

# Literature Review

## Factors Which Contribute to or Detract from an Individual's Capacity for Self-Help/Self-Management

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# Assessing the Impact of Career Information and Services across the Employability Dimensions

## BACKGROUND

In May 2012, Human Resources and Skills Development Canada (HRSDC) launched a national research agenda to better understand “what works” in career services and, by extension, how career services might best contribute to addressing these significant labour force challenges. The Canadian Career Development Foundation (CCDF), in partnership with Career/Employment Services in Alberta and Manitoba, submitted a proposal and was selected as one of three 11-month research projects to be funded under this national research initiative.

This research project is an extension of previous research conducted by CCDF and the Canadian Research Working Group on Evidence-Based Practice in Career Development (CRWG) in partnership with provincial Career/Employment Services in New Brunswick and Saskatchewan (Assessing the Impact of Labour Market Information (LMI), 2009-2012). In the earlier study, the intervention process began with a comprehensive needs assessment to identify clients with needs in either Career Exploration/Decision Making or Job Search. Clients were then randomly assigned to one of two treatment conditions: self-managed (in which they worked independently with a structured package of LMI tailored to their identified need for 4 weeks) or minimally-assisted (in which they also had access to up to two 20-minute sessions with a Career Development Professional (CDP) to support their access to and navigation of the provided LMI).

The study demonstrated statistically significant, and clinically important, increases in knowledge and skills related to using LMI, personal attributes such as confidence and optimism regarding managing their own careers, and employment status across both treatment conditions, with consistently greater increases in the assisted group.

This current study moves significantly and substantively beyond the previous study in that:

- It will include clients with needs across four Employability Dimensions (Career Exploration/Decision Making, Skills Enhancement, Job Search and Job Maintenance);
- The content of the four tailored resource packages provided to clients will include LMI, but will also provide coaching and support resources to guide them through reflective activities and action steps geared to addressing their employability need;
- The assisted condition will move beyond the provision of support to access/navigate LMI to include a broader range of coaching and support which more accurately mirrors the level of service typically delivered by CDPs in Alberta and Manitoba;
- It will pilot a tool to predict the extent to which a client would likely benefit from self-managed service versus those more likely to require CDP intervention; and
- It will examine the differential impact of treatment conditions on clients who are weakly attached to the labour market versus those who are more strongly attached.

The first phase of this project includes.

- Analysis of data gathered from participating Career/Employment Services in Alberta and Manitoba to better understand current practices in needs determination and service delivery across the four Employability Dimensions. The purpose of this review of current practice is to ensure – to the extent possible – that the current study employs protocols, tools and interventions that build on existing best practices, mirror the typical intensity and flow of delivery and are readily integrated into current service structures;
- A review of the literature on labour market attachment to inform the development of an operational definition of weak attachment to the labour market and an “Attachment Index” to assess clients’ level of attachment based on that definition; and
- A review of the literature to identify factors that contribute to the capacity to self-help. This will inform the development of an assessment tool to gauge the capacity of participating clients for self-management.

This document is the latter Phase 1 project deliverable.

Overviews of the most prevalent self-regulation, behavioural change, and motivation theories are presented followed by an outline of the factors involved in promoting successful self-change in self-help/independent learning programs. The review concentrates primarily on understanding the capacity to self-manage in the context of career development but draws on literature related to a variety of domains such as health, psychotherapy and broader life skills. In this study, the literature review will be used primarily to inform the development of a measurement tool intended to predict participant capacity for self-management pertaining to career development interventions. This assessment tool will be pilot-tested as part of the study. Secondly, the literature review will also be used to inform the development and implementation of the four career resource packages to be used in the study. Accordingly, relevant findings and recommendations for this study will be highlighted.

## INTRODUCTION

There is a massive industry built upon “self-help” approaches and publications and self-managed resources can be found across multiple domains. Based on its popularity, a number of self-help interventions and programs have been created, particularly in the psychotherapy, education, and medical disciplines. Since the explosion of the internet at the turn of the 21st century, self-help workbooks, assessments, programs, and courses have become even more accessible to people who want support but cannot or do not want to access help in person.

The term self-help has a variety of meanings. There are popular self-help groups like Alcoholics’ Anonymous that are run by the participating individuals without a professionally trained group leader (Riessman, 1998). There are self-help books (a form of bibliotherapy) and media programs created for mass consumption. Most often, these have little evaluation regarding their effectiveness (Watkins, 2008). Lastly there are self-help interventions used by helping professionals to assist their clients. At least in some domains, these interventions may be more likely to have been reviewed or tested to ensure that they help clients and, more importantly, do not harm clients.

Self-help interventions can vary in their level of autonomy. Some programs are designed to run conjointly with professional support, such as a homework workbook, a mindfulness meditation user guide, or directed readings used in concert with counsellor-led assessment and intervention. Others are completely independent, such as internet programs where a person accesses support materials without ever being assessed or supported by a professional (self-administered intervention). There are also self-help programs that have an initial contact with a specialist, but then clients work through the program on their own or can access support if they get stuck (minimal contact intervention or facilitated self-help) (Watkins, 2008).

Researchers have looked at the efficacy of self-help tools and intervention programs and have found that, overall, these programs work better than no intervention (i.e., delayed intervention while on waitlist) but have also found that attrition is much higher for self-help programs as compared to in-person interventions (Berger, Hämmerli, Gubser, & Caspar, 2011; Blankers, Koeter, & Schippers, 2011; Chen & Jang, 2010; Eysenbach, 2005). Blankers et al., (2011) have stated that self-help multi-session interventions generally have an adherence rate of less than 50%. This greater propensity for attrition has been broadly linked to participants' lack of continued motivation (Berger, et al., 2011; Blankers, Koeter, & Schippers, 2011), though the specific deterrents to motivation have varied across studies. Although motivation is emphasized in the literature as an important consideration, attrition in self-managed programs may also be attributable to other factors such as a lack of the skills and/or personal resources needed to progress, a lack of feedback or evidence indicating progress (important in self-management), or the program not being a good fit for the participant (personality factors, readiness for change, psychological health factors), all of which will be discussed further in this review.

## **MOTIVATION MODELS/THEORIES**

Focusing primarily on recent publications, the relevant literature is dominated by studies and approaches categorized under the umbrella of motivation theory. Four of the most common models and theories found in the research literature in regards to human motivation for persisting in self-help or education based interventions are: Achievement Goal Theory (AGT), Motivational Disposition Theory (MDT), the Self-as-Doer (SAD), and Self-Determination Theory (SDT). We provide a brief overview of each of these four theories. Although they are presented as distinct theories they are often examined in combination within the motivation research literature (such as MDT and SDT) and, for the purpose of this literature review, none are considered more important or superior to any other. While these four theories are categorized as motivation theories, for the purpose of this study it is noteworthy that several in fact go beyond motivation and speak to a wider range of influences on persistence.

### ***Achievement Goal Theory***

Achievement Goal Theory (AGT) was developed to help understand the purposes and reasons behind students' goals and motivation in a classroom environment. AGT uses a 2x2 goal framework (as seen in Table 1) to examine learners' underlying approach and avoidance motives. This framework includes the dimensions of performance versus mastery and approach versus avoidance: in the performance approach category the learner approaches success in comparison to others (i.e. "I want people to see me as successful"); in the performance avoidance category the learner tries to avoid doing poorly as compared to others (i.e. "I don't want people to see me as a failure"); in the mastery approach category

the learner tries to increase his/her own skill level (i.e. "I would like to learn more about X because I am interested in the topic"); and in the mastery avoidance category the learner strives to avoid having an incomplete understanding of the course material (i.e. "I have to be absolutely perfect") (Ciani, Sheldon, Hilpert, & Easter, 2011).

