# RESEARCH ARTICLE

## CYBERDEPENDENCY AND SCHOOL PERFORMANCE AMONG STUDENTS IN 3RD GRADE OF BINGERVILLE HIGH SCHOOL

### *Djelle Opely Patrice-Aime

Teacher-Researcher, Ecole Normale Supérieure Abidjan, Côte Divoire

| ARTICLE INFO | ABSTRACT |
|---|---|
| | This study examines the link between cyberdependency and school performance among students in the 3rd grade of the Mamie Houphouët Fêtai High School in Bingerville. It covers a sample of one hundred and ninety (190) female students between the ages of 14 and 17. Students' addiction to the Internet and social networks is measured using a questionnaire based on Vavassori et al (2002) and Young's Internet Addiction Test in its French version validated by Khazaal (2008). As for academic performance, they are verified using the end-of-term scoring matrices.. The results, obtained using student T and Anova, show that students in the third grade using the Internet as teaching tools have higher academic performance than their peers who use it as entertaining instruments. All these different results are explained by the models of Zuckerman (1969) and Viau (1994). Ultimately, this study will inform and raise awareness among students, educational system actors and parents about the risks of excessive use of the Internet and social networks on school learning. |

## INTRODUCTION

Cyberaddiction or Internet addiction is perceived as a psychological disorder resulting in an excessive and obsessive need to use the Internet and interfering with daily life. Several authors and researchers have conducted studies on non-chemical or behavioural addictions and have shown that it is relevant to distinguish between two types of Internet users: extroverts and introverts (Potera, 1998; Leung, 2004;Shapira & al., 2003). The former avoid chat rooms and other social sites to visit sites corresponding to their interests, such as travel or sports. The latter frequently go to chat rooms and are afraid to leave their homes. As for some authors such as Pawlak (2002) and Andrade (2003), loneliness and low social support are correlated with Internet addiction. Internet addicts are therefore individuals who are often socially isolated. However, in the literature on developing countries, very little research on sub-Saharan Africa addresses cyber-dependency among young girls in school, from the perspective of addiction to the internet and social networks. Our research will explore the relationship between cyberdependency and academic achievement among third-level students, and will enrich the understanding of

behavioural addictions, specifically dependence on the Internet and social networks. Our research will explore the relationship between cyberdependency and academic achievement among third-level students, and will enrich the understanding of behavioural addictions, specifically dependence on the Internet and social networks. The scientific interest of such research lies in the contribution and updating of current knowledge and data on this topic in a non-mixed population, that is, girls in school. The objective of this study is to show the influence of social media addiction on school performance among third-graders. Different theoretical approaches explain the development of addictive behaviors. Some highlight addictive driving on the development of psychological characteristics. Others, on the other hand, point to the impact of the influence of cyberdependency on school performance. Thus, at first we will present the psychobiological theory of Zuckerman (1969) and then the model of Viau (1994). Sensation-seeking theory was born in the 1960s. It seeks to explain psychophysiological differences. This search for sensations suggests that increased cortical activation is the general motivation for any stimulation-seeking activity (Zuckerman, 1969; 1974). Also, he postulates that people eager for sensations are like individuals who need varied, new and complex experience and sensations in order to maintain an optimum level of activation (Zuckerman & al.,1972).

*Corresponding author:* **Djelle Opely Patrice-Aime,**
Teacher-Researcher, Ecole Normale Supérieure Abidjan, Côte Divoire.

Subsequently, he will develop a psychobiological model of the sensation-seeking trait by specifying the role of neurotransmitters such as gonadal hormones, MAO endorphin and catecholamine in different facets and catecholamine in different facets of sensations research (Zuckerman, 1991; 1994). Zuckerman has shown that the search for sensations can go from the abuse of psychotropic substance or compulsive behaviors to risk-taking inducing a trait characterized by the need for varied experience and sensations, new, complex and willing to engage in risky physical and social activities of the individual himself (Zuckerman, 1979). Sensation-seeking theory postulates that sensation-seekers, in a state of non-stimulation, have low activity and use the behaviours that reveal this activity (Zuckerman, 1984). Later, he developed a general model of five dimensions and showed the connection between these dimensions. Thus, it exposes the link between the search for strong sensations and impulsiveness, aggressiveness, exhibitionism and extraversion (Zuckerman & al., 1998). Zuckerman's theory (1969) helps us to understand logically that the manifestation of substance-free addictive behaviors is related to the search for sensations. However, addiction to the Internet and social networks are associated with many disorders such as personality disorders and behaviors seeking thrills or novelty (DSMIV, 2000). Indeed, this addiction isolates these individuals.

