FUTURE DIRECTIONS FOR SDL RESEARCH

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Symposium and Journal Contributions

This section represents an effort to analyze an aspect of the ISDLS book chapters and IJSDL articles. To accomplish this, a quick and simple content analysis was employed. Nine categories emerged based on comparisons of the various publications. This involved reading quickly each chapter and article from the initial 1988 publication through the journal's 2006 publication year (Vol. 3, No. 2) to obtain a sense of the one or more focal points intended by the authors. Each focal point resulted in a tally added to an appropriate category. It was possible in this comparison scheme that a chapter or article could receive more than one tally. For example, a piece might have focused on furthering our understanding of the SDLRS, while also making contributions to knowledge or theory building, thus receiving two different tallies. Thus, the overall tally scores are greater than the actual number of chapters and articles.

The miscellaneous category increases in number since 2002 because of the greater emphasis on technology and e-learning in those years. As decisions about which category to use were made by only by me and only after skimming through each piece once, it is highly likely another person doing a similar analysis could develop a different understanding. Table 1 shows the categories and number of corresponding pieces that focused some or all of their subject matter within each.

Table 1. Number of Annual International Self-Directed Learning Symposia Book Chapters by Category Type

Year	SDL Knowledge or Theory Building	Review of SDL or Related Literature	Relationship Between Variables & Comparisons with SDL	SDLRS, SDLPS, OCLI, LAP, etc. for Measuring SDL	Learners and Self-Directed /Autonomous Learning	Instruction and SDL	Settings for SDL Learning	Historical and Philosop. Issues Related to SDL	Misc. & Technology
1988	3	2	1	0	0	1	2	0	2
1989	0	1	4	2	1	1	0	1	0
1990	3	1	3	3	2	0	1	2	2
1991	2	0	5	5	3	2	0	0	4
1992	5	4	4	4	5	1	1	1	3
1993	2	3	6	1	2	0	2	1	4
1994	0	1	7	4	2	2	2	1	2
1995	3	0	8	8	0	4	6	2	5
1996	0	3	6	8	1	5	3	0	2
1997	2	0	4	3	4	3	6	1	2
1998	1	0	2	4	4	4	1	1	2
1999	3	1	5	5	1	4	1	0	2
2000	6	1	7	6	0	3	1	0	0
2001	3	0	3	5	1	3	1	1	2
2002	1	0	4	6	1	1	3	1	6
2003	2	1	4	4	7	4	2	0	10
2004	5	0	4	3	7	4	4	0	4
2005	3	1	2	5	9	4	0	1	3
2006	5	1	1	2	3	3	1	1	4

Some trends emerge from this content analysis effort. There appears to be a growing or steady interest in understanding the relationship between variables in relation to SDL. In addition, there is a growing or steady interest in using and developing measurement tools as a way of gathering information, often for purposes of comparing some variables. There also appears to be increasing attention to understanding both learners and the

instructional processes associated with SDL. Finally, there is an increasing examination of the ways people learn via technology in relation to SDL. In conclusion, the wide variety of interests and growing number of interested scholars suggests there still is much more to be added to the knowledge base.

Since the initial symposium in 1986, there have been more than 240 different authors from many countries affiliated in some way with one or more book chapters and journal articles. Countless others have served on panels, presented papers, or in some other way helped continue the success of the annual meetings. Table 2 lists those who contributed four or more times as chapter or article authors or co-authors.

Table 2. The Most Frequent Chapter and Journal Article Authors

Name	No. of Contributions
Long, Huey B.	47
Guglielmino, Lucy M.	20
Pilling-Cormick, Jane	15
Confessore, Gary J.	14
Guglielmino, Paul J.	12
Redding, Terrence R.	12
Bulik, Robert J.	11
Hoban, Gary	09
Bietler, Michael A.	08
Park, EunMi	08
Foucher, Roland	07
Ponton, Michael K.	07
Sersland, Claudia J.	07
Bonham, L. Adrianne	06
Carr, Paul B.	06
Hanor, Joan K.	06
Hiemstra, Roger	06
Agyekum, Stephen K.	05
Cheong, Ji Woong	05
Confessore, Sharon J.	05
Derrick, M. Gail	05
Eisenman, Gordon	05
Kops, William J.	05
Morris, Scott S.	05
Plowman, Travis	05
Zomorrodian, Asghar	05
Barnes, Karen L.	04
Boyer, Naomi R.	04
Cheong, Chija Kim	04
Durr, Richard	04
Hayden, Katherine L.	04
Nuckles, Charles, R.	04
Piskurich, George M.	04
Straka, Gerald A.	04

Future research efforts are needed to better understand the various authors who have contributed to the SDL knowledge base, why they chose the topics they examined, and how their scholarship has spawned subsequent research through their students, colleagues, and others. In addition, efforts are needed to attract more scholars from international settings and professional backgrounds not typical of those normally represented in our literature.

Self-Directed Learning Lexicon

The protocol used in the initial research related to this topic involved a graduate assistant experienced with SDL reading through the first symposium book (Long & Associates, 1988) and developing those words, terms, and concepts that in her view represented a universe of separate meanings. I then examined this list and made some clarifications. Next, the revised list served as the foundation for another experienced graduate assistant to reanalyze the first book. A few new terms were developed and agreed to by these three individuals during this process.

Then the remaining books (Long & Associates, 1989, 1990, 1991, 1992, 1993, 1994, 1995) were analyzed and new terms added as they emerged. A frequency count was maintained throughout the analysis effort. A secondary source of data consisting of one other book was used for comparison purposes. It was written by several people, most of whom had participated in symposia over the years (Confessore & Confessore, 1992). Several new terms were used in the Confessore and Confessore book, indicating the dynamic nature of the field and the continued evolution of SDL language. Comparisons between the ISDLS books and this latter book can be found in Hiemstra's 1977 work.

Words were counted each time they were used with only a very few exceptions. For example, if a word, term, or phrase was repeated three times in a paragraph it received a frequency count of three. However, words or terms displayed in tables, figures, or reference sections were not counted. In addition, a clearly redundant term (e.g., Self-directed Learning Readiness Scale followed immediately by SDLRS in parentheses) only received a frequency count of one. On the other hand, if later in that same sentence SDLRS was again used another frequency count was added. Normal associations between concepts or acronyms were made. For instance, "SDLRS" and "Self-Directed Learning Readiness Scale" were counted as the same term when recording frequencies. As another example, autodidaxy and autodidactic learning were counted as the same term under the heading of autodidactic learning as they were assumed to be closely associated terms, but used slightly differently according to the preference of the author. In other words, each would receive a count of one each time it was used but under the same heading.

In preparation for an IJSDL article (Vol. 1, no. 2, pp. 1-6), follow-up research was completed to determine the lexicon that had developed since then. This was accomplished by analyzing a portion of the next eight ISDLS books (Long & Associates, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003). [A portrayal of all book and chapter titles that have been developed from these symposia, 1986-2003, is shown in Hiemstra (2008)]. The same content analysis procedures described earlier were utilized. However, only 46 chapters, less than a third of the chapters in these eight books, were randomly selected for inclusion because of limited time and resources. This is an obvious research limitation, so data comparisons shown below need to be considered in light of this.

Table 1 compares the research findings from the two research efforts. The first data column portrays the most frequently used SDL terms, concepts, and associated derivatives from the first eight books and the second column shows the frequencies from the second eight books.

