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Invisible Motivation of Online Adult Learners During Contract Learning

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Abstract

In a face-to-face classroom, the instructor can easily diagnose students' motivational status by observing their facial expressions and postures, but such cues are absent in an online classroom. Therefore, online instructors often estimate students' motivational level based on their online behavior such as the number of messages they post, and look for effective strategies to help them actively participate in online dialogues. One such strategy is contract learning which facilitates self-directed behaviors through structuring an agreed learning process. This study reports a contract learning strategy in a graduate-level online class, examining whether a sample of 28 students' motivation could indeed be predicted by their online behavior. Results from the study found that the students' online behavior was not a predictor for their motivational status, though there were age and gender differences in their online behavior. The students felt more self-directed and motivated during contract learning, but what they really liked was being able to select assignments that were relevant to their interests and needs. This paper concludes by discussing practical implications of the findings at the end.

Developing Effective Learners through Effective Instruction

A goal of teaching is to help learners become *effective* learners. To accomplish the goal, four important factors should be analyzed: (a) who the learners are, (b) what they are learning, (c) how they are learning it, and (d) how they should be taught. Among the four factors, learners' characteristics and the way they learn are closely related. A group of cognitive psychologists has suggested that effective learners are often self-regulated or self-directed. According to self-regulated learning (SRL) theorists, self-regulated learners are "metacognitively, motivationally, and behaviorally active participants in their own learning process" (Zimmerman, 2001, p. 5). Similarly, self-directed learning (SDL) theorists explain that self-directed learners "take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and materials resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (Knowles, 1975, p. 18). SRL and SDL are not always interchangeable synonyms, but self-regulatory learning strategies are often used during self-directed processes; therefore, they are viewed as "complementary processes" (Moran, 2005, p. 16). SDL in particular is often used to describe how *adults* learn, and its opposite term is 'teacher-directed learning' which is usually associated with the traditional way of teaching *children* (Knowles, 1975). Instead of being spoon-fed, self-directed adult learners actively engage in their learning processes and demonstrate a high degree of desire and control over the pursuit of their learning goals.

Self-directedness is not necessarily an inborn trait, and self-directed behaviors can be learned and cultivated through systematically designed instruction (Costa & Kallick, 2004). Knowles (1980a) believes that most people are capable of becoming self-directed learners if proper conditions are provided. Then, how should learners be taught to become self-directed? Which instructional strategies will likely facilitate the development of SDL behaviors? *Contract learning* is one such method (Brockett & Hiemstra, 1985; Knowles, 1980a), and it has been known to stimulate intrinsic motivation (Knowles, 1986). Through individualized and systematic instruction, learners start taking initiative and become motivated by their own ability to take responsibility in learning (Knowles, 1980b). Knowles (1987) reports that in his experience, learners felt some initial anxiety in using contract learning, but soon their confidence and motivation levels increased and "once they got the hang of it, they wouldn't think of learning any other way" (p.

62). Several studies have revealed that contract learning is an effective instructional strategy to address various factors that potentially lead to improving motivation, such as confidence, value-recognition, responsibility, empowerment and satisfaction (Bauer, 1985; Boyer, 2003; Chan & Wai-tong, 2000; Lemieux, 2001; Lewis, 2004; Williams & Williams, 1999).

But, how does contract learning work in an asynchronous online learning environment? What impact would it have on adult learners' *online behavior* and their *motivation*, and would instructors see behavioral evidence of the online learners' motivational status? Would there be age and gender differences in online behavior? What implications does the absence or presence of behavioral evidence of online learners' motivational status have for online instructors on adjusting their online teaching and assessment methods? The researcher decided to answer these questions in her online classrooms by adopting action research methodology. Action research is "a spectrum of activities that focus on research, planning, theorizing, learning, and development" (Cummingham, 1993, p. 4). Its purpose is to solve specific problems within a program, organization or community (Patton, 2002), and it intends to close the gap between research and practice in order to bring about improvements in actual practice (Somekh, 1995). Action research can also be "conducted by practitioners to improve practices in educational settings" (Glanz, 1998, p. 20). It is a "process of systematically evaluating the consequences of educational decisions and adjusting practice" (p. 3), involving three phases: 1. conceptualization, 2. implementation and 3. interpretation (McLean, 1995).

