

The role of emotions in the experience of online learning: challenges and opportunities

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This paper examines the origin and implications of adult learners' emotions in the context of an online distance learning programme at the Open University of Cyprus. Various methods for gathering data about learners' emotions related to online learning are used, such as emotion diaries, semi-structured interviews, and email messages. The paper highlights the multiple directions adult learners' emotions can take and the significance of learners' interpretations of their emotions in relation to the online learning methodology. The issues of social and emotional communication and contact emerge as critical in the exploration of adult learners' emotions in the context of online learning.

Le rôle des émotions dans l'expérience de l'apprentissage en ligne: Défis et possibilités

Cet article examine l'origine et les implications des émotions qu'éprouvent les apprenants adultes dans le contexte d'un programme d'apprentissage en ligne à l'Université Ouverte de Chypre. On a utilisé différentes méthodes pour recueillir des données sur les émotions que ressentent les apprenants par rapport à l'apprentissage en ligne, citons les journaux personnels d'émotions, les entretiens semi-structurés et les courriels. L'article fait apparaître les directions multiples que peuvent prendre les émotions des apprenants adultes et la signification de leurs différentes interprétations de ces émotions par rapport à la méthodologie de l'apprentissage en ligne. Les problèmes de communication sociale et émotionnelle et de contact apparaissent critiques dans cette exploration des émotions des apprenants adultes dans le contexte de l'apprentissage en ligne.

Die Rolle von Emotionen in der Praxis des Online-Learning: Herausforderungen und Möglichkeiten

In diesem Papier werden Entstehung und Folgen von Emotionen erwachsener Lerner im Rahmen eines Online – Fernlehrgangs an der Open University of Cyprus untersucht. Es werden dazu verschiedene Methoden der Datenerfassung von Emotionen bezüglich des Online-Lernens benutzt, z.B. Gefühle-Tagebücher, halb strukturierte Interviews und E-Mail-Nachrichten. Dieses Papier beleuchtet die vielen Richtungen, in die die Emotionen erwachsener Lerner gehen können und die Bedeutung, die die Interpretation ihrer Gefühle in Bezug auf ihre Online-Lern-Methodologie hat. Die Fragen nach sozialer und emotionaler Kommunikation und nach Kontakt erweisen sich als kritisch bei der Untersuchung der Emotionen erwachsener Lerner in Zusammenhang mit dem Online-Lernen.

El papel de las emociones en las experiencias de aprendizaje en línea: desafíos y oportunidades

El presente artículo examina el origen y las implicaciones de las emociones de los estudiantes adultos dentro del contexto de un programa de aprendizaje a distancia de la

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Universidad Abierta de Chipre. Se utilizan varios métodos para recoger datos sobre las emociones de los estudiantes relacionadas con el aprendizaje en línea. Podemos mencionar los diarios de emociones, las entrevistas semi-estructuradas y los mensajes de correo electrónico. El presente trabajo pone de manifiesto las múltiples direcciones que las emociones de los estudiantes adultos pueden tomar y la significación de las interpretaciones de sus propias emociones con respecto a la metodología de aprendizaje en línea. Las cuestiones de la comunicación y del contacto social y emocional son elementos críticos en la exploración de las emociones de los estudiantes adultos dentro del contexto de aprendizaje en línea.

Keywords: emotions; online learning; adult learners

Introduction

Even though the dynamics of emotions that arise from online learning are less obvious in comparison to the traditional learning process, extensive research refers to the existence and the importance of learners' emotions during the online learning process. The origin of these emotions and their implications comprise the core of the current research. This study focuses its attention on the role of the learners' emotions in their experience of online distance education.

More specifically, the aim of the current research is to compile "genealogies" of the emotional experiences of adult learners in the context of two online learning graduate programmes of study, the first such programmes these adults have ever enrolled in. The theoretical and methodological grounding of "genealogies of emotions" has been developed in previous studies regarding the role of emotions in education (see Zembylas, 2002, 2004, 2005) and concentrates on the analysis of learners' emotion talk and the changes that are taking place over time. In other words, the focus of this research entails the analysis of learners' emotional experiences in relation to online learning, and the investigation of how these emotional experiences change during the programme of study and affect learning.

The first part of this article presents the general theoretical framework of the study, followed by an explanation of the specific context within which this research was conducted. It is noted that this research was conducted in the context of the first two graduate distance learning programmes of study offered at the Open University of Cyprus during the 2006–7 academic year – namely, the "Masters in Educational Studies" programme and the "Masters in Management of Health Units" programme. After describing the results of the study, the implications of this study in online teaching and learning will be discussed. The findings enrich the current knowledge with regard to how the emotional experiences of adult learners influence the ways in which online teaching and learning are conducted. In conjunction with existing literature that recognizes the multitude of responsibilities and social roles of adults who study via the online learning methodology, this study highlights the importance of taking into consideration the emotional aspects of online learning when designing a learning environment.

Theoretical framework and previous studies

Several studies have recently been conducted about the role of emotions in learning (O'Regan, 2003; Swan & Shih, 2005). In most of these studies, although the importance of emotions and their implications have been identified, emotion was not the primary focus of investigation. Studies investigating "social presence", for example, indicate that the emotions associated with the level of social presence in an online learning course affect outcomes in learning (Jones & Issroff, 2005; Richardson & Swan, 2003; Rourke, Anderson,

Garrison, & Archer, 1999). Specifically, Wegerif (1998) informs us that learning via the internet is obstructed due to feelings of fear and isolation, while Ng (2001) emphasizes the implications of feelings of stress during communication via the internet and suggests the need for new forms of socialization and communication skills in online learning. Also, Martinez (2001) and Hailo (2004) discuss the emotional and social implications of online learning and their importance in the design of distance learning programmes.

Moreover, recent research on the emotions of online learning has focused on the importance of learners' feelings in relation to the sense of community of learning (Hara & Kling, 2003; Rovai & Wighting, 2005), how positive and negative emotions inhibit or enhance online learning (Allan & Lawless, 2003; Conrad, 2002; O'Regan, 2003), and how the sources, range, and impact of learners' emotional experiences influence various manifestations of online learning (Järvenoja & Järvelä, 2005; Wosnitza & Volet, 2005). For example, the inclusion of face-to-face meetings in the model of online education (i.e. blended learning) changes the emotional dynamic of the online experience dramatically (Conrad, 2005). Research on the emotions of online learning also emphasizes the importance of affective dimensions to online learning and maintains that the full promise of web-based education will not be realized, unless affective aspects are properly acknowledged (Goldsworthy, 2000; Spitzer, 2001). In particular, McFadden (2005, 2007; MacFadden, Herie, Maiter, & Dumbrill, 2005) proposes a constructivist model of web-based education emphasizing the use of emotion in e-learning, based on the assumption that emotional emphasis may facilitate constructivist learning goals.

Research studies on the role of emotions in online learning have used a variety of methods to collect data on learners' emotions. Even though these methods have been designed to examine mostly cognitive dimensions of the learning process, they have also been used to study emotions with respect to online learning (Wosnitza & Volet, 2005). These methods include snapshot-type measures, categorical scale questionnaires, stimulated recall measures, and qualitative approach analysis such as interviews, observations (i.e. facial movements during communication) and content analysis based on texts and emotional transcription.

Most of the aforementioned studies have used different combinations of quantitative methods and have focused either on individual or group aspects of online learning; qualitative and ethnographic approaches on the emotional experiences of learners have rarely been used. Given the goals of the present investigation that relate to the investigation of the development of the learners' emotional experiences over a whole year, our research follows a qualitative approach and is grounded in Foucault's (1983a, 1983b, 1984) genealogical method. This methodology suggests an alternative way of understanding the emotions of online learning, supporting that the constitution of "genealogies of emotions" sheds light on the way that emotions are constructed and represented in the process of learning (Zembylas, 2002, 2004, 2005).

Generally, genealogy is a method that investigates how discursive practices are used, what role they play in a particular social context and how they change. Specifically, the genealogy of adult learners' emotions describes the ways in which emotions are experienced in relation to the "self" (individual reality), to others (social interaction) and to educational policy and culture in general (socio-political framework). This means that if we wish to create genealogies of emotional experiences in online learning, we must commit to a procedure of finding out the historicity of the emotional experiences of adult learners – that is how adult learners are enabled to identify and feel particular emotions in particular ways (Dirkx, 2001). The genealogy of emotions of adult learners in online learning, then, aims to examine what emotions are associated with studying via a distance learning medium and

how these emotions develop over time within their social context. The qualitative methodological process leading to the understanding of these issues will be discussed in the next section.