There were some noticeable changes in the second eight-year period given the limitations obvious from using only a partial database for the research. Autodidacticism, learning projects, self-directed learner, self-education, and self-taught adults appear to have diminished in their usage given the sample selected for the second period. The use of language referring to the two most popular instruments in the first eight-year period, the OCLI and the SDLRS, diminished. Another instrument, the SDLPS, had not been developed by 1995, but it did receive considerable mention in the sample selected for the second time period.

Table 1. Most Frequently Used Self-Directed Learning Terms, Concepts, or Associated Derivatives

Term, Concept, or Derivative	No. in 1986-1994 (137 Chapters.)	No. in 1995-2003 (46 Chapters.)
Autodidactic (learning)	209	12
Autonomous learning	92	45
Learning environments	0	146
Learning projects	231	47
OCLI (Oddi, 1984)	102	2
SDLPS (Pilling-Cormick's, 1996)	0	273
SDLR (S-D learning readiness)	188	151
SDLRS (Guglielmino, 1977)	1299	346
Self-directed learner	436	67
Self-directed learning	2833	1159
Self-direction in learning	182	163
Self-education	105	0
Self-efficacy	107	151
Self-planned learning	118	44
Self-regulation/regulated learning	38	64
Self-taught adults	109	0

The term self-directed learning, by far the most popular term in the first period as might be expected, appears to have even increased in use during the second period. Another term, self-direction in learning, also appears to have increased in frequency if a weighting is added to the third column to approximate a total if all chapters had been selected. Three other terms, learning environments, self-efficacy, and self-regulation appear to have been used frequently during the second time period.

As was noted in the 1997 study, an amazingly large number of terms were found. There were 205 different terms used in the initial eight books, and another 53 words were introduced in the second time period. The SDL sub-field is rapidly reaching the point where dissertation or some other effort to develop a discipline-specific thesaurus would be valuable. Fascinating, too, is the number of creative ways "self-directed learning" actually can be said. Following is a list of some of them:

Assuming primary responsibility	Self-educated
Asynchronous learning environment	Self-guided learning
Independent learner	Self-managed learning
Individual responsibility toward learning	Self-regulated learning
Inner directed	Self-taught
Intrinsically motivated learning	Solitary learning
Isolated learning	Student generated learning
Learning without a teacher	Teacherless individual learners
Self-acquired knowledge	Unsupervised learning

The second eight-year period also brought some interesting new terms associated with SDL, although not unexpected given the technological developments occurring between 1996 and 2003. These included such terms as distance learning, e-learner, e-mentoring, self-directed learning in an on-line environment, virtual learner, and web-based learning.

Obviously, a similar research effort involving a more rigorous content analysis procedure would reveal additional insight on the lexicon related to SDL. The next eight years of research and scholarship related to SDL and future work beyond that no doubt will also bring many new words, concepts, and even surprises.

International Journal of Self-Directed Learning

The third effort I undertook to help us better understand future research needs was an examination of the articles published during the IJSDL's first three volume years. It was my expectation that authors would provide a number of clues, findings, and suggestions pertaining to subsequent scholarship possibilities. Thus, I read through each article and "extracted" what I believe is such information. Therefore, each article is depicted with my assessment of material that can be used to think about future research efforts. I have placed in bold what I believe is the most important information or areas from which such research efforts could be initiated.

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Historical Perspectives Series: Self-Direction in Learning in the United States – Guglielmino, Long, and Hiemstra, pp. 1-17

1. The **history** of concepts, constructs, words, etc. **related to SDL**
2. A thorough examination of *The Inquiring Mind* and *The Adult's Learning Projects* as foundational pieces in SDL (at least in the English language)
3. There are obvious **cultural, governmental, and societal differences throughout the world** that impact the way in which learners perceive their ability to take personal responsibility for learning endeavors; and research into SDL has developed along different paths and under the influence of different forces in other cultures. **A sharing of such differences, especially across language barriers, is needed**.

Prior Knowledge, Self-Directed Learning Readiness, and Curiosity: Antecedents to Classroom Learning Performance - Reio, pp. 18-25

1. In contrast with many prior studies, prior knowledge was significantly related to only one of the other research variables, ethnicity, but was not related to curiosity, SDL readiness, or classroom learning performance. Perhaps the students did not need prior knowledge of human development to perform well because the class was an introductory course. **This interesting finding warrants additional research**.
2. Curiosity, operationalized as what the participants "want to know," exhibited a weak positive relationship with performance on the final examination. This suggests that **curiosity**, which is most often considered to be a transient motivational variable, **might influence long-term learning outcomes in the classroom. This finding also warrants further research.**
3. The evidence from this study suggests **SDLR can differ with age, gender and ethnicity**; thus, this issue may need to be addressed in the classroom. **Researchers are urged to find novel ways to develop SDLR to attend better to the needs of all adult learners**, principally as they relate to the greater learner choice and responsibility inherent in SDL.
4. Nevertheless, inasmuch as curiosity has been shown to powerfully motivate classroom learning behavior and learning in general, these results suggest that **we need to find ways to stimulate and maintain curiosity in our classrooms**.
5. Thus, teachers, trainers, and professors may want to consider **ways to promote *situational curiosity* and to develop a tendency *to be curious* among their students**. The degree to which both types of curiosity might increase the likelihood of higher levels of learning performance should be investigated.
6. Because this exploration used a cross-sectional convenience sample, generalizations should be applied cautiously to similar research samples only. Future research might be informed by **testing the conceptual model in different learning contexts, with samples with different profiles with respect to age, gender, and ethnicity.**

7. In addition, a **longitudinal investigation extending, for example, from the time students enter college until they graduate** might shed additional light on the contributions of these independent variables on classroom learning performance.

8. Third, the prior knowledge, curiosity, and learning performance measures may be problematic. Although inter-rater reliability was high, **employing alternative, more objective measures of each variable would be the next step** in generalizing the conceptual model beyond this exploratory study.

Constructing Scaffolds for Social Online Learning: Using Self-Directed Frameworks with Virtual Groups – Boyer and Maher, pp. 26-38

1. The **SDL framework** provided by Malcolm Knowles **can be utilized with groups to provide a structure that facilitates the acquisition of knowledge** without collapsing the adult quest for meaningful experience and relevance.

2. Rather than controlling the mechanisms of learning and disseminating knowledge, the online instructor then begins to construct scaffolds through the **facilitation of process, provision of opportunity, attention to both group and individual requests, and learning styles**.

3. Introducing the self-directed tools to mature students proved to be initially intimidating and overwhelming. Due to the online nature of the class, **maximizing face-to-face time and hands-on experience around learning contract activities** was imperative to the productive nature of group and individual planning.

4. The "newness" of the self-directed tools had students stretched beyond their comfort zones and therefore expressing a bit of disequilibrium at the outset. **Most students expressed increased comfort and understanding as learning contracts were submitted for instructor approval** and as time elapsed during the semester.

5. Instructor feedback and responsiveness and clearly defined expectation were **critical to developing the learning contract process**. This process built an atmosphere of instructor/student trust within the learning environment.

6. Years of experience within education systems has prepared most adults for a format that allows for the dissemination of knowledge and control of the activity by an instructor. Therefore, a small percentage of **students will need additional time, investment and learning maturation** to move toward deliveries that reflect self-directed philosophies. In fact, there will be some of students who will not be pleased regardless of the instructional method or delivery system.

7. **Program development**, utilizing the suggested framework, **which would incorporate both individual and group intellectual development**, could be easily adapted from this material to provide a comprehensive approach to the learning process.