Organization of the paper

The following sections describe the conceptual framework on the effectiveness of using a contract learning strategy in an online environment (i.e., conceptualization), and explain this study's research methods and outcomes that help understand the impact of implementing a contract learning strategy on adult learners' motivation as well as the relationship between their motivational status and online visibility (i.e., implementation). Based on the researcher's reflections of the findings, several practical implications are offered regarding how the study results may help make adjustments to future online teaching methods (i.e., interpretation).

Contract Learning as a Self-Directed and Motivational Strategy

So, exactly what is contract learning? First, a contract is an *agreement* between parties. Contracts can be formal or informal. Formal contracts such as mortgage documents or marriage licenses are written in legally binding documents. But, formal contracts do not always involve legal documents. For example, a customer goes to a restaurant and orders a meal from the menu. Then, the restaurant agrees to serve the ordered item and the customer agrees to pay the bill. It is a socially-established contract between the customer and the restaurant. People often make informal contracts as well, such as promises.

Contract learning is a method that uses a *contract* to facilitate learning. It is utilized in various forms such as learning contracts, contract grading, or hybrids. A 'learning contract' is defined as "a formal, written agreement between a learner and a tutor (or a trainer, or a coach) about what the learner will learn and how that learning will be measured" (Boak, 1998, p. 1). It contains "a plan for acquiring specified knowledge, understanding skills, attitudes, or values by a learner" (Knowles, 1987, p. 62). It is intended to "help learners structure their learning" by providing "a *process* structure in contrast to the traditional *content* structure" (Knowles, 1980b, p. 76). The process structure can be laid out in a learning contract with the following 5 elements:

- The specific learning objectives to be accomplished;
- The resources and strategies to be used in accomplishing them;
- The evidence that will be collected to indicate the extent to which the objectives have been accomplished;
- How this evidence will be judged or validated;
- The target date for completing each objective. (Knowles, 1987, p. 62)

Knowles (1975, 1986, 1987), who pioneered the development of the concept and application of learning contracts, uses the terms *contract learning* and *learning contracts* interchangeably and explains that,

> It is the method of choice when regular courses are not available in a particular subject, when learners cannot attend campus-based courses, when desired learning

> objectives cut across disciplines, when there is a wide range of differences among learners, and when instructors or institutions have a commitment to develop the skills of self-directed learning. (Knowles, 1986, p. 42-43)

Another more specific form of contract learning is 'contract grading.' It is to make "an agreement between a teacher and a student at the beginning of a course as to the grade the student expects to receive and the amount and quality of work he is expected to produce to earn this grade" (Berte, 1975, p. 1). The main purpose of using a contract grading strategy is to help learners build serious commitment for producing *agreed* or sometimes *negotiated* learning outcomes.

Generally speaking, a *learning contract* strategy focuses more on helping learners develop processes and activities for learning, whereas a *contract grading* strategy starts with an end result (i.e., a grade) to facilitate the learning process. However, various approaches to using contracts during instruction are available; therefore, in actual practice, hybrid forms of contract learning are often utilized. For example, Lewis (2004) used the *Independent Learning Contract System*, which allowed students to voluntarily contract to complete the course through self-paced independent study as long as their standardized pre-test scores were above the eligibility cut-off point. Students under the independent study contract were allowed to participate in group studies and to cancel the contract anytime to come back to the regular classroom instruction. On the other hand, the *learning contract* used in Lemieux's study (2001) included a list of predetermined policies and expectations to which the instructor and students agreed to adhere. Students also had to sign a contract to complete 4 specific assignments with limited flexibility. Dougherty (1997) in his research used a *grade/study-performance contract* as a retention strategy. By signing the contract, students had to agree to complete a list of expected tasks for a guarantee of a grade of C or better, as opposed to selecting a specific target grade that they want to earn and agreeing to the amount of work that they have to produce to earn that grade.