Methodology

Research questions

The research questions that have guided this study are the following: (1) Which emotional experiences (positive and negative) are connected to online learning? (2) How do these emotional experiences change over time and influence the response of adult learners in online learning? and (3) What are the implications of these emotional experiences for online teaching and learning?

Data collection

The data collected for the purpose of this study come from an action research project (see Elliot, 1991; Hubburd & Power, 1993; Noffke & Somekh, 2005; Noffke & Stevenson, 1995), and the study was conducted during the 2006–7 academic year (for a total of 30 weeks) at the Open University of Cyprus (OUC). The aim of this project was to describe the emotional factors that influenced the online learning process and the corrective actions and measures that could be taken on behalf of the university instructors in order to improve the adult learners' experiences. In addition, the project aimed to identify and minimize any negative implications associated with online learning. Also, the goal was to capitalize on or incorporate the positive aspects associated with the online learning process. The distance learning methodology and process was for the most part unknown to these learners in 2006; it was officially introduced for the first time in Cyprus with the establishment of the OUC.

A team of five university instructors in the two graduate programmes of study comprised the action research team (three instructors from the Masters in Management of Health Units programme and two from the Masters in Educational Studies programme). A total of 162 learners were enrolled in the two programmes (62 and 100 respectively), 123 from Cyprus (43 and 80 respectively) and 39 from Greece (19 and 20 respectively). The learners were accepted through a highly competitive selection process based on credit points (e.g. based on years of experience, grade point average of first degree etc.). The learners attending the Management of Health Units programme were primarily doctors and nursing staff, all working in the area of health. The learners enrolled in the Educational Studies programme were educators working in primary and secondary education. The average age of the participants was 37 years old and their ages ranged from 27 years old to 61 years old.

A total of 92 learners took part in the action research project (60 from the Management of Health Units programme and 32 from the Educational Studies programme). The learners participated by submitting a monthly emotion diary as well as a final yearly report describing their emotions at the end of the academic year (i.e. the emotions related to their experiences of online distance learning). A total of 644 monthly diaries (92 per month, from October until April) as well as 92 final reports on emotions were collected. In addition, 22 individuals were selected to undergo personal semi-structured interviews (15 learners from the Management of Health Units programme and 7 learners from Educational Studies). The criteria aimed to ensure maximum variation (e.g. representation of age, sex, and professional experience).

The emotion diaries focused on the learners' emotional experiences during the month, as those experiences were related to online learning. Also, the learners wrote a final report (in May) in which they reflected on their emotional experiences related to online learning

as a whole. The emotion diaries were kept electronically and sent to each instructor on the last day of each month. The learners' diaries and their email messages were valuable in documenting the social-emotional context of the online course as well as the changes in learners' emotion talk throughout the year. Despite the limitations of emotion journals in their reliance on self-report (Wosnitza & Volet, 2005), the personal nature of this source brought attention to areas of learners' emotion talk that were not evident from "traditional" sources, such as individual or group assignments. Field notes of face-to-face discussions (whole group and individual) and phone conversations provided another valuable data source. Finally, the semi-structured interviews were used to further triangulate the collected data. The interview questions emerged either directly from the research questions or from the learners' emotion journals. Specifically, the first round of interviews (in October) included questions that ranged from the learners' feelings of having the opportunity to attend graduate school, their decision to enroll in an online education programme, their professional and family responsibilities, and their expectations of studying online. The second round of interviews (in May) addressed ideas that came out of the first round of interviews and other conversations as well as from learners' journals throughout the year. All the interviews were approximately one hour in length, were recorded and transcribed.

Data analysis

The theoretical framework proved particularly useful since it allowed for multiple interpretations of the data that were gathered. In order to ensure the validity of the study, the members of the research team worked separately but also collectively, using the interpretative method of coding (Erickson, 1986) to determine verification (or rejection) of assertions that arose from data gathering (see Strauss & Corbin, 1998). For triangulation purposes, coding was also done by an independent researcher. The material exceeded 2000 pages, and was carefully studied searching for personal references about the emotional experiences of learners throughout the year. We read and coded all the data that had been collected from our courses, following the open-coding techniques outlined by Strauss and Corbin (1998). That is, first, we came up with categories, and then we developed these categories in terms of their properties and dimensions. The resulting categories and their properties and dimensions began to illustrate various aspects of the adult learners' emotion talk as they learn how to become online learners. These categories are presented in the following section along with the evidence that supports them.

Results

Positive and *negative* emotions related to online learning were the two broad themes that emerged from the data analysis. Most of these were directly connected to the experience of online distance learning. They refer to the advantages of distance learning, such as the flexibility offered by open and distance learning (positive emotions), as well as the implications and some side effects that this particular methodology may have on adult learners' lifestyle and daily routines (negative emotions). For positive emotions, the categories were: excitement for the flexibility of distance learning methodology; satisfaction for fulfilling the course requirements; excitement for the emotional nature of online distance communication. For negative emotions, the categories were: anxiety for the unknown methodology of distance learning and the demands of the programme; loneliness and isolation; and stress for the inability to fulfil other obligations. These categories within each theme were used as the basis of the development of the description of the findings in this section.

Positive emotions

Excitement for the flexibility of distance learning methodology

Despite the fact that some learners expressed emotions of uncertainty about the distance learning methodology, there were many learners who expressed joy, enthusiasm and relief for the possibilities and flexibility offered to them by such a programme of study. This might be the initial and possibly impulsive response learners made regarding the specific methodology, since most of them knew very little of its procedures and its requirements. Once learners gained a deeper understanding of what was required in distance learning, more detailed and ambivalent emotional references were made. These references were made in subsequent diaries and will be presented in the next theme. In their initial responses regarding distance education, the learners reported satisfaction about fulfilling personal ambitions, achieving professional development and recognition, and broadening their knowledge and qualifications in a manner that seemed practical and realistic for them because it did not require physical presence in a classroom etc. The following comments from the first diaries (in October) are characteristic:

I feel joy, enthusiasm and satisfaction about the opportunity presented to me through distance learning to improve my education and professional development; something I wouldn't have been able to secure differently because of my family responsibilities. (Male physiotherapist, 35 years old)

I feel great relief because this programme does not require physical presence. To me that is the most important advantage of distance education. ... It also makes me happy that I can study in my own space; whatever time I want, I can also take a break and spend time with my children. That way I can better combine student and family life. (Female, primary education teacher, 38 years old)

For the first time I am able to study in my own country, without having to leave my family, abandon my work and suffer the consequences, especially the psychological effects of abandoning my children and my wife. (Male nurse, 38 years old)

In the following months, feelings of joy, enthusiasm and excitement with studying online continued – along with other feelings which are analyzed in following sections of this paper – but their intensity was not as high and their frequency was not as often as in earlier months. Gradually, these positive feelings for the flexibility of online learning became more *specific*, particularly when the learners began to communicate more often and more systematically with their classmates and their instructor. For example, many emotion diary entries focused on learners' feelings of excitement in relation to feeling "secure" that any answer "could be answered very quickly and very efficiently", because of the any-time-availability of the internet. For other learners, it was the enthusiasm of "becoming able to make connections with people both from this course and other sites" (secondary school teacher, 45 years old, Week 15, email) – all for the sake of advancing learning possibilities.

Satisfaction for fulfilling the course requirements

In general, the learners' positive emotional experiences and specifically their feelings of satisfaction and enthusiasm were maintained over some time. During the second month of study, the learners were called upon to prepare their first assignment. Despite the difficulties, satisfaction was derived from learning new things, conducting research, and discovering some of the internet's potential at home. In addition, the successful completion of the assigned work brought about euphoria and satisfaction. Following are the excerpts from the emotion diaries of two female learners in November.