Factor Validation of the *Learner Autonomy Profile* (Version 3.0) and Extraction of the Short Form - Confessore and Park, pp. 39-58

1. **How much control must the learner exert** before the effort may be considered "self-directed?"
2. **How can standards of learning be preserved** if "others" do not measure outcomes?
3. **What are the "proper" roles of learners and teachers** in SDL?
4. **Continued testing of and work with the LAP** in various ways.

A Path Analysis of the Conative Factors Associated with Autonomous Learning - Ponton, Carr, and Derrick, pp. 59-69

1. The present analyses suggest that **fostering resourcefulness should be a critical goal in effecting learning persistence**. Initiative should be a focus in concert with resourcefulness, but not in isolation—**resourcefulness triggers persistence** with an effect size similar to the path with initiative as a mediator.

2. However, to continue on this avenue of research, **motivation and self-efficacy instruments should be developed within the context of autonomous learning** and tested with the conative measures, thereby enabling future research to better describe the relationship between motivation and conation.
3. Hopefully, this understanding will better **equip the learning facilitator to not only foster autonomy** within learners, but also to take fuller advantage of the autonomy that adults tend to exhibit in their learning.

A Workshop for Faculty: Teaching Beliefs and Implications for Self-Directed Learning - Bulik and Frye, pp. 70-75

1. **How can faculty beliefs about the traditional teaching-learning interaction be changed**?
2. Even more important: **Are continuing education (faculty development) workshops providing a venue for faculty to address long-held traditional beliefs** about their teaching?
3. The knowledge or content of a particular subject area is insufficient to qualify an individual as competent in a subject area. **An ability to use that knowledge in the generation and interaction of ideas in critical analyses** or in creative problem solving is also necessary.
4. In effect, this story suggests that **faculty need to re-conceptualize their role as they replace the delivery of lecture-based instruction in the traditional classroom with on-line instruction** or small group discussions that are competency-based and assessment-driven.
5. **Faculty development needs should be identified through self-reflection** – a way of promoting SDL.
6. **Faculty development activities need to be based on the principles and practices of SDL** in order to provide both campus-based faculty and workplace trainers with the skills and the philosophical framework to teach or train effectively.
7. A session that challenges medical school faculty to examine their beliefs about teaching. The workshop **challenges faculty to rethink their beliefs about teaching through a structured educational dialogue centered on SDL**.
8. In this rapidly changing educational environment, there is **increasing utility in faculties developing a personal metaphor for teaching**.
9. **There is a concurrent need for them to create teaching portfolios**, including a statement describing their perspectives on the role and function of teaching.

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Self-Directed Learning Lexicon - Hiemstra, pp. 1-6

1. **Future research is needed to better understand the lexicon associated with SDL**. For example, an analysis of the language used in all chapters of the most recent annual books might reveal important new terms.
2. In addition, there are many **other books, journal articles, dissertations, web pieces**, and other sources in North America that **should be examined**.
3. Another large **untapped source of information about SDL language, terms, and concepts are the many scholarly resources outside of North America**.
4. This article did not examine very much of the SDL literature outside of North America, and none of the literature in other than English, to understand the influence it is having on an expanding SDL knowledge base. There are obvious **cultural, governmental, and societal differences throughout the world that impact the way in which learners perceive their ability to take personal responsibility for learning endeavors**. A sharing of such differences, especially across language barriers, is needed.
5. **Future research also must carry out an analysis of the impact such literature is having on a worldwide understanding of SDL**.

Self-Esteem, Self-Efficacy, and Self-Directed Learning: Separate, but Interrelated – Hoban and Hoban, pp. 7-25

1. **Must a person have high self-esteem in order to have high self-efficacy**, regardless of the endeavor?
2. **If a person has low self-esteem, does it follow that there will be low self-efficacy**, regardless of the endeavor?
3. **Could a person have low self-esteem in one area of life but high self-efficacy in another area of life**?
4. **If a person is a successful self-directed learner, is high self-esteem and high self-efficacy necessary in all areas of endeavor** or could one have high self-efficacy for SDL but low self-esteem in general?
5. **What needs to be investigated further is** the nature of the links that exist among the constructs and to determine **how the positive linkage can be used to help learners** and how the negative impediments to linkage—or worse, the false linkages—can be discarded.
6. In addition, there are several variables, such as **cultural differences, gender differences and age cohort differences** that this paper did not address. These **are issues for further research endeavors**.
7. Most people would agree that a psychologically healthy person may be more ready to reflect honestly on self-efficacy for a given task and have a greater readiness for SDL than one who is not psychologically healthy. Even so, **understanding the dynamics of how people view themselves, assess their capabilities as learners and monitor their behavior will help us to become better educators**.

Further Studies in Self-Directed Learning in Physics at the University of Limerick, Ireland – McCauley and McClelland, pp. 26-37

1. Results indicate that there is a significant correlation between the main sample's SDLRS score and their end of module grade. We must therefore reject the null hypothesis of equal means. This result indicates that those **students who earn a higher-grade average are more likely to have higher levels of readiness for self-direction.**
2. **Interventions are required in order to teach students how to self-learn** and progress from rote learning to understanding, not only throughout their undergraduate education but also beyond.
3. Results from our postgraduate sample indicate that these students are ready to participate in self-learning activities. **Methods of independent learning may be a factor in encouraging students to progress further in their education**, with or without the support of others.
4. Results indicate that interventions of the type described here were not as effective as initially anticipated in raising levels of SDLR by the metrics used. The literature indicates that SDL is extremely desirable at this level, but **there is very little supporting literature on how SDL can be achieved, and the extent of intervention required**.
5. The authors suggest that previous learning experiences (in secondary level education) may be responsible for establishing dependency among students. Traditionally delivered courses at university in the main reinforce habits of passive and dependent learning. In order to break these habits of dependence, **an extensive interactive intervention is warranted.**
6. This would **require a deliberate, planned, coordinated and monitored effort** on the part of a Department and Course Team, with consequent implications for faculty time and resources. **Further research is required in this area** before definite conclusions can be drawn.

Implementing Guided Self-Directed Learning Strategies (GSDL) in Intermediate and Advanced Chemistry Courses – Thompson and Wulff, pp. 38-52

1. **Graduate students believed that SDL was equivalent to "learning alone" and were quite concerned about how or where to begin their learning and project work**. Attempts to adjust the SDL approach mid-semester by listening to and acting upon student concerns and frustrations were not productive. Fortunately,

despite the naïve assumptions, the graduate students established individual processes of self-direction and, in the end, constructed a rewarding learning experience.

2. **If I had a choice, I would not have elected to learn technology in a self-directed manner**. Although I learned a great deal and I am inspired to develop in the area [of technology], I could have saved myself a lot of time and frustration if there was someone to step me through the process. If I were more comfortable with the subject matter, maybe the challenges would have been smaller but so would the learning.

3. **Provide specific background information about SDL procedures and pro**cesses that relates to project procedures and processes.

4. **Connect SDL goals to project, course, and program outcomes**.

5. **Develop access** to a selection of diverse, explicit **guides or resources for projects**.

6. At the start of a learning experience, an instructor may be more directive, **providing a framework of procedures for student practice and collection of resources**. Towards the end of a learning experience, the instructor might decrease the amount of direction, asking students to construct a framework of procedures and draw from a collection of resources they found. In a course situation, the instructor would most likely have **on-going guides for learning experiences**, such as established outcomes for student learning and criteria for assessing student products.

7. The instructor reviews advantages and disadvantages of different resources and guides relative to learning styles, usability, project criteria-outcomes, and perhaps personal and professional interests. **The instructor consistently notes resources in a number of ways,** such as a resource handout reinforced by a list on assignment sheets as well as by instructor on-going references to resources.

8. Personal reflections build in occasions for personal project 'thinking' and self-evaluation. **Students (and their instructors) consider which occasions for reflection might be most beneficial for student productivity** and understanding of project quality. At times, sharing reflections can reveal shared problems and successes.

9. Shared construction determines how students might contribute to content knowledge throughout a course of learning. **When would it be appropriate for students to teach one another**? How should student-to-student instruction be monitored in a manner that increases learning and decreases 'negative' pressure? **When would it be appropriate for students to determine specific content themes**, assignment or project schedules, project options and/or criteria?

10. **The use of explicit guides fostered common practices for mastering the information** available in the various levels of chemistry courses and common expectations. The guides are only effective when students visualize and take action with them. How this is done may vary at beginning, intermediate and advanced levels of coursework.

Advancing Growth in Educational Technology Using Reflective Practice and Self-Directed Learning – Hanor and Hayden, pp. 53-62

1. **Participants stated that having time to practice, explore and plan projects was important** to them as adult learners.

2. They also felt that **hands-on practice was critical to their success**.

3. **Other important factors were the pacing and working with peers and colleagues**.

4. Another strategy would be the **development of online assessments that offer time for reflection and application.**

5. However, it is our belief that the process of **providing opportunities for learners to assume some control in their learning** is equally as important, if not more important, than the actual content. This is especially true when working with technology because of the accelerated increase in technology applications and constant updating, which require ever-changing information and skills for effective technology use.

6. The value in **helping learners identify a plan for their learning** and direct their own path toward their learning goals has critical importance in today's world.

University Students' Perceptions of Instructor and Learner Tasks: Phase Two – Long and Agyekum, pp. 63-81

1. If we assume that SDL is largely the result of learner control and responsibility, **it is important to understand student perceptions of instructor and learner tasks**. If adult students demonstrate little awareness of the learning tasks, that is, the kinds of things they should do to facilitate learning, we should be exploring methods to correct that problem.
2. **What kinds of instructor tasks are most important**? Are they procedural or personal? **What kinds of learner tasks are most important?** Are they attitudinal or process based? And how do the different kinds of tasks interact? What can be inferred by student perceptions of learner tasks?
3. Of the 30 teacher tasks the respondents perceived to be **of the greatest importance**, 6 referred to **the task of "caring for" students**. Three of the above also included love for or care about teaching as a job or profession.
4. **Psychological elements were important in both learner and teacher tasks**. This finding emphasizes the reality of the importance of learner characteristics such as desire, meta-cognition, motivation, and perseverance. These seem to be attributes that require time and special environments to develop. Some of the teacher tasks as identified are critical to their development.
5. **The teacher presents challenging situations, the teacher encourages self-initiative, and the teacher is supportive of persistent efforts**. Indirectly, some of these learner tasks might be supported by the personal attributes included in teacher tasks. In contrast it does seem that the self-instructional aspects of learner tasks such as studying, being prepared for class, and completing assignments are included in the teacher tasks.
6. **How do American student perceptions of learner and instructor tasks compare with those of an international sample?**
7. **How do learner perceptions compare with perceptions of instructors**?
8. **How would a different American student sample compare** with the findings reported here?
9. **What kind of findings would be generated by an in-depth interview concerning learner and instructor tasks**?
10. **What kinds of tasks might be identified by individuals who score high or low on the Guglielmino SDLRS**?

The Changing Role of Trainers in Organizations Using a Self-Directed Training Approach – Kops and Pilling-Cormick, pp. 82-94

1. The role of trainers in the organizations studied appeared to be similar to a "renewed role" for training departments (trainers), where **trainers not only design and teach formal training programs, but function in an expanded role as a resource for learners**.
2. It appeared from the organizations studied that, while trainers continued to perform traditional training roles, they were increasingly performing roles and responsibilities that support informal learning, including SDL. They were adapting to changing and expanding roles and recognized **the need to continually acquire skills and knowledge to function effectively in organizations with supportive environments for self-directed training.**
3. At the same time, **trainers recognized the challenge that results from becoming more integral to the business operation** in these types of organizations.
4. As training becomes more broadly based and accountable to the bottom line and the requests for training productivity increase, **trainers will need to continue to assess their expanding roles and hone their skills and knowledge to meet new training environments**.

Language Bias in the LAP: Use of the English Language Version with East Asian Populations – Park, pp. 95-108

1. Despite the fact that the LAP is not a timed instrument, **East Asian respondents reported needing more time than the estimated ten seconds per item for completion of the instrument (the LAP).** This may be a reflection of the need to translate or interpret items.
2. The LAP (version 3.0) is reliable for the East Asian populations who hold at least the bachelor's degree and at least an 8th grade English reading-level even when English is not their first language. Given this finding, such learners and their **facilitators can take advantage of the LAP Version 3.0 to assess their behavioral intentions and identify strengths and opportunities to further develop their degree of learner autonomy**.
3. Based upon the findings of this study, it is recommended that **the LAP** be considered for use **as a diagnostic tool for supporting the learning needs of East Asian adults** for whom English is not the first language and who wish to participate in the global society by living, studying or working in countries where English is the majority language, or by living in their native land but working for companies that require high levels of English language competence of their employees.
4. In order to make the LAP available to the broadest possible array of East Asian adults, it is recommended that the instrument be translated and validated in their languages. **Given the number of people worldwide who speak the French and Spanish languages, it is also recommend that the LAP be translated and validated for use with those populations as well.**
5. If the LAP is to be utilized to determine differences among groups and to make important decisions about individuals, **higher reliabilities should be sought** rather than the minimum .6000 level of coefficient alpha.
6. Since the LAP assesses learner strengths and opportunities, the **authors of the LAP should consider evaluating alternative items and/or the elimination of items that are not performing as hoped**. In particular, this should include careful scrutiny of all reverse coded items.

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Breaking the Institutional Mold: Blended Instruction, Self-direction, and Multi-level Adult Education – Boyer and Kelly, pp. 1-17

1. The online portion of the course was well received as a resource by most students, but not necessarily as a means of communication. Many of the students indicated that the discussion boards were time consuming and frustrating since they worked directly with one another and frequently had physical contact. **The format of the discussion board, an open communication environment for planning, sharing, and posting of website resources, was not embraced by all participants but was fully embraced by others**.
2. **Some students preferred the face-to-face portions of the program due to the ability to actively engage with others without having to self-regulate personal activity** (such as logging on, managing time, and completing projects). The work and online portions of the class required that they find their own personal time to complete tasks rather than participate during work time.
3. **The self-directed framework challenged participants to step beyond comfort zones** into tasks that generated further competence and self-confidence.
4. Overall, **students appeared satisfied with the self-directed framework of the classes and enjoyed the facilitative role between the instructors and participants**.
5. Despite the appreciation of the self-directed frameworks and provision for self-exploration, **there appeared to be a lingering desire for additional traditional instruction**. This phenomenon can most likely be attributed to continued lack of confidence, fear, and uncertainty that has been found to coincide with transformational learning experiences.
6. **Self-analysis and metacognition of learning increased throughout the process**. Both confidence and amazement were expressed in the final reflections that had participants delving into abilities, beliefs, and thinking beyond the completion of assignments.

7. **A greater sense of community and collective appreciation for talents and abilities of others emerged**. **One of the most interesting learning themes** that emerged from the various data sources was the resulting **group cohesion, social empathy, and respect.**
8. Continued research is necessary to map **and chart the progress and learning of the participants along with some longitudinal data** to determine whether program components and outcomes were truly transformational.