Regardless of the different applications of contract learning, there are common potential benefits of using it. First, contract learning usually involves a list of choices from which learners can select, as if they would order a meal from the menu at a restaurant. This flexibility satisfies

learners' needs (Boak, 1998). While learners select their own choice from a variety of options and resources, they are stimulated to self-evaluate their interests and needs, and this process facilitates self-directed learning (Brockett & Hiemstra, 1985). As they are working on learning subjects that are more relevant to their needs, they may become more confident and satisfied with their learning. This holistic way of shaping learners' motivation during instruction has also been conceptualized in a motivational instruction design model called the ARCS model – that is, learners tend to perceive instruction to be more motivating to them when it helps increase their *attention*, the *relevance* of learning to their needs, their *confidence* level, and their *satisfaction* level on the learning outcomes (Keller, 1987).

Research during the last several decades has revealed positive effects of using contract learning strategies on learners' motivation and behavior. For example, Polczynski and Shirland (1977) reported that a contract grading strategy helped students become more committed to the goal that they had set and helped them increase motivation and effort to reach the goal. Bauer (1985) summarized that the use of learning contracts was instrumental in helping doctoral students become self-directed during individual courses and while completing their dissertation. Williams and Williams (1999) found from their research that, in addition to the significant improvement of academic performance observed in the lower-grade groups, the use of learning contracts in a technology teacher training program helped students improve their confidence in confronting new technological areas. The researchers' interpretation was that the students' familiarity with selecting their own learning topics during the contract learning might have helped to reduce the feelings of intimidation toward the new content areas. Many students also appreciated the flexibility of the learning contract strategy and clearly identified it as their preferred method. Another study by Chan and Wai-tong (2000) revealed that despite some difficulties such as the need for time-consuming individual supervision and students' lack of knowledge in using contract learning, the use of learning contracts in a mental health nursing course was effective in enhancing students' autonomy and motivation.

Impact of Contract Learning on Online Learners' Behavior and Motivation

Based on the literature review presented in the previous section, it seems reasonable to conclude that contract learning can be an effective instructional strategy for helping learners become self-

directed and motivated. Knowles (1975) describes that his students have reported that contract learning "helps them organize their learning more efficiently, induces them to be more creative in identifying learning resources and developing learning strategies, and forces them to get better evidence of their accomplishments" (p. 25). But, how does contract learning work in an asynchronous *online* environment? What impact would it have on learners' *online* behavior and their motivation, and what evidence would online instructors see?

One way of measuring students' behavior and motivation is to look at their *attendance* level. However, there is a fundamental difference between traditional classroom teaching and asynchronous online teaching in terms of how instructors measure students' attendance. In traditional classroom teaching, attendance usually means that students came and sat in the classroom, regardless of whether or not they spoke a word during the entire class period. But students in an online class are expected to write a message to show evidence of their attendance. If online students did not write a message, is it really fair to say that they did not attend the online class? If they were invisible in the online classroom, does it always mean that they were not self-directed or motivated to learn? What if they studied all of the instructional materials on their own but did not write a message?

This is a challenge in teaching online classes. Online instructors may turn to existing research to learn reliable information, but little published research is available to help understand the relationship between online learners' motivation and their overt online behavior during the use of a contract learning strategy. The researcher found no research conducted on the very topic from an extensive search with six major academic research databases such as Academic Search Premier, Business Source Premier, ERIC, MasterFile Premier, Professional Development Collection, and Psychology and Behavior Sciences Collection. There are some studies that investigated online learners' behavior in relation to their learning outcomes, but the results are inconsistent. For example, several studies have revealed that students' participation in online discussions improved their perceived learning (Wu & Hiltz, 2004) and was positively associated with actual learning outcomes (Webb, Jones, Barker, & van Schaik, 2004). Another qualitative study showed that a higher quantity of participation was usually associated with a higher quality of participation in terms of the level or depth of interactions and message contents, and such

results were found in classes where ongoing discussions were expected or required by certain deadlines (Dennen, 2005). But, Beaudoin (2002) did not find that students' *behaviorally* active participation in online discussions was a reliable indicator for positive learning outcomes. Picciano (2002) and Wang (2004) also found in their studies that students' online visibility, such as the number of their postings, was not significantly correlated with their academic exam scores.

