking the appropriate action given ASSESSING 21ST CENTURY SKILLS 12 one’s goals and beliefs, and holding beliefs about the world that are commensurate with available evidence” (West, Toplak, & Stanovich, 2008). Despite differences among the schools of thought and their approaches to defining critical thinking, there exist areas for agreement. First, researchers of critical thinking typically agree on the specific subskills encompassed by the definition, which include: making inferences using inductive or deductive reasoning, (Willingham, 2007), and making decisions or solving problems, (Willingham, 2007). Most researchers also agree that in addition to skills or abilities, critical thinking entails dispositions (Facione, 1990; Toplak and Stanovich, 2008). As early as 1985, researchers working in the area of critical thinking recognized that the ability to think critically is distinct from the disposition to do so.

Empirical evidence appears to confirm the notion that critical thinking abilities and dispositions are, in fact, separate entities (Facione, 2000; Toplak and Stanovich, 2008). These dispositions have variously been cast as attitudes or habits of mind. (Facione, 2000) defines critical thinking dispositions as “consistent internal motivations to act toward or respond to persons, events, or circumstances in habitual, yet potentially malleable ways”. Researchers tend to identify similar sets of dispositions as relevant to critical thinking. For example, the most commonly cited critical thinking dispositions include: open- or fair-mindedness, inquisitiveness and flexibility, (Facione, 2000).

Some researchers go even further to argue that critical thinking is entirely domain-specific. In other words, there is no such thing as generalized critical thinking skills. For example, Kuncel (2011) argues that generalized measures of critical thinking are indistinguishable from general intelligence or ability, and that such measures do not contribute usefully above general intelligence to the prediction of important educational outcomes. However, Toplak and Stanovich (2008) demonstrate that critical thinking dispositions, such as need for cognition and reflectivity, are better predictors of performance on domain-neutral disjunctive reasoning tasks than general cognitive ability. Similarly, West, Toplak and Stanovich (2008) demonstrate that a generalized

measure of critical thinking—performance on syllogistic reasoning tasks—is a better predictor of the ability to avoid cognitive biases than is general cognitive ability. Other researchers argue that critical thinking encompasses both general and domain-specific aspects (Ennis, 1985; Paul, 1992; Smith, 2002). In other words, some critical thinking skills apply to multiple domains (e.g., formal rules of logic), whereas others are unique to specific subject areas (e.g., the use of proofs in mathematics or the scientific method in science).

Critical thinking is highlighted in almost every discussion of key competencies for the 21st century. According to Facione et al. (1995), critical thinking includes inductive and deductive reasoning, as well as making correct analyses, inferences, and evaluations. These competencies are important for deeply understanding academic content, and they also relate to later career performance. Research suggests that for a company to compete in the global economy, it needs workers who will think about how to continuously improve its products, processes, or services. According to many executives, the heart of this continuous improvement process is knowing the right questions to ask (Wagner 2010), a function of critical thinking. Studies also tie critical thinking to other important societal outcomes. For example, Facione (1998) argues that citizens who think critically are likelier to be self-sufficient and therefore less of a drain on state resources. Meanwhile others suggest that such citizens are better equipped to give back to society, including through social entrepreneurship aimed at benefiting others (Peredo & McLean, 2006).

Collaboration Skills

The students of today realize the power of a unified group and learn how to deal with different personalities in an effective and courteous manner (Dublin, 2015). Questions and problems that cannot be solve individually and the knowledge and products that cannot be create individually. A lot of research in product development test today take more men power than what is possible by one person alone. Being expose to opinion and norms outside our own helps to solve bigger problems and create bigger knowledge in products than what's possible by one person alone. So collaborative learning is important part of 21st century learning. And it is important for 21st century learners to understand the ways in which connections support learning and to be intentional about creating connections and networks (Haroon, 2017).

These utterances are, the environment of which 21st century learners indulge within their selves for they have innate characteristic to collaborate amazingly well. They love teamwork and figuring things out with their friends, want to connect with others in real time on their own terms. They want their social media, their phones and their mobile technology. They want to be connected. All the time. In a way that makes sense to them (Eaton, 2011). Have multicultural awareness and appreciation. This generation is more aware of a variety cultures, countries and ways of life than any generation before them. Increasingly aware of the world around them. From the environment to politics, today's learners are asking questions and demanding answers (Eaton, 2011).

In recognition of this, Vygotsky (1978) believed that children reconstruct their understanding of the world in a social manner through collaborative processes with their peers. He attributed the benefits of collaboration to the mutual involvement by the children, the equality of the relationship between the children when in a collective group, and the motivation of children to collaborate based on their shared understandings (Tudge, 1992). In particular, 12 when children of mixed knowledge levels interact in collaboration, they are able to communicate on a level that they are able to understand and share with each other. Vygotsky (1978) labeled language “a powerful and strong tool” in children's interactions because of the shared meanings that form between children as well as the important transmission of social meanings (Tudge, 1992). Within the importance of language, Vygotsky (1978) recognized the importance of feedback between the children to promote a high level of joint understanding. As the children listen to and respond to each other's ideas and contributions to the interaction, they are able to reinforce their understandings, thereby extending their cognitive abilities. Therefore, the feedback contributes to cognitive comprehension because of the joint understanding between the children (Tudge and Winterhoff, 1993). Vygotsky (1978) argued that every function for a child occurs first on a social level and then on an individual level. The language between the children as well as in each individual child moves through the same process. Language begins as social between the children, labeled social speech; then they will talk to themselves about the activity, labeled egocentric speech; and last they will have inner speech and thought about the process of the activity, labeled inner speech (Tenzer, 1990). Within these levels of speech exist a higher thought process in the children that represents their individual increasing capacity to organize and order thoughts in an active exchange with

the environment (Tenzer, 1990). These speech activities further emphasize the importance of language in the communication between children in their interactions.

Communication Skills

21st century children can, without significant scaffolding, comprehend and evaluate complex texts across a range of types and disciplines and they can construct effective arguments and convey intricate or multifaceted information. Likewise, students are able independently to discern a speaker's key points, request clarification and ask relevant questions.

They build on others' ideas, articulate their own ideas and confirm they have been understood. Without prompting, they demonstrate command of Standard English and acquire and use a wide-ranging vocabulary. More broadly, they become self-directed learners, effectively seeking out and using resources to assist them. 21st learner establish a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise. They refine and share their knowledge through writing and speaking, (Haroon, 2017).