Developing Self-Directed Learning in Teachers – Mok and Lung, pp. 18-39

1. Research evidence supports **the importance for teacher education programs to incorporate explicit components on SDL** of teachers.
2. **Feedback is an important resource** for the learner building up his or her metacognitive level.
3. Research has shown that **providing the learner with a learning goal, constant feedback and periodic self-assessment of their progress is the most effective strategy** to sustain self-efficacy, motivation and achievement.
4. **Cognitive factors** also include the learner's level of understanding of the nature, expectation, the difficulty level of the learning task, the nature, source and amount of available resources in support of the learning task.
5. The strongest theme was the **identification and management of learning resources for self-learning**.
6. **Resources mentioned by student teachers** were confined mainly to those available from the library or the internet, for example, **journal articles, literature and books from the library, the internet, and e-journals**.
7. The next strongest theme was **seeking help from others in support of one's own learning**. This theme was represented in nine responses (out of 16). The target of help-seeking included two sources: peer student teachers and lecturers.
8. **Management of learning resources, help seeking, and learner control** were ways the learner exercised control during SDL.
9. SDL is not a static phenomenon. It may change with the nature of the task. Given the importance of SDL to teachers, it is worth refining this study by **enhancing the intervention strategies and to repeat the study across different modules**.

Age and Gender Differences in Self-Directed Learning Readiness: A Developmental Perspective – Reio and Davis, pp. 40-49

1. There is some evidence that **age, gender, and ethnic differences in SDL readiness exist among individuals**, but remarkably little effort has been expended to **systematically increase our understanding of this phenomenon**.
2. Educational endeavors could be guided by **new knowledge about the extent to which individual differences in SDL readiness exist**. The next step would be to determine how we might embrace such differences best in both formal and informal learning contexts.
3. The evidence suggests that **SDL might be developmental in nature**, yet it is unclear to what degree. Notwithstanding, even if one were "ready" to engage in SDL (e.g., metacognition, spontaneous strategy use, attention) in a maturational/ biological sense, expression of this readiness might be dampened situationally by environmental constraints such as lack of experience in the subject area and learner anxiety.
4. We **need more information about the developmental trajectory of SDL readiness** to guide theory building in the field and to guide our thinking about educational practice.
5. Unfortunately, existing models of SDL do not recognize **the relevance of individual differences** sufficiently and thus provide inadequate research direction when trying to develop a more complete picture of SDL as a source of individual development.

6. As teachers and parents, **when is the best time (when is it developmentally appropriate) to initiate SDL activities with an adolescent**?

7. With adults, **what is a normative level of SDL readiness at different stages of the lifespan**? For example, might we expect older adults to exhibit higher or lower levels of SDL readiness in the workplace or classroom?

8. **Should we expect gender and ethnicity to interact with possible age differences in SDL readiness**? Why or why not?

9. **An individual differences research approach might be a productive initial method** to systematically investigate these important questions.

10. Overall, there is substantial evidence that individual differences in SDL readiness vary by age, gender, and ethnicity, but **the extent of such differences and their possible interaction has not been examined sufficiently**.

11. In this exploratory study, we examined possible systematic changes in the tendency toward SDL readiness across adolescence and adulthood. The findings support Long's claim that **there are indeed individual differences in SDL readiness**.

12. These results provide preliminary evidence for age differences in SDL readiness, and lend tentative support for the notion that self-directedness might have a positive developmental trajectory over the lifespan, i.e., **it is possible that self-directedness increases until the 50s**, consistent with SDL theory.

13. In addition, the findings suggest that this possible developmental trajectory is consistent by gender as well; **SDL readiness scores increased significantly for both males and females**.

14. A promising avenue of research would be to **explore individual differences (e.g. age and gender) in how frontal lobe maturation is directly linked to SDL readiness** and how situational variables might delay or enhance the development or expression of SDL skill.

15. To the best of the author's knowledge, **attentional deficit disorder (ADD) has not been studied as it relates to SDL readiness,** although there is mounting evidence that ADD is linked to frontal lobe size, maturation, and function.

16. As an extension of Candy's view about the situational nature of SDL, it would be interesting to explore **how certain discrete emotions or general moods interact with SDL readiness**.

17. Knowledge, interest, and strategic processing variables interact situationally across three stages (acclimation, competence, and proficiency-expertise) of this expertise development model. It would be interesting to explore this model as a lens **to understand how SDL becomes part of this expertise development process**.

18. In future research, it would be useful to **design a study specifically addressing the socioeconomic status issue as it relates to and interacts with other individual difference variables**. Again, due to logistical constraints, ethnicity was not sufficiently addressed in this study to guide future research because of low participation rates among minority members.

19. Likewise, we had little participation from older adults (i.e., age 50 and above). **New research should attempt to methodically increase both minority and older learner participation** and avoid the use of convenience samples to increase the generalizability of these results.

20. The results strengthen the view that there might be a developmental trajectory in SDL readiness, i.e., it increases across adolescence and adulthood for males and females. Future research will determine **the degree to which brain maturation, personality, and situational influences interact to produce this increase**.

The Relationship Between Self-Efficacy and Autonomous Learning: The Development of New Instrument – Ponton, Derrick, Hall, Rhea, and Carr, pp. 50-61

1. Further research can now be undertaken in conjunction with the *Learner Autonomy Profile* to **determine the tenability of the hypothesized causal relationship that self-efficacy mediates the influence of desire** on the conative manifestations of resourcefulness, initiative, and persistence in autonomous learning.

2. Support for this model will provide a **greater level of understanding into methods of fostering learner autonomy** via the sources of efficacy information.
3. The present investigation was performed as a logical next step in ongoing research to **understand the psychological aspects of autonomous learning.** Without adequate instrumentation, conjectures will not lead to tenable theories that support future empiricism into uncovering viable methods of empowering agents to further achievement.
4. **Self-efficacy has been argued to mediate all forms of cognitive motivation**; thus, a research-based understanding as to **its role in autonomous learning** is essential if we are to continue to move forward in developing lifelong learners.

A Preliminary Analysis of Learner Autonomy in Online and Face-to-Face Settings – Derrick, Ponton, and Carr, pp. 62-70

1. It was generally felt that online students were more independent in their learning orientation from the onset of the program, while **face-to-face students needed more facilitation in their development of autonomous learning behaviors**.
2. It was generally considered by the faculty that **students are aware of how they learn best and self-select the appropriate setting**.
3. The idea that **autonomous learning is a developmental process becomes important in course design**. Once given the opportunity and freedom to learn in this manner, it is almost impossible to go back to the traditional ways of learning.
4. In order to inspire or motivate students for lifelong learning, we must **equip them with the necessary internal skills for lifelong and independent learning**. Our goal is for them not to need us any longer than absolutely necessary.
5. If educators were able to understand their personal levels of autonomy related to resourcefulness, initiative, and persistence, **a belief regarding what they learn, how they learn, and their ability to learn in any environment or setting would greatly enhance their views and attitudes towards learning**.
6. We must facilitate their movement to a posture that it is not about the answer; it is about finding the answer independently with a high degree of **belief regarding their abilities for future learning**.
7. Once learners are able to understand their own capacities with learning, any learning, they are fundamentally changed with regard to their **personal view of their capabilities and competence**.
8. The learning reinforces beliefs and efficacious behaviors for lifelong and sustained learning. **Learning is the intrinsic motivator and serves to enhance one's self-efficacy for future learning.**

Common Barriers, Interrupters and Restarters in the Learning Projects of Highly Self-Directed Adult Learners – Guglielmino, Asper, Findley, Lunceford, McVey, Payne, Penny, and Phares, pp. 71-93