Due to the lack of research and inconsistency in findings, it would be unsafe to assume that 'invisible' online learners are unmotivated, ineffective learners and not self-directed. Keeping this in mind, the researcher questioned: When contract learning is utilized in an online environment, what impact will it have on online adult learners' behavior and motivation? Will they perceive themselves to be more motivated, and will this be evidenced by their overt online behavior, or not? Will there be age and gender differences in their online behavior? The following section describes how the researcher investigated this issue in her own online classroom.

Methodology

Research Questions and Hypotheses

This study aimed to answer whether adult learners' motivation level can be predicted by their online behavior, measured by the number of participation days and the number of posted messages, and if their age and gender make a difference in their online behavior and motivation when a contract learning strategy is used in an online classroom. The following three null hypotheses were tested:

- **Ho_1:** There is no significant correlation between adult learners' online behavior and their motivation level.
- **Ho_2:** There is no significant difference between younger and older groups of adult learners in terms of their online behavior and their motivation level.
- **Ho_3:** There is no significant difference between male and female groups of adult learners in terms of their online behavior and the level of motivation.

Participants

The participants were students who enrolled in a master's degree level online course titled, *E-Learning Principles and Practices*, offered at a university in the northwestern region of the United States during the Spring semesters in 2005 and 2006. It was a 3-credit, 10-week elective course. Twenty-nine students enrolled in the course (17 students in Spring 2005 and 12 students in Spring 2006) and all of them completed the course. One student did not complete the motivation survey; therefore, a total of 28 students were the participants of this study. Eleven students were male and 17 students were female. The average age of the students was 42.54, ranging from 32 to 62 (SD = 7.71). Using the median age as the cut point, the participants were grouped into two categories – younger than 42.50 and older than 42.50. Fourteen students were categorized as the younger group and another 14 students were categorized as the older group. Only two students were on-campus students taking a mix of on-campus and online classes, and 26 students were distant students who were taking online classes only.

Online Learning Environment

The online class was delivered using a Lotus Notes database. The system provides an asynchronous message threading function, and it allows users to review and post messages in a threaded message view (the default view) or to sort them by author or by date. The system provides instructors with an 'instructor view' which presents messages sorted by author and date, enabling instructors to easily recognize how many messages each student posted each day.

Course Logistics

The course was designed with a weekly schedule of 4 modules; each week was defined as 7 days from Sunday to the following Saturday. During the start-up week of the class (a week prior to the first day of the class, during which students start logging onto the course database), students were provided with the course syllabus from which they learned that a contract learning strategy would be used in class. The main form of contract learning used in this class was *contract grading*, and the researcher developed the contract based on the 5 elements for writing a *learning contract* suggested by Knowles (1987);

> (1) Specific learning objectives, (2) suggested resources and strategies, (3) evidence

of learning, (4) evaluation standards, and (5) target due dates.

The Contract

The contract consisted of two main parts: 1. selection of a grade that they planned to earn from the course, and 2. selection of 'side dish' assignments that they wanted to complete in addition to the required 'main dish' assignment. The main dish assignment was to complete weekly activities, and the side dish assignments were 4 comprehensive term papers or projects to be completed at the end of each of the 4 modules (therefore, they had different due dates). The researcher chose this hybrid form of contract learning in order to help students build a broad knowledge of e-learning principles and practices and at the same time to provide them with opportunities to produce in-depth knowledge in the areas in which they had strong interests and needs.

Students were asked to select a grade of A, B or C. Students were told that in addition to successfully completing the main dish assignment, if they selected a grade of A, they were required to complete two of the side dishes, and if they selected a grade of B, they had to complete one of them. If they selected a grade of C, they were asked to complete the main dish assignment only. Students were also provided with evaluation criteria that clearly described standards for 'successfully completing' the main dish and side dish assignments. They were told that failing to meet the standards would result in earning a grade lower than the one that they signed up for. Students were asked to submit their learning contract by the end of the 2nd week. Initially only 2 students (one from each class) signed up for a grade of B. But an additional 4 students changed their contract from a grade of A to B; therefore, 22 students signed up for a grade of A and 6 students signed up for a grade of B. One student who signed up for a grade of A failed to meet the expectations and earned a grade of B, while everyone else was able to earn the grade they intended to earn.