Those looking for sensations stay connected to social networks for several hours, which could affect their academic results. This brings us to the theoretical models of school performance, in particular that of school motivation according to the Viau model. Viau (1994) chooses a more practical definition of motivation to learn in schools and thus speaks of motivational dynamics. Thus, he defines motivational dynamics as "A phenomenon that has its source in the perceptions that the student has of himself and of his environment, and which has the consequence that he chooses to commit himself to accomplish the pedagogical activity that is proposed to him and to persevere in its accomplishment and this, in order to learn." According to this author, the motivational dynamics of students include three sources corresponding to perceptions that refer to the judgments that a person makes about events, about others and about himself.

These three sources include the perception that the student has of the value of an activity, the perception that he has of his ability to perform it and his perception of controllability on its course. The perception of the value of an activity is characterized by the student's judgment of the interest and usefulness of the activity in relation to the student's goals. The perception of controllability on the course of the activity corresponds to the degree of control that the student considers to exercise on the course of the activity. Finally, according to Viau, the perception of Student Competence refers to the "judgment he makes about his ability to succeed adequately in an educational activity proposed to him". For example, students with learning difficulties often have motivation problems. Their difficulties in learning, their many failures and the image they have in the eyes of other students lead many of them to lose their motivation and interest in learning in a school context. In short, the model of Viau (1994) shows that motivation is a necessary condition for learning for all students.

Pouts-Lajus (2007) says that young people have invested in machines to communicate with such enthusiasm that it changes their social being, and also their psychology. Social networks increasingly have an irresistible appeal and a decisive influence on young people to the point of unfavourable personality changes. Indeed, through chat, facebook, wathsapp, etc., schooled teenagers try to forge a new personality, most of the false cases, having fun trapping each other in this virtual world. In addition, social networks are made up of two facets, the most noble and beneficent consisting of rich and varied documentary and cognitive resources, opportunities for distance learning, forging friendly links he weaving of virtual friendships, etc. The other, dark and harmful, highlighted by cyberdelinquency, scams, video games, violent films, pornography, sites conveying xenophobic, fundamentalist ideas and focusing on social deviances, etc. thus conceals proven and potential risks that dangerously threaten our young students. Social networks can also become harmful due to lack of control over the use of these cognitive data piles. This state of affairs engenders plagiarism, the famous copy and paste that could lead students to laziness, lack of discernment and creativity, insight, and awakening of the mind and the language style «sms» that affects their writing beyond these social networks.

It is in this sense that Rondeau (1997) notes that young people are immersed several hours a day in a universe of often very violent images, and rarely educational that gradually transform them into passive consumers of sensations, images and sounds. In addition, the advent of social networks has developed a type of language called "sms" or "cyberlanguage" to the detriment of standard writing, online interactions, instant messages and live videos occupy more of the students' time. For example, accustomed to shortening words and expressions in a whimsical, uneducated manner, learners end up acquiring spelling and grammar inaptitudes, which leads to mistakes that teem on their homework and copies of exams. In addition, their attention can be relaxed during classes, as they quietly indulge in viewing images, music clips or even violent or pornographic films between friends and friends. Similarly, mobile phones are used as a means of fraud or cheating during supervised checks and examination tests by the silent reception of electronic messages (SMS) from friends, relatives and even unscrupulous teachers. We then notice that the management or consumption by young people of this diverse and varied information distilled through social networks, mobile phones and other modern tools for sharing and transmitting knowledge seem to direct them towards the fun and entertaining rather than cognitive, educational and cultural. We then notice that the management or consumption by young people of this diverse and varied information distilled through social networks, mobile phones and other modern tools for sharing and transmitting knowledge seem to direct them towards the fun and entertaining aspect rather than cognitive, educational and cultural.

**Faced with this problematic situation, we ask ourselves the question:**

Does the use of the Internet and social networks affect students' academic results?

**From this central research question follow the following subsidiary questions:**

- Are ICTs, through the Internet, used by students as teaching tools or as entertaining instruments?
- Is internet addiction likely to negatively influence learners' academic performance as a general assumption, there is a relationship between the reason for internet use, cyberaddiction and the academic performance of third-level students.

## METHODOLOGY: POPULATION AND SAMPLE

**Population:** This study aims exclusively to study the impact of cyberdependency on the academic performance of third-grade students at the Lycée Mamie Houphouët Fêtai de Bingerville. So, we have composed the social field on all the individuals likely to inform us or to constitute a channel of access to information that can help us to identify the topic under study. To this end, all students in the third (3rd) class of the Lycée Mamie Houphouët Fêtai de Bingerville, enrolled regularly for the academic year 2019-2020, constitute our target population. Practically speaking, we have a total of 570 students in Grade 3, all of them female. It is therefore from this target population that we will draw up the sample from which will be collected.

**Sample:** In order to collect information from the study population, the researcher cannot at the same time interview all the people involved in the study. This is how he uses a representative sample to obtain his information. For the construction of the sample, we used the reasoned sampling technique. It is intended to constitute groups of equivalent samples or to set up a homogeneous sample. This technique therefore consists in subjecting the subjects of the population to the criterion of equivalence or homogeneity taken one by one in order to eliminate the individuals who do not meet certain criteria. For example, we controlled the repetition effect and age. To control these parasitic variables, of the 570 students enrolled in the third class at the Mamie Houphouët Fêtai High School in Bingerville, we only retain 190 students. These sample subjects are adolescent girls between the ages of 14-17. In order to carry out such work, it is necessary to present the research instruments, the data collection procedure followed by the statistical test used for data processing and the difficulties encountered.

**Data collection techniques**: This test, comprising twenty-four (20) items, measures the frequency of use of social networks and the impact of the use of social networks on adolescents' school activities. For each item, students must check according to their degree of agreement with the statements entered. Thus, the assessment is made on a five-point Lickert scale: (1) "Not at all", (2) "Rarely", (3) "Frequently", (4) "Often" and (5) "Always" (See Appendix I). Furthermore, in order to enrich the explanation of our results, we also conducted a semi-directional interview with some students (15) and teachers (10) using an interview guide.

### Search aids

**Questionnaire**: The questionnaire is one of the most widely used tools currently in social sciences and humanities research. This frequent use is due to the easy transfer and processing of data from this tool.

Thus, our questionnaire consists of two parts, the first relates to the socio-demographic characteristics of the respondents. It concerns the age, the professions of the parents, the number of siblings, etc. The second part evaluates cyberdependency. In this vein, we have developed a test based on Vavassori et al. (2002) and Young's Internet Addiction Test in its French version validated by Khazaal's study (2008). To control these parasitic variables, out of the 570 students enrolled in third class at the Lycée Mamie Houphouët Fêtai de Bingerville, we only retain 190 students. These sample subjects are adolescent girls between the ages of 14-17. In order to carry out such work, it is necessary to present the research instruments, the data collection procedure followed by the statistical test used for data processing and the difficulties encountered.

**Maintenance Guide:** According to Guittet (quoted by N'cho, 2013) the interview is a face-to-face relationship that consists of seeking information, verifying facts, questioning, exploring, explaining and commenting on ideas. It allows to question the activity that adolescents organize around the Internet and to capture the representations of the Internet. This information allows us to better interpret our results from the questionnaires. Our interviews focused on the academic performance of the subjects and the time they put on the Internet to use social networks.

**Note Matrices**: In order to carry out this research, it is important to have information on the subjects selected for our study. To do this, it seems necessary to use the subject's note matrices. For the most part, these matrices contain all the information concerning our subjects as well as their annual averages. Here it should be noted that these grades are awarded by the teachers at the end of the evaluations. Thus, we consider the ratings of the first and second quarter of the current year.

**Operational assumptions**:

**HO1:** Students in the third grade who use the Internet as an educational tool have higher academic performance than their peers who use it as an entertaining tool.

**HO2:** Students in the third grade who have no addictive behaviour in internet use have higher academic performance than students in the third grade who have addictive behaviour.

**HO3:** Students in the third grade who do not exhibit addictive behaviour in internet use and use them as teaching aids have higher academic performance than their peers who exhibit addictive behaviour in internet use and that use it as entertaining instruments.

**Methods of data analysis**: The statistical technique that allows this operation is the Student t. Since our subjects can only belong to one group, we are in the presence of independent groups. This leads us to apply the Student t to our data in the case of independent samples. However, the student t, by comparing the groups two to two, does not allow to compare more than two averages and to isolate more finely the effects of the combination of several factors on the same phenomenon measured. In this case, it is more appropriate to use the variance analysis (ANOVA), because it makes it possible to make the different comparisons

without having to make two-to-two comparisons. Thus, we will apply these two tests (the ANOVA and the Student t-test) to the collected data.

**Presentation of results**: The results will be presented in two ways. The first axis will focus on highlighting the characteristics of the respondents and the use of the Internet by them, and the second axis will focus on the assumptions made (quantitative and qualitative analysis).

### Verification of Operational Assumptions

**Data collection techniques**: This test, comprising twenty-four (20) items, measures the frequency of use of social networks and the impact of the use of social networks on adolescents' school activities. For each item, students must check according to their degree of agreement with the statements entered. Thus, the assessment is made on a five-point Lickert scale: (1) "Not at all", (2) "Rarely", (3) "Frequently", (4) "Often" and (5) "Always" (See Appendix I). Furthermore, in order to enrich the explanation of our results, we also conducted a semi-directional interview with some students (15) and teachers (10) using an interview guide.

### Search aids

**Questionnaire**: The questionnaire is one of the most widely used tools currently in social sciences and humanities research. This frequent use is due to the easy transfer and processing of data from this tool. Thus, our questionnaire consists of two parts, the first relates to the socio-demographic characteristics of the respondents. It concerns the age, the professions of the parents, the number of siblings, etc. The second part evaluates cyberdependency. In this vein, we have developed a test based on Vavassori et al. (2002) and Young's Internet Addiction Test in its French version validated by Khazaal's study (2008). To control these parasitic variables, out of the 570 students enrolled in third class at the Lycée Mamie Houphouët Fêtai de Bingerville, we only retain 190 students.These sample subjects are adolescent girls between the ages of 14-17.In order to carry out such work, it is necessary to present the research instruments, the data collection procedure followed by the statistical test used for data processing and the difficulties encountered.

**Maintenance Guide:** According to Guittet (quoted by N'cho, 2013) the interview is a face-to-face relationship that consists of seeking information, verifying facts, questioning, exploring, explaining and commenting on ideas. It allows to question the activity that adolescents organize around the Internet and to capture the representations of the Internet. This information allows us to better interpret our results from the questionnaires.Our interviews focused on the academic performance of the subjects and the time they put on the Internet to use social networks.

**Note Matrices**: In order to carry out this research, it is important to have information on the subjects selected for our study. To do this, it seems necessary to use the subject's note matrices. For the most part, these matrices contain all the information concerning our subjects as well as their annual averages. Here it should be noted that these grades are awarded by the teachers at the end of the evaluations.

Thus, we consider the ratings of the first and second quarter of the current year.

### Operational assumptions

**HO1:** Students in the third grade who use the Internet as an educational tool have higher academic performance than their peers who use it as an entertaining tool.

**HO2:** Students in the third grade who have no addictive behaviour in internet use have higher academic performance than students in the third grade who have addictive behaviour.

**HO3:** Students in the third grade who do not exhibit addictive behaviour in internet use and use them as teaching aids have higher academic performance than their peers who exhibit addictive behaviour in internet use and that use it as entertaining instruments.

**Methods of data analysis**: The statistical technique that allows this operation is the Student t. Since our subjects can only belong to one group, we are in the presence of independent groups. This leads us to apply the Student t to our data in the case of independent samples. However, the student t, by comparing the groups two to two, does not allow to compare more than two averages and to isolate more finely the effects of the combination of several factors on the same phenomenon measured. In this case, it is more appropriate to use the variance analysis (ANOVA), because it makes it possible to make the different comparisons without having to make two-to-two comparisons. Thus, we will apply these two tests (the ANOVA and the Student t-test) to the collected data.

**Presentation of results**: The results will be presented in two ways. The first axis will focus on highlighting the characteristics of the respondents and the use of the Internet by them, and the second axis will focus on the assumptions made (quantitative and qualitative analysis).

### Verification of Operational Assumptions

**Operational Assumption 1**: Students in grades 3 who use the Internet as a teaching tool have higher academic performance than their peers who use it as an entertaining tool

**Quantitative Analysis**: Table 1 shows that students in the third grade who use the Internet as a teaching tool perform better than those who use it as an entertainment tool. Thus, we observe that the difference between the two groups is significant (t =3.095; P 0.05). This means that there is a significant difference between the averages compared. The first operational assumption (H01) is confirmed.

**Table 1. Presents the reasons for using the Internet tool in relation to school performance**

| Internet reason | FF. | MOY. | Standard deviation |
|---|---|---|---|
| Pedagogical | 84 | 12,09 11,83 | 1,35 |
| Entertainm | 106 | | 1,81 |

(t = 3,095 ; p < 0.05)

**Qualitative Analysis**: The verification of Operational Hypothesis 1 could be explained by the fact that students using the Internet for educational purposes would develop good learning methods and techniques that learners using it as entertaining instruments. Indeed, for the first cities, innovative communication technologies are formidable instruments of culture and intellectual training for them. They argue that social networks are not their priorities on the Internet but rather they prefer research sites, information to better cultivate and be more efficient at school. They are quite motivated to succeed through school. These students also revealed to us, during the semi-directional interview, that they approach their teachers and peers to enrich their knowledge learned on the Internet about the different lessons seen in class. This allows them to better understand the lessons and therefore to be better equipped to deal with the various evaluations. This would lead to better academic results. Unlike them, learners who use ICT as leisure tools, games and satisfaction of fantasies or passions, are therefore not motivated to attend classes and focus more on social networks that they consider more as a work tool. Indeed, They can communicate with their friends, strengthen their friendships, entertain themselves or with others, plan outings, publish photos, exchange information. Through social media, these teenagers are also looking for certain sensations, a form of recognition and appreciation. In sum, the superiority of learners who use the Internet as teaching tools over their peers who use it as entertaining instruments seems to stem from the fact that they would use ICT in the sense of cultivating and being motivated to succeed by the way to school.

**Operational Assumption 2: Students in the third grade with no addictive behaviour in internet use have higher academic performance than their counterparts with addictive behaviour in internet use**

**Quantitative analysis:** In the table above, we observe that non-addict students obtain slightly higher averages than addict students. However, with regard to the value of the student t, it is found that these differences in averages between the two groups are not significant (t calculated = 1.06; p0.05). In view of the above results, it is noted that our hypothesis 2 is invalidated.

**Table 2: Presents Addictive Behaviours and School Performance among Students in Grade 3**

| Cyberdpendence | EFF. | MOY. | Standard deviation |
|---|---|---|---|
| Non-addict | 111 | 11,93 | 1,51 |
| Addict | 79 | 11,96 | 1,79 |

(t= 1,06 ; p> 0.05)

**Qualitative Analysis**: The non-significant difference in the averages of non-addicts and internet addicts is believed to stem from the fact that with the advent of ICTs in our tropics, learners have developed other fraud strategies during school assessments or exams and competitions. This new form of cheating created by students, a corollary of the use of laptops, most teachers have often met and managed it (80% or 8 out of 10 teachers interviewed) during our interview. This phenomenon has become so widespread in recent years that the administrative officers of the schools have taken the resolution to prohibit through the Internal regulations, the use of mobile phones in schools and even at

ministerial level by orders prohibiting their presence during mass examinations. But, as a strategist, some students still manage to use their cells to cheat during school assessments, exams and competitions to the great displeasure of their supervisors. This explains why their school results do not differ significantly.

**Table 3: Comparison of Student Averages by Reason of Internet Use and Cyber Dependency**

| Internet et reason cyberdependance | Eff. | Moy. | Standard deviation | F | SIG. |
|---|---|---|---|---|---|
| Pédagogical et non addict | 52 | 12,15 | 1,28 | 9,52 | 0,05 |
| Entertainm et addict | 47 | 11,93 | 1,99 | | |

(F= 9,52 ; p < 0.05).

**Operational Assumption 3: Students in the third grade:**
With no addictive behaviour in internet use and using them as teaching aids have higher academic performance than their peers who have addictive behaviour in internet use and who use it as entertaining instruments

**Quantitative Analysis**: The interactive effect of the Internet usage pattern and cyber dependency on school performance is significant (F= 9.52; p0.05). Moreover, by observing these results, we find that the averages of students in third grade who do not exhibit addictive behaviour in internet use and use them as educational tools are higher than those who have addictive behaviour in internet use and who use it as an entertaining instrument. The third operational assumption (H03) is confirmed.

**Qualitative Analysis**: The significant difference observed could be explained by the fact that students who do not use the Internet and use it for educational purposes claim to be more focused on studies in order to be able later to have a better social condition. These present an alternative approach to the use of social networks and the internet. They prefer to use them moderately and to do research in the school setting and general culture. But students addicted to the internet and who use it for entertainment, prefer to spend their time on social networks, play games or listen to music in line rather than studying. For the most part social networks and internet occupy all their time, they can connect to it all day long or even 24/24. Through these interviews, we note that the consequences of excessive use of social networks are more addictive and affect school performance.

## DISCUSSION

In this study, we sought to highlight the impact of Internet addiction on the educational outcomes of third-grade students. In this chapter, we compare our results with those of the authors presented in the review of the work. To do this, we will recall the results that we have achieved as a result of the methodological approach in order to better conduct the comparison of the results. Thus, our first operational hypothesis being confirmed, we assert that 9th grade students using the Internet as a pedagogical tool have higher academic performances than their peers who use it as an entertaining tool. This result is in line with those obtained by Bamaré (2014) and Karpinski et al (2013). Indeed, these authors discover that play activities such as social networks, video downloading, and film would have a negative impact on school performance because their ordinary use by these

school-going adolescents captivates their attention to the point of neglecting their lessons and homework to some extent. In other words, students who use their technology or computer tools for documentary, cognitive and cultural research have higher academic performance than their peers who use them for leisure, games and fantasy fulfilment. In the same vein, Tiemtoré (2006) showed in his study that cyberaddiction via social networks influences school work. Indeed, Information and Communication Technologies are used by students primarily for entertainment and rarely for culture. And this is thanks to the access they provide to a very large quantity of video and audio files on the Internet, games and also, through the use of the means of communication (mail, chat, discussion forums, IP telephony, social networks, etc.). This conformity of our results with those of these authors comes from the fact that the subjects are all teenagers. According to Rathus (1991), there are coherences in the behaviours of individuals of the same generation. Thus, all adolescents in all latitudes would be similar. In fact, they seek to create an adult identity. In the school environment, this is expressed, among other things, through performance goals that consist in doing better than others.