1. There has been little attention paid, however, to **the barriers that must be overcome by successful self-directed learners once they have begun a learning project** and the events or circumstances that may interrupt the progress of their learning projects, either temporarily or permanently.
2. Tough, who first described the episodic nature of adults' learning projects, confirmed **the lack of attention to barriers encountered and how they are addressed by adult learners.**
3. **Greater understanding of the SDL process is needed**, especially of the deterrents to the satisfactory completion of learning projects and the ways in which they can be overcome.
4. Additional insights could assist both professionals attempting to design and facilitate learning opportunities for adults and adult learners themselves as they attempt to address **the learning needs and interests that continuously arise in our complex society.**
5. Despite exceptionally demanding careers, the learners interviewed found time for **a wide variety of learning projects, ranging across all aspects of their lives.**

6. Adult learners might benefit from **the ability to become aware of how others engaged in similar efforts were able to move forward despite barriers and interrupters.**
7. As an example, **time, in its various manifestations, was one of the most common barriers**. If it was not overcome (usually by prioritizing), it could become an interrupter. Exceptions appeared to occur only when the project was stringently time-bound.
8. **The largest number of classifications fell into the situational category**: time, lack of accessibility or adequacy of human or material resources, aspects of the learners' interactions with other people, technical difficulties and the physical aspect of personal limitations.
9. Falling into the dispositional category were the **barriers related to loss of intensity and the personal limitations that related to psychosocial obstacles**.
10. Most of the issues related to the use of formal learning activities as part of a learning project, when that route was taken, were aligned with **Cross' institutional barriers**.
11. While all of the barriers mentioned in this study could be categorized in Cross' typology, it is likely that specific **barriers would be reported with differing frequencies in a study including only learning in formal settings**.
12. **Would the barriers, interrupters, and restarters reported by a more racially and ethnically diverse group of highly self-directed learners be similar to those reported in this study**?
13. **What factors are responsible for the differing impact of similar barriers on different learners**?
14. **Are there differences in the types of barriers or interrupters reported by males and females or by different age groups?**
15. **Are there differences in the barriers and interrupters of workplace-related learning projects as compared to other learning projects**?
16. **To what degree would information on barriers and interrupters of adults' learning projects and the ways in which they can be addressed be helpful to learners and learning facilitators**?

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Studying Self-Directed Learning: The Personal Stories of Four Scholars – Donaghy, pp. 1-11

1. The purpose of the original research was to gain insight into **the ways in which scholarship on SDL has developed**.
2. Questions raised by Brookfield with regard to the **social considerations** not always being a part of SDL. Brockett suggested that this is **an area where we need future work**.
3. Another significant part of the discourse on the future of SDL is change. **The work on SDL is changing** (**qualitative studies** are referenced as one of the different lenses through which SDL is now being viewed).
4. **SDL is an important resource for learning via the Internet**. The Internet emphasizes SDL and so there's a big role for adult educators in the future.
5. **Changes in technology increase the requirement for more research concerning SDL**.
6. **Effective learning is at least as important as efficient learning and technology requires self direction**.
7. **The importance of collaboration in SDL** was reflected in comments related to working together and learning from each other, receiving encouragement from resources, empowerment, co-authoring of publications, emphasis on the learner learning in a group, and helping the student, as opposed to directing.
8. **The relationship of change to SDL.**
9. **The need to develop a better understanding of the power of SDL.**
10. **The impact of technology on SDL**.

A Solitary Act One Cannot Do Alone: The Self-Directed, Collaborative Learner – Peters and Gray, pp. 12-23

1. Some of the same scholars who stress independent qualities of self-direction grant that such **learning does not necessarily take place in isolation from others**. However, while this relational feature of SDL has not

been lost on most scholars, only a relative few have emphasized it in their models, position papers, or their research designs.

2. **Relational knowing and the social context of knowing** are factors that surely help account for much of the SDL experience.

3. At the risk of having overlooked other studies of SDL in the context of teaching and learning, it appears to us that **this area of SDL has been under researched**.

4. Bauer's account of Columbia University's Adult Education Guided Independent Study program (AEGIS) revealed how **self-directed doctoral students within a formalized teaching and learning setting can engage in collaborative activities and still be self-directed learners**.

5. The evidence supporting SDL as a relational way of knowing is not in question; however, **how the self directed learner connects to formal teaching and learning situations is an open question**. It seems clear that not all SDL activities necessarily involve the learner in formal teaching and learning activities, but many do.

6. We can only begin the process of sorting out some implications that the typology has for reconceptualizing **how SDL links to formal and informal teaching and learning activities**. One such implication relates to the proclivity of the self-directed learner to use other people as information resources.

7. Self-directed learners could therefore see such a **collaborative learning activity as a group-based activity that is *part* of their overall SDL experience**, depending on what else they do. This means that others involved are more than resources; instead, they become co-participants in the self-directed learner's project.

Korean Professors' Perceptions of Important Teaching and Learning Tasks – Long, Cheong, and Cheong, pp. 24-38

1. Nevertheless, the **topic of learner tasks and responsibilities has received little research attention**. It is theorized that students in typical classroom settings can engage in SDL. More specifically it is posited that effective classroom learning is in reality a result of greater self-direction rather than dependence upon the instructor.

2. While professors are expected to address **activities to encourage, stimulate, and support creativity, critical thought, and self-direction**, these activities do not appear to be viewed as being as important as lecturing and other information-presenting actions.

3. Analysis of all of the tasks included in the two lists seems to suggest **limited articulation between instructor tasks and student tasks** concerning instructional tasks and learners' self-managed learning tasks.

A Comparative Study of the Self-Directed Learning of Primary Students in Hong Kong and Macau – Mok, Leung, and Shan, pp. 39-54

1. The deployment of SDL strategies is affected by a number of factors, which can be broadly classified into cognitive and metacognitive factors, motivational factors, and individual factors. **Three cognitive and metacognitive factors, motivational factors, and individual factors are identified as relevant to SDL**.

2. Independent research evidence supported the importance of context to SDL. **One important contextual factor is local culture**. The educational values espoused by the society are reflected in the values of SDL held by students and vice versa.

3. It was found in this study that primary students from Hong Kong and Macau had similar perceptions regarding the usefulness of SDL strategies. On the other hand, **female students perceived more usefulness in the strategies and reported more deployment of the strategies** than did male students in both locations, even after year level and location were statistically controlled.

4. It is clear from this study that **strategies external to the learner had more appeal than reflective strategies**. External strategies here refer to choosing quiet study environment and strategic help-seeking.

Medical Students' Perceptions of Selected Instructional Methods – Park, Candler, and Durso, pp. 55-64

1. The main conclusion drawn from the study data is that first- and second-year medical **students value self-study and believe that it is the most effective instructional method for their stage of learning**. They expressed preference for an increase in the use of this mode.
2. Most students preferred to increase self-study, while some faculty indicated, as noted above, a concern that students' self-study time may be used for rote memorization of information they anticipate will be needed for the national license examination rather than to promote intellectual inquiry. The reasons for this apparent **conflict of views between students and faculty regarding the value and use of self-study time should be examined**.
3. Additional recommended further studies include exploring **how teachers and learners understand the definition of self-study**. Self-study might include no-class-participation learning; learners' self-determined-learning projects (either solo or group); or pure single learner's independent activities without peer group and with or without teacher's involvement.