During the first week, students also completed an ENtry Knowledge Assessment (ENKA). The ENKA was designed to measure their entry-level knowledge on 25 main topics to be learned in class. Using a scale of 1 to 5, one being 'no knowledge' and 5 being 'expert-level knowledge', the average score of ENKA was 1.78 (SD = .50). The difference in ENKA between male

students (M = 1.75, SD = .43) and female students (M = 1.80, SD = .55) was not significant (t = -.24, p = .81). The difference in ENKA between younger students (M = 1.86, SD = .39) and older students (M = 1.71, SD = .60) was not significant (t = .77, p = .44). They were also asked to report a degree of relevance of the course to their professional background. On a scale of 1 to 5, one being 'not relevant at all' and 5 being 'extremely relevant', most of the students perceived that the course was relevant to their job (M = 3.14, SD = 1.48).

Instrumentation

Observations of adult learners' online behavior. Two measurements were used – the number of participation days and the number of messages. Daily participation was defined as posting at least one message during that day. For each student, the researcher counted the number of participation days and the total number of messages they posted during the course. An independent sample t-test revealed that the numbers of participation days obtained from the two classes were not significantly different ($t = 1.99$, $p > .05$) but the numbers of messages posted in the two classes *were* significantly different ($t = 2.20$, $p < .05$). It was likely because of the difference in the number of students enrolled in the two classes (17 vs. 12), which consequently would generate different group dynamics. To make the number of messages as well as the number of participation days compatible between the two classes, the raw data from each class were converted to z-scores for conducting an inferential analysis.

Adult learners' motivational levels. At the end of the course, students submitted a survey of 10 statements using a 5-point Likert scale and an open-ended question. The 10 statements measured their motivational perceptions during the course (see Appendix A). Internal reliability of the 10 statements was an acceptable level: The Cronbach Alpha value was 0.82. The summed total scores were used for further analysis.

Data Analysis and Findings

As shown in Table 1, on average, students participated in about 50% of available days (40 days out of 79 available days, including weekends) during approximately 11 weeks of the course (including several days during the start-up week and the final wrap-up week). They posted an

average of 91 messages, averaging 2-3 messages whenever they participated in class discussions. Table 2 reports that the average score obtained from the motivation survey was 39.93, when the possible minimum and maximum scores were zero and 50.

Table 1: Observations of Students' Online Behavior

Observations	*N*	*Min.*	*Max.*	*M*	*SD*
# of participation days	28	27	62	39.71	7.94
# of messages	28	49	200	90.82	35.63

Table 2: Standardized Participation Days and Number of Messages, and Motivational Levels

		Younger			Older			Total		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Participation Days	*M*	-.54	-.06	-.27	-.49	.68	.27	-.51	.33	.00
(z score)	*SD*	.76	.76	.77	.36	1.20	1.12	.58	1.06	.98
	N	6	8	14	5	9	14	11	17	28
Number of Messages	*M*	-.62	-.44	-.52	.39	.59	.52	-.16	.10	.00
(z score)	*SD*	.40	.47	.44	.91	1.26	1.11	.83	1.08	.98
	N	6	8	14	5	9	14	11	17	28
Motivation Level	*M*	41.83	39.50	40.50	42.40	37.67	39.36	42.09	38.53	39.93
	SD	4.36	6.76	5.77	3.58	5.92	5.57	3.83	6.20	5.60
	N	6	8	14	5	9	14	11	17	28

An analysis of bivariate correlation was conducted to test the first null hypothesis. The results showed that adult learners' online behaviors were not significantly correlated with their motivation level (see Table 3). Therefore, the first null hypothesis was not rejected.