As my work progressed I felt great satisfaction because I realised that with good organisation, which is a basic requirement for distance education, I can cope with the demands of the programme. (Medical rep, 39 years old)

To my great surprise, I realised that it was very interesting to refer to the bibliography and then create my own ideas and thoughts. And from my own home! [...] The use of the internet offers great advantages in finding bibliography sources, especially to us who work and do not have a lot of time to search in libraries. (Primary education teacher, 35 years old)

The learners justifiably felt satisfaction and relief when they fulfilled the requirements of the course. The following excerpts come from learners' email messages sent to their instructors between November and January:

I would say that I am thrilled to be studying at the Open University and at the same time satisfied and relieved because I see that my triple role of family-man, working-man, student is difficult but not unattainable. (Physiotherapist, 35 years old)

...in the end I felt great relief when I finished the writing of the assignment within the specified deadline without having to stay up late or neglect other responsibilities. (Dentist, 34 years old)

One thing is clear to me. Successful management of time and good organisation are the most important factors of success in a distance learning programme. I feel more confident step by step as I become more effective with regards to these two factors. (Secondary education teacher, 45 years old)

Excitement for the emotional nature of online communication

Familiarity with email was gradually achieved and as a result communication became easier and more frequent. This brought satisfaction to many learners. Also, the communication among learners in small study groups (after encouragement from the instructors) increased optimism and limited some of the challenges. In fact, some student groups became quite close through frequent emails, meetings, and telephone calls. Several learners emphasized that they didn't expect that online communication could lead to the development of such close ties. A student wrote the following in an email message:

I must confess that after learning to use email, I am much more confident and I am proactive in communicating with my classmates and instructors. Now I exchange ideas, bibliographical references, and friendly greetings and we even arrange face-to-face meetings and online chats! The close relationships I have managed to form with some of my classmates, perhaps due to the nature of this program, help me tremendously to deal with my feelings of stress. [...] If I had been told at the beginning of this course that I would have formed such strong relationships with some of my classmates, I would never have believed it! It's paradoxical, but I feel that I have managed to create stronger relationships in the context of this online program than I ever did in my face-to-face classes. (Primary school teacher, 30 years old, week 14)

Negative emotions

Anxiety for the unknown methodology of distance learning and the demands of the programme

The positive emotions that were analyzed in the previous section co-existed with negative emotions, creating a sense of ambivalence regarding the experiences of distance learning. The joy and enthusiasm of the learners in gaining entry to a programme of study at the OUC were accompanied by negative emotions of whether they would be able to cope with the demands of the distance learning graduate programme; that is, a methodology almost

unknown to most of them. A number of learners were mostly engulfed by emotions of stress, distress and fear. Characteristic are the excerpts that follow; the first one comes from the first interview, and the second from the November emotion diary.

To be honest, I am overwhelmed by intense fear and distress because I don't have any experiences in distance learning. Distance enrolment, distance teaching. I don't know what to expect ... I have a lot of questions on my mind. The impersonal communication with instructors and fellow learners, as well as my inexperience with the use of technology, make me feel like a lonely traveller. (Female, primary education teacher, 34 years old)

...I feel distress whether I will be able to respond to this new experience ... Studies through distance learning and communicating through emails are unknown to me and they cause me stress and fear. (Female nurse, 51 years old)

Fear of the unknown was intensified by the distress and demands of the programme in conjunction with other lifestyle obligations, as well as the feeling that the learners had limited time available. "The workload, the time demanded and the level of difficulty present in distance learning, are a major concern and constitute the main factors that cause me a lot of anxiety" reported a female nurse.

Loneliness and isolation

Learners not only felt fear and distress but also experienced a sense of isolation and loneliness. These feelings were present from the beginning of their distance learning experience and many learners felt overwhelmed. A female student wrote in her December diary:

Sometimes I am overtaken by a feeling of loneliness and isolation because I cannot discuss the issues that I find challenging. The PC cannot replace a live chat, a human conversation, direct dialogue, confrontation and the joy of Socratic questioning. (Secondary education teacher, 49 years old)

Similarly, the next two excerpts from a phone conversation and an email refer to feelings of loneliness and isolation:

Many times, difficulties have led me to feelings of desperation and hopelessness, not because the requirements of the programme were difficult, but because I felt completely alone in carrying them out. Distance education made me remember the personal and warm connection I had with my fellow learners and instructors at a conventional university. (Male, primary education teacher, 34 years old, week 17)

I feel isolated; I do not know my fellow learners well and I do not have the courage to phone them, to see if they feel the same distress as me, the same fears. I do not even dare to phone my instructor...The nature of distance learning makes me see everything from a distance... (Female nurse, 41 years old, week 11)

Some learners approached distance learning methodology in a critical way. In the following excerpt from a January emotion diary, a student used her feelings of loneliness and isolation to question the distance learning methodology:

... there are a lot of problems in distance learning with regard to the learners' emotions. There is a lot of stress, anxiety, a sense of isolation and desperation about how and whether you will complete everything on your own.