From Spoon-Fed to Student-Led: Fostering an Atmosphere for Web-Based Transformative Learning – Boyer and Maher, pp. 66-80

1. The transformational elements of social, SDL include: meaning making and interpretation, cognitive processes and information flow, and **the importance of social, contextual, and cultural environment in learning**.
2. Self-management abilities include increased time-management skills. Other students mentioned the **confidence to "figure things out," find necessary resources, segment material for understanding, adjust to fear when taking risks, and balance time for greater productivity**.
3. Although perspective transformation does not need to be a goal SDL, if the environment is designed to be supportive of self-direction, **the stage is set for the entire learning experience to be broader, deeper, and more meaningful.**
4. **The concepts of self-direction and transformative learning appeared to intersect at the juncture of individual investment, commitment, engagement, and reflection**. A collaborative process and increased time are necessary for facilitation of individual and group learning contracts, content design, and basic structural frameworks.
5. The web-based environment for which this model was developed increased the potential for transformative learning as the **students had to move into higher levels of self-responsibility, autonomy, and self-regulation**.
6. **The shift to the online environment provides fertile ground for the possibility of social, self-directed frameworks** where students assume sponsorship for learning and responsibility for outcomes.
7. With increasing frequency, the literature supports **the benefits of socially constructed, collaborative learning**. Such results are an important addition to the literature base in the area of collaborative SDL and may encourage the expansion of similar learning environments into other areas of education.

The Role of Self-Efficacy in Autonomous Learning - Ponton, Derrick, Confessore, and Rhea, pp. 81-90

1. These results suggest that **self-efficacy is significantly related to autonomous learning** in a predictive sense. Due to its theoretical foundations and focus on autonomous learning, self-efficacy also provides explanatory power.
2. If these four sources of efficacy information are considered, **a facilitator can structure learning activities and interpersonal interactions in a manner that strengthen the learner's self-efficacy**.
3. With continued study and instrument development, **the impact of motivation in autonomous learning as well as the ability of other factors to explain the variance in autonomous learning will be better understood**.

4. While current conceptualizations of both learner autonomy and autonomous learning have led to a refined understanding of psychological factors associated with adult learning, **future work will enable facilitators at all levels of education to maximally develop lifelong learners**.

Initial Component Analysis and Reliability Assessment of the Spanish Language Learner Autonomy Profile – Confessore, Park, and Idobro, pp. 91-101

1. Based upon the findings of this study, it seems reasonable to assert that **the Spanish language version of the *LAP* may be confidently used to assess relative learner autonomy** in individuals for whom Spanish is the only or primary language.
2. It is also recommended that **further studies be conducted in which samples of Spanish-speaking respondents are grouped by nation so that the issue of potential cultural difference among the several Spanish-speaking nations can be studied further**.

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Impact of Sociodemographic and Psychological Variables on the Self-Directedness of Higher Education Students – Oliviera and Simões, pp. 1-12

1. **Psychological variables needed to better understand the construct of SDL as a personal attribute**.
2. **SDLR is mainly an effect of a personality construct**, but to a smaller degree a consequence of cognitive and meta cognitive factors, such as internal control and epistemological development.
3. The impact on and relationship to SDL of educational level. For example, **educational level influences SDL by the path of the beliefs of internal control**.
4. **There is a need for multiple methods to measure various SDL related constructs** rather than just on self-report instruments.
5. **In finding measures of various constructs, reliability is hard to achieve and replication is needed**.

Self-Directed Learning Readiness and Cultural Adaptability in Expatriate Managers – Chuprina and Durr, pp. 13-23

1. **The value and use of qualitative research**.
2. **Continued correlation of SDLRS (and perhaps other instruments) to other instruments/measures**.
3. **Continued use of SDLRS (and other SDL related instruments) in international settings**.
4. **Use of SDLRS in multiple ways**. For example, for the selection of candidates for international assignments.
5. Participation in training designed to develop **SDL skills can be a component for international assignments**.

Developing Self-directed Learning Readiness of Future Leaders in a Military College Through Instructional Innovation – Gabrielle, Guglielmino, and Guglielmino, pp. 24-35

1. Despite some criticism of the SDLRS related to reliability and validity, it is by far **the most widely used quantitative instrument for the study of SDL is the SDLRS**.
2. Examine the value of and relation to **improving SDLRS with various technology mediated learning approaches** and activities.
3. The increasing need to help **develop SDL skills and self-directed learners in those professional areas requiring demanding/complex leadership decisions**
4. **Individuals will offer a competitive edge to their organizations**.
5. **Examine various ways to increase the SDL abilities of people**.

The Perceived Change of Diverse Clinician-Educations Through an Intensive Course on Teaching Geriatrics – Park, Christmas, Schmaltz, and Durso, pp. 36-51

1. Need to **look at special groups of people** (for example, medical people working with older patients who probably had never been exposed to concepts like learner autonomy) **to see how enhancing their teaching knowledge and skills can benefit learners**.
2. If lower autonomy profile (LAP) people report lower scores on immediate outcomes of a course intended to enhance instructional skills and understanding, **how can knowledge of that impact training efforts**?
3. **Research is needed to study the effect of scheduled mentoring**.

The Organizing Circumstance Revisited: Opportunities and Challenges Posed by the Influence of the Internet – Rager, pp. 52-61

1. Technology gap and adult learning – **accessibility, affordability, usability, and skills acquisition need to be addressed if the Internet is to live up to its potential for everyone in the SDL proces**s.
2. Adults learn to use the Internet through some combinations of self-teaching, informal learning on the job, and by attending workshops and short courses. **The popularity of email has functioned as the motivation for many adults to use computers for the first time** and that therefore, novice users are learning to use the computer and the Internet simultaneously.
3. **What entry skills and knowledge are essential for those embarking on SDL using interactive technology**, what motivates them when using the Information Superhighway, and how the technology can be made user-friendly for the majority, not just those who are IT enthusiasts.
4. **Adult self-directed learners who are turning to the Internet for information are likely to be on their own** when it comes to determining the quality of the information they are accessing.
5. Many would agree with Caffarella's assessment that being skilled at SDL is essential in today's continuously changing world. Perhaps it is time to add that **being skilled at using the Internet is also critical**.
6. Currently, the **Internet represents both an opportunity and a challenge for self-directed learners**. Problems such as the technology gap, Internet skills acquisition, information overload, and the lack of quality controls regarding content need to be resolved before the Internet lives up to its potential in this context.
7. Finally, outreach programs particularly through libraries and community centers should target the hard-to-reach and underserved in an effort to **shrink the existing technology gap so that everyone who chooses to engage in SDL will benefit from a technologically enhanced organizing circumstance**.

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Self-Directed Learners' Concept of Self as Learner: Congruous Autonomy – Scott, pp. 1-13

1. Learners' beliefs and values expressed in terms of Self-efficacy were foundational for perceived learning competence. **Efficacious locus of control varied individually, internal to external**.
2. **Participants developed Learning Strategies to advance their pursuits**. The strategies varied widely: some were highly specific, self-imposed plans and others broad attitudinal principles.
3. Participants also described the following: (a) A Commitment to their pursuits; (b) these were strongly linked to having the Ability to Adapt; and (c) they held a view, too, that Obstacles Are Part of the Process. When one project is faced with a barrier, learners holding a perspective that **obstacles are part of the process to step back and view the entire pursuit**.
4. **Participants discussed avoiding cues that inhibit progress, specifically Negativity from Others**.

5. Drawn by the fit of competence with context, participants autonomously exercised intrinsically motivated choices to engage in their pursuits. **Influencing autonomy, these learners who began their pursuits after age 50, experienced age-related urgency**.

6. **Self-efficacy beliefs are considered to be domain-specific, and may be stable in that domain through late life**, though they are modifiable by experience.

7. The persistence demonstrated by these learners might suggest that the aforementioned elements alone account for their commitment to their pursuits: **Three overlapping principles were identified** by every participant as a default position for maintaining commitment to the pursuit whenever inevitable barriers are encountered: **(a) ability to adapt, (b) obstacles are part of the process, and (c) progressive realization of worthwhile goals**.

8. **How do self-directed learners identify congruous patterns among their lifetime experiences and preferences**?

9. **To what extent does congruous context affect commitment in autonomous SDL**?

10. **How does congruous autonomy shift in direction or commitment as a self-directed learner moves through different phases of a pursuit?**

The Knowledge Acquisition Processes Trainers Use to Achieve Content Expertise – Johnson, pp. 14-26

1. Twenty-six common themes emerged during the study, categorized into six different categories: **(a) SDL; (b) the training and development process becomes part of the trainer's life; (c) needs assessment is part of knowledge acquisition; (d) knowledge acquisition is a continuous part of the trainer's life; (e) understanding the importance of adult learning principles; and (f) reflection**.

2. All of the participants suggested that their **learning occurred simultaneously with the program planning/ training process.**

3. They used a variety of resources for learning. **Subject matter experts** (including more experienced trainers) **and printed material** (especially the latest books by the most respected authors in the field) **were relied upon more often than any other resources**. The **Internet was identified as an integral tool**.

4. Other participants "lived" the program and couldn't "just turn it off." **Tape recorders, leaving messages on voice mail, having a pen and paper by the bed, and writing on the backs of papers and receipts were the most common means** identified for holding on to ideas that would pop into trainers' minds.

5. Numerous participants discussed how **they gained knowledge while conducting their needs assessment**.

6. The trainers understood **the importance of competence and confidence and were continuously pursuing them**. They knew that their own knowledge, skills, and reputation were on the line.

7. Because SDL is so prevalent, **more emphasis should be placed on providing learners with a better understanding of the related processes**. They should be discussed at all levels of education, in Train-the-Trainer programs, and as part of the certification process for pre-packaged training programs.

8. **Grow's Staged SDL or Hammond and Collins' instructional models could be used to help teachers share knowledge about SDL**.

9. **Knowledge acquisition is an integral part of the program planning process**; therefore, the models should be modified to include the acquisition of knowledge. It should either be listed as a primary step or as a sub-category of the needs assessment step.

10. **Determining the context or culture in which the training will be provided needs to be added to the program planning models** where it is not already present.

11. At the very least, **a focus on understanding both context and culture should be added to existing program planning models**.

Self-Directed Learning and the Paradox of Choice – Brockett, pp. 27-33

1. In the past, facilitating SDL was about helping people identify and recognize the range of choices available to them. Today it needs to be more about **helping people to (a) focus, determine priorities, and identify**

parameters around which they will make decisions; and (b) not carry emotional baggage associated with inertia once a choice has been made.

2. What is relevant to those who facilitate SDL is that **the key to making good decisions is how well one is able to set priorities and follow through on these priorities**.
3. However, it can be argued that **setting parameters around what people choose to learn** can actually be liberating because it **affords the opportunity to concentrate on priorities**.
4. Facilitators of SDL can **help learners deal with feelings of guilt and inadequacy that may come with having to face that they sometimes may not be interested in learning about a particular area**. Rather than pushing people to believe they need to learn it all, we need to help them focus on priorities.

The Literature of Self-Directed Learning: Dissertations – Canipe and Fogerson, pp. 34-44

1. The researchers emphasize that this is a preliminary study, and as such, it is a work in progress. **By expanding the search parameters**, for example using the search descriptors of related concepts, such as "self-direction in learning," "self-planned learning," "autonomous learning," and "distance education," **it is felt that a more comprehensive study would emerge**.
2. Moreover, the authors are completing a follow-up manuscript whereby **four streams of literature in SDL will be examined**. These streams include adult education journals, articles found in the ERIC database, dissertation abstracts, and proceedings from the International Self-Directed Learning Symposium. Undoubtedly, this further study **will help reveal a clearer picture of the data and trends of the literature in SDL**.
3. Nonetheless, the researchers are confident that the research, as it now stands, reveals **a continuing strong interest in SDL at the collegiate level**.

Is the Internet Changing Self-Directed Learning? Rural Users Provide some Answers – Hiemstra, pp. 45-60

1. **The Internet's ubiquitousness**, a concept increasingly being used for the integration of the Internet into daily life, **is irrevocably changing the way people learn, gather information, and assimilate knowledge**.
2. In many respects, even knowing that the Internet presents challenges to some users, in most ways it is the great equalizer. Although initial Internet access can be difficult for some people, the potential to learn what they have to learn once they do connect is great. In essence, **if adults have motivation, drive, and patience they can learn much by themselves via the Internet**.
3. **Rural people make a wide and varied use of the Internet when broadband connections are possible**.
4. Further qualitative analysis resulted in the emergence of **three major themes: Efficiency in accessing information; Knowledge and skill increase; Curiosity, enjoyment, and excitement**.
5. **It is clear that the Internet has impacted the way rural people learn**, access learning resources they need, and undertake various learning activities. Even though interviewees weren't using terms like SDL, personal control, and self-motivation, a sense was obtained that learning by themselves had become rewarding.
6. **The power of broadband Internet** has helped rural people think of it as their encyclopedia, learning resource, and self-directed "go to" source of information needed for life.
7. There appear to be **new learning approaches and skills developing, too, as these rural people use the Internet.**
8. **Several indicators of success**: A growth in computer and Internet knowledge, terminology, and use abilities; The skill to evaluate Web pages and discern among them for their perceived value and usefulness; Increased sophistication in using search engines and searching techniques; Enhanced typing, communication, and information retrieval skills; Growing confidence, curiosity, enjoyment, and even excitement about using the Internet; Increasing use of the Internet for information, knowledge, and resources required in meeting life's needs and keeping up with change.

9. **Additional studies in more rural areas throughout the U.S. are needed** before a clear understanding of how such variables or differences as geographical location, community size, and various demographic characteristics impact on Internet usage.
10. **Comparative research in rural, urban, suburban, and even international settings** will help push forward the knowledge base.
11. **A study needs to be directed at better understanding where a person accesses the Internet**, such as a school, community library, or home, in terms of Internet usage, how frequently the Internet is accessed, and means for recording or saving appropriate information.
12. **Research aimed at understanding the value of a teacher, tutor, trainer, or peer supporter** in facilitating Internet usage would add useful information.
13. **An effort to more clearly understand financial constraints in rural areas** in terms of paying for Internet access is required so that institutional and governmental administrators have the information necessary for creating a broader infrastructure.
14. **Additional demonstration projects aimed at creating varied Internet access options in rural areas** are needed to help people close the gap with their urban and suburban counterparts.
15. Thus, **future attention must be given to providing initial orientation on using the Internet for new users**, helping people understand the best search engine techniques, and providing guidelines for evaluating Web sites so that any SDL efforts are maximized.
16. Through future demonstration projects, suggest that **means for ensuring that people living in rural and remote areas have access to broadband Internet can be found**.
17. In many ways, because of their involvement with the Internet **they had changed as learners and were undergoing such change mainly by themselves**.
18. **The Web has a potential for resource access any time, any place, any path, any pace**. However, it is still up to professional educators, designers, and human resource developers to make sure that those learning efforts are inclusive enough so people no matter where they live or no matter what their financial circumstances can be a part of it all.

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