Table 3: Observations of Students' Online Behavior and Motivation

	Motivation (*N* = 28)	
# of participation days	*Pearson Correlation*	-.02
	Sig. (2-tailed)	.91
# of messages	*Pearson Correlation*	-.10
	Sig. (2-tailed)	.58

A two-way multivariate analysis of variance (MANOVA) was conducted to test the second and third null hypotheses. The MANOVA revealed a significant multivariate effect for age group, Wilks' lambda = .69, $F(3, 22) = 3.24$, $p < .05$, effect size (partial eta squared) = .30, and a significant multivariate effect for gender, Wilks' lambda = .62, $F(3, 22) = 4.34$, $p < .05$, effect size (partial eta squared) = .37 (see Table 4). The null hypotheses for the second and third hypotheses were rejected.

Table 4: Multivariate Test Results

Effect	*Wilks' Lambda*	*F*	*Ho df*	*Error df*	*Sig.*	*Effect Size*
Age group	.69	3.24	3	22	.04	.30
Gender	.62	4.34	3	22	.01	.37

The significant main effects found in the MANOVA led to a separate two-way univariate analyses of variance (ANOVA) for each dependent variable. The ANOVA tests revealed significant age effects on the number of messages, $F(1, 24) = 9.06$, $p < .05$, effect size = .27. Older students posted significantly more messages than younger students. Significant age effects on the number of participation days and motivation levels were not found. Significant effects of gender on the number of participation days were found, $F(1, 24) = 5.68$, $p < .05$, effect size = .19. Female students participated in significantly more days than male students. Significant gender

effects on the number of messages and motivation levels were not found.

Limitations of this Study

A small sample size together with purposive, as opposed to random, sampling questions the use of inferential statistics. Hence such statistics should be viewed as mildly suggestive for illustrative purposes, and certainly not generalizable. The exploratory nature of this study confirms this position. The findings do relate more strongly to pre-qualified and highly motivated graduate education students. The temporal influence of two data sets covering two semesters should also be noted.

Findings

Despite the stated limitations, this research contributes to better understand the effects of using a contract learning strategy on online students' motivation and the relationship between their motivational status and online visibility. A surprising finding was that the students' motivational status was not strongly correlated with their online behavior. It might be easy for online instructors to assume that students would be more active on line during the course because they were in the process of completing their own choice of a comprehensive assignment or two. But from this study, adult learners' motivation levels could not be predicted by their online behaviors when a learning contract strategy is used.

When taking a close look at the gender and age differences, female students were much more active than male students based on the number of participation days, but it does not mean that female students wrote more messages. Older students wrote more messages than younger students did, and this result is supported by other research (e.g., Hoskins & van Hooff, 2005). A possible explanation for this result comes from Bures, Abrami and Amundsen's study (2000) revealing that students who were "concerned about their relative performance compared to others" (p. 593) wrote fewer messages. The younger students in this study could have fallen into that group. But younger students seemed to think that the contract learning strategy helped them study relevant learning subjects more than older students did. This is an interesting finding, suggesting that younger students assigned relatively higher value to the strategy because they

might still remember traditional teacher-directed pedagogical learning environments where self-directed contract learning strategies were not utilized, whereas older students might have become familiar with self-directed working environments.

The open-ended comments add qualitative detail to the quantitative results. Most of them were positive and they advocated the use of the contract learning strategy. A few students commented that they found it interesting and fun. Below are two examples that indicate that they thought the activities were *interesting and fun*:

> When I read the syllabus I couldn't wait to tell my colleagues about it - they are working on their undergrad degrees and were intrigued by the concept and wished they had the option too.

> It sounded more “fun” and light-hearted, especially with the concept of “side dishes” (I associated that with ice cream or some other delicious dish).

Students also reported that their feelings of *responsibility and confidence* had increased:

> I really liked the contract learning strategy. At first, I was a bit taken back because it was a different approach. But after reviewing it and making choices, I somehow felt that I was more in control of my destiny.

But many students indicated that the ‘contract grading’ part of the strategy did not necessarily influence their motivation because they were already highly motivated to learn. Instead, what they really liked was being able to choose side dish assignments from different options, emphasizing that they were able to select the ones that were *relevant* to their interests and needs. This finding about the learning-oriented tendency of adult learners is supported by Chyung and Vachon’s (2005) study showing that online learners perceived the learning itself and the types of learning activities to be satisfying factors. Below are five examples of student comments that indicate their *learning-oriented* perspectives:

Choosing a grade: Speaking for myself, this had no impact on my performance. I would have worked the same, and been just as motivated, whether or not I told you or anyone else I was going for an 'A'.