Generally, communication can be defined as a process of exchanging information, from the person giving the information through verbal and non-verbal methods, to the person receiving the information. The most common method of communication is verbal, using a specific language where it is a two-way process, with feedback on the message received. Communication also involves the exchange of ideas, opinions and information with a specific objective. Apart from oral communication, information can also be exchanged using symbols or signage. Communication has also been defined as sharing and giving meaning occurring at the same time through symbolic interactions (Seiler and Beall, 2005). Communication has been said to start when a message or information is transferred from the sender (the speaker, writer) to the receiver (listener, reader) through an instrument or channel, and followed by the receiver giving feedback (coding and interpreting the information. Based on these definitions, elements of communication include the person giving the information, the information and feedback by the receiver, and the repetition of these processes creates knowledge development. Previous research on communication skills among university students have been reported by Ihmeideh, Ahmad and

Dababneh (2010) and Cleland, Foster and Moffat (2005). They found that a positive communication environment provides opportunities to students to learn how to communicate, and thus, have better communication skills. Therefore, university students need to be given opportunities to communicate in order to be better prepared for the job market after their studies. Communication is more effective if the receiver (of the information) can understand and practice the skills. Further, communication will be more meaningful if the physical, spiritual and social factors are taken into account during the communication process. As a university student who is getting ready to start on their chosen career, he or she should take the opportunity in any activities that developed communication skills in a wider and complete aspect so that communication skills can be fully developed. Students need to put in effort to develop their communication skills to be able to succeed in their chosen profession (Ihmeideh, et al. 2010). There are many types of communication skills, but generally it involves oral and written skills. Mohd Helmi (2005) proposes that there are essentially three types of communication, which are interpersonal communication, management communication (communication in a group), and public communication (speech making). The process of communication generally involves four elements, which are the speaker, the receiver, communication channel and feedback. A few researchers have defined communication as verbal communication, written communication, non-verbal communication, listening and giving feedback (Nur'ashiqin Najmuddin, 2010). At the same time, Rodiah Idris (2010) proposes that communication as a non-verbal skill, giving feedback, presenting ideas verbally and in written form, doing presentations and negotiating to achieve a goal and getting support/agreement. In our globalized world, university students need to master communication skills in different cultural contexts (Penbek, Yurdakul, and Cerit, 2009). Harlak et al. (2008) proposes that university students be exposed to activities that can develop their communication skills starting from their first year at university. Hence, universities must provide many more activities to develop the students' communication skills in order to meet the challenges of the globalized world. Therefore, the aim of this study was to investigate the level of communication skills (oral, written and social skills) among local university students.

Communication skills are thoroughly discussed, sometimes in combination with collaboration skills and, often, located in the globalized environment of the 21st century. Skilled and effective oral and written

communication is the target (Wagner, 2008; Trinidad et al., 2013; Teruggi and Zuccoli, 2015). Although the mother tongue is given priority (European Parliament, 2006), multilingual communication gains more significance as years pass and globalization is becoming more of an everyday reality (Heinrichs, 2016; Mercuri and Ramos, 2014). This condition further poses the need for the development of the team working skills required for one to be able to communicate and collaborate effectively and organically in heterogeneous environments, where conflict management skills are, also, deemed essential (Ananiadou and Claro, 2009). Environments characterized by diversity are the new reality and developing the required open-mindedness that will allow one to work in them more smoothly and productively is a target (Heinrichs, 2016). Global awareness is gaining more and more attention based on the recognition of the evolvement of the world as a global village where citizens are affected by issues of interdependence and is, thus, included in the discussion of the 21st century skills (West Virginia Department of Education, 2009). Cultural awareness and expression are seen as the first step (European Parliament, 2006) before reaching the level of being able to appreciate the value of varied cultures (Heinrichs, 2016) and construct intentional cross-cultural relationships and networks (National Council of Teachers of English, 2008). Leadership is, sometimes, included in the 21st century skills. Self-motivation and the ability to take initiative is regarded important (Wilkins and Wilmore, 2015) and discussed in combination with entrepreneurship and the ability to lead by influence (Wagner, 2008; Teruggi and Zuccoli, 2015).

Creativity and Innovation Skills

Students of 21st century understand and extend his skills with technology used in the classroom and the world around them. Through this they would learn about technology and learn through technology in addition are able to select the most appropriate tools to address particular needs evidently to open their curiosity and imagination through technology, (Dublin, 2015). They employ knowledge thoughtfully to enhance their reading, writing, speaking, listening and language use. They tailor their searches online to acquire useful information efficiently and they integrate what they learn using technology with what they learn offline. The strengths and limitations of various technological tools and mediums and can select and use those best suited to their goals (Eaton, 2011).

Creativity is one of the most discussed personal skills. Creative production of results is the target (Martin, Nacu and Pinkard, 2016). The notion is, often, discussed alongside the concepts of curiosity and imagination (Wagner, 2008; Abdullahi and Osmanb, 2010; Teruggi and Zuccoli, 2015), while Ejlsing-Duun and Skovbjerg (2016), also associate it with playfulness. It is, further, related with the ability to innovate (Sheikh and Siti, 2016; Cruz and Orange, 2016). Romero, Usart, and Ott (2014) introduce the term “co-creativity” in the discussion of the skills of the current century, linking the concepts of creativity and collaboration, thus, giving a more collective dimension to the concept.

Developed Problems

The number of single parent families, headed by single mothers and single fathers, has been increasing. In 1970, there were 3 million single parenting mothers and 393,000 single parenting fathers; in 2006, there are 10 million single parenting mothers and 2.3 million single parenting fathers (U.S. Bureau of the Census, 2005). More than 60% of U.S. children live some of their life in a single parent household (Simmons and O'Connell, 2003).

Although these households share many of the same concerns as families in different compositions, such as the need for quality daycare, some issues are unique to solo parent families. Two parents usually share responsibility and monitoring of the child, and provide encouragement and discipline as needed. When only one parent is consistently present, that parent must be the sole economic and parenting resource and must stretch to cover both domains. Often, a single parent has less regular interaction and involvement in day-to-day activities of the child (Carlson and Corcoran, 2001). This situation may give children the opportunity to develop resiliency, to assist in household chores out of necessity, and to become motivated to succeed. These families may experience greater economic concerns regarding the ability to provide materially for children. Solo parent families are disproportionately poor; overall, 28% of families with children and a female head-of-household and no husband and 13% of families with children and a male head-of-household and no wife lived below the poverty level in 2005 (U.S. Bureau of the Census, 2002). Research shows that children reared in single parent families do not fare as well as children reared in two parent families, on average, regardless of race, education, or parental remarriage (McLanahan and Sandefur, 1994); they are more likely to experience increased academic difficulties and higher levels of

emotional, psychological, and behavior problems (Hanson et al, 1997; Previti and Amato, 2003).

Solo parents may be “stretched thin” financially and emotionally, and this can have a direct and indirect impact on their children. Children in single parent families are more likely to experience accidents—suggesting lower levels of child supervision—and to see a physician, to receive medical treatment for physical illnesses, and to be hospitalized than children from two parent families (O'Connor et al, 2000). Single parents have higher levels of mental health problems, which could result partly from the stress of trying to balance the needs of employment, home responsibilities, child rearing, and interactions with the child's school with limited time, personal, and social support (Cairney, 2003). Children in solo parent families also are more likely to live with adults unrelated to them. This situation can be concerning because these children are eight times more likely to die of maltreatment than children in households with two biologic parents (O'Connor et al, 2000).

As in all families, solo parents can maximize the likelihood of success for their children by establishing a quality home environment. Although this situation may be especially challenging for solo parents, children benefit from an organized household with clear rules and expectations, appropriate consequences for misbehavior, and emotional nurturance from the parent. It is important to support solo parents attempting to establish successful households. The external community can play a major role in the health and development of children in solo parent families. On the one hand, violence in the community can adversely affect the child's opportunities for growth and development and dampen interactions outside the home for fear of injury. On the other hand, many community organizations and school-based prevention programs that are culturally relevant and focus on assisting adults in their parenting and children in their development are often available. For school-age children, involvement in structured activities available in the community, such as mentoring programs, after-school programs, and youth sport leagues, can help optimize healthy child development. This involvement may be especially important for children in single parent families.

Compared with most other family structures (i.e., two parent families and grandparent-headed households), children living in a solo parent family are most at risk for school difficulties, behavior problems, poverty, maltreatment, and a host of other negative influences

to their health and well-being. Pediatricians, as advocates for children in most need of quality health care, can use this knowledge to provide children from single parent families with an increased quality of care and referrals to other supports and local services. A referral to a social worker may help connect a child with youth programs in the community such as Big Brother/Big Sister, athletic teams, after-school programs, and Boy/Girl Scouts, which can provide opportunities for positive social development.

Emotional Problems

Empirical evidence has shown that children from intact-homes will be taken care of and better socialized. This is due to the fact that the process of socialization depends on both parents playing complementary roles in raising such children; which will definitely impact positively on the children during school years. On the other hand, children from single parent homes are more likely to suffer deprivations and denials of some rights and opportunities that will have negative psycho-social impact on them in school years Azuka Obieke (Uchenna, 2013). Adolescence is a transitory period (12 years to 18 years) between childhood and adulthood and it involves biological, cognitive and socio-emotional changes (Santrock, 2004). During this period an individual is seen neither as a child not as an adult. Salami and Alawode (2000) claimed that adolescents are characterized by emotional instabilities and hyper-activities, which cause them to experience storms and stress. Diane 2007 opines that identity formation creates tension in adolescents to the extent that some of them become confused about their personality. Adolescence period is a transitional period in the development of critical thinking and a time of increased decision making. The theory of cognitive development emphasize that adolescents think more abstractly, idealistically and also thinks more logically (Santrock, 2004). The period of adolescence is very important to the development of any individual. Therefore, any laxity on the part of the parents in assisting and guiding the adolescent may result in academic backwardness and development of unwholesome behaviors.

The foundation of what a person becomes in the societies depends is laid in the home and at the initial stage of life. According to Sigmund Freud who is the pioneering architect of psychoanalytic theory, early experiences with parents and family relationships extensively shape development (Santrock 2004). Parents therefore have their children and adolescents acquire the appropriate academics, social, psychological and moral development. Research has

consistently shown that family structure can facilitate or limit the ways in which parent are able to positively influence the psycho-social and educational outcomes of their children. (Amato and Keith 2000). A child from home where the father and mother are present will be well taken care of and socialized in the best way possible. This is due to the fact that the process of socialization depends on both parents playing complementary roles in bringing up the child. Such child is likely to achieve self-socialization later in life (Azuka-Obieke Uchenna, 2013). The problem of deprivation of a second parent is bad enough but when the remaining parent cannot cope with the resultant problems, a tragic situation arises. In such a situation, the child becomes a misfit in the society. The inability of the solo parent to cope is as a result of double responsibilities he/she (the parent) faces which requires extra time, attention, and money of the parent. Hence less attention is paid to the psychological well-being and education of the child. (Azuka-Obieke, Uchenna, 2013). Although growing up in a single parent family is frequently viewed as a risk factor for children, single-parent families have reported positive psychological adjustment educational outcome (Amato 2000).

Behavioral Problems

Interest in parenting and behavioral problem in children is widely acknowledged. Antisocial behavior is a major problem in childhood and beyond. Overall, prior research has shown that children who have experienced any kind of family change have poorer behavioral outcomes than children in stable two-biological parent families (A.J Cherlin, 2005). Children from single parent families tend to have poorer cognitive and behavioral outcomes than those from intact families (W. Single-Rushton S. McLanahan, 2004). Some western studies have noted greater problem behaviors in children from families with unmarried mothers or it been more for boys than girls (Ackerman et al., 2001). Karst (2000) attributes this greater prevalence to limited supervision, strained financial resources, social isolation, fewer coping supplies compared with children in traditional two parent families. Also, youths from solo parent families appear to be more to peer pressure and more likely to be make decisions without consulting a parent (Griffin et al., 2000).

A related study found higher percentage of psychiatric disorders like depression, anxiety and mood disorders or alcoholism in single mothers (Cairney et al, 2006). Being raised in such homes double the risk for children to develop emotional behavior problems.

Both such children as such as well as their parents showed lower ego functioning, lower self-esteem, less empathy, greater aggression, fighting and vandalism, less tolerance for negative behavior and more likelihood to display non age-appropriate behaviors (Hollist and Mcbroom 2006; Knoester and Hayne 2005). These problems are linked to future adult crimes, drug and alcohol miss-use, unemployment, poor physical health and mental disorders.

Academic Performance

Parents are primarily responsible for the educational and career development of their children (Salami and Alawode, 2000). Literatures on academic performance among children suggest that children's academic performance improve when both parents are actively in their education. (Nyarko 2007; Nyarko and Vorgelegt, 2007) married parents are more likely to involve in their children's education than solo parents. (Nyarko 2011, and Chowa et al, 2012). As parent s engage in the academic activities of their children, it is most likely to have a positive influence on their academic performance. However, this does not necessarily suggest that once parents engage in a child's academic activities, the child would be academically successful as the child's own abilities and the school environment also play critical roles in that respect. In a related way, Donkor (2010) indicates that parents noted that the poor performance of their children emanates from their lack of proper supervision of their ward's homework. Salami and Alawode (2000) in particular pointed out that both parents have roles to play in the child's education. The father is to provide the necessary tools for the educational advancement while the mother is to supplement the father's effort in this regard. When the father is absent and the mother is not privileged enough to cater for all the basic needs as well as supervise the academic performance of the child, he/she (the child) will be backward or withdrawn. The same thing occurs when the mother is absent and the father is not privileged enough.

Given the positive influence of parental involvement on children's educational outcome, children under solo parent family structure might not receive the necessary attention they required because the solo parent might be over whelmed by many responsibilities Abankwa Amoakohene, (2013) states that children in solo parent families are three times more likely to drop out of high school than children from two-parent families. Because solo parents are the primary and frequently the sole source of financial support for the family, they have less time to help children with homework, are

less likely to use consistent discipline, and have less parental control, and all of these conditions may lead to lower academic achievement. In contrast, there are few studies that believe that the solo parent household may not have as widespread and adverse an effect on academics as is publicized. Findings suggest that conventional wisdom may exaggerate the detrimental effect of father's absence (Debell, 2007). This study seemed to imply that once the socio-economic factors are controlled there is a much lessened effect on the academic performance and all well-being of the child.

Parents' Higher Educational Attainment

The parent's level of educational is an important indicator of a child's education and behavioral outcomes (Davis-Kean, 2005). Research also indicates that the education of the mother is linked positively to children's academic outcomes even after controlling for a variety of other social-economic status indicators such as house-hold income (Duncan and Brook-Gunn, 1997). If a parent's educational level is low, it could affect family interaction patterns and child behavior that might contribute to low academic achievement over time (Stipek, 1998). In addition, Davis-Kean, (2005) found out that there is a positive relation between parent's level of education and parents' expectations for their children's success. This appears to suggest that parents who are highly educated to some extent encourage their children to develop high expectations in academic achievement (Stephen, 1999). The literature reviewed seems to lack information directed towards parents not appearing supportive towards encouraging their children to participate in co-curricular activity.

Socio-demographic Profile an Outcome to Academic Performance

This established that academic performance of 21st century learners may vary from school or entity they were enrolled (Amasuomo, 2014). Academic performance is the outcome of education; it is the extent to which a student, teacher or institution has achieved their educational goals. Thus, performance is characterized by performance on tests associated with coursework and the performance of students on other types of examinations (Kyoshaba, 2009).

However, significant difference can be seen on creativity and innovation skills. The finding stresses that male learners are more creative and innovative than female learners. The findings affirm the results of previous researches (Abraham, 2015; Hong and Milgram, 2010; Miller, 2007). Furthermore, Abraham

(2015) stressed the idea that differences between men and women in creative cognition are best explained with reference to the gender-dependent adopted strategies or cognitive style when faced with generative tasks. It can be gleaned that 21st century skills do not have any significant differences with the different age groups (Tindowen, Bassig and Cagurangan, 2017). However, other studies stress that local connections and ICT skills in relevance to collaborative, communicative and self-direction, have significant differences between age groups. In terms of local connection skills, those learners who are 30 years old and above have the highest acquisition. This can be attributed to the fact that this age group has a high tendency of cultural appreciation and has a more possibility of being immersed in the community. Moreover, young learners who are 15 to 20 years old are those with highest acquisition of ICT integration. The findings affirm the results of previous studies on ICT integration between age groups (Stephen and Plowman, 2003; Yelland, Grieshaber, and Stokes, 2000). Moreover, the result can be attributed to the fact that teenagers nowadays have already an access and can easily use the Internet and social media sites.

Therefore, there is a significant difference between Academic Performance of the respondents from the different school and this also reveals that, academic performance is the outcome of education; it is the extent to which a student, teacher or institution has achieved their educational goals. Thus, performance is characterised by performance on tests associated with coursework and the performance of students on other types of examinations (Kyoshaba, 2009). Student's gender strongly affects their academic performance, with girls performing better in the subjects of Mathematics, and English as well as cumulatively. Girls usually show more efforts leading towards better grades at school (Ceballo, McLoyd and Toyokawa, 2004). The study of Dhuey in 2013, proved that grade-level configuration of a school does not affect learner's academic performance.

Parents' educational attainment does not predict 21st century learner's academic performance. The distal variable (parental education level) cannot have any influence on students (Gooding, 2001). With this claim of results this can also be associated to the implication that, despite the argue of other studies about the effect of family income to students' academic performance learners' there can be another analysis were Academic Performance cannot be influence or dependent to Parent's Income in other circumstance (Han, 2017). Relative to this result, it also manifests that 21st century skills are parallel to academic performance of

21st century learners, either through specific or general analysis (Ka'an, 2018).

Methodology

The nature of this study adopted purely the use of the descriptive survey. descriptive research involves collecting data in order to test hypotheses or answer research questions concerning the current status of the subject of the study (Gay, 1992). It further used quantitative technique as it is investigating the frequency of answers to the same questions by different participants.

Participants

The respondents of this study were the students who were raised by a solo parent in the selected secondary schools in the Municipality of Binalbagan and these are: Augurio Maraño Abeto National High School, Formerly: Binalbagan National High School – NOSOF Ext., and Binalbagan National High School – Main Campus. In addressing the sampling, purposive type of sampling was considered to this study to identify and determine the results from the respondents who took as respondents of this study. There were sixty-eight (68) students in Augurio Maraño Abeto National High School, Formerly: Binalbagan National High School – NOSOF Ext, and forty-two (42) students in Binalbagan National High School – Main Campus, with a total of one hundred ten (110) students who were involved in the study. There were seventy-two (72) females and thirty-eight (38) males.

Instrument of the Study

This study used a self-made questionnaire, which contained both close-ended or Likert-type, and open-ended questions which allowed the respondents to express themselves in their own words. The questionnaire composed of three (3) parts, namely: Part I on the demographic profile of Students which includes sex, age, grade level, parents' monthly income and highest educational attainment. Part II on the 21st century skills, contained modified questions which fitted to answer questions in the present study on the dimensions of critical thinking skills, collaboration skills, communications skills, creativity and innovation skills, and self-direction skills. Furthermore, the statements are scaled using Likert type as 5-Always, 4-Frequently, 3-Sometimes, 2-rarely, and 1-Never. Par III on the challenges experienced by the students with five (5) open-ended questions.

Procedure

Prior to the conduct of the study through questionnaire for the respondents to the selected school, the researcher designed and polished a formal intent that holds permission from the principal of the two targeted public high schools. Before the conduct of the study of the earlier, the administering of research instrument was validated first by the three jurors using the Good and Scates Evaluation Form. Upon the approval of the jurors the reproduction of research instruments was initiated that led to the legitimate conduct of questionnaires from permission of school head's office to the respective classroom advisers that assist and qualifies the exact number of attendance of the respondents with maintained classroom management, that assure quality time of answering the questionnaire and quantify valid responses from the 110 respondents that were done personally by the researcher. The researcher retrieved the questionnaire immediately from the respondents after answering for data analysis and by considering the initial procedure of clustering of sections, recognizing different responses between male and female respondents and aligning responses to variants the researcher facilitates the congruency and validity of responses.

Interpretation of data was effectively employed after the initial process that were based on the demographic profile of the respondents, skills, challenges and academic performance of learners of solo parent. Utilizing the sampling of complete enumeration. After the result, conclusion and recommendation of data interpreted were employed from variants. This study utilizes the quantitative approach thus the following procedural steps were stipulated: The researcher seek permission to the school heads of selected secondary schools within the Municipality by designing and constructing a letter of approval which to be followed by the advisers of the respondents to allow and allot time for the students of solo parents to answer the questionnaire then the respondents will seek permission from their respective advisers to take the task on answering. Estimated answering time of the students is set to 15-25 minutes to be assisted by gathering of questionnaires after the allotted time. The researcher informed the respondents about the purpose of the study and will ensure the observance of research ethics of confidentiality. The distribution, gathering and collecting of data was accomplished more or less than two (2) weeks. Tallying, organizing, analyzing and interpretation of results was initiated after the collection of data.

Results and Discussion

This section dealt with the presentation, analysis, and interpretation of the data gathered to carry out the objectives of the investigation.

Demographic Profile of the Respondents

Table 1. *Demographic Profile of Respondents*

Profile	Frequency	Percentage
<i>Age</i>		
12-15	72	65.5
16-20	36	32.7
21-above	2	1.8
<i>Sex</i>		
Female	72	65.5
Male	38	34.5
<i>School</i>		
AMANHS	68	61.8
BNHS	42	38.2
<i>Grade level</i>		
Grade 7	26	23.6
Grade 8	26	23.6
Grade 9	27	24.5
Grade 10	31	28.2
<i>Monthly Income</i>		
300-3000	30	27.3
3001-6000	31	28.2
6001-9000	8	7.3
9001-12000	19	17.3
12001-above	22	20.0
<i>Highest Educational Attainment</i>		
Elementary level	3	2.7
Elementary graduate	8	7.3
High school level	26	23.6
High school graduate	35	31.8
College level	21	19.1
College graduate	17	15.5
Total	110	100

Table 1 presented the demographic profile of respondents according to their sex, age, parent's monthly income, and highest educational attainment, and grade level.

The table shows the socio-demographic profile of the respondents, the majority of which are at the ages of twelve to fifteen-years-old, seventy-two (72) were female respondents and thirty-eight (38) were male respondents. In the total number of one hundred ten (110) respondents, a majority of sixty-eight (68) were enrolled at AMANHS and forty-two respondents were enrolled at BNHS. Thirty-one (31) respondents were in Grade 10, twenty-seven were in Grade 9 and twenty-six were in Grades 6 and 7. Out of one hundred ten (110) respondents, thirty-one (31) families earned a monthly income of three thousand one to six thousand,

thirty-two respondents earned a monthly income of three hundred to three thousand, twenty-two respondents earned a monthly income of twelve thousand and above, and nineteen respondents earned a monthly income of nine thousand one to twelve thousand, and lastly, eight respondents earned six thousand one to nine thousand. Thirty-five parents finished their high school, while twenty-six were not able to finish high school, twenty-one was able to start their tertiary education but was not able to finish, only seventeen were able to finish tertiary education, and lastly, three were able to start elementary but wasn't able to finish; only eight were able to finish their elementary education.

Extent of the 21st Century Skills of Respondents

Table 2A. *Extent of the Respondents Critical Thinking Skills*

Critical Thinking Skills Indicators	Mean	Standard Deviation	Interpretation
I can compare information from different sources before completing a task on my assignment	3.44	0.93	Highly Skilled
I can draw conclusion based on analysis of numbers, facts or relevant information.	3.08	0.94	Moderately Skilled
I can summarize or create my interpretation of what I have read or was being taught.	3.48	1.00	Highly Skilled
I can analyze competing arguments, perspectives or solutions to the problem.	3.36	0.96	Moderately Skilled
I can develop a persuasive argument based on supportive evidence or reasoning.	3.43	0.91	Highly Skilled
I try to solve complex problems or answer questions that have no single correct solution or answer.	3.28	0.91	Moderately Skilled
Mean	3.35	0.59	Moderately Skilled

Table 2.a presented the descriptive results of the extent of 21st century skills of the respondents on critical thinking skills.

Observe in table 2.a, a grand mean of 3.35 interpreted as moderately skilled reflected on the critical thinking skills indicator. This implies that respondents have moderate skills in comparing information from different sources, drawing conclusion based on analysis of numbers, facts or relevant information. Observe also that respondents have high skills in summarizing or creating interpretation of what respondents have read, can highly compare information from different sources before completing a task on their assignment and highly developing a persuasive argument based on supportive evidence or reasoning. However, respondents can analyze

competing arguments perspective to the problem moderately and solving complex problems or answer questions that have no single correct solution. More so, respondents moderately draw conclusion based on analysis of numbers, facts or relevant information.

The findings is supported by Facione et al. (2000) that emphasize that critical thinking includes inductive and deductive reasoning, as well as making correct analyses, inferences, and evaluations. These competencies are important for deeply understanding academic content, and they also relate to later career performance.

Table 2B. *Extent of the Respondents Collaboration Skills*

<i>Collaboration Skills Indicators</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Interpretation</i>
I can work in pairs or small groups to complete a task together.	3.91	0.91	Highly Skilled
I can work with other students to set goals and create a plan for your team.	3.99	0.85	Highly Skilled
I can create joint products using contributions from each student.	3.49	1.05	Highly Skilled
I can present your group work to the class, teacher or others.	3.57	1.02	Highly Skilled
I can work as a team to incorporate feedback or group tasks or products.	3.72	0.90	Highly Skilled
I can give feedback to peers or assess other students' work.	3.28	0.95	Moderately Skilled
Mean	3.66	0.65	Highly Skilled

Table 2.b presented the extent of 21st century skills of the respondents on collaboration skills. Observe in table 2.b, a grand mean of 3.66 interpreted as highly skilled reflected on the collaboration skills indicator. This implies that respondents were ensuring a great help to other people to work functionally in setting goals and incorporate feedback as a team especially in school activities. Hence, the 21st-century learners of solo parents greatly in collaboration with other people.

Observe also that respondents have high skills in working in pairs or small groups to complete a task together, working with other students to set goals and create a plan for the team, creating joint products using contributions from each students, presenting group work to the class, teachers or others, working as a team to incorporate feedback or group tasks or products. However, respondents can give feedback to peers or assess other students' work moderately.

The findings is supported by Haroon (2017) summarizing that a lot of research in product development test today take more men power than what is possible by one person alone. Being expose to

opinion and norms outside our own helps to solve bigger problems and create bigger knowledge in products than what's possible by one person alone. So collaborative learning is important part of 21st century learning. And it is important for 21st century learners to understand the ways in which connections support learning and to be intentional about creating connections and networks.

Table 2C. *Extent of Respondents Communication Skills*

<i>Communication Skills Indicators</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Interpretation</i>
I can present ideas through charts, tables and graphs.	3.26	0.86	Moderately Skilled
I can convey your ideas using media other than a written paper (e.g. posters, video, blogs, etc.)	3.12	1.14	Moderately Skilled
I can prepare and deliver an oral presentation to the teacher or others.	3.16	1.05	Moderately Skilled
I can answer questions in front of my class and teachers.	3.51	0.97	Highly Skilled
I discuss how I will present my work or demonstrate my learning.	3.39	1.07	Moderately Skilled
Mean	3.26	0.86	Moderately Skilled

Table 2.c presented the extent of 21st century skills of the respondents on communication skills. Observe in table 2.c, a grand mean of 3.26 interpreted as moderately skilled reflected on the communication skills indicator. This implies that respondents have the average ability to present ideas through charts, graphs, and tables, convey ideas using media and present work to demonstrate learning. Hence, the 21st-century learners of solo parents in collaboration typically can convey, perceived and can be understood by other people through the use of media presentation.

Observe also that respondents have moderate skills in presenting ideas through charts, tables and graphs, conveying ideas using media other than a written paper, preparing and delivering an oral presentation to the teacher or others, and discussing how to present work or demonstrating learning. However, respondents moderately answer questions in front of class and teachers.

The findings is supported by Haroon, 2017 summarizing that the 21st century learners build on others' ideas, articulate their own ideas and confirm they have been understood. Without prompting, they demonstrate command of Standard English and acquire and use a wide-ranging vocabulary. More broadly, they become self-directed learners, effectively seeking out and using resources to assist them. 21st learner establish a base of knowledge across a wide

range of subject matter by engaging with works of quality and substance. They become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise. They refine and share their knowledge through writing and speaking.

Table 2D. *Extent of the Respondents Creativity and Innovation Skills*

<i>Creativity And Innovation Skills Indicators</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Interpretation</i>
I use idea creation techniques such as brainstorming or concept mapping.	3.20	0.96	Moderately Skilled
I generate your ideas about how to confront a problem or question.	3.25	0.86	Moderately Skilled
I test out different ideas and work to improve them.	3.38	0.96	Moderately Skilled
I invent a solution to complex, open-ended question or problem.	3.25	0.92	Moderately Skilled
I create an original product or performance to express your ideas.	3.28	0.95	Moderately Skilled
I urge to explore new knowledge to any occasions through technology.	3.48	1.07	Highly Skilled
Mean	3.31	0.72	Moderately Skilled

Table 2.d presented the extent of 21st century skills of the respondents on creativity and innovation skills. Observe in table 2.d, a grand mean of 3.31 interpreted as moderately skilled reflected on creativity and innovation skills indicator. This implies that respondents have the average ability to present ideas through charts, graphs, and tables, convey ideas using media and present work to demonstrate learning. Hence, the 21st-century learners of solo parents in collaboration typically can convey, perceived and can be understood by other people through the use of media presentation. Observe also that respondents have moderate skills in using idea creation techniques such as brainstorming or concept mapping, generating ideas about how to confront problem or question, testing different ideas and work to improve them, inventing a solution to complex, open-ended question or problem, and creating an original product or performance to express ideas. However, respondents highly can explore new knowledge to any occasions through technology.

The findings is supported by Dublin, 2015 summarizing that students of 21st century understand and extend his skills with technology used in the classroom and the world around them. Through this they would learn about technology and learn through technology in addition are able to select the most appropriate tools to address particular needs evidently to open their curiosity and imagination through

technology, (Dublin, 2015).

Table 2E. *Extent of the Respondents Self-Direction Skills*

<i>Self-Direction Skills Indicators</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Interpretation</i>
I take initiative when confronted with a difficult problem or question.	3.36	1.05	Moderately Skilled
I choose your topics of learning or questions to pursue.	3.41	0.84	Highly Skilled
I plan the steps I will take to accomplish a complex task.	3.52	1.08	Highly Skilled
Choose for myself what examples to study or resources to use.	3.68	1.00	Highly Skilled
I monitor my own progress towards completion of a complex task and modify my work accordingly.	3.45	0.89	Highly Skilled
I use specific criteria to assess the quality of my work before it is completed.	3.37	0.91	Highly Skilled
I use peer, teacher or expert feedback to revise my work.	3.43	1.18	Highly Skilled
Mean	3.46	0.73	Highly Skilled

Table 2.e presented the extent of 21st century skills of the respondents on self-direction skills. Observe in table 2.e, a grand mean of 3.41 interpreted as highly skilled reflected on self-direction skills indicator. This implies that respondents had great the initiative of when confronted with difficult problems, choose topics of learning, plan steps to accomplish complex task, choose examples to study, monitor own progress, use specific criteria to assess the quality of work, and use peer, teacher or expert feedback to revise the work.

Observe also that respondents have high skills choosing topics of learning or questions to pursue, planning the steps to take to accomplish a complex task, choosing what examples to study or resources to use, monitoring progress towards completion of a complex task and modify work accordingly, and using specific criteria to assess the quality of work before it is completed. However, respondents moderately can take initiative when confronted with a difficult problem or question.

The findings is supported by Dunbar, Barrett, and Lycett, 2007 summarizing that the extent of 21st century skills of the participants when grouped accordingly, it was also revealed that these skills were put into stands of which are innate; all humans are born with a conformity bias; that is a tendency to adopt and repeat established norms and behaviors. Conformity promotes cooperation, collaboration, efficiency, and predictability.

Challenges Experienced by Respondents

Table 3. *Challenges Encountered by Learners of Solo Parents*

1. When one parent died, lots of problems were encountered but they were able to survive; lack of love and care was felt; financial problems; always seeking attention; became matured and independent; felt bullied; struggling from the feeling of seeking a complete family; and felt hopeless.
2. Sad, hard and lonely; the mother stands also as a father; and very hard for no one will guide.
3. Lack of financial capacity; very hard but became stronger; both parents had their own family; to face the day without a complete family; and to study hard to reach success in life.
4. Handled the situation because of love; through prayers and always think positive thoughts; through support with each other; and accept the situation.
5. Acceptance: focus on studies and make my family proud; and give value to life.

Table 3 presented the challenges experienced by learners of solo parent. The table revealed the five (5) common challenges experienced by learners of solo parent. These were the encounters of the respondents: First question was on the big events or changes the respondents experienced. Majority of the respondents answered “Yes”, when one parent died, lots of problems were encountered but they were able to survive; lack of love and care was felt; financial problems; always seeking attention; became matured and independent; felt bullied; struggling from the feeling of seeking a complete family; and felt hopeless. Despite of the negative feelings, two (2) respondents answered “No Big Deal” because we survived and my father stopped his vices. Second question was on the description to the results of happening of life. Majority of the respondents answered: sad, hard and lonely; the mother stands also as a father; and very hard for no one will guide. Third question was on the challenges experienced from a solo parent. Majority of the respondents answered: lack of financial capacity; very hard but became stronger; both parents had their own family; to face the day without a complete family; and to study hard to reach success in life. Fourth question was on how the respondent cope with those challenges. Majority of the respondents answered: handled the situation because of love; through prayers and always think positive thoughts; through support with each other; and accept the situation. And lastly, the fifth question was on the best way to move forward and make things better in the family. Majority of the respondents answered: acceptance; focus on studies and make my family proud; and give value to life.

These families may experience greater economic concerns regarding the ability to provide materially for

children. Solo parent families are disproportionately poor; overall, 28% of families with children and a female head-of-household and no husband and 13% of families with children and a male head-of-household and no wife lived below the poverty level in 2005 (U.S. Bureau of the Census, 2002). Research shows that children reared in single parent families do not fare as well as children reared in two parent families, on average, regardless of race, education, or parental remarriage (McLanahan and Sandefur, 1994); they are more likely to experience increased academic difficulties and higher levels of emotional, psychological, and behavior problems (Hanson et al, 1997).

Respondents' Academic Performance

Table 4. *Student's Academic Performance*

	Mean	Standard Deviation	Interpretation
General Average	85.54	4.67	Proficient

Table 4 presented the respondents' academic performance. The table 4 revealed that student's academic performance based on General Average got a mean of 85.54 having a standard deviation of 4.67, with interpretation of Proficient. This implies that 21st century learner of solo parents performed well and have thorough academic competence.

