



# Strategies and Preliminary Results for a Vision-Based Coaching Supplement to a Graduate Student Career Course



Janice Manzi Sabatine, PhD, PCC<sup>1</sup>, Jane Patterson Abbate MA, PCC, ORSCC, CPCC<sup>1</sup>, Susan M. English OSB, EdD, CPCC, MCC<sup>1</sup>, Steven K. Wendell, PhD, PC<sup>2</sup>,

<sup>1</sup>Avanti Strategies LLC, <sup>2</sup>Department of Pharmacology and Chemical Biology, School of Medicine, University of Pittsburgh

## Background and Objectives

Post-graduate trainees in higher education are facing ever increasing challenges regarding career planning. A majority of trainees, often in their 30s, are facing an unexpected crisis of career uncertainty coupled with concomitant challenges to their personal identity.

The objectives of this study are to determine whether a vision-based coaching approach incorporating elements of self-determination theory as a supplement to a graduate career course would

- Enhance students' career adaptability
- Increase their self-authoring capacity
- Raise self-efficacy
- Reduce perceived stress

Additional objectives of the coaching component are to identify the elements of Intentional Change Theory (ICT) and Self-Determination Theory (SDT) most relevant in this population and how to optimize integration with the career course.

## Design and Methods

In year one of a 3-year study, post-graduate students enrolled in a coaching-inspired career course at the University of Pittsburgh were randomly assigned to a course only (CO) (n=8) or course plus coaching (CPC) (n=9) group. All students completed pre- and post-course surveys that included the Career Adapt-Ability Scale (CAAS)<sup>1,2</sup>, Perceived Stress<sup>3</sup>, Self Efficacy<sup>3</sup>, Career Decision Making Survey to assess development stage (CDMS)<sup>4</sup>, and auxiliary questions. An additional Mid-point Perceived Stress and Self-Efficacy survey was conducted.

**Graduate Career Course:** *Foundations for Successful Career Planning and Development* enrolls graduate students and postdoctoral trainees for two credits over the Fall and Spring semesters. The course meets for two hours every other week. The course design is informed by a variety of coaching approaches and considerations for student adult development stage and personality type.

**Coaching:** Students in the coaching group received 4 contact hours (four 45' coaching sessions and four 15' check in calls) of individual coaching via video call from one of three ICF credentialed coaches. The sessions occurred over a period of 4 months after course topics of self-assessment, reflection, and career exploration were completed. The vision-based coaching protocol was designed on Intentional Change Theory (ICT)<sup>5</sup> and Self-Determination Theory (SDT)<sup>6</sup> and coordinated with course material.

In each coaching session, the coaches were listening for how the students take responsibility for career decisions, handle conflict, and their ability to take multiple perspectives. They also explored the students' intrinsic motivation per SDT by discussing their sense of autonomy, competence, and relatedness.

Session Summary:

**Session 1:** Exploration of Personal Vision, taking into account values, strengths, and interests.

**Session 2:** Per ICT framework, description of real self via assessments and feedback from others. Identification of real and perceived challenges to their vision.

**Session 3:** Exploration of supportive relationships and networks and selection of a mentoring team. Learning agenda and goal setting with associated timelines for career development plan (course assignment).

**Session 4:** Revision of goals and accountability strategies. Reflective summary of changes in students' thinking, feeling, and being.

## References

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## Career Adapt-Ability Scale - CAAS

**Concern and Curiosity domains of CAAS increased significantly after the course and coaching (CPC).**

Coaching?	Pre-Course			Post-Course			Change			p-values			
	All (n=17)	Yes (n=9)	No (n=8)	All (n=17)	Yes (n=9)	No (n=8)	All (n=17)	Yes (n=9)	No (n=8)	p-value (SR)	p-value (SR)	p-value (SR)	p-value (RS)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(a vs d)	(b vs e)	(c vs f)	(h vs i)
Concern	3.2±0.9	3.1±0.8	3.2±1.1	3.7±0.7	3.9±0.4	3.5±0.8	0.5±1.0	0.7±0.7	0.3±1.3	0.0644	0.0435*	0.5276	0.4406
Control	3.2±0.9	3.2±1.0	3.1±0.8	3.6±0.8	3.6±0.8	3.6±0.8	0.4±1.2	0.4±1.1	0.5±1.3	0.1236	0.2859	0.2609	0.9616
Curiosity	3.1±0.7	3.0±0.8	3.2±0.7	3.6±0.8	3.6±0.7	3.6±0.9	0.5±0.8	0.6±0.7	0.4±1.0	0.0370*	0.0496*	0.3246	0.5307
Confidence	3.3±0.8	3.6±0.9	3.1±0.7	3.5±0.8	3.6±0.7	3.4±1.0	0.1±0.9	0.0±1.0	0.3±0.9	0.4903	0.7667	0.5617	0.8468
Career Adaptability	3.2±0.6	3.2±0.7	3.2±0.6	3.6±0.6	3.7±0.4	3.5±0.8	0.4±0.7	0.4±0.7	0.4±0.8	0.0758	0.1097	0.4008	0.9616

Mean and SD of CAAS scores from Pre- and Post-Course surveys (scale 1-5). P-values from Wilcoxon matched-pairs signed-ranks test (SR) and Wilcoxon rank-sum test (RS). Highlighted p-values < .05

- Concern increased +0.7 on average (p=0.0435) and Curiosity increased +0.6 (p=0.0406) in the CPC group despite the small sample size (n=9).

- Curiosity increased +0.5 (p=0.0370) for the combined CO + CPC groups (n=17).

## Perceived Stress and Self-Efficacy

**No statistical difference in Perceived Stress and Self-Efficacy Pre/Post course and no statistical difference between CO and CPC groups with the small sample size.**

Avg.±SD	Pre-Course			Mid-Course			Post-Change			p-values (post vs pre)		
	All (n=17)	Yes (n=9)	No (n=8)	All (n=17)	Yes (n=9)	No (n=8)	All (n=17)	Yes (n=9)	No (n=8)	All (n=17)	Yes (n=9)	No (n=8)
Perceived Stress	20.4±2.0	19.8±1.6	21.0±2.3	20.2±2.2	20.0±1.7	20.4±2.7	19.5±2.1	19.9±2.7	19.1±1.2	0.4131	0.6241	0.1100
Self-Efficacy	35.7±6.3	36.1±6.5	35.3±6.5	37.2±3.8	37.4±4.5	37.0±3.2	38.0±5.6	37.3±5.9	38.8±5.5	0.4919	0.6344	0.8881

Mean and SD of Perceived Stress and Self-Efficacy scores from Pre-, Mid-, and Post-Course surveys. P-values from Wilcoxon matched-pairs signed-ranks test for Pre- vs Post- course surveys.

## Career Decision Making Survey – CDMS (Developmental Shift)

**No statistical difference in CDMS scores were observed for increased Self-Authoring. However, Coaches and Instructors observed anecdotal examples of developmental stage shift.**

## Auxiliary Survey Results

Course and Coaching Evaluation	CO	CPC	Scale
How valuable was the course for you?	3.8 (0.8)	4.6 (0.5)	1-5
How likely are you to recommend this course?	5.4 (1.7)	6.7 (0.5)	1-7
How helpful was the coaching?	-	3.6 (1.3)	1-5
How helpful was the coaching compared to the rest of the course?	-	3.9 (1.7)	1-7

Academic Program	CO	CPC	Scale
How much impact did the course have on your motivation in your academic program/research/scholarship?	4.6 (1.6)	5.1 (1.3)	1-7
How did the course impact your relationship with your faculty mentor/advisor?	4.0 (1.3)	5.2 (1.2)	1-7

Career Preference	CO		CPC		Scale
	Pre	Post	Pre	Post	
How strongly do you feel about this career preference?	3.3 (0.7)	4.3 (0.7)	3.7 (1.2)	4.3 (0.7)	1-5
How confident are you about getting a job in this preferred career?	3.3 (0.7)	3.6 (0.9)	3.3 (0.7)	4.2 (1.0)	1-5
How capable do you feel about obtaining the professional/career development resources you need?	3.0 (0.5)	4.1 (0.6)	3.8 (0.6)	4.4 (0.7)	1-5

**Career Preference:** Pre- vs Post-survey change of career preference

- Eight students retained the same preference and attributed an average of 29% increase in strength of this preference to the course/coaching.
- Nine students changed career preference and attributed an average 68% of this change to the course/coaching.
- Academic Career preferences included leaving academia, increased commitment to academia, or a return to academia as their preference.

## Student Feedback on Coaching (CPC group)

- Valued deeper self-reflection from coaching sessions
- Engaged in a more holistic view of their career as an aspect of their life
- Course and Coaching were complementary with unique value provided from group (course) and individual (coaching) discussion formats

Recommendations

- Integrate Personal Vision exercises into the course reflective exercises
- Combine 15 minute sessions into a fifth 45 minute session

## Coach Feedback

Examples of student experiences and relationship to coaching frameworks:

- Personal vision exercise (the first approach in the ICT framework) was very valuable. Coaches suggest not rushing through this phase and not allowing the coaching protocol to drive student agendas.
- Identifying and relying on supportive relationships was important, which aligns with both the resonant relationship component of ICT and the relatedness need for intrinsic motivation per SDT.
- Setting boundaries and thus taking more control of their decisions was valuable, which appears to align with their autonomy, an essential psychological need for intrinsic motivation per SDT.
- Some students became more comfortable making decisions for themselves that in some cases did not align with advice from authority figures and being less confused when those people gave conflicting advice, an indication of shifting into a more self-authoring space.

## Discussion

**CAAS:** Even in this small sample size, significant increases occurred in two domains of career adaptability in the coaching group with additional suggestive increases across domains in both groups. This provides a much needed and unique example of intervention strategies that increase individual CAAS scores using coaching-based approaches.

**PS, SE, CDMS:** The lack of statistical significant results in the Perceived Stress, Self-Efficacy and CDMS assessments may reflect low power of the small sample size. Additionally, these measures may contain multiple subgroup patterns that will become evident with a larger data set and analysis of covariables. The CDMS assessment Likert scale deviated from the original and may have been too broad to account for greater subtlety in responses.

**Auxiliary Survey:** The auxiliary survey questions suggest the course and coaching are highly valued with the coaching group frequently scoring higher on survey items. The coaching was identified as nearly equivalent to the impact of the course itself. Student career preference responses suggest the important role of the course/coaching in this area. A larger sample size will allow us to differentiate the specific impact of coaching on these parameters.

**Feedback:** Feedback from the coaches and students receiving coaching indicate the principles underlying the Intentional Change Theory and Self-Determination Theory frameworks appear to be quite applicable to supporting post-graduate trainees in career decision making and planning. They have also identified areas for increased synergy between the course and coaching.

The combination of group (course) and individual (coaching) interactions as a strategy to improve the efficiency and effectiveness of ICT/SDT interventions may have broader implications.

## Future Directions

A larger cohort will be recruited for the 2016-2017 academic year to gain greater power to investigate additional impact of the vision-based coaching. Feedback will be used to further integrate the course and coaching.

Qualitative measures are needed to capture the richness of student, coaches, and instructor observations that are not identified in the current quantitative measures.

Observations suggest that elements of assessments in this study are related and that subgroups will emerge providing more complex interpretations. Identifying covariables will support current efforts to implement a "personalized mentoring profile" for several programs at the University of Pittsburgh beginning in 2017 that will include courses and coaching protocols similar to the current study.

This study will also support integration of vision-based coaching approaches into two NIH funded projects providing career coach training for those serving under-represented minorities in academia.