For me, I am already objective oriented so I don't think the contract motivated me more than normal as I was already fairly motivated. I did like choosing what to write about as I could choose topics that had more relevance/interest to me.

I believe the greatest value from choosing assignments came in the form of relevance. Had I been required to do an e-learning readiness assessment, I certainly would have done the best job I could do, but I would have viewed it as 'something I had to do for school' - an academic exercise - rather than as something that really helped me progress as a professional.

It wasn't *completing* the side dishes that were meaningful. It was the relevancy of the topics within the course that was very meaningful to me. I think that as long as the choice of activities is relevant (which they were to me in this class), I think that contract learning is a very good strategy for learning.

I liked that I could pick my own side dishes for two main reasons (in the following order):
1) I was able to select projects/papers that are more relevant to my career at this time; this did make me more excited about researching/completing these projects.
2) I was able to help my own school schedule by also considering due dates of the side dishes compared to due dates of assignments in my other class this semester. I was equally interested in side dishes 2 and 3 and picked 2 because my 560 class had a paper due at the same time as # 3. As it turns out though, side dish 2 has already proven to be the more beneficial one for me as a consultant. So that worked out great!

Interestingly, one student did not view the flexibility of being able to choose from multiple

options positively. She wrote:

> I didn't attempt the side dish 3 that I thought would be so interesting but it wasn't required and I didn't have the extra time to do the 'extra' work…. I would have really liked to have done the other two side dishes as well but I found that because I didn't have to do them, I didn't even attempt them. My loss but that's how my mind thinks. If I'm not required to do it, I probably won't do it, because I will get busy doing something else.

The researcher appreciated the candid comments, and it was interesting to see that the student perceived working on *other* interesting items as 'extra work' because they were *not required*. Based on the comment, the student seemed to be more *goal*-oriented than *learning*-oriented or *activity*-oriented, according to Houle's (1971) 3 types of adult learners (as cited in McCreary, 1990).

Implications for Future Practice

This study offers several implications. First, the findings help determine whether or not a contract learning strategy might be useful in online classes. That is, consider using a contract learning strategy when there is a need to improve online learners' motivation; for example, when the course subject is not directly related to students' career background, or when dealing with younger adults because they seem to appreciate the strategy more.

Second, what really motivated students was not the contract grading strategy itself, but the 'side dish' options students could select from. Therefore, an alternative is to offer a list of different learning activities to students and to allow them to select their own choices without using a formal learning contract strategy. This flexibility can help students feel motivated and satisfied with what they have learned.

Third, it is clear that simply offering *different* learning activities would not be sufficient; it is important to provide learning activities that are *relevant* to the learners.

Fourth, online adult learners' motivational status should not be assumed based on their online behavior, and vice versa. This study suggests *not* to assume that the more motivated learners are, the more visible they are in an online classroom. Careful assessments should be conducted to better understand the motivational status of invisible as well as visible online learners.

Finally, other researchers are encouraged to replicate this study using a larger sample size in a more controlled environment, in order to render more generalizable conclusions.

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Appendix A: Survey Statements Measured with a 5-point Likert Scale

Statement
1. I was more motivated to learn than usual.
2. I felt more self-directed than usual throughout the course.
3. I felt that the process of completing the side dish assignment(s) was more meaningful to me.
4. I was more confident than usual in successfully completing the side dish assignments.
5. I am satisfied with the quality of the assignment outcomes that I selected and produced.
6. The strategy of contract learning helped me set a reasonable goal to complete this course.
7. The strategy of contract learning helped me study learning subjects that are relevant to me (or my career).
8. I think that contract learning is an effective strategy for adult learners.
9. I think that the contract learning strategy helps promote intrinsic motivation.
10. I would rather like the instructor to decide assignments for me, instead of allowing me to select my own choices among options.
Please write any comments regarding the contract learning strategy: