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Professing Flow: How the Theory of Optimal Experience (Flow) is Communicated by

College Professors

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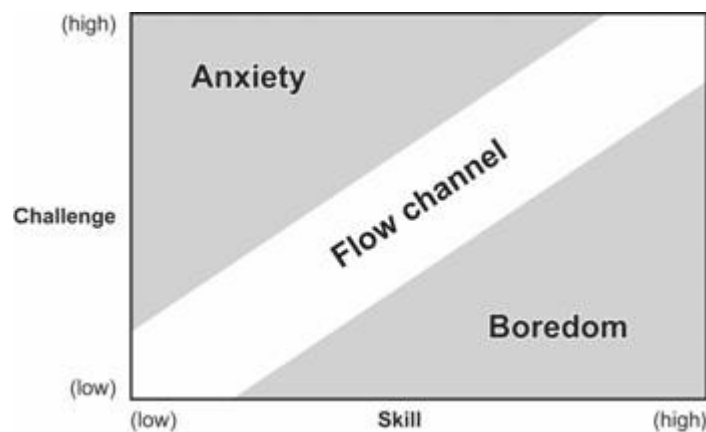Southern Utah University

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Rationale

Motivation is a determining factor that contributes to overall performance among participants trying to achieve a specific task. Nakamura and Csikszentmihalyi (2005) attest to the fact that one of the main threats to today's professions is the "loss of motivation" (p. 1). Huang (2003) agrees, "Researchers in such fields as education, cognitive development, sociocultural psychology, and applied linguistics confirm the crucial importance--and complexity--of an affective variable; motivation" (p. 1). Motivation is therefore crucial in all areas where one engages in a specific task.

This study is intended to discover how motivation is communicated and experienced by professors using Csikszentmihalyi's (1997) Flow model. Flow is a motivational theory linked to intrinsic rewards. It is a phenomenon that occurs when one is intrinsically motivated in a particular task and when there is a balance of skill and challenge (Csikszentmihalyi, 1975). Flow occurs when one uses the maximum amount of his or her skill to master or meet a specific objective associated with a challenging task. This is referred to as the challenge-skill balance and is the main contributor and catalyst of Flow. The following diagram illustrates how Flow is obtained with the convergence of challenge and skill.

According to Csikszentmihalyi (1975), if a participant has high skills, but the task is well-below skill level to accomplish the objective, then boredom would occur. If the participant has low skills to accomplish an objective or task, then anxiety and frustration would occur. When there is a balance of skills required to accomplish a task and the task is considered challenging, but feasible to accomplish, then Flow may be achieved.

Csikszentmihalyi (1990) confirms that this delicate balance is salient in all aspects of life and the mismatch between challenge and skill will result in boredom or anxiety. Hagevik (1999) furthers details what occurs when there is a mismatch between skills and challenge as it pertains to learning:

> Flow happens when the demands of the situation are balanced with the skills required for completing the task. It's the delicate balance between being anxious and being bored. Flow happens in the region between the groan zone," where learning seems painful, difficult, and uncontrollable, and the "drone zone," where learning seems boring, slow, and dull. In the flow zone, learning is like a good game, challenging but manageable. (p. 43)

It is communicated here that there are two alternatives if Flow is not achieved; one being boredom and the other being described as anxiety. Flow, however, is when neither boredom nor a state of anxiety because the challenge engages the individual to the point that it is still doable but pleasurable. Hagevik (1999) stresses that the task should be "just manageable", which allows the participant to be challenged, and as a result, the participant is fully engaged and able to reach the point of optimal experience (p. 43). Flow can be experienced in any endeavor and in any challenge that requires one to use the maximum amount of skill pertaining to a specific task.

Flow can contribute to the field of education and benefit educators, which will aide students in obtaining a state of optimal experience (Csikszentmihalyi, 1997). Flow can be applied to education because students may be challenged to the point where the task is still manageable, but require the maximum amount of skill to complete or conquer a challenge. For this reason, Csikszentmihalyi and Hunter (2003) conducted research among adolescent students. They were motivated to apply Flow to education because they observed that:

> School for most young people is a dull and uninspiring place to be in. Far from nurturing youngsters into expressive, intellectually alive and curious, confident, and able beings, school for many American youth is a trial to be endured. Boredom is so common that many consider it a normal phase of growing up. (p. 1)

As mentioned previously, boredom occurs when skill level exceeds the skill level required to master or complete a particular task. For example, if a student is able to perform and solve difficult mathematical equations, then simple arithmetic will not intrigue him or her and boredom would result. According to Hunter and Csikszentmihalyi (2003):

> Boredom is also characterized by an absence of experiencing interest. Where interest is enjoyable, stimulating, and focused, boredom is an unpleasant state of low arousal and motivation. If interest is viewed as the drive an individual uses to learn, discover, and grow, boredom marks an entropic state of disengagement impeding psychological growth over the long term. (p. 1)

Interest and pleasure in a task are central components to intrinsic motivation, which is an essential factor for Flow to occur (Csikszentmihalyi, 1975). Csikszentmihalyi (1990) argues that challenges that are doable, but require a high level of focus will increase interest. It was concluded that Flow increases intrinsic motivation and interest in a task because feelings of competence is increased, and by increasing competence one is more likely to engage in future events (Hunter & Csikszentmihalyi, 2003, Newbern, Dansereau & Pitre, 1999, Eccles & Wigfield, 2002). This cycle of intrinsic motivation and Flow reinforce the idea that one affects the other.

Understanding Flow allows participants of any task to increase interest and motivation. Levinson (1997) illustrates that Flow makes "life meaningful and enjoyable" (p. 1). Csikszentmihalyi's (1997) Flow Theory is based on intrinsic motivation, which allows the participant experiencing Flow to feel renewed and to seek improvement in a given area (Deci & Ryan).

Experiencing Flow increases intrinsic motivation and feelings of pleasure, which ultimately creates a more challenging yet rewarding atmosphere for the teacher and the student, allowing both entities to use their skill levels in mastering a particular task. If applied, Flow can increase learning, task enjoyments, and personal competence (Csikszentmihalyi, 1997). Nakamura and Csikszentmihalyi (2005) confirm that a "profession becomes a vocation when those doing it believe that its challenges matter and when the work connects them to what they value most" (p. 1). When one is engaged and finds meaning in a particular challenge, then optimal experience and performance becomes possible. Therefore, there is a positive connection between enjoyment and performance (Deci & Ryan, 1985).

Being engaged is synonymous with interest and intrinsic motivation. Hunter and Csikszentmihalyi (2003) explain that "examples of intense interest, like optimal experience or Flow are among the most enjoyable moments of being alive" (p. 1). It is also for this reason that Flow is synonymous with optimal experience and optimal performance. Hunter and Csikszentmihalyi (2003) explain that interest in a task or subject shapes personality: "The complexity of the experience of interest with its overlap into emotional, volitional, and cognitive areas, provide an optimal state for interfacing the psyche to the environment. Through the experience of interest, nature wires us for worldly involvement" (p. 1). Interest is therefore, an essential prerequisite and component of Flow.

Flow increases interest because mastery and accomplishment occur and interest allows a participant to engage in challenging tasks. Deci (1992) illustrates how interest or an intrinsic desire to engage in a particular task contributes to optimal experience:

The convergence of interest, enjoyment, and excitement signals the presence of intrinsic motivation. It does this by engendering "the feeling of being engaged, caught up, fascinated, or curious. There is a feeling of wanting to investigate, become involved, or expand the self by incorporating new information and having new experiences. (As cited by Hunter & Csikszentmihalyi, 2003, p. 1)

Interest therefore, increases the inner desire and the drive to seek out challenges. Without interest, participants may become apathetic towards challenges or opportunities to exert effort, which frustrates the event of Flow. Hunter and Csikszentmihalyi (2003) recognized that one of the main threats for generations to come is the lack of motivation or interest; especially among students. Without interest there would be a diminished

desire to engage in challenges where one could excel and possibly reach his or her

potential (Hunter & Csikszentmihalyi, 2003). To understand how to engage students by

giving them challenges may allow students and participants to increase motivation and

intrinsic desire which makes tasks and challenges more rewarding and more enjoyable. It

is possible that students lack interest because they are not challenged or because the

challenge may be too great for their skill level. Interest may be innate, but it may also be

fostered by understanding Flow and achievement. Hunter and Csikszentmihalyi (2003)

illustrate the importance of Flow in the area of education. Tomkins (1962) confirms that

interest and learning are inextricably linked:

> Interest is so essential for cognitive growth that the "absence of the affective
>
> support of interest would jeopardize intellectual development no less than
>
> destruction of brain tissue ... There is no human competence which can be
>
> achieved in the absence of a sustaining interest." (as cited by Hunter &
>
> Csikszentmihalyi, 2003, p. 1)

The purpose of education is advancement towards a particular goal and this furthers the

argument that Flow and intrinsic motivation are essential. Hunter and Csikszentmihalyi

(2003) agree that Flow is essential in education:

> Learning complex tasks requires persistence and focus, interest provides
>
> concentrative "staying power" in the face of difficulty. When things are
>
> interesting, concentration comes easy and persisting at them is less laborious and
>
> burdensome…Research shows that when students are interested in what they are
>
> reading, they are likely to recall more points, recall more information from more
>
> paragraphs, recall more topic sentences, write more sentences, provide more

detailed information about topics read, make fewer errors in written recall, and

provide additional topic relevant information. (p. 1)

Therefore, if one is interested in a given task or is intrinsically motivated, it fosters an

environment of progression. This notion inspired Hunter and Csikszentmihalyi (2003) to

cross-pollinate Flow with education. They explain, "When interested in a topic, students

are likely to earn higher grades and test more successfully. Interest's role in cognitive

development cannot be underestimated" (p. 1). Therefore, a student's progress and ability

to effectively learn depends on interest, and a student's progression is affected by his or

her respective teacher (Csikszentmihalyi, 1997, Huang, 1999).

Having a teacher or educator who is intrinsically motivated to teach provides

insight and enthusiasm in a classroom. Levinson (1997) claims that "people who love

their work spend more time being in Flow than those whose work supplies too much

stress or those whose work has lost its challenge or relevance" (p. 1) . Therefore,

achieving Flow is desirable and the ability to reach optimal performance should be the

goal in any field, especially for an educator. Huang (2003) attests to the fact that it is

important for an educator to obtain Flow because it may induce Flow for his or her

students:

> While we look at techniques that aim to stimulate intrinsic motivation from the
>
> learner's perspective, the concept of Flow is equally relevant to instructors. If we
>
> are also motivated by the pleasure of getting involved and engrossed in the
>
> learning experience with our students, we can meet students in a state of Flow,
>
> where cyclical, positive energy can be sustained and optimal learning experiences
>
> can occur. (p. 1)

Huang (2003) understands that teachers do not experience Flow alone; rather it is common that teachers affect the Flow experience for the students. It is therefore important to understand Flow and how it is induced because it can affect performance, confidence, and levels of interest.

Although it is imperative that instructors experience and strive for Flow, little research has been conducted concerning Flow among professors and other educators. Understanding what motivates professors and how they describe the Flow state will provide novel insights on how Flow can be effectively induced among educators. An educator that obtains Flow will increase his or her intrinsic desire to teach and educate. Nakamura and Csikszentmihalyi (2005) confirm that "an engaged teacher enjoys and finds meaning in this central task, mediating between the students whose learning is the goal and the set of questions that animate the domain of knowledge" (p. 1). Teachers that are engaged are teachers that have a high level of intrinsic motivation and are teachers that more regularly experience Flow (Csikszentmihalyi, 1997). When instructors reach that level of engagement, when he or she is fully involved in the learning process, it encourages students to take more interest in the material and classroom goals are realized (Csikszentmihalyi, 1997).

Educators shape the learning experience for their respective students and do have responsibility for engaging and maximizing interest. Nakamura and Csikszentmihalyi (2005) stress the impact and importance of a college professor:

In addition to being typical of professions in this general sense, undergraduate teaching has a special, underappreciated relationship to all the professions: if work is enhanced or compromised there, it will cause ripples throughout the

professions for which an undergraduate education is a prerequisite, and affect all

the knowledge workers on whom the future of society depends. If good work is

threatened in the colleges, we suggest, it is at risk everywhere (p. 1).

It is critical to discover ways in which one can improve how students learn and how

professors can optimize their own experiences, which will inevitably affect the lives and

learning of their students. Understanding how Flow is experienced by college professors

will provide novel understanding about how to actively engage professors, which will

have a positive ripple effect among their students. By studying Flow among college

professors it is possible to enhance the profession and thereby enhance learning. In order

to better understand Flow, it is imperative to comprehend its roots and relation to

motivation. The literature review will discuss past research that supports the importance

of Flow and how it is linked to two theories pertaining to intrinsic motivation.

<div align="center">Literature review</div>

In order to explain Flow more extensively, this section will provide insight by

including past research that contributes and supports Csikszentmihalyi's (1975) theory of

optimal experience known as Flow. The literature addresses the basics of motivation and

the difference between two different types of motivation; intrinsic and extrinsic. The

literature will expound on intrinsic motivation because Flow is intertwined with intrinsic

motives and is often a byproduct of participation in tasks that are considered to be

interesting or intrinsically pleasing to the participant. Intrinsic motivation is the umbrella

under which multiple motivational theories have been derived. The two theories

discussed in this section are Self-Determination Theory (Deci & Ryan, 1985) and the

theory of Self-Efficacy (Bandura, 1997) because both theories contribute and help

explain what constitutes Flow. The last section of the literature review will explain the theory of Flow and what constitutes optimal experience and how it is closely tied to motivation.

Motivation

Motivation is the driving force behind action that can ultimately increase performance and achieve desired outcomes (Deci & Ryan, 1985). Frederick and Morrison (1999) agree: "Indeed, it is motivation by which all behavior begins and which contributes to thoughts, emotions and behaviors associated with any domain of activity" (p. 221). Iso-Ahola (1999) refers to the concept of motivation as the "forces that initiate, direct and sustain human behavior" (as cited by Alexandris & Grouios, 2002, p. 1). Motivation determines participation, interest and ultimately performance when presented with a task where an expected outcome is desired (Green-Demers, Pelletier, Stewart & Gushue, 1998). According to these definitions, motivation is a key component in determining behavior, performance, and optimal experience (Csikszentmihalyi, 1990). Flow is based on intrinsic motivation, and thus, it is imperative to discuss the elements of intrinsic motivation that relate to the theory of Flow.

Intrinsic motivation refers to "doing an activity for its own sake, for the pleasure and satisfaction derived simply from performing it" (Deci, 1985 as cited by Alexandris & Grouios, 2002, p. 1). Pleasure is a byproduct of Flow and as a result interest and future participation increase. Therefore, people pursue personal goals and interests because of internal rewards or for the sake of pleasure one takes in the task.

Someone that is intrinsically motivated produces better results and increases his or her chances of obtaining optimal performance. Intrinsic motivation relates to the inner

needs of the participant and the fulfillment of these needs is what drives behavior. According to Deci and Ryan (1985), intrinsic motivation maximizes results, participation, and enjoyment (Halvari & Thomassen, 1997, Eccles & Wigfield, 2002, Hunter & Csikszentmihalyi, 2003). Halvari and Thomassen (1997) reaffirm that intrinsic motivation improves performance and allows the participant to obtain optimal results:

> With regard to the performance component of cumulative achievement…positive motivation (e.g., motivation to succeed, intrinsic motivation, action orientation during successful performance) is a prerequisite for good performance (including the athlete's "personal best"). (p. 344)

The personal best for any given task is what is referred to as optimal performance or Flow. Flow is therefore based on intrinsic motivation, or the desire to engage in challenging tasks for mere pleasure of task involvement. Intrinsic motivation is therefore, the type of motivation that renders optimal experience, as opposed to being motivated extrinsically.

Deci (1975), as cited by Alexandris and Grouis (2002), explain that intrinsic motivation, as opposed to extrinsic motivation, which pertains to a "wide variety of behaviors that are engaged in as a means to an end and not for their own sake, produces more results in the areas of autonomy, satisfaction, adherence and performance outcomes" (Deci, 1975 as cited in Alexandris and Grouios, 2002, p. 1). Alexandris and Grouis (2002) agree that when an agent is intrinsically motivated he or she produces more results and allows him or her fulfill and enhance intrinsic needs. The fulfillment of these innate desires motivates one to exert the maximum amount of effort by participating in challenging tasks.

Intrinsic motivation, which increases the desire to challenge oneself are the ingredients that produce Flow and optimal experience. Roberts (1993), as cited in Hansen, Gilbert, and Hamel, (2003), explains that intrinsic motivation is essential "when a person undertakes a task at which he or she is evaluated, enters into competition with others, or attempts to attain some standard of excellence" (p. 406). Flow, according to Csikszentmihalyi, is the ultimate standard of excellence and therefore presupposes that intrinsic motivation is an essential prerequisite. Reaching this level of optimal performance is an internal affirmation one is performing at his or her personal best and thus, pleasure and enjoyment accompany these optimal experiences.

The feeling of achievement and enjoyment contribute to what Csikszentmihalyi (1975) refers to as Flow or optimal experience. The concept of an optimal experience is linked with the concept of intrinsic motivation and this is due to the feeling of satisfaction associated with intrinsic rewards. The more one is motivated due to intrinsic desires, the more likely one will engage in challenging tasks. Frederick-Recascino and Schuster-Smith affirm that "intrinsic motivation correlated positively with greater number of hours and days per week of participation in an exercise or sport activity, as well as with higher levels of perceived satisfaction and competence for the activity" (p. 1). The increased amount spent to master and accomplish a given task is what contributes to Flow and by experiencing Flow, intrinsic motivation, or enjoyment in the task is increased (Frederick & Ryan, 1993, Csikszentmihalyi, 1975).

The occurrence of an optimal experience is intrinsically motivating (Csikszentmihalyi, 1975). One participates in activities because of the enjoyment of the challenge and not because of external conditions. Montgomery, Sharafi and Hedman

(2004) reaffirm that "the Flow experience occurs when a person is highly involved in an activity and the results are deep enjoyment and content" (p. 1). This level of deep enjoyment confirms that intrinsic motivation and Flow coexist and is a desirable state for any person undertaking a particular task. Motivation and enjoyment are not applicable to one domain of interest, but is thought to permeate and affect multiple areas of activity where there is a clear objective. Therefore applying Flow and by increasing Flow in one's life may increase the quality of life and improve results in tasks where one is trying to achieve a specific objective. Frederick and Morrison (1999) agree that intrinsic motivation in the arena of sports produces increased results and satisfaction:

> In sport and fitness domains, intrinsic motives related to a greater amount of participation in sports, as well as to positive mental health characteristics, such as lower depression, higher self-esteem levels and greater perceived vitality. Notably, all extrinsic-type motives, whether externally forced or relatively self-motivating, are associated with greater feelings of pressure and control, and lowered task interest and enjoyment, as well as less personal challenge than intrinsically driven behaviors. (p. 221)

Frederick and Morrison (1999) also concluded that extrinsic motivation in sports related to negative cognitive results, such as higher levels of anxiety and depression. Intrinsic motivation therefore produces the sentiments that correspond to flow or the pleasure of participating in a task. Many theories have been derived to specify different aspects that motivate action based on the concept of intrinsic motivation, but this study will focus on two theories that add and support Csikszentmihalyi's (1975) Flow Theory.

The theories that are based on intrinsic motivation and the theory of Flow and used in this study to examine Flow are Deci and Ryan's (1985) Self-Determination Theory and Bandura's (1997) theory of Self-Efficacy. The Self-Determination Theory indicates that "motivation is the driving force for both psychological and behavioral outcomes within life domains" (Frederick-Recascino & Schuster-Smith, 2003, p. 1). This theory relates to Flow because of Deci and Ryan's emphasis and discovery of the importance of autonomy and competence, which are subcomponents of intrinsic motivation and Flow. These two factors are reiterated by Csikszentmihalyi's (1975) Flow Theory and suggest that they are essential to obtaining optimal experience. Bandura's (1997) Self-efficacy Theory explains the importance of perception and its effect on competency and autonomy. This theory is related to optimal performance because Flow is situational and task specific, whereas the idea of competency and autonomy developed by Deci and Ryan (1985) are more broad and vague, and therefore, do not address how these two components are affected by perception (Eccles & Wigfield, 2002).

Competence

Competence is a key factor that contributes to flow and is related to intrinsic motivation (Deci & Ryan, 1985, Eccles & Wigfield, 2002, Asakawa & Csikszentmihalyi, 2000, p. 121). Cellar, Posig, Johnson and Janega (1993) claim that "intrinsic motivation has often been defined as a willingness to engage in a task for its own sake because it results in a sense of self-determined competence" (p. 88). Deci and Ryan (1985) discovered that there exists in everyone an intrinsic need to feel competent and that this need drives and motivates action. Competence is defined as the personal beliefs that one possesses to accomplish a goal related to activities within a specific domain (Asakawa &

Csikszentmihalyi, 2000, p. 121). A participant that believes he or she is competent and capable at playing sports in general may not feel as competent or as capable at succeeding when it comes to bowling. Therefore, competency is not considered as situational or task specific, but does affect participation. In fact, participants that perceive themselves as competent within a particular domain will be more likely to engage in challenges related to this area of perceived competency than those who do not (Deci & Ryan, 1985, Eccles & Wigfield, 2002). This finding is paramount when considering Flow because Flow is based on the idea the one must seek out challenges in order for Flow to occur. Eccles and Wigfield (2002) agree, "People seek out optimal stimulation and challenging activities and find these activities intrinsically motivating because they have a basic need for competence" (p. 1). Competence pertains to the volitional control of outcomes and involves two steps.

> First, the person knows the specific behaviors that result in successful outcomes, and second, the person feels able to execute such behaviors. This internal drive to be competent, or effective, develops as the person explores his or her environment--even seeking out challenges--and continually learns and adapts. (p. 111)

The Flow model is based on challenges because they provide the opportunity for levels of peak performance to occur and skill level to be maximized. Therefore, competence increases the likelihood that a participant will accept challenging tasks because there exists a personal belief that one is capable of success. Newbern, Dansereau and Pitre (1999) confirm, "Ratings of personal competence in task performance are often more predictive of future performance levels than are actual past performance levels" (p.

407). Competency, which drives behavior towards task involvement, increases as goals are realized.

Striving to achieve competence through task involvement allows Flow to occur and in turn competency increases. Eccles and Wigfield (2002) affirm that "the experience of flow is a reward that ensures that individuals will seek to increase their competence" (p. 1). This process is cyclical and as a result intrinsic motivation and interest is enhanced towards a specific domain (Deci & Ryan, 1985). Bergin (1999) affirms, "People are more likely to be interested in a task or topic if they perceive that they will be competent at it" (p. 89). When participants are more interested in a task, then engagement and effort increases, which then allows Flow to occur. When a participant experiences Flow, then this reinforces competency, which leads to enhanced interest and intrinsic motivation. Eccles and Wigfield (2002) explain, "The experience of flow is a reward that ensures that individuals will seek to increase their competence" (p. 1). The Flow experience is related to the inner need to increase competence. The two are connected and if a participant increase competence within a domain, then Flow is more likely to occur because the participant will seek out challenging tasks. When a task is challenging, a participant's skills will be increased and Flow may occur, which increases competence. Another component related to Flow and Deci and Ryan's Self-Determination Theory, is the inner desire to be autonomous.

Autonomy

Autonomy is the second aspect of Deci and Ryan's (1985) Social Cognitive Theory that relates to intrinsic motivation and Flow. Lopez (1981) confirms that intrinsic motivation, competence, and autonomy are interrelated, "Intrinsic motivation is

determined by feelings of personal control and feelings of competence" (p. 60). Where

competence directly relates to skill, autonomy focuses on feelings of perceived freedom,

the ability to engage and participate in an activity in the absent of external constraints, or

the amount of perceived control one has in a given situation (Deci & Ryan, 1985).

Miserandino (1996) claims, "The need for autonomy is the need to be self-determined

and to have a choice in the initiation, maintenance, and regulation of an activity" (p. 203).

These definitions correspond to what Csikszentmihalyi (1975) refers to as perceived

freedom when engaging in an activity. Csikszentmihalyi (1975) claims that in order to

reach Flow or maximize the amount of intrinsic pleasure in a given task, the agent must

feel like he or she has chosen the task freely or that he or she is participating out of the

pure enjoyment of the task. Frederick-Recascino and Schuster-Smith (2003) agree that

"when individuals freely participate in activities, without the presence of external

pressures, they are fulfilling the need for autonomy. At a challenging skill level, an

individual will develop ability and confidence." This increased perception of competence

and self-determination enhances one's intrinsic motivation and pleasure to participant in

a given task, which increases the likelihood of Flow occurring (Deci & Ryan, 1985,

Frederick-Recascino & Schuster-Smith, 2003, Alexandris & Grouios, 2002

Csikszentmihalyi, 1990). DeCharms (1968) reaffirms:

> Persons consider themselves to be intrinsically motivated whenever they perceive
>
> themselves as being the locus of causality for their own behavior. On the other
>
> hand, if persons believe that an external force is controlling their behavior, they
>
> will perceive themselves as being extrinsically motivated. Satisfaction comes
>
> from an activity that is perceived as intrinsically motivated because of a person's

need to feel a sense of personal causation in the actions (as cited in Hitt, Marriott

& Esser, 1992, p. 406)

Autonomy allows the participant to fully engage in a task because there are not any

constraints, and when one is fully engaged, not only is it intrinsically rewarding, but

optimal experience (Flow) can be the result. However, if the participant perceives that he

or she is coerced into participating or is participating to receive external rewards, then

this diminishes the probability of experiencing Flow.

In recent studies conducted by Lopez (1981), the presence of external rewards

diminishes the perception autonomy, which reduces intrinsic motivation. Lopez (1981)

expounds:

Extrinsic rewards have both a "controlling aspect," which conveys feelings of lack

of freedom to behave as one chooses and of being controlled by outside forces, as

well as an "informational aspect," which conveys information about one's

competence and self-determination (p. 60).

The perception of being controlled or the restriction of choice, even by external rewards

such as money or recognition, restricts optimal experience because the participant is not

voluntarily choosing to participate out of pleasure (Csikszentmihalyi, 1990). The external

rewards do not enhance the inner desire to participate in the task out of pure enjoyment.

This observation is especially true for those with high interest and high intrinsic

motivation for a particular task (Wiest, Wong, Cervantes, Craik & Kreil). The lack of

locus of causality alters the perception of self-determination, which decreases intrinsic

motivation (Hitt, Marriott & Esser, 1992). The decreased intrinsic desire reduces the

amount of effort put forth to fully engage and take on challenging tasks, which depletes

the chances of Flow. Autonomy is therefore an internal perception regarding the absence of external motivators. This concept of perception and how it relates to both competence and autonomy is referred to as Self-efficacy.

Self-efficacy

Self-efficacy is the belief in one's ability to perform or carry out a particular task or activity. More specifically, self-efficacy has been defined by Bandura (1997) as an "individuals' beliefs about their performance capabilities in a particular context or a specific task or domain" (Linnenbrink & Pintrich, 2002). Self-efficacy is task-specific and does not cover the wide array of attributes that make up the concept of self. Self-efficacy is not self-esteem and the two concepts should not be confused or interrelated. Self-efficacy "is a judgment of task-specific capabilities and is based on actual accomplishments and success and failures, whereas self-esteem is a much more general evaluation of the self" (Linnenbrink & Pintrich, 2002, p. 1). Self-efficacy relates to the Deci and Ryan's (1985) Self-determination Theory, but is more task-specific, which relates more towards Flow.

Self-determination Theory and Bandura's (1997) Self-efficacy Theory increases intrinsic motivation, however self-efficacy corresponds more to Flow because Flow is achieving optimal experience when engaging in a specific task or challenge. The skills associated with this specific task and the perceptions associated with competence and autonomy is affected by the participant's self-efficacy. Flow is related to specific challenges because there must be a way for the participant to measure progress and ultimately success.

Csikszentmihalyi's (1975) Flow model illustrates that there must be specific parameters whereby one can gauge success and progress. By gauging progress allows the participant to determine if he or she is successful or is mastering a particular task, which ultimately affects his or her perception of his or her ability. The participant must also have an understanding of what is expected and what constitutes optimal performance. In a race, the parameters are clear and performance is based on time or actual position compared to other runners. Thus, the participant has a clear idea of what will constitute optimal performance. Self-efficacy affects the cognitive processes and the ability of the participant to challenge him or her to the point where skill level and challenge come together to formulate Flow. If a runner does not believe that he or she is capable of winning or capable of doing well in a race, or does not care because of a lack of interest, Flow will not occur. Therefore, perception or the belief one can succeed and the desire to participate are essential ingredients to obtain optimal performance. The idea about the positive connection between self-efficacy, achievement, and reaching optimal levels of performance, confirms that self-efficacy should be as high as possible (Linnenbrink & Pintrich, 2002, p. 1). In order to increase self-efficacy, a participant's perceived competence and perceived autonomy should be as high as possible.

Self-efficacy addresses the role and power of perception that pertains Flow. Bandura (1997) takes what Deci and Ryan (1985) discovered as autonomy and competence, and applies the components of task specificity and perception. Csikszentmihalyi (1975) agrees with Bandura (1997) that perception is crucial in determining future performance because having a realistic belief about one's freedom to pursue a desired path increases the perception of autonomy and the perception of being

capable of achieving desired results increases perceived competence. The perception of these two inner desires increases intrinsic motivation, which directly affects how one chooses to challenge oneself and how much effort one expends at mastering a specific task (Schunk & Zimmerman, 1997, Eccles & Wigfield, 2002).

Self-efficacy and competence.

Self-efficacy is closely related to competence and the two overlap, however, self-efficacy is the perceived skills or capabilities one possesses to overcome or master a specific task. Dai, Moon and Feldhusen (1998) confirm the distinction and link between self-efficacy and competence:

> It is useful to make a distinction between perceived competence, which is a summative self-evaluation of competence in a given domain, and self-efficacy, which represents a more situational, task-specific appraisal of self-competence.
>
> However, conceptual and empirical linkages between the two are obvious. (p. 47)

It was determined that high levels of competence increases the intrinsic desire to engage and seek out challenging tasks, which is essential to obtain Flow. Self-efficacy also increases the intrinsic desire to increase competency by expending more effort than one would if one were externally motivated. Schunk and Zimmerman (1997) agree:

> Self-efficacy is hypothesized to influence choice of tasks, effort expenditure, persistence, and achievement. Compared with students who doubt their learning capabilities, those with high self-efficacy for acquiring a skill or performing a task participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level. (p. 198)

Similar to competence, self-efficacy affects achievement levels and allows the participant to extend and improve his or her skills in a specific domain. Eccles and Wigfield (2002) confirm, "Individuals' efficacy expectations are the major determinant of goal setting, activity choice, willingness to expend effort, and persistence" (p. 1). The lack of competence or self-efficacy would frustrate Flow because the maximum amount of skill to overcome a challenging task would not be utilized because the expectation of success would be lacking. Therefore, the belief that one is capable of success is paramount. Flow is a way for one to gauge and measure success, which thereby increases self-efficacy.

Flow is obtaining the pinnacle of performance and when one is fully engaged and achieving optimal results, the byproduct is increased desire to participate in challenges that stretch a participants skill and allows the participant to measure success. Schunk and Zimmerman (1997) make the connection between success, competency, and self-efficacy:

> Research shows that self-efficacy beliefs (personal variable) influence achievement behaviors (choice of tasks, effort, persistence) in that efficacious students are more likely to choose to engage in tasks, expend effort, and persist to overcome obstacles and succeed. Conversely, behaviors influence personal variables. As students work on tasks (behavior) they mentally note their progress (personal variable), which conveys to them that they are capable of learning, thereby raising their self-efficacy. (p. 196)

Being able to gauge and measure progress is essential to obtaining Flow (Csikszentmihalyi, 1975). When one is able to evaluate progress objectively, then one can determine if one is reaching mastery of the task. This is where self-efficacy differs

from competence, because competence is not task-specific whereas self-efficacy is

inextricably linked to progress measured by specific objectives related to a specific

challenge (Dai, Moon & Feldhusen, 1998). When self-efficacy is increased by gauging

progress, then one is more likely to expend more effort and time to master a given task,

which then allows optimal experience to occur. Self-efficacy also corresponds to

autonomy, the second component of Deci and Ryan's (1985) Self-determination Theory.

Self-efficacy and autonomy.

Self-efficacy shares the same concept of autonomy and that in order for self-

efficacy to be as high as possible, the participant must feel like he or she is freely

choosing the task or activity. It was mentioned earlier by Hitt, Marriott and Esser (1992)

that the phrase "locus of causality" used as a synonym to mean autonomy, is an innate

need that drives action is a prerequisite to obtaining one's personal best. Montgomery,

Sharafi and Hedman (2004), define the locus of causality as the psychological term locus

of control and relate it to Bandura's (1997) Self-efficacy Theory: "Locus of control,

generally concerns the subject's experience of how control of the activity is allocated

between himself or herself and an object" and the "definition of the locus dimension may

be compared with Bandura's (1997) theory of self-perceived efficacy" (p.1). In order for a

task to be intrinsically rewarding at its optimal level, the participant must believe that he

or she is able to control the outcome or result of a particular task or challenge.

Not only does the participant need to feel a sense of mastery or high levels of

competence associated with a task, but as mentioned previously, he or she must perceive

that he or she has chosen the activity without external pressure. In fact, autonomy,

competence, and self-efficacy are all interrelated. Because the task is specific and has

specific objectives, self-efficacy is used, as a result competency is the more vague version of self-efficacy that is increased an as one master's a challenging task, and as one increases competency then it renders the participant with sentiments of empowerment or personal control. Asakawa and Csikszentmihalyi (2000) agree, "Competence involves understanding how to attain intended goals and being effective in activities related to those goals. Thus, competence may induce a sense of control over the situation" (p. 121). In a study involving children in a classroom setting, Eccles and Wigfield (2002) reaffirm how they "linked control beliefs to competence needs: Children who believe they control their achievement outcomes should feel more competent" (p. 1). Csikszentmihalyi (1975) also claims that is essential that the participant is able to freely choose the task and thereby, optimize intrinsic motivation, or participating in an activity for the internal reward or pleasure. Although Flow relates to autonomy, it is task specific and therefore, also relates to self-efficacy because it takes what Deci and Ryan (1985) discovered as an intrinsic need and applies it to a specific task or challenge.

       Self-efficacy, competence, autonomy, and Flow.

       Flow is based on intrinsic motivation where competency, autonomy, and self-efficacy are all linked to optimal experience (Eccles & Wigfield, 2002, Nakamura & Csikszentmihalyi, 2005, Asakawa & Csikszentmihalyi 2000). Competency allows the participant to increase his or her desire to seek out challenges and engage in his or her environment (Newbern, Dansereau & Pitre, 1999, Cellar, Posig, Johnson & Janega 1993, Eccles & Wigfield, 2002). The seeking of challenges is essential to obtaining Flow because Flow's most prominent prerequisite is the challenge-skill balance (Csikszentmihalyi, 1975, Hagevik 1999, Russell, 2001). The participant must also

perceive that he or she is autonomous, or freely choosing the activity for the pleasure of participating (Deci & Ryan 1985, Miserandino, 1996, Hitt, Marriott & Esser, 1992, Lopez, 1981). The perception of which, fulfills the need to exercise control and thereby increases competence and intrinsic desires to maximize effort (Frederick-Recascino & Schuster-Smith, 2003, Dai, Moon & Feldhusen, 1998, Cellar, Posig, Johnson & Janega, 1993). Flow is also based on the optimal experience and performance of a specific challenge or task (Csikszentmihalyi, 1975, Eccles & Wigfield, 2002). Self-efficacy is composed of both autonomy and competency and applies these two intrinsic desires to a specific task (Dai, Moon & Feldhusen, 1998, Eccles & Wigfield, 2002, Schunk & Zimmerman, 1997). Self-efficacy also emphasizes the importance of perception and expectation, which are also essential components of Flow (Asakawa & Csikszentmihalyi, 2000, Bandura, 1997, Csikszentmihalyi, 1975, Nakamura & Csikszentmihalyi, 2005). Therefore, it is necessary to discuss how Flow, and what constitutes and contributes to the theory of optimal experience, is achieved and experienced.

Flow

Flow is essentially the highest level of performance possible for an individual (Csikszentmihalyi, 1975). Flow has been described as a "state of optimal experience involving total absorption in a task at hand, and creation of a state of mind where optimal performance is capable of occurring" (Russell, 2001, p. 83). Most athletes refer to the concept of Flow as 'being in the zone'; however, Flow can be experienced at all levels of performance where there is a relative balance between challenge and skill (Csikszentmihalyi, 1975).

Csikszentmihalyi (1975), in his original Flow model explains that challenges exist in our everyday lives, which typically are overlooked. He therefore, claims that Flow can occur daily. However, challenges are not the only factor that contributes to Flow. Perceived skill to accomplish a specific challenge is equally important. The concept of challenge-skill balance is the central theme and factor that contributes to Flow (Russell, 2001). According to Ellis and Voelkl (1994):

Conceptualized Flow is an optimal experience that stems from peoples' perceptions of challenges and skills in given situations. Situations in which challenges and skills are perceived to be equivalent are thought to facilitate the emergence of such indicators of Flow as positive affect and high levels of arousal, intrinsic motivation, and perceived freedom. (p. 1)

Russell (2001) confirms that the scales of skill-challenge balance and the perceptions of the participant are the most effective in determining a Flow experience. Russell (2001) claims, "The Flow trait challenge-skill balance was most highly correlated with the trait measure of perceived ability, and the authors concluded that high perceived ability is crucial to facilitating Flow states" (p. 8). This reconfirms that Flow is dependent upon the perceptions of the participant as opposed to actual skill set as it pertains to a particular task.

The original Flow model developed by Csikszentmihalyi (1975) conducted an experiment where he measured at random occurrences, the level of skill and challenge that were apparent in the lives of those participants. The method was referred to as the ESM method. The ESM method stands for the Electronic Sampling Method. The participants were given pagers and throughout a predetermined time period, usually for a

week, when the pager sounded, the participants were asked to record his or her perceived

skill level and the perception of the challenge (Csikszentmihalyi, 1975). Thus, the

primary concept of Flow originated around the idea that the balance between perceived

skill and perceived challenge were essential to experience a state of Flow. Hence,

perception, similar to the perceived constraints to intrinsic motivation, is essential to

obtain Flow. Russell (2001) reiterates, "A critical qualification of this state is that Flow is

not dependent upon the objective nature of challenges or the objective level of one's

skills, but that Flow is entirely dependent on one's perception of the challenges and their

skill" (p. 83).

The revised version of Flow however indicates that Flow most likely occurs when

a challenge is considered to be more challenging than mundane tasks. Csikszentmihalyi

(1997) reformulated the Flow model because participants recorded Flow experiences

when a challenge forced them to apply a higher level of skill that typically would not be

used on a daily basis. Montgomery, Sharafi and Hedman, (2004) explain:

> Flow is assumed to be a function of two factors-namely, the subject's skill, and
>
> the challenge of the activity in which the subject is engaged. More precisely, Flow
>
> occurs when a person's skills are fully involved in overcoming a challenge that is
>
> just manageable. (p. 1)

Therefore, when a task demands a higher skill set that is termed "just manageable" and

beyond normal use to overcome a challenge, optimal experience is more likely going to

transpire. When individuals perceived Flow, Csikszentmihalyi (1997) discovered that

there were common categories that accompanied Flow experiences.

Csikszentmihalyi (1997) interviewed participants that experienced Flow and as a result eight repeated dimensions or categories emerged:

> These dimensions include the balance between challenge and skill, and the following eight dimensions which he theorizes to depend on the challenge/skill balance: merging of action and awareness, clear goals, unambiguous feedback, concentration on the task at hand, sense of control, loss of self-consciousness, transformation of time, and the autotelic experience (Jones, Hollenhorst, Perna & Selin, 2000, p. 247)

Voelkl and Ellis, (1998) claim, "Emerging from the Flow experiences containing these dimensions are high levels of enjoyment and a nurturing of one's self identify" (p. 1). Although all of these categories have been developed through research, not all have to be present to experience an optimal state (Csikszentmihalyi, 1997). One can experience Flow and optimal performance and not experience an altered sense of time or feel a sense of control. A state of optimal performance can therefore be achieved without experiencing all of the eight dimensions of Flow.

<div align="center">Method</div>

A variety of research has been conducted using Flow in the area of athletics, music, medical field, office work, and even education. The area of education has used Flow to measure self-efficacy, intrinsic motivation, and challenge-skill balance among high school, adolescent, and elementary students, but little research has focused on what constitutes Flow for teachers, especially college professors (Csikszentmihalyi, 1997). A grounded theory approach was used for this study in order to examine how professors communicate the phenomenon of Flow and how they describe optimal experience when

teaching in a classroom setting. How each professor interprets and constructs this reality would provide insights to how Flow could occur more frequently for professors, provide more insights to what characteristics accompany Flow while teaching, and thereby possibly increase job satisfaction and teaching effectiveness.

Grounded theory would therefore provide insights into the constructed reality for each professor through constant comparison and by extracting common themes (Creswell, 1998; Strauss & Corbin, 1998). This study was designed to find common themes associated with Flow by interviewing professors that have experience lecturing in a classroom. Because minimal research has been conducted focusing on how professors experience Flow, it was determined that Grounded Theory would be advantageous in developing subjective realities that can be cross-referenced to what Csikszentmihalyi (1975) discovered.

The main factor that contributes to Flow is the challenge-skill balance (Russell 2001). The challenge and the skills used by professors may be different, but the process of Grounded Theory would allow the researcher to explain what constitutes the challenges and skills associated with teaching and what ultimately determines success as it pertains to teaching in the classroom.

Another factor that contributes to Flow is immediate feedback, which allows the participant to gauge success. Grounded Theory would allow the researcher to discover how professors measure success and what they interpret as measureable feedback while teaching.

The Flow categories developed by Csikszentmihalyi (1975) explain the internal associations of Flow, but fail to address the specific challenges that occur and the skills

necessary to master said challenge. The categories and dimensions developed by

Csikszentmihalyi (1975) are not detailed nor are they specific to a particular occupation

or event. Grounded Theory would therefore provide insights as to what contributes to

optimal performance for professors and what they interpret as the challenge associated

with teaching and the skills necessary to master this challenge.

This study consisted of eight male and two female participants within the College

of Humanities and Social Science at Southern Utah University. Within this college there

are six departments. Five of the six departments were chosen for the process of selecting

professors for the interviewing process. These departments were: English, Foreign

Languages and Humanities, History and Sociology, Political Science and Criminal

Justice, and Psychology. The reason for only including five of the six departments is due

to the fact that the Department of Communication professors would have a preconceived

knowledge of the main objective of the interview and could potentially alter their answers

to the interview questions.

Two professors were chosen from each department in order to increase the

potential for transferability and to reach the goal of obtaining a sample size of at least ten

participants. Therefore, what is generated through this study may be applicable to

professors in general when teaching in a classroom. The professors were chosen at

random and each professor agreed to participate in the study. Specifically every second

and fourth professor listed on his or her department website was chosen to participate.

The participants were professors who actively teach upper and lower division courses.

A convenience sample was chosen in order to assist in exploratory research where

theory can be developed and provide a solid foundation for which future research can be

conducted and influenced based on results. As previously mentioned, the objective was to discover how Flow was experienced in a classroom setting for each individual participant and a convenience sample would provide participants that met this criteria and would progress the generation of theory associated with Flow experienced by professors.

Each professor was interviewed in a dyadic scenario, which lasted thirty to forty-five minutes. An interview guide was utilized in order to have similar constructs for each interview. However, the interviews did not have a formal structure, which allowed the interviewer to ask follow-up questions, which yielded more data in order to reach theoretical saturation. Saturation is the point of diminishing returns where data no longer is able to contribute to categories that have been established (Creswell, 1998; Strauss & Corbin, 1998). The dyadic setting occurred in each of the professor's individual office where the interview was recorded then later transcribed verbatim to assist in the coding process. Once the interviews were transcribed, the process of extracting common themes was conducted.

The process of analysis where common themes are coded is referred to as open coding (Creswell, 1998). Once these themes have been established, then the process of axial coding transpires. Axial coding is the process of interrelating the categories or themes that have emerged during open coding (Creswell, 1998). Therefore, constant comparison and analysis occurred in order to examine how the varying categories related and how each could contribute to generated theory. After thorough examination of the various categories and the properties associated with each category, then the process of selective coding occurred (Creswell, 1998). Selective coding is the process of selecting one core category or theme that summarizes the interrelatedness and convergence of the

themes that emerged and selected during the two previous coding procedures (Creswell