It is therefore this coherence in the behaviour of adolescents that justifies the similarity between our results and those of the authors mentioned above. With regard to our second operational (H.O.2), our results contrast with those of Thuseethan and Kuhanesan (2015) and Abu-Shanab (2015). Our results indicate that excessive Internet use is not associated with lower educational achievement. In contrast to us, Thuseethan and Kuhanesan (op.cit.) and Abu-Shanab (op.cit.) find that social network and internet addiction has a negative influence on students' academic performance. The non-conformity of our results with those of the above-mentioned authors could be explained by the non-mixed nature of our sample. In fact, we worked on female students whereas the studies of these authors have focused on both genders. The data collected on our subjects were statistically processed using the multivariate analysis of variance, which is a parametric test. This type of statistical test is suitable for large samples. Our small sample size may have prevented the appearance of significant differences between cyberaddiction and girls' academic performance. Hence, our results are in contrast to those of these authors.

The discrepancy between our results and those of the authors mentioned above may also be due to the fact that we used a different measure of cyberaddiction than the one they applied to their subjects. Indeed, to evaluate the addiction of our subjects, we constructed an addiction measurement questionnaire based on the Vavassori et al. (2002) and Young's Internet Addiction Test in its French version validated by the Khazaal (2008) study. These authors, for their part, constructed a questionnaire to measure Internet addiction and, more specifically, the use of Facebook, which they applied to their subjects. As a result, our results are not consistent with those of Thuseethan and Kuhanesan (2015) and Abu-Shanab (2015). The results of the third operational hypothesis converge in the same direction as some authors. Thus, Rosen (2003), conducted a study on social networks at Le Corbusier high school in Aubervilliers (93 Seine Saint Denis). It emerges that some respondents spend more than three hours taping their news feeds on Facebook or Twitter.

This influences their academic results because the hours spent on social networks are hours less to concentrate on their revisions. Students who use the internet for educational purposes claim to be more focused on their studies so that they can have a better social status later on. These present another approach to the use of social networks. For example, they analyse the demands inherent in school work and plan and mobilise cognitive strategies adapted to these demands. Hence the quality of these learners' achievements. For example, they prefer to use them in the context of educational research, general culture and documentaries. However, students using the Internet for entertainment and fantasy fulfilment prefer to spend their time on social networks, downloading videos, music and films rather than studying. For most of them, social networks take up all their time, they can connect to them all day long or even 24 hours a day. Teenagers in school who are very often connected on Facebook are less good at school. The use of Facebook mainly hinders concentration. These students lose all motivation for their studies and live only in the virtual world. During the survey, one student said she liked the comments on the photos she posts on Facebook more than the comments composed in class, which tire her brain.

In sum, 9th grade students who use the internet as a pedagogical tool have higher academic performance than 9th grade students who use it as an entertaining tool, because the former have academic motivation and self-perception in themselves and are therefore able to put in place resources and strategies adapted to school tasks using ICT in the sense of cultivating themselves and being motivated to succeed through school. For addictive behaviours it is the theories that are related to certain personality traits such as sensation seeking and impulsivity. In our study we worked on addictive behaviours through sensation seeking. For students with no addictive behaviour, social networks are not their priority on the Internet. They rather prefer research and information sites to better cultivate themselves and be more efficient at school. They are quite motivated to succeed through school. As Viau says, motivation is the first condition for academic success.

Moreover, students with addictive behaviours are attracted by the dynamic of sensation-seeking through social networks. They can communicate with their friends, strengthen friendships, entertain themselves or others, plan outings, publish photos, exchange information. Indeed, through social media, teenagers are looking for certain sensations, a form of recognition and appreciation. By publishing their content, they are waiting for a reaction from their peers. They are waiting for the validation of their acts. They are looking for adhesion or a reaction. In this way, they can concretely visualize their popularity in their group. At the same time, social networks allow young people to manage their image. By choosing the image they post, they try to show their best profiles. They feel they can control their reputation. This can be explained by Viau's (1994) and Zuckerman's (1969) models, insofar as they emphasize academic motivation and sensation seeking would act to create individual differences in academic performance. In fact, hours lost, scrolling from profile to profile, from photo to photo, are endless. Yet the next day they will do exactly the same thing. Each time, they forget that they have wasted their time for nothing. As a result, these schoolgirls who are very often connected to social networks (Facebook, twitter,

Whatsapp...) are not as good at school because excessive use of these networks hinders concentration. These subjects lose all motivation to study and live only in the virtual world.

In addition to this aspect, to communicate on social networks, girls use more of a writing style that Fairon, Klien and Paumier (2006) describe as SMS or cyberlanguage. The SMS language does not consist of a separate language or neo-French, but of a series of non-systematically used and intertwined processes to code the French language. The aim of the users being to reduce the message as much as possible, conciseness remains the essential rule of all the transformations noted. Numerous coding procedures can be used. It has been noted that the younger the users of SMS, the greater the deviation from the standard French language. The cyberlanguage or SMS language is significantly shorter with abbreviations than e-mails, which are themselves shorter than the indications produced using paper and pencil. Truncated words are also much more frequent in SMS. In other words, this language is primarily the product of a search for ways to save time and effort, in order to reduce the number of pressures and to respond more quickly to a message received at the risk of losing the thread of the discussion.

Having the habit of writing in this language on a daily basis, they end up reproducing it in their homework, as we have seen in our research. The female subjects, who do not show any addictive behaviour in the use of the Internet and use it as an educational tool, feel that they have the necessary qualities to carry out the tasks requested and get into the activity more easily; they say they persevere and do not fear the difficulty. They prefer research in the library or on the search engine "google" to better train, inform themselves and strengthen their capacity. It should be noted that most of them do not have frequent access to the Internet and do not have an account on social networks or when they do, they rarely consult it. They therefore have more time to better focus on their studies. Bamaré (2014) announced that the use of social networks mainly hinders concentration. He conducted an experiment in which he found that when students work for fifteen minutes on something important to them, they cannot stay focused for more than about three minutes before going back to the classroom. This created a certain form of addiction and a certain obligation to always connect. It is also observed among teenagers who connect on average 7 days a week, which affects their grades at school and their concentration.

## Conclusion

The results we have achieved on the one hand, thanks to statistical processing (student T and Anova), show that students in the third grade who use the Internet as a teaching tool perform better than those who use it as an entertainment tool. On the other hand, we found that Internet addiction does not influence educational outcomes. And finally we found that the averages of students in the third grade who do not exhibit any addictive behaviour in internet use and use them as educational tools are higher than those who have addictive behaviour in the use of the Internet and use it as an entertaining and satisfying. The explanation of these different results was based on the models of Zuckerman (1969) and Viau (1994) to give them a psychological significance. Like previous work, this work has shown that cyberaddiction is a reality, and there are considerable variations in it in schools.

Such a study will make it possible to inform parents about the educational dangers to which their children are exposed by contact with the Internet. As for adolescents, it will make them aware of the risks of excessive use of social networks on their studies.

## BIBLIOGRAPHIC REFERENCES

Abu-Shanab, E. 2015. Reengineering the Open Government Concept : An Empirical Support for a Proposed Model. *Government Information Quarterly, 32* 4, 453-463.

American Psychiatric Association 2000. *Diagnostic and statistical manual of mental disorders V.* Washington, DC : American Psychiatric Association.

Andrade, J.A. 2003. *The effect of internet use on children's perceived social support, 64,*1, 406-417.

Bamaré, A. M. 2014. Influence of information and communication technologies on the formal education of students in public secondary schools in N'djaména: the case of the Félix Eboué I high school. End of training in social sciences to obtain a certificate the Bilingual Primary Inspection CAIP / B. N'Djamena: ENS.

Byun & al. 2009. Internet Addiction : Metasynthesis of 1996–2006 Quantitative Research. *Cyberpsychology & behavior, 12*2,203-207.

Dupont, E. & Legendre, J. F. 2000. Standardization of the new information society. In D. Bahu-Leyser & P. Faure, Eds. Ethics and the information society pp. 97-105. Paris: French documentation.

Durand, F., & al. 2008 Structure-function analysis of Knr4 / Smi1, a newly member of intrinsically disordered proteins family, indispensable in the absence of a functional PKC1-SLT2 pathway in Saccharomyces cerevisiae. Yeast, 25 8, 563-76.

Erikson, E. 1972. Adolescence and Crisis: The Quest for Identity. Paris: Flammarion.

Goodman, A. 1990. Addiction: définition and implication. *British journal of addiction*, 85, 1408.

Karpinski, A. C., & al. 2013. An exploration of social networking site use, multitasking, and academic performance among United States and European university students. *Computers in Human Behavior*, 29, 1182-1192.

Khazaal, Y., & al. 2008. French validation of the internet addiction test. *Cyberpsychology & Behavior, 11*, 703-706.

Kredens É., & Fontar B. 2010. *Comprendre le comportement des enfants et adolescents sur Internet pour les protéger des dangers.* Lyon : Fréquence Écoles.

Leung, L. 2004. Net-Generation Attributes and Seductive Properties of the Internet as Predictors of Online Activities and Internet Addiction, *CyberPsychology & Behavior*, 7, 333.

Marker, C., & al. 2017. Active on Facebook and Failing at School? Meta-Analytic Findings on the Relationship Between Online Social Networking Activities and Academic Achievement, *Educational Psychology Review*, 30, 651-677.

Pawlak, C. 2002. Correlates of internet use and addiction in adolescents. *Dissertation abstracts international Section A: Humanities & social sciences, 63,* 1727-1732.

Potera, C. 1998. Trapped in the Web. *Psychology Today, 31,*2, 66-70.

Pouts-Lajus, S. 2007. ICT: margin or average. Educational notebooks, 449 1, 17-18.

Rathus, A. S. 1991. General psychology. 2nd ed. Canada: Living Studies.

Rochon, J.P. 2004. Internet addicts. Quebec: Libre Expression.

Rondeau, J-C. 1997. The impact of NTIC on the family, the school and the Churches. Retrieved from: http://agora.qc.ca.

Rosen, S. 2003. Auditory processing in dyslexia and specific language impairment: is there a deficit? What is its nature ? Does it explain anything?. *J Phonetics, 31*, 509-527.

Scherer, K. R. 1997. The role of culture in emotion-antecedent appraisal. *Journal of Personality and Social Psychology, 735*, 902-922.

Shapira N. A., & al. 2003. Problematic Internet use : proposed classification and diagnostic criteria. *Depression and Anxiety, 17*, 207-216.

Thuseethan, S., & Kuhanesan, S. 2014. Influence of Facebook in Academic Performance of Sri Lankan University Students. *Global Journal of Computer Science and Technology, 14*, 4.

Pouts-Lajus, S. 2007. ICT: margin or average. Educational notebooks, 449 1, 17-18.

Rathus, A. S. 1991. General psychology. 2nd ed. Canada: Living Studies.

Reuchlin, M. 1995. Psychology. 11th ed. Paris: PUF.

Rochon, J.P. 2004. Internet addicts. Quebec: Libre Expression.

Rondeau, J-C. 1997. The impact of NTIC on the family, the school and the Churches. Retrieved from: http://agora.qc.ca.Whang, L. S., Lee, S., & Chang, G. 2003. Internet over-users' psychological profiles: a behavior sampling analysis on internet addiction. *Cyberpsychology and Behavior, 6,* 143–150

Vavassori, D., Harrati, S., & Favard, A. M. 2002. Testing Addictive Behaviour. Psychotropic, 2 8,75-96. Viau, R. 1994. Motivation in School Settings. Quebec: ERPI.

Young, K. S. 1998. Internet addiction: the emergence of a new clinical disorder. *CyberPsychology and Behavior, 13*, 237-244.

Zuckerman, M. 1969. Theoretical formulations. In JP Zubek Eds. *Sensory deprivation: Fifteen years of research,* New York: Appleton Century Crofts.

Zuckerman, M. 1969. Theoretical formulations. In JP Zubek Eds. *Sensory deprivation: Fifteen years of research.* New York: Appleton Century Crofts.

Zuckerman, M. 1974. The sensation seeking motive. In BA Mahe Eds. *Progress in experimental personality research, 7,* New York: Cambridge University Press.Zuckerman, M. 1974. *The sensation seeking motive. Progress in experimental personality research.* New York : Maher BA Academic Press.

Zuckerman, M. 1994. *Behavioral expressions and biosocial bases of sensation seeking.* New York: Cambridge University Press.

Zuckerman, M., & al. 1972: « What is the sensation seeker? Personality trait and experience correlates of the sensation seeking scales » *In Journal of Consulting and Clinical Psychology, 39,* 308-321.

Zuckerman, M., & al. 1998. *Norms of the Zuckerman-Kuhlman perquestionnaire.* Unpublished manual.

Zuckerman, M., & Kuhlman, D.M. 2000. Personality and risk-taking: Common biosocial factors. *Journal of Personality, 68*, 999-1029.

Zuckerman, M., Ball, S., Black, J. 1990. Influences of sensation seeking Gender, risk, oppraisal, and situational motivation on smoking. *Addict behavior, 15,* 209-220.

*******