	Approach	Avoidance
Performance	Performance Approach <i>I want to do well as seen by others</i>	Performance Avoidance <i>I do not want to be seen as doing worse than others</i>
Mastery	Mastery Approach <i>I want to do well for my own sake</i>	Mastery Avoidance <i>I want to understand the topic perfectly so that I do not make any mistakes</i>

Figure 1. A representation of Achievement Goal Theory's 2x2 goal framework.

According to Murayama, Elliot and Friedman (2012) research on the usefulness of these four constructs has been mixed. They report that performance-avoidance goals are consistently associated with negative outcomes and mastery-approach goals are consistently associated with positive outcomes, yet there are inconsistencies in regards to outcomes for performance-approach and mastery-avoidance goals. This suggests that only performance-avoidance and mastery-approach goals can be reliably used to predict a learner's motivation for completing a task.

AGT's framework addresses motivation in a classroom context but could be applied more broadly to a self-directed learning environment as well. In particular, the mastery dimension goals are not influenced by the perceived influence of others on the learners' motivation. The performance dimension goals are more difficult to apply to a self-help context but may still have influence if the "others" that the learner wants to be perceived as being competent/not incompetent in comparison to are friends or family members.

While there may be elements drawn from this theory to inform the pilot assessment tool for this study, it is difficult to see how it can inform the development or implementation of the career resource packages.

### **Motivational Disposition Theory**

Motivational Disposition Theory (MDT) suggests that people develop motivational dispositions through acquired orientations towards certain natural incentives in the environment (Atkinson, 1982). Sheldon and Schuler (2011) explain that, "the feeling of momentary success is a natural incentive that, if experienced frequently, may result in a strong need for achievement within an individual" (p. 1107). Motivational dispositions can be thought of as simply "what people want" (Sheldon & Schuler, 2011 p. 1120). MDT suggests that a person's dispositions are formed early in life, for example, achievement learning typically involves parents imposing high standards and valuing achievement-related pursuits by the child (McClelland & Pilon, 1983). Similarly, the feeling of interpersonal closeness is a natural incentive, which has its roots in early attachment security processes, and if experienced frequently, may result in a strong need for affiliation within an individual (Sheldon & Schuler, 2011). Through social learning and operant conditioning, motive dispositions form and seem to function by making people

disproportionately want (or rely upon) certain types of natural incentives more than others and they direct their energy to those incentives accordingly (Sheldon & Schuler, 2011).

This theory would suggest that self-help programs that embed natural incentives within their curricula (e.g., providing achievement rewards for completing a module or homework assignment, or building activities that can be completed with a supportive friend or family member) would help to foster participants' completion of the program. This may be useful in the development and implementation of the career resource packages in this study.

### ***Self-As-Doer***

The Self-as-Doer (SAD) construct of self-motivation is tied to the concept of identified motivation, where a person will persist in a task even if it is unpleasant because of an important terminal value, such as studying hard to pass a test (Sheldon, Williams, & Joiner, 2003). The SAD construct adds to this by suggesting that there is an element of identifying with the process of behaving itself as well as with the longer-term values being served by the behavior (Houser-Marko & Sheldon, 2006). A person can self-identify as a "good grade getter" and therefore will study hard to pass the test to support that belief. This linkage to identity creates a personal responsibility in following through with the associated action. The SAD construct differs from IIT in that implementation intention processes do not directly implicate personal identity but instead focus solely on behaviours (Gollwitzer & Oettingen, 2012; Houser-Marko & Sheldon, 2006).

Houser-Marko and Sheldon (2006) suggest that the SAD construct may better help explain persistence in cases where behaviour does not express strong values or a long future time perspective. Their research in applying the self-as-doer model to motivation has shown that not only are those who are able to link a goal-related task to their identity more likely to achieve their goal but that this type of identity associated motivation can be primed through the use of bibliotherapy to increase sustained motivation. In their 2006 study, Houser-Marko and Sheldon found that reading a story with a persistence moral and writing about how that moral could be applied to oneself resulted in longer persistence in an assigned physical task than those participants who were not exposed to the story with a persistence moral.

A self-managed career development program could utilize the SAD construct by asking participants to read a short, inspirational story or saying and then create their own identity statement (i.e. I am ...) such as, "I am someone who follows through" or "I am perseverant." The reading would ideally prime the participants to create an identity statement that would be associated to their ability to persist in tasks relevant to the career resource package.

### ***Self Determination Theory***

The Self Determination Theory (SDT) of motivation is built upon a number of theories, but at the core is the idea that the three psychological needs of autonomy, competence and relatedness are the key factors to a person's motivation (Ryan & Deci, 2002). Beginning with autonomy, all three factors are examined here.

### *Autonomy*

SDT asserts that knowing whether a person's motivation is more autonomous (intrinsic and self-regulating) or more controlled (extrinsic and coerced) is a far better predictor of the quality of a person's engagement, performance, and well-being than knowing the person's overall amount or intensity of motivation (Deci & Ryan, 2012). Intrinsically motivated behavior, which is fuelled by a person's interest in the task itself (e.g., "I love my work; I would do it even if I didn't get paid"), is prototypically autonomous. However, an important aspect of SDT is the idea that extrinsic motivation can vary in the degree to which it falls on an autonomous-controlled continuum (Deci & Ryan, 2012). For example, an uninteresting activity may require an extrinsic motivator such as a reward in order for the person to feel compelled to complete the task, falling near the controlled end of the autonomous-controlled continuum. However, if instead the person held an internalized value to completing the task even if they do not find it interesting, then there is no longer a need for an extrinsic motivator to provide external regulation to maintain the activity. The regulation is internalized and moves towards the autonomous side of the autonomous-controlled continuum, as seen in Figure 1.

Beyond controlled motivation in the other direction is amotivation with an absence of any intentional regulation and a complete lack of motivation (Gagné & Deci, 2005). Within controlled motivation are four levels of regulation leading up to fully inherent autonomous motivation, these are:

- External Regulation, a fully controlled style of motivation requiring contingencies of rewards and punishments (e.g., "I must go to work in order to keep my job and get paid");
- Introjected Regulation, a moderately controlled style of motivation where a person's sense of self-worth is tied to their performance of a task (e.g., "I am a responsible person so therefore I must go to work");
- Identified Regulation, a moderately autonomous motivation wherein a person recognizes the importance of goals, values and regulations (e.g., "I want to be successful and do well at the company I work for"); and
- Integrated Regulation, moving into full autonomous motivation where there is a coherence among goals, values and regulations (e.g., "I find my work interesting and rewarding")(Gagné & Deci, 2005; Pelletier, Fortier, Vallerand, & Brière, 2002 ). Integrated regulation is considered an autonomous form of extrinsic motivation because the person is still not interested in doing the task but sees the task as being part of their identity and instrumentally important for reaching personal goals (Gagné & Deci, 2005).

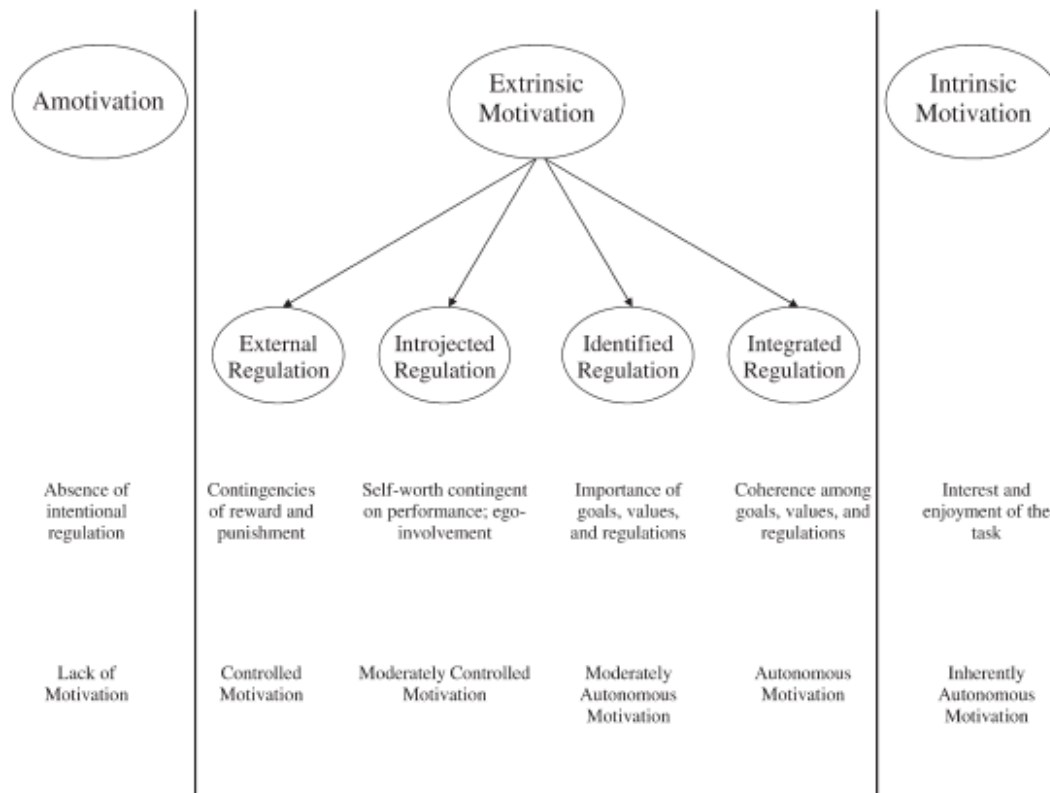


Figure 1. The self-determination continuum, from amotivation, which is completely lacking in self-determination; through the four levels of extrinsic motivation, which vary in their degree of self-determination; and ends with intrinsic motivation, which is completely autonomous (from Gagné & Deci, 2005).

Pelletier et al. (2002) used SDT to look at individuals' motivation in a swimmers' sports program. Those who were in the amotivated category at an initial survey (Time 1) had the highest rate of attrition at both Time 2 (10 months later) and Time 3 (22 months after T1). Introjected regulation was a significant predictor of persistence at Time 2 but became non-significant at Time 3 and external regulation was not a significant predictor of behaviour at Time 2, but became negatively associated with persistence at Time 3.

For the purpose of this study, it may be worth examining whether the pilot assessment tool might include questions that gauge the participant's interest in completing the career resource package and their position on the autonomous-controlled continuum.

### Competence

Competence refers to felt sense of confidence and effectiveness in one's interactions with the social environment (Ryan & Deci 2002) and an innate desire to be competent in one's actions, skills and abilities (Elliot, McGregor & Thrash, 2002). It is vital as a component of SDT because people adopt activities that make them feel their actions affect outcomes (Beachboard, Beachboard, Li & Adkison, 2011). Studies have found that providing positive feedback encourages intrinsic motivation by promoting a sense of competence and negative feedback can decrease confidence and lead to people feeling amotivated (Ryan & Deci, 2002).



For this study, it may be useful to include questions on the assessment tool that tap into participants' sense of competence and confidence with respect to completion of the career resource package and it may be worth exploring the inclusion of positive feedback within the packages themselves.

### *Relatedness*

The third need that makes up SDT is relatedness, which refers to feeling connected with others, and having a sense of belonging with other individuals and within one's community (Ryan & Deci, 2002). Researchers have noted that learning environments promoting a sense of relatedness (whether to teachers, parents, and/or peers) can improve motivation and have a positive effect on learning outcomes (Chen & Jang 2010; Ryan & Deci 2002; Ryan & Deci, 2011). Feelings of relatedness, measured in terms of teacher-student relationships and school climate have been linked to outcomes including self-efficacy, engagement, and retention (Beachboard, Beachboard, Li & Adkison, 2011).

In this current study, it may be possible to assess a participants' sense of relatedness to career service staff in the pilot tool and promote a sense of connection to staff and/or peers in the career resource packages.

SDT is one of the most comprehensive theories currently found in the motivation research literature. It builds upon theories like Achievement Goal Theory and Self-Efficacy Theory (discussed later in this paper) and dovetails well with others like Motivational Disposition Theory (Sheldon & Schuler, 2011) and Self-as-Doer (Houser-Marko, & Sheldon, 2006). The three central psychological needs that SDT is based on are similar to those identified in the research literature as leading to a person's empowerment. Empowerment is said to be comprised of autonomy, social engagement (relatedness) and a sense of personal competence (Dickerson, 1998). Dickerson (1998) reports that empowered people "gain control over their lives, reduce their reliance on professionals, and take action on their own behalf" (p.255). These three results echo the goals that are held for the participants of the current study, therefore a program informed by SDT may help to foster empowerment in the participants to be successful career development advocates for themselves.

## **CAPACITY FOR CHANGE & SELF-REGULATION THEORIES**

While the recent literature is dominated by motivation theory, a person's level of motivation is not the only factor in determining their capacity to successfully complete a self-help program. The individual's inclination for change and their ability to self-manage are also very important for their readiness to engage with such a program.

### ***Stages of Change***

Clients seeking career development support are generally experiencing/seeking change (skill change, behaviour change, lifestyle change, career change, job change, etc.). James Prochaska and his colleagues identified five stages of change that most people appear to experience (Prochaska, DiClemente, & Norcross, 1992) when considering and making changes to their behaviour. People's attempts to make changes in their lives generally follow a typical pattern: precontemplation, contemplation, preparation, action and maintenance (Norcross, Krebs, & Prochaska, 2011).

- **Precontemplation:** Is the stage in which the individual has no intention to change their behaviour in the foreseeable future. Most people in this stage are unaware of the problem, e.g., people who struggle to maintain work but are not aware that it is their anger management problem that is the significant contributor to their being repeatedly let go. This stage also includes people who do not feel that the problem is severe enough to warrant the effort to change or who are sort of contemplating change, maybe, but mostly they want to get others to stop pushing them about the need to change.
- **Contemplation:** Is the stage in which the individual is aware that a problem exists and is seriously thinking about overcoming it but has not yet made a commitment to take action. Contemplators often struggle with the amount of effort, energy, and loss it will cost to engage in the behavioural change. Also, they may feel overwhelmed by the enormity of the problem or they may lack the necessary self-efficacy to engage in a program intended to produce change. Therefore, people can remain in the contemplation stage for a long time (e.g., a person who knows that if they took some courses they could enhance their skills to obtain a better paying job, but feels that they do not have the money to retrain or cannot afford to take time away from their current job).
- **Preparation:** Is the stage in which the individual is intending to take action in the near future (within a month or so) and is engaging in some small behavioural changes (i.e., baby steps), but has not yet made a full commitment to the change (e.g., a person seeks out career information and does some initial exploration but is not yet ready to commit the needed time to perform a full career exploration to inform a career decision).
- **Action:** Is the stage in which an individual modifies their behaviour, experiences, and/or environment to address their concern (e.g., a person enrolls in a resume writing workshop and intensively practices their interview skills). Norcross, Krebs and Prochaska (2011) have stated that the Action stage involves the most overt behavioural changes and requires a considerable commitment of time and energy from the person.
- **Maintenance:** Is the stage in which an individual works to prevent relapsing into a previous stage and consolidates the gains attained during action. It is a continuation of the change process (e.g., a person continues to go back and reread their self-help resource package on job maintenance despite having already secured new employment seven months ago). Consistency of engagement engaging in the new, desired behavior for more than 6 months is the criterion for the maintenance stage.

While a person can be expected to progress through all five stages when making a lasting change, it is often the case that they will revisit a stage more than once before a behavioural change becomes permanent (Prochaska, DiClemente, & Norcross, 1992). These stages of change may speak to a participant's readiness for – and, therefore, likelihood to engage in – a program focused on supporting change (in this case, changes related to their employability needs). It may be useful in this study to include in the pilot assessment tool questions which determine participant readiness for the change at hand.