Furthermore,

... the methodology of distance education is such that it places most of the burden of learning on each student and that brings an intense feeling of stress and isolation.

Stress for the inability to fulfil other obligations

A serious obstacle that these learners faced was their struggle to combine their professional, family and social life; this struggle made it harder to cope with the numerous demands of the programme. In particular, this challenge affected women more intensely and more often, because they were the ones to raise it systematically through detailed references and descriptions of their feelings of stress and frustration in their emotion diaries, emails, and conversations. A female student wrote in her December emotion diary:

I feel a lot of stress to finish the first assignment on time and to have time to do the second one well. I feel nervous: I cannot take the restrictions imposed on me to keep up with the particular programme any more. I want to cast everything in the wind and walk away. The intensity has worsened my attitude at work and with my family. An explosive situation has been created. I want to be given priority by everyone because I am studying. I have been thinking that instead of continuing like this it is better to give it up. I feel guilty that I am not performing my best and simultaneously I don't have any time for my family responsibilities. (Doctor, 48 years old)

Many other learners also wrote in several entries of their diaries that they felt overwhelmed by feelings of enormous stress and panic and unable to combine their student life with their professional, family and social life. After the completion of six months into the programme, the negative emotions continued to overwhelm many learners who felt burdened; not so much from the distance education methodology, as they clarified, but primarily because of the multiple roles they had to fulfil in their lives. A female student wrote in her March emotion diary:

I feel that I am continuously running to catch up but no matter how much I try I cannot make it. A lot of the times the intensity and stress do not allow me to concentrate so that I can study. In addition, I have completely ignored my family and I feel a lot of guilt because of that.

In general, distance learning methodology seemed to be an exhausting and hard-working learning process.

Discussion and implications

The findings of this study provide two insights: (1) They show how adult learners (who also happen to be novice online learners) respond emotionally and talk about their emotions in relation to online learning; and (2) They call attention to the ways in which emotion talk changes from the beginning of the course to the end, always in response to specific demands and dimensions of online learning. In other words, this study showed how adult learners' emotions in online learning were manifest and expressed in ambivalent ways, that is, how both positive and negative emotions co-existed and formed particular emotional climates that influenced adults' learning experiences throughout the course.

For example, many learners reported positive feelings from the social relationships they had developed (with their instructor and peers), even more so than what had been expected from an online programme. The emotional climate that was associated to these social relationships had a positive impact on some learners' efforts because it helped them deal with

their negative feelings from studying online (see also Conrad, 2002; Vrasidas & Zembylas, 2003). For others, this particular emotional climate did not have a positive impact and negative feelings continued to be talked about and analyzed frequently and intensely. However, these negative feelings were not necessarily associated to the nature of online communication but were also related to the demands and requirements of the specific graduate programme.

For many learners, the level of anxiety related to the online methodology of learning was high at the beginning of the course, but then it gradually decreased, especially when the learners became more familiar with online communication and began to develop a stronger sense of emotional kinship among themselves through multiple means of communication (e.g. emails, phone calls, and asynchronous discussions; see Ng, 2001).

Finally, this study showed how emotion talk changed from the beginning of the course to the end, in response to specific demands and dimensions of online learning. For example, many learners were able to highlight further some of their positive feelings despite the presence of negative feelings. This finding confirms existing findings about the ways in which positive and negative emotions inhibit online learning under some conditions while they enhance it under other circumstances (Allan & Lawless, 2003; Hara & Kling, 2003; O'Regan, 2003). But this study also extends existing knowledge in that it shows the evolution of this process over some time (one year).

Analyzing the data from this study confirms findings from other research (Conrad, 2002; Rourke et al., 1999; Rovai & Wighting, 2005; Swan & Shih, 2005) that in order to decrease negative emotions associated with online distance learning methodology, the learners must familiarize themselves with the technology at hand, enhance quality communication with fellow learners and instructors as well as become well organized and manage their time effectively. In addition, the programme must be well organized and the instructors must facilitate the learners' needs in a timely and organized manner. All in all, the current study shows that there is a lot to be gained from further considering how adult learners talk about their emotions as they learn how to become online learners.

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