As parents engage in the academic activities of their children, it is most likely to have a positive influence on their academic performance. However, this does not necessarily suggest that once parents engage in a child's academic activities, the child would be academically successful as the child's own abilities and the school environment also play critical roles in that respect. In a related way, Donkor (2010) indicates that parents noted that the poor performance of their children emanates from their lack of proper supervision of their ward's homework. This established that academic performance of 21st century learners may vary from school or entity they were enrolled (Amasuomo, 2014). Academic performance is the outcome of education; it is the extent to which a student, teacher or institution has achieved their educational goals. Thus, performance is characterized by performance on tests associated with coursework and the performance of students on other types of examinations (Kyoshaba, 2009).

Difference Analysis on 21st Century Skills and Profile

Table 5A. *Difference Analysis on 21st Century Skills when grouped according to Sex*

21 st Century Skills	Statistical Analysis	Computed Value	P-Value	Decision for H_0	Conclusion
Critical Thinking Skills	Mann Whitney U Test	1034.000	0.035	Reject	Sig.
Collaboration Skills		1006.500	0.022	Reject	Sig.
Communication Skills		1021.500	0.029	Reject	Sig.
Creative and Innovative Skills		1193.500	0.271	Failed to Reject	Not Sig.
Self-Direction Skills		1027.500	0.032	Reject	Sig.
As a Whole		992.000	0.018	Reject	Sig.

Table 5.a presented the difference analysis on 21st century skills when grouped according to sex. The table revealed that critical thinking skills, collaboration skills, communication skills, and self-direction skills have significant differences when grouped according to the respondents' sex, except creative and innovative skills which has no significant difference. This implies that both gender identities have the same emerging 21st century skills in terms of critical thinking skills, collaboration skills, communication skills, and self-direction skills. The finding stresses that male learners are more creative and innovative than female learners. However, this doesn't hold true on creativity and innovation skills.

The findings affirm the results of previous researches (Abraham, 2015; Hong and Milgram, 2010; Miller, 2007). Furthermore, stressed the idea that differences between men and women in creative cognition are best explained with reference to the gender-dependent adopted strategies or cognitive style when faced with generative tasks.

Table 5B. *Difference Analysis on 21st Century Skills when grouped according to Age*

21 st Century Skills	Statistical Analysis	Computed Value	P-Value	Decision for H_0	Conclusion
Critical Thinking Skills	Kruskal Wallis H-Test	0.909	0.635	Failed to Reject	Not Sig.
Collaboration Skills		3.461	0.177	Failed to Reject	Not Sig.
Communication Skills		1.866	0.393	Failed to Reject	Not Sig.
Creative and Innovative Skills		0.280	0.869	Failed to Reject	Not Sig.
Self-Direction Skills		2.335	0.311	Failed to Reject	Not Sig.
As a Whole		1.596	0.450	Failed to Reject	Not Sig.

Table 5.b presented the difference analysis on 21st century skills when grouped according to age. The table revealed that there is no significant difference on 21st century skills when group according to age.

Meaning, respondents have the same extent of 21st century skills when group according to age. It can be gleaned that 21st century skills do not have any significant differences with the different age groups (Tindowen, Bassig and Cagurangan, 2017). However, other studies stress that local connections and ICT skills in relevance to collaborative, communicative and self-direction, have significant differences between age groups. In terms of local connection skills, those learners who are 30 years old and above have the highest acquisition. This can be attributed to the fact that this age group has a high tendency of cultural appreciation and has a more possibility of being immersed in the community. Moreover, young learners who are 15 to 20 years old are those with highest acquisition of ICT integration. The findings affirm the results of previous studies on ICT integration between age groups (Stephen and Plowman, 2003; Yelland, Grieshaber, and Stokes, 2000). Moreover, the result can be attributed to the fact that teenagers nowadays have already an access and can easily use the Internet and social media sites.

Table 5C. *Difference Analysis on 21st Century Skills when grouped according to School*

21 st Century Skills	Statistical Analysis	Computed Value	P-Value	Decision for H_0	Conclusion
Critical Thinking Skills	Kruskal Wallis H-Test	1.015	0.908	Failed to Reject	Not Sig.
Collaboration Skills		1.095	0.895	Failed to Reject	Not Sig.
Communication Skills		2.596	0.627	Failed to Reject	Not Sig.
Creative and Communication Skills		1.795	0.773	Failed to Reject	Not Sig.
Self-Direction Skills		0.489	0.975	Failed to Reject	Not Sig.
As a Whole		0.460	0.977	Failed to Reject	Not Sig.

Table 5.c presented the difference analysis on 21st century skills when grouped according to school. The table revealed that data between the two schools, namely: Agurio Marañon Abeto National High School and Binalbagan National High School (Main) and the 21st century skills as to critical thinking skills, collaboration skills, communication skills, creative and innovative skills, and self-direction skills, reject the hypothesis with conclusion of significant. This implies that there is a significant difference on the 21st century skills as to critical thinking skills, collaboration skills, communication skills, creative and innovative skills, and self-direction skills, when grouped according to school. Meaning, the respondents vary in their extent of 21st century skills when group according to school.

There is a need to arm students with 21st Century skills to prepare them for a more based job market. As

schools are created in a response to this call to action, research is needed to better understand how exemplary schools successfully accomplish this goal. The schools, therefore, with teacher lesson plans are engaging and developing student 21st Century skills (Stehle et al., 2019).

Table 5D. *Difference Analysis on 21st Century Skills when grouped according to Parents' Monthly Income*

21 st Century Skills	Statistical Analysis	Computed Value	P-Value	Decision for H_a	Conclusion
Critical Thinking Skills	Mann Whitney U Test	874.500	0.001	Reject	Sig.
Collaboration Skills		616.000	0.000	Reject	Sig.
Communication Skills		1065.000	0.025	Reject	Sig.
Creative and innovative Skills		1025.000	0.013	Reject	Sig.
Self-Direction Skills		819.000	0.000	Reject	Sig.
As a Whole		795.500	0.000	Reject	Sig.

Table 5.d presented the difference analysis on 21st century skills when grouped according to income. The table revealed that the data on difference analysis on 21st century skills when grouped according to family income, the data from each income bracket draws a conclusion of all of which is Not Significant. This implies that 21st century skills have the same extent when group according to income. A good number of student respondents indicate that low family income does not necessarily lower their academic achievement. The study concludes that financial status of families/parents and the students' academic performance must be a shared responsibility for the purpose of mutual benefits in the future (Adzido et al., 2016).

Table 5E. *Difference Analysis on 21st Century Skills when grouped according to Parents' Highest Educational Attainment*

21 st Century Skills	Statistical Analysis	Computed Value	P-Value	Decision for H_o	Conclusion
Critical Thinking Skills	Kruskal Wallis H-Test	0.860	0.835	Failed to Reject	Not Sig.
Collaboration Skills		1.825	0.609	Failed to Reject	Not Sig.
Communication Skills		7.804	0.050	Reject	Sig.
Creative and Innovative Skills		2.489	0.477	Failed to Reject	Not Sig.
Self-Direction Skills		3.061	0.382	Failed to Reject	Not Sig.
As a Whole		3.344	0.342	Failed to Reject	Not Sig.

Table 5.e presented the difference analysis on 21st century skills when grouped according to their highest educational attainment. The table revealed that the data on difference analysis on 21st century skills when

grouped according to parents' highest educational attainment draws a conclusion of all of which is Not Significant. This implies that 21st century skills have the same extent when group according to parents' highest educational attainment.

The result also showed that the 21st century skills of the students is not dependent on the parents' profile on educational attainment, and in the number of completed learning tasks by the students on their parents' profile. Most of the students can complete an average of five (5) learning tasks without taken consideration on the educational attainment of parents (Panol et al., 2020)

Table 5F. *Difference Analysis on 21st Century Skills when grouped according to Grade Level*

General Average	Statistical Analysis	Computed Value	P-Value	Decision for H_o	Conclusion
School	Kruskal Wallis H-Test and	734.500	0.000	Reject	Sig.
Sex		797.500	0.000	Reject	Sig.
Grade Level		6.320	0.097	Failed to Reject	Not Sig.
Highest Educational Attainment	Mann Whitney U-test	7.744	0.171	Failed to Reject	Not Sig.
Monthly Income		6.176	0.186	Failed to Reject	Not Sig.
Age		3.789	0.150	Failed to Reject	Not Sig.

Table 5.f presented the difference analysis on 21st century skills when grouped according to their Grade Level. The table revealed that the data on difference analysis on 21st century skills when grouped according to grade level draws a conclusion of all of which is Not Significant, except communication skills which has significant difference. This implies that 21st century skills have the same extent when group according to grade level in terms of critical thinking skills, collaboration skills, creative and innovative skills, and self-direction skills, and vary in communication skills.

Among the secondary school classes, in general, the 21st century skill levels of 5th grade students are better than those of students in other classes. In parallel with the quantitative results, the group who said the school environment has the least effects on the development of 21st century skills were 8th grade in the interviews (Sumen, 2017).

Difference Analysis on the Academic Performance and Profile

Table 6. *Difference Analysis on the Students' General Average and the Respondents' Profile*

21 st Century Skills	Statistical Analysis	Computed Value	P-Value	Decision for H_0	Conclusion
Critical Thinking Skills	Kruskal Wallis H-Test	3.581	0.611	Failed to Reject	Not Sig.
Collaboration Skills		3.816	0.576	Failed to Reject	Not Sig.
Communication Skills		8.582	0.127	Failed to Reject	Not Sig.
Creative and Communication Skills		1.215	0.943	Failed to Reject	Not Sig.
Self-Direction Skills		1.512	0.912	Failed to Reject	Not Sig.
As a Whole		2.721	0.743	Failed to Reject	Not Sig.

Table 6 presented the significant difference between the general average and of the respondents' profile. The table revealed that the data on significant difference on the academic performance of the respondents by profile, draw a conclusion of which the school and sex is significant, while grade level, highest educational attainment, monthly income and age are not significant. Therefore, there is a significant difference on academic performance of the respondents from the different school and this also reveals that, academic performance is the outcome of education; it is the extent to which a student, teacher or institution has achieved their educational goals. Thus, performance is characterised by performance on tests associated with coursework and the performance of students on other types of examinations (Kyoshiba, 2009).

The table revealed that there is a significant difference on academic performances of the respondents by their sex. It implies that academic performance varies to the sex of the learner especially, numeracy scale of assessment. Student's gender strongly affects their academic performance, with girls performing better in the subjects of Mathematics, and English as well as cumulatively. Girls usually show more efforts leading towards better grades at school (Ceballo, McLoyd and Toyokawa, 2004).

The table revealed that the data on significant difference between the academic performances of the respondents and their grade level, from four grade level draws a conclusion of all of which is Not Significant. It implies that there is no significant difference between academic performances of the respondents and their Grade level and with these findings. The study of Dhuey in 2013, proved that grade-level configuration of a school does not affect learner's academic performance. The table revealed that the data on significant difference between the academic performances of the respondents and their highest educational attainment were drawn from six factors form a conclusion of all of which is Not Significant. It implies that there is no significant difference between academic performances of the

respondents and their parents' highest educational attainment.

Parents' educational attainment does not predict 21st century learner's academic performance. The distal variable (parental education level) cannot have any influence on students (Gooding, 2001). The table revealed that the data on significant difference between the academic performances of the respondents and their family income. Data from two schools draw a conclusion of all of which is Not Significant. It implies that there is no significant difference between the academic performances of the respondents and their minimum income.

With this claim of results this can also be associated to the implication that, despite the argue of other studies about the effect of family income to students' academic performance learners' there can be another analysis were Academic Performance cannot be influence or dependent to Parent's Income in other circumstance (Han, 2017).

The table revealed that data on significant difference between the academic performances of the respondents and their age. Data from two schools draw a conclusion of all of which is Not Significant. It implies that there is no significant difference between the academic performances of the respondents and their age. On the study of the effect of students' age on academic motivation among secondary school students attending day schools within Nakuru municipality, it was established that the students' age had no significant effect on the academic motivation (Momanyi, (2015).

Relationship between 21st Century Skills and Academic Performance

Table 7. *Relationship between Academic Performance and 21st Century Skills*

Variables	Spearman rho	P-Value	Decision For H_0	Conclusion
Critical Thinking Skills	0.383	0.000	Reject	Sig.
Collaboration Skills	0.441	0.000	Reject	Sig.
Communication Skills	0.330	0.000	Reject	Sig.
Creativity and Innovation Skills	0.341	0.000	Reject	Sig.
Self-Direction Skills	0.388	0.000	Reject	Sig.
As a Whole	0.435	0.000	Reject	Sig.

Table 7 presented the relationship between the academic performances of the respondents and the 21st century skills. The table presented the data on relationship between the academic performances of the

respondents and the 21st century skills. Data from factors versus the academic performance draws a conclusion of all of which is Significant. It implies that there is a relationship between the academic performances of the respondents and the given factors. Relative to this result, it also manifests that 21st century skills are parallel to academic performance of 21st century learners, either through specific or general analysis (Ka'an, 2018). Students must understand why their grades are like that so that they can develop the necessary confidence to attain mastery. Moreover, the differences in academic performance in different grade levels cannot be expected (Farooq et al., 2011).

Conclusion

Foreground to the figures and analysis of the findings, the 21st-century learners of solo parents kept medium skills in critical thinking, communication, creativity and innovation. On the other hand, the highly skilled interpretation in collaboration and self-direction skills of the 21st-century learners of solo parents is on the face of its promising future. There were litany of negative feelings and emotions encountered by the learners of solo parents. But solo parents can maximize the likelihood of success for their children by establishing a quality home environment. Although this situation may be especially challenging for solo parents, children benefit from an organized household with clear rules and expectations, appropriate consequences for misbehavior, and emotional nurturance from the parent. The challenges encountered by the 21st-century learners of solo parents were enabling factors for introducing initiatives for reforms. Despite of the challenges, 21st century learner of solo parents performed well and have thorough academic competence.

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