### ***Self-Regulation***

These stages of change represent when people change, but do not fully address *how* people change. Self-regulation theory speaks to how people transition through behavioural changes. Self-regulation is

the self's capacity for altering its own goal directed behaviours and enabling a person to adjust their actions to a wide range of social and situational demands (Baumeister & Vohs, 2007; Carver & Scheier, 1982; Kanfer, 1970). It is the process by which people attempt to restrain from performing unwanted behaviours in order to achieve a desired goal or response (Baumeister & Vohs, 2007). This desired goal/response is often a social standard that the individual is not currently meeting and so changes their behaviour in order to do so (Baumeister & Vohs, 2007). Febraro and Clum (2008) compare the self-regulation process to a home's thermostat, where the standard (or goal) is the requested/set temperature, a sensor in the thermostat then measures the actual temperature in the home. The thermostat compares the current temperature against the standard and signals the heater to either turn on or off in order to reach the goal temperature. Therefore the first step in self-regulation is setting a goal or identifying a standard. Just like the thermostat, effective self-regulation requires a clear and well-defined standard. Ambiguous, conflicting, or inconsistent standards make self-regulation difficult (Baumeister & Vohs, 2007). Also like the thermostat, self-regulation requires the monitoring of behaviour. Carver and Scheier (1982) developed a feedback-loop theory to human self-regulation whereby a person performs an assessment that compares the self to the standard (feedback). If the self does not meet the standard then self-regulation initiates a continuation or modification of the previous behaviour in order to move closer to the standard/goal. The process of assessment and behavioural adjustment repeats (loops) until it's confirmed that the self has been brought into line with the standard.

Bandura (1986) and Kanfer (1975) have also made some significant contributions to self-regulation theory. Both postulate that: (a) behaviour is caused by an interaction of factors (cognitive, internal, environmental, psychological and biological); (b) self-regulation proceeds through stages; (c) having goals and receiving feedback is critical; (d) both external and internal attributes have a role in change processes; (e) it is the discrepancies between goals and performance that motivate behaviour; and (f) commitment enhances motivation. The two researchers differ in the importance they give to the role self-efficacy plays in self-regulation (Febraro & Clum, 2008).

Of particular importance for the purpose of this review are the stages of self-regulation that Bandura and Kanfer have identified. Although they have named them somewhat differently, essentially Bandura (1986) and Kanfer (Kanfer, 1975; Kanfer & Schefft, 1988) describe self-regulation as occurring over three distinct stages:

- **Stage One - Self-monitoring/Self-observation & Goal Setting:** Both Bandura (1991) and Kanfer (Kanfer & Schefft, 1988) view self-monitoring as enhancing self-awareness and providing the individual with the needed information to first create realistic goals. Goals that are explicit, challenging, observable, proximal (related to each other), incremental (small steps that collectively reach the goal), and realistic have been shown to have the best results (Bandura & Simon, 1977; Locke, Shaw, Saari, & Latham, 1981). Self-monitoring can be done through a variety of means, such as checklists, charts, and formal assessment tools.
- **Stage Two – Self-Evaluation/Self-Reflection:** In the self-evaluation stage the individual's current behaviour is compared against the set standard/goal, by way of the monitoring tools stated above, which allows the individual to measure his/her progress towards their goal and adjust their behaviour as necessary.

- **Stage Three – Self-Reinforcement/Self-Reaction:** In the self-reinforcement stage the individual either rewards or punishes his/her-self depending on their performance and progress towards the goal (Kanfer & Scheff, 1988). Self-reinforcement has been shown to be most effective when it is immediate and the individual deems it is deserved and administers the reward (Kazdin, 1994). This can be in the form of verbal self-praise for persisting with a difficult task or for achieving a goal (Febbaro & Clum, 2008).

Understanding Prochaska's stages of change and Kanfer and Bandura's stages of self-regulation can help inform a line of questioning in the pilot assessment tool and/or supports to persistence in the career resource packages.

### ***Self-Efficacy Theory***

Self-Efficacy theory (SET) (Bandura, 1997) provides a self-based perspective on persistence and self-management. Self-efficacy refers to people's beliefs about their ability to execute desired behaviours successfully. It is closely tied to efficacy expectations, which are beliefs about the extent to which completing certain tasks will result in a person achieving a desired goal (Scheier & Carver, 1993). Expectations of self-efficacy determine whether a particular behaviour will be initiated, how much effort will be used, and how long the effort will be kept up in the face of obstacles (Bandura, 1997; Scholz, Doña, Sud, & Schwarzer, 2002). Those who believe that they have the personal resources to succeed in their efforts show greater goal persistence and higher performance (Bandura, 1989).

Feeling self-efficacious can be situational, meaning that a person can believe that they are effective at a task in one situation (e.g., driving a car) and not in another similar situation (e.g., driving a bus) (Scholz et al., 2002). A person can also have a sense of generalized self-efficacy (GSE), referring to an overall confidence in one's coping ability across a wide range of situations (Zikic & Saks, 2009). There is, however, a difference in the ability to do something, actually doing it, and evaluating it (e.g., I can believe that I can drive a car safely but not actually do so when behind the wheel, and my evaluation of my safe driving skills may be quite different than that of my passenger's).

Self-efficacy can be learned by doing, by watching others perform the task, by receiving others' expression of confidence in our ability, as well as through the belief that one is mentally and/or physically fit to accomplish the task (Luthans, Avey, & Patera, 2008). Lent and Brown (2006) found that personal accomplishments exert the greatest influence on self-efficacy; success experiences tended to raise (and failure experiences, to lower) self-efficacy in relation to a given task. Therefore feelings of self-efficacy in regards to a particular undertaking can be used to predict the extent to which a person will complete an assignment. In addition, the extent to which a person will engage in a program can be increased by promoting a person's self-efficacy in regards to the tasks involved in the program and making explicit the link between the program tasks and the desired outcome.

This theory may offer elements relevant to this study. It hints at the notion that a participant may be highly motivated to persist in a program, but may not have the skills or sufficient confidence in their capacity to do so (rightly or wrongly). It may be worth considering the inclusion of questions related to self-efficacy in the pilot assessment tool and it may be useful to build strategies to reinforce self-efficacy into the content of the career resource packages.

### ***Implementation Intentions Theory***

Implementation Intentions Theory (IIT) involves linking a particular future condition with the performance of certain behaviors. Successful action is facilitated when participants link the concept of action to a specific future situation. Creating this kind of contingency enables people to act automatically when the given situation is encountered, without having to consciously intend to do so, and can be considered like the early steps of forming a habitual behaviour (Houser-Marko & Sheldon, 2006). Implementation intentions are intentions to meet a goal using if/then thinking (if X happens then I will perform Y) rather than a goal or achievement intention (Gollwitzer & Oettingen, 2012). Oettingen and Gollwitzer (2009) provide the following example as a way of explanation: if the goal intention is to, “get an A in my Introductory Psychology course” then the implementation intention could be, “**If** my roommates ask me to go out tonight, **then** I will say that I will be joining them next week when the exam is over” (p. 135). An alternate example might be: if the goal intentions is to “get clarity on my career path” then the implementation intention could be, “**If** I want to complete the activities in the resource package given to me by the career services staff before I am distracted by my family members **then** I will set my alarm to get up at 07:00 so that I can work before they wake up.”

Implementation intentions are the critical steps in bridging goal setting to goal attainment and, without these plans, progress towards achieving a goal may stagnate (Gollwitzer & Oettingen, 2012). Implementation intentions have been shown to have a protective effect in continued progress towards goal achievement by helping a person get started in working towards a goal, staying on track in achieving a goal, and protecting oneself from ego depletion<sup>1</sup> (Gollwitzer & Oettingen, 2012).

In regards to persistence with the self-managed career resource packages in this study, IIT could be applied to promote continuous progress towards the goal of finishing a particular task or the whole package. This could be done by incorporating an implementation intention that is rehearsed prior to each task that uses an if/then statement to promote continuing (e.g., “If I get discouraged while working with the career resource package, then I will take a 5 minute break to relax and then try again”). Participants can also be encouraged to identify possible personal stumbling blocks to completing the program and create a specific implementation intention to address them (e.g., “If my family says something discouraging about the career resource package, then I will call my friend Peter who supports me and my goals”).

## **OTHER FACTORS SHOWN TO INFLUENCE CAPACITY TO SELF-MANAGE**

There have been a number of variables identified within the self-help, self-regulation and motivation research literature that have shown to influence a person’s capacity for self-management. These factors can be placed within four categories: Personality Variables; Psychological Health Variables; Cultural Variables; and Individual Variables.

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<sup>1</sup> Operations aimed at changing the self are difficult and therefore require energy. The term ego depletion is used to describe the condition that arises when a person’s self-control resources have been expended and the person is temporarily vulnerable to lapses in willpower (Baumeister & Vohs, 2007).

## ***Personality Variables***

The self-management, motivation and career counselling research literature includes personality variables as predictors for either a participant's likelihood of completing or dropping out of a self-help program. Researchers have looked at the so-called "Big Five" personality types as well as positive psychology variables, and Holland's personality/interest work types.

A meta-analysis by Judge and Ilies (2002) found that neuroticism was negatively related to goal setting and self-efficacy, which are indicators of performance persistence. They suggested that individuals who score as neurotic may avoid goal setting and that their anxiousness and negative emotions interfere with successful performance. Gati et al. (2011) looked at the entire Big Five model of personality factors, Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (Costa & McCrae, 1992), for relationships with people's difficulties in making career decisions. The researchers recruited participants from a pre-admission university preparatory program (Group 1), a passenger train (Group 2) and a self-help career information website (Group 3). The aim of the study was to determine if personality factors, locus of control (LoC) type (external versus internal), or a participant's self-efficacy expectations could predict those who would have difficulties in making career decisions. Gati et al. (2011) found that Neuroticism and problems with career decision-making were positively correlated ( $r = .60$ ) as was Agreeableness to a far lesser extent ( $r = .20$ ). Conscientiousness and Extroversion were negatively correlated to career decision-making problems but only moderately ( $r = -.29$  and  $r = -.26$  respectively). Self-Efficacy score was also found to have a negative relationship with career decision making difficulties ( $r = -.54$ ) as was having an internal LoC ( $r = -.35$ ). The internet group (Group 3) also appeared to have significantly higher levels of career decision making difficulties than did the other two groups, though this might have been due to it being the only group that had proactively sought out career support resources where the other two groups were actively recruited through non-career intervention means. Renn, Allen and Hunning (2011) found similar results for both level of neuroticism and locus of control in their research on work performance motivation.

Positive psychology trait dimensions of hope/hopelessness and optimism/pessimism have been looked at in the context of career decision-making problems and ability to self-manage career interventions. Optimism is the tendency to focus on the positive aspects of situations and expect positive outcomes, whereas pessimism holds the opposite outlook. Saka, Gati and Kelly (2008) have suggested that when a person holds a pessimistic outlook such that they believe that they have little control in making positive changes in their lives, their self-efficacy for career decision-making and interest in task completion decreases. However, Fontaine and Shaw (1995) found that dispositional optimism was not a significant predictor variable for attrition in a self-help exercise program. Hope, on the other hand, has been shown to predict attrition in self-help interventions (Geraghty, Wood, & Hyland, 2010).

Hope in the positive psychology literature is comprised of two constructs, agency and pathways, that can be understood as the ability to make goals (agency) and the ability to plan ways of achieving those goals despite obstacles (pathways) (Snyder et al., 1991). Therefore, hopelessness is the inability to make or sustain goal directed thinking. Geraghty, Wood and Hyland (2010) looked at whether agency and pathways scores as opposed to an overall hope score could predict attrition in unguided self-help programs. They recruited participants for a self-help internet program aimed at reducing worry/anxiety and randomly assigned participants to waitlist or one of two self-help intervention conditions, worry diary or gratitude journal. They found that on the hope measure, agency scores predicted completion

of the self-help program whereas high pathways scores predicted dropout. These results suggest that those who have high levels of agentic or goal oriented thoughts are more likely to finish a self-help program perhaps because they have the motivation to sustain the needed work towards their goal, whereas those who have high levels of pathways or plan making skills are more likely not to finish, perhaps because they believe that there are other ways to achieve their goal other than the self-help intervention.

Lastly, research conducted in the eighties looked at Holland Type (Holland, Daiger, & Power, 1980) as a predictor of who would most benefit from self-help career counselling interventions and depression interventions (Kivlighan & Shapiro, 1987; Mahalik & Kivlighan, 1988). In the first study Kivlighan and Shapiro (1987) reported that previous research had indicated that those who were more vocationally mature and needed less help did better in self-help interventions. Kivlighan and Shapiro (1987) felt that those previous results fit with Holland's theory of congruence (Holland, Daiger, & Power, 1980), where self-help would be congruent for people needing less support (i.e., realistic and conventional personality/interest types, who prefer interaction with things rather than people) and for people who prefer clear step-based directions (i.e., the conventional types, who prefer activities that are clearly delineated). After participants had completed the self-help program the researchers noted that those who had scored high for the personality/interest types that prefer working with things rather than people (Realistic, Investigative and Conventional) showed greater gains on a measure of vocational identity than the people who scored higher for preferring people to things (Artistic, Social, and Enterprising) (Kivlighan & Shapiro, 1987). A similar study by Mahalik and Kivlighan (1988) assessed Holland Type codes in relation to succeeding in a self-help depression intervention. Their results found that Realistic types were most successful at completing the self-help treatment and had the largest decrease in their depression scores. Having a high generalized self-efficacy and an internal locus of control were also related to success in the self-help depression treatment. However, Enterprising types were discovered to be the most likely to drop out of the self-help program. Realistic, Investigative and Conventional types also endorsed that they were satisfied with the self-help intervention more often than Artistic, Social, and Enterprising types. Mahalik and Kivlighan (1988) reported that Realistic, Investigative and Conventional types most often used the word "privacy" as one of the reasons that they preferred self-help interventions whereas Artistic, Social, and Enterprising types chose the word "chore" to describe the self-help program.

Overall, there seems to be consistent research supporting self-efficacy and locus of control as the best personality predictor variables for success in self-help programs. Trait hope (agency versus pathways), level of Neuroticism, and Holland Type have some encouraging but, at this point, minor support. While it may be possible to integrate elements of these findings in the development of the pilot assessment tools, rigorous personality assessment is beyond the scope of this study.

## **PSYCHOLOGICAL HEALTH VARIABLES**

The three most common psychological health variables found in the motivation and self-management research literature that appear to impact a participant's success in programs are depression, anxiety and affect. Depression or anxiety can impede a participant's ability to successfully finish a self-help program. In particular, depression and anxiety have been shown to impede a participant's ability to engage in career development work such as making career decisions (Gati et al., 2011; Saka et al.,

2008). Hadley & MacLeod (2010) found that the participants in their study, though clinically depressed, were able to name a number of personal goals that they wanted to achieve but upon examination they were identified as conditional goals, "if only this would happen then I would be happy." The participants would often become focused on these types of goals even when they were shown to be untenable, which suggested that depressed individuals may have trouble moving from conditional career goals to goals that will sustain them in completing a self-help program.

Unlike a dispositional trait, state affect is a temporary feeling or mood and is considered either positive or negative. Positive moods signal to the individual that the environment is safe, which allows for a more heuristic information processing style conducive to both integrative and divergent thinking, and is associated with higher levels of proactive (self-initiated) behaviour (Fay & Sonnentag, 2012). Saadé, He, & Kira (2007) conducted a study to look at the factors that contribute to the success and failure of online learning. The authors developed an online learning tool for university students to use as part of their course requirement to access readings and quizzes. Students were informed that: the tool was designed to repeat questions from practice questions in the quizzes (rewarding attentive behaviour); there was no limit to taking the practice questions or the quizzes so as to attain a better mark (rewarding persistent behaviour); and that they would receive bonus points for finding and reporting any errors (these were intentional errors by the developers) in the questions (rewarding proactive behaviour). Saadé, He & Kira (2007) found that the students' negative affect in regards to the online tool was the best predictor that they had not engaged in the desired behaviours. These results support Marley's (2011) contention that if a participant does not believe that the intervention or self-help tool is beneficial or relevant they will not be motivated to use it.

Depression, anxiety and affect state are all interrelated constructs that do show some impact in the research literature in regards to a person's capacity to engage in a self-help program. There is only suggestive evidence that these psychological health factors can play a predictive role and at this time may better serve as a cautious warning to take these variables into consideration when designing a self-help program.

## **CULTURAL VARIABLES**

Canada is a diverse country and the people we recruit to participate in our research will come from a variety of backgrounds. It has been suggested by Markus and Kitayama (1991) that theories of motivation like SDT are based on socially constructed values embedded in Western societies that are synonymous with individualism and independence. If this is the case, then these theories and models may not be relevant for individuals who belong to collectivist cultures, where interdependence and group conformity may be more central. There has been research that compares motivation models, specifically SDT and MDT, and capacity to self-help with non-Western populations (Kral, Idlout, Minore, Dyck, & Kirmayer, 2011; Lonsdale, Sabiston, Taylor, & Ntoumanis, 2011; Songprakun & McCann, 2012) but they are not yet sufficient in number to discount the possibility of significant cultural differences, so we must proceed cautiously (Lonsdale, et al., 2011; Sheldon & Schöler, 2011).

Arthur & Stewart (2001) suggest that "cultural knowledge includes information about the client's cultural roots, values, perceived problems and preferred interventions, as well as any significant within-group diversity, including differing levels of socioeconomic status, acculturation and racial-identity



commitment” (p. 7). These factors have been suggested in the motivation and self-help literature as well. Gelderen (2010) suggests that self-directed learning must support autonomy as SDT recommends, but he states motivating a learner starts with obtaining their personal preferences (ask, inquire and acknowledge their wants, needs, goals, values and interests), then tie learning activities back to each person’s individual context. He also recommends that program designers make the personal relevance of learning objectives explicit and provide rationales as to why an activity is important all the while being open to feedback and critique. He also recommends allowing students to choose from activities those that are most relevant to their needs (choice is not as important as relevance) and placing all learning within a social context. Gelderen recommends that interventions encourage independent thinking, recognize effort, emphasize individual improvement/development and provide informational feedback.

By inviting the community into the curriculum design process, not acting like the expert, and by incorporating their feedback, the individual participant’s sense of empowerment is increased (Chen & Jang, 2012; Dickerson, 1998; Gelderen, 2010; Kosmala-Anderson, Wallace, & Turner, 2010; Riessman, 1998). Overall there should be a message of collaboration throughout all program stages, providing choice and respecting the choices made (Gagné, & Deci, 2005; Kosmala-Anderson, Wallace, & Turner, 2010).

## INDIVIDUAL VARIABLES

The research literature on motivation and self-management identifies a number of variables to take into consideration to minimize attrition rates within self-help interventions:

- **Age** – Youth are more likely to respond favourably to internet-based self-help interventions as they are more comfortable with using technology to gain information independently (Ussher, et al., 2011).
- **Perception of tasks/tools** – Participants must perceive the tools and activities to be relevant and helpful (Saadé et al., 2007). They must also perceive that the delivery of the material is accessible (Is it in their language and at their reading level? Is the program delivered in a way that is accessible to them?) (Marley, 2011).
- **Individual resources** -The participants need to have the time, energy, and the necessary resources to focus on self-help work (Vansteenkiste, et al., 2004).
- **Level of Commitment** – Participants must be committed to complete the program. Commitment may be increased by having participants sign a contract to work towards their specific goal in the program (Febbaro & Clum, 2008). Such contracts must be specific with respect to contingencies involved, outlining each person’s responsibilities in detail.

Consideration should also be given to any factors that a person might have to NOT complete a self-help program, such as losing monetary benefits (Vansteenkiste, et al., 2004; Van den Broeck et al., 2010). If a person is only seeking career development support in an effort to obtain government funding or to not lose funding, or is only engaging in career development at the request or demands of others they may not be interested, motivated, or ready to fully participate in the program and may be less likely to find a

self-help program beneficial. In terms of assessment, these latter factors may be challenging to identify as participants may be reticent to reveal this information.

## THE USE OF REWARDS IN SELF HELP PROGRAMS

It is important to note that there have been a number of research studies focused on the use of rewards to enhance motivation. It has been found that externally initiated rewards can undermine intrinsic motivation by either impeding the move to full autonomy or shifting motivation from intrinsic to extrinsic (Deci, Koestner, & Ryan, 2001; Gagné & Deci, 2005). The reward system that has been shown to consistently enhance motivation with no negative repercussions is providing regular, sincere, positive feedback (Deci, Ryan, & Koestner, 2001; Gagné & Deci, 2005). This can be accomplished by embedding positive feedback at the end of workbook assignments or coaching the user to engage in positive self-talk as reinforcement to continue. When people simply tell themselves “Hey well done, I think I’ve got it now” it acts as a reward and intrinsically strengthens the behaviour.

## RECOMMENDATIONS & CONCLUSIONS

The primary purpose of this literature review was to determine the factors that influence a person’s capacity for self-help as identified in the existing research literature. This was undertaken to help inform the selection or creation of a pilot assessment tool intended to predict participants’ capacity to persist and succeed in using a self-managed career resource package. Secondly, it was also hoped that the literature might inform the development and implementation of the four self-managed career resource packages which will be used in the study.

In the end, given the magnitude of the self-help industry and the number of self-managed interventions across multiple domains, the paucity of rigorous research and relevant literature is shocking. While some studies spoke to persistence, virtually nothing was found which illuminates the conditions under which self-managed interventions have the desired impact with respect to participant change. The research that was found tends to focus heavily on psychological factors, with almost nothing speaking directly to career development self-help interventions.

Having said this, the following stand out as most relevant to our study:

For the **pilot assessment tool**, it may be useful to include questions that assess participants’:

- Goal orientation (performance avoidance versus mastery approach)
- Motivational style (autonomy, competency and relatedness)
  - Are they interested in completing the career resource package?
  - Where are they on the autonomous-controlled continuum?
  - To what degree do they see themselves as competent?
  - How confident are they in their capacity to complete the career resource package?
  - To what extent do they feel connected to the career service staff?
- Degree of self-efficacy

- Current relevant skills and personal resources
- Readiness for change and orientation with respect to self-regulation
- Locus of control
- Trait hope
- Expectations with respect to the relevant and ease of completion of the career resource package

For the **career resource packages**, it may be useful to:

- Embed natural incentives (such as achievement rewards or activities to connect participants to family/friends)
- Support participants to develop implementation intentions and/or embed implementation intention statements into activities
- Include inspirational stories or quotes and/or activities linking self-managed success and participant identity
- Promote a sense of connection between the participant and the career service staff/peers
- Include explicit activities to strengthen and recognize participants' skills and personal resources
- Include a range of elements to support self-regulation (e.g. checklists, self-assessments and positive feedback)
- Use a tone of collaboration, invite user feedback and provide the user with choice/control over how they use the package
- Include mechanisms to promote participant commitment (e.g. contract, public statement of intent)

For both the assessment tool and the career resource packages, it will be critical to be aware of the potential for cultural bias in development and implementation.

While these observations provide food for thought and will be considered, overall, it must be said that the literature provides limited practical guidance to our study.

## REFERENCES

- Arthur, N., & Stewart, J. (2001). Multicultural counselling in the new millennium: Introduction to the special theme issue. *Canadian Journal of Counselling, 35*, 3-14.
- Atkinson, J. W. (1982). Motivational determinants of thematic apperception. In A. J. Stewart (Ed.), *Motivation and society* (pp. 3-40). San Francisco, CA: Jossey-Bass.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Bandura, A. (1989). Self-regulation of motivation and action through internal standards and goal systems. In L. A. Pervin (Ed.), *Goal concepts in personality and social psychology* (pp. 19-85). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A., & Simon, K. M. (1977). The role of proximal intentions in self-regulation of refractory behavior. *Cognitive Therapy and Research, 1*, 177-193.
- Baumeister, R. F., & Vohs, K. D. (2007). Self-regulation, ego depletion, and motivation. *Social and Personality Psychology Compass, 1*, 1-14. doi: 10.1111/j.1751-9004.2007.00001.x
- Beachboard, M. R., Beachboard, J. C., Li, W., & Adkison, S. R. (2011). Cohorts and relatedness: Self-Determination Theory as an explanation of how learning communities affect educational outcomes. *Research in Higher Education, 52*, 853-874. doi:10.1007/s11162-011-9221-8
- Berger, T., Hämmerli, K., Gubser, N., & Caspar, F. (2011). Internet-based treatment of depression: A randomized controlled trial comparing guided with unguided self-help. *Cognitive Behaviour Therapy, 40*, 251-266. doi: 10.1080/16506073.2011.616531
- Blankers, M., Koeter, M. W. J., & Schippers, G. M. (2011). Internet therapy versus internet self-help versus no treatment for problematic alcohol use: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 79*, 330-341. doi:10.1037/a0023498
- Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality-social, clinical and health psychology. *Psychological Bulletin, 92*, 111-135.
- Chen, K. C., & Jang, S.-J. (2010). Motivation in online learning: Testing a model of self-determination theory. *Computers in Human Behavior, 26*, 741-752. doi:10.1016/j.chb.2010.01.011
- Ciani, K. D., Sheldon, K. M., Hilpert, J. C., & Easter, M. A. (2011). Antecedents and trajectories of achievement goals: a self-determination theory perspective. *The British Journal of Educational Psychology, 81*, 223-243. doi:10.1348/000709910X517399
- Costa, P. T., & McCrae, R. R. (1992). *Manual of the revised NEO personality inventory*. Odessa, FL: Psychological Assessment Resources.
- Cury, F., Elliot, A. J., Da Fonseca, D., & Moller, A. (2006). The social-cognitive model of achievement motivation and the 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology, 90*, 666-679. doi:10.1037/0022-3514.90.4.666
- Deci, E. L., Koestner, R., & Ryan, R. M. (2001). Extrinsic rewards and intrinsic motivation in education: Reconsidered once again. *Review of Educational Research, 71*, 1-27. doi:10.3102/00346543071001001
- Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of Self-Determination Theory. In R. M. Ryan (Ed.), *The Oxford Handbook of Human Motivation* (pp. 85-107). New York, NY: Oxford University Press Inc.

- Deci, E. L., Ryan, R. M., & Koestner, R. (2001). The pervasive negative effects of rewards on intrinsic motivation: Response to Cameron (2001). *Review of Educational Research*, *71*, 43-51. doi:10.3102/00346543071001043
- Dickerson, F. B. (1998). Strategies that foster empowerment. *Cognitive and Behavioral Practice*, *5*, 255-275.
- Elliot, A. J., McGregor, H. A., & Thrash, T. M. (2002). The need for competence. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 361–387). Rochester, NY: University of Rochester Press.
- Eysenbach, G. (2005). The law of attrition. *Journal of Medical Internet Research*, *7*, e11.
- Fay, D., & Sonnentag, S. (2012). Within-person fluctuations of proactive behavior: How affect and experienced competence regulate work behavior. *Human Performance*, *25*, 72-93. doi:10.1080/08959285.2011.631647
- Fontaine, K. R., & Shaw, D. F. (1995). Effects of self-efficacy and dispositional optimism on adherence to step aerobic exercise classes. *Perception and Motor Skills*, *81*, 251–255.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, *26*, 331-362. doi:10.1002/job.322
- Gati, I., & Asulin-Peretz, L. (2011). Internet-based self-help career assessments and interventions: Challenges and implications for evidence-based career counseling. *Journal of Career Assessment*, *19*, 259-273. doi:10.1177/1069072710395533
- Gati, I., Gadassi, R., Saka, N., Hadadi, Y., Ansenberg, N., Friedmann, R., & Asulin-Peretz, L. (2010). Emotional and personality-related aspects of career decision-making difficulties: Facets of career indecisiveness. *Journal of Career Assessment*, *19*, 3-20. doi:10.1177/1069072710382525
- Gelderens, M. V. (2010). Autonomy as the guiding aim of entrepreneurship education. *Education + Training*, *52*, 710-721. doi:10.1108/00400911011089006
- Geraghty, A. W. A., Wood, A. M., & Hyland, M. E. (2010). Dissociating the facets of hope: Agency and pathways predict dropout from unguided self-help therapy in opposite directions. *Journal of Research in Personality*, *44*, 155-158. doi:10.1016/j.jrp.2009.12.003
- Gollwitzer, P. M., & Oettingen, G. (2012). Goal pursuit. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 208–231). New York, NY: Oxford University Press Inc.
- Hadley, S. A., & MacLeod, A. K. (2010). Conditional goal-setting, personal goals and hopelessness about the future. *Cognition & Emotion*, *24*, 1191-1198. doi:10.1080/02699930903122521
- Holland, J. L., Daiger, D. C., & Power, P. G. (1980). Some diagnostic scales for research in decision-making and personality: Identity, information and barriers. *Journal of Personality and Social Psychology*, *39*, 1191-1200.
- Houser-Marko, L., & Sheldon, K. M. (2006). Motivating behavioral persistence: The self-as-doer construct. *Personality and Social Psychology Bulletin*, *32*, 1037-1049. doi:10.1177/0146167206287974
- Judge, T. A., & Ilies, R. 2002. Relationship of personality to performance motivation. *Journal of Applied Psychology*, *87*, 797-807.
- Kanfer, F. H. (1975). Self-management methods. In F. H. Kanfer & A. P. Goldstein (Eds.), *Helping people change: A textbook of methods* (pp. 334-389). New York, NY: Pergamon.

- Kanfer, F. H. (1970). Self-regulation: Research, issues and speculations. In C. Neuringer & I. Michael (Eds.), *Behavior modification in clinical psychology* (pp. 178-220). New York, NY: Appleton-Century-Crofts.
- Kanfer, F. H., & Scheff, B. K. (1988). *Guiding the process of therapeutic change*. Champaign, IL: Research Press.
- Kazdin, A. E. (1974). Self-monitoring and behavior change. In M. J. Mahoney & C. E. Thoresen (Eds.) *Self-control: Power to the person* (pp. 218-246). Monterey, CA: Brooks/Cole.
- Kivlighan, D. M., & Shapiro, R. M. (1987). Holland type as a predictor of benefit from self-help career counseling. *Journal of Counseling Psychology, 34*, 326-329. doi:10.1037//0022-0167.34.3.326
- Kosmala-Anderson, J. P., Wallace, L. M., & Turner, A. (2010). Confidence matters: A Self-Determination Theory study of factors determining engagement in self-management support practices of UK clinicians. *Psychology, Health & Medicine, 15*, 478-491. doi:10.1080/13548506.2010.487104
- Kral, M. J., Idlout, L., Minore, J. B., Dyck, R. J., & Kirmayer, L. J. (2011). Unikkaartuit: meanings of well-being, unhappiness, health, and community change among Inuit in Nunavut, Canada. *American Journal of Community Psychology, 48*, 426-38. doi:10.1007/s10464-011-9431-4
- Lent, R. W. & Brown, S. D. (2006). On conceptualizing and assessing social cognitive constructs in career research: A measurement guide. *Journal of Career Assessment, 14*, 12-35.
- Locke, E. A., Shaw, K. N., Saari, L. M., & Lantham, G. P. (1981). Goal setting and task performance: 1969-1980. *Psychological Bulletin, 90*, 125-152.
- Lonsdale, C., Sabiston, C. M., Taylor, I. M., & Ntoumanis, N. (2011). Measuring student motivation for physical education: Examining the psychometric properties of the Perceived Locus of Causality Questionnaire and the Situational Motivation Scale. *Psychology of Sport and Exercise, 12*, 284-292. doi:10.1016/j.psychsport.2010.11.003
- Luthans, F., Avey, J. B., & Patera, J. L. (2008). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning & Education, 7*, 209-221.
- Mahalik, J. R., & Kivlighan, D. M. (1988). Self-help treatment for depression: Who succeeds? *Journal of Counseling Psychology, 35*, 237-242.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253.
- Marley, E., (2011). Self-help strategies to reduce emotional distress: What do people do and why? A qualitative study. *Counselling and Psychotherapy Research: Linking research with practice, 11*, 317-324. doi: 10.1080/14733145.2010.533780
- Martin, K. D., & Hill, R. P. (2012). Life satisfaction, self-determination, and consumption adequacy at the bottom of the pyramid. *Journal of Consumer Research, 38*, 1155-1168. doi:10.1086/661528
- McClelland, D. C., & Pilon, D. A. (1983). Sources of adult motives in patterns of parent behavior in early childhood. *Journal of Personality and Social Psychology, 44*, 564-574. doi:10.1037/0022-3514.44.3.564
- Murayama, K., Elliot, A. J., & Friedman, R. (2012). Achievement goals. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 208-231). New York, NY: Oxford University Press Inc.
- Norcross, J. C., Krebs, P. M., & Prochaska, J. O. (2011). Stages of change. *Journal of Clinical Psychology, 67*, 143-154. doi:10.1002/jclp.20758

- Nordgreen, T., Havik, O. E., Ost, L. G., Furmark, T., Carlbring, P., & Andersson, G. (2012). Outcome predictors in guided and unguided self-help for social anxiety disorder. *Behaviour Research and Therapy, 50*, 13-21. doi:10.1016/j.brat.2011.10.009
- Oettingen, G., & Gollwitzer, P. M. (2009). Making goal pursuit effective: Expectancy-dependent goal setting and planned goal striving. . In J. P. Forgas, R. F. Baumeister, and D. M. Tice (Eds.), *Psychology of self-regulation* (pp. 127-146). New York, NY: Taylor & Francis Group.
- Pelletier, L. G., Fortier, M. S., Vallerand, R. J., & Brière, N. M. (2002). Associations among perceived autonomy support, forms of self-regulation, and persistence: A prospective study. *Motivation and Emotion, 25*, 279-306.
- Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist, 47*, 1102-1114.
- Renn, R. W., Allen, D. G., & Huning, T. M. (2011). Empirical examination of the theory of self-management failure. *Journal of Organizational Behavior, 43*, 25-43. doi:10.1002/job.667
- Riessman, F. (1998). Ten self-help principles. *Perspectives, Online*. Retrieved from [http://www.mentalhelp.net/poc/view\\_doc.php?type=doc&id=358](http://www.mentalhelp.net/poc/view_doc.php?type=doc&id=358)
- Ryan, R. M., & Deci, E. L. (2002). Overview of Self-Determination Theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3-33). Rochester, NY: University of Rochester Press.
- Saadé, R. G., He, X., & Kira, D. (2007). Exploring dimensions to online learning. *Computers in Human Behavior, 23*, 1721-1739. doi:10.1016/j.chb.2005.10.002
- Saka, N., Gati, I., & Kelly, K. R. (2008). Emotional and personality-related aspects of career decision-making difficulties. *Journal of Career Assessment, 16*, 403-424.
- Scheier, M. F., & Carver, C.S. (1993). On the power of positive thinking: The benefits of being optimistic. *Current Directions in Psychological Science, 2*, 26-30.
- Scholz, U., Doña, B., Sud, S., & Schwarzer, R. (2002). Is general self-efficacy a universal construct? Psychometric findings from 25 countries. *European Journal of Psychological Assessment, 18*(3), 242-251.
- Sheldon, K. M., & Schüler, J. (2011). Wanting, having, and needing: integrating motive disposition theory and self-determination theory. *Journal of Personality and Social Psychology, 101*, 1106-1123. doi:10.1037/a0024952
- Sheldon, K. M., Williams, G., & Joiner, T. (2003). *Self-determination theory in the clinic*. New Haven, CT: Yale University Press.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., et al. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570-585.
- Songprakun, W., & McCann, T. V. (2012). Effectiveness of a self-help manual on the promotion of resilience in individuals with depression in Thailand: A randomised controlled trial. *BMC Psychiatry, 12*(1), 12-21. doi:10.1186/1471-244X-12-12
- Ussher, M., Chambers, M., Adams, R., Croghan, E., & Murray, R. (2011). Evaluation of a nationally disseminated self-help intervention for smoking cessation ('Quit Kit'). *Tobacco Control, 20*, 380-382. doi:10.1136/tc.2010.040535

- Van den Broeck, A., Vansteenkiste, M., Lens, W., & De Witte, H. (2010). Unemployed individuals' work values and job flexibility: An explanation from Expectancy-Value Theory and Self-Determination Theory. *Applied Psychology, 59*, 296-317. doi:10.1111/j.1464-0597.2009.00391.x
- Vansteenkiste, M., Lens, W., De Witte, S., De Witte, H., & Deci, E. L. (2004). The "why" and "why not" of job search behaviour: their relation to searching, unemployment experience, and well-being. *European Journal of Social Psychology, 34*, 345-363. doi:10.1002/ejsp.202
- Zikic, J., & Saks, A. M. (2009). Job search and social cognitive theory: The role of career-relevant activities. *Journal of Vocational Behavior, 74*, 117-127.

## OTHER SOURCES CONSULTED

- Greguras, G. J., & Diefendorff, J. M. (2009). Different fits satisfy different needs: Linking person-environment fit to employee commitment and performance using self-determination theory. *The Journal of Applied Psychology, 94*, 465-77. doi:10.1037/a0014068
- Hendry, G. D., & Ginns, P. (2009). Readiness for self-directed learning: Validation of a new scale with medical students. *Medical Teacher, 31*, 918-920. doi:10.3109/01421590802520899
- Hon, A. H. Y. (2011). Shaping environments conducive to creativity: The role of intrinsic motivation. *Cornell Hospitality Quarterly, 53*, 53-64. doi:10.1177/1938965511424725
- Millette, V., & Gagné, M. (2008). Designing volunteers' tasks to maximize motivation, satisfaction and performance: The impact of job characteristics on volunteer engagement. *Motivation and Emotion, 32*, 11-22. doi:10.1007/s11031-007-9079-4
- Reardon, R. C., Sampson, J. P., & Lenz, J. G. (2000). Career assessment in a time of changing roles, relationships, and contexts. *Journal of Career Assessment, 8*, 351-359. doi:10.1177/106907270000800404
- Riper, H., Spek, V., Boon, B., Conijn, B., Kramer, J., Martin-Abello, K., & Smit, F. (2011). Effectiveness of E-self-help interventions for curbing adult problem drinking: A meta-analysis. *Journal of Medical Internet Research, 13*, 1439-4456. doi: 10.2196/jmir.1691
- Rotter, J. B. (1990). Internal versus external control of reinforcement: A case history of a variable. *American Psychologist, 45*, 489-493.
- Ryan, R. M., & Deci, E. L. (2008). A self-determination theory approach to psychotherapy: The motivational basis for effective change. *Canadian Psychology, 49*(3), 186-193. doi:10.1037/a0012753
- Ryan, R. M., Lynch, M. F., Vansteenkiste, M., & Deci, E. L. (2010). Motivation and autonomy in counseling, psychotherapy, and behavior change: A look at theory and practice. *The Counseling Psychologist, 39*, 193-260. doi:10.1177/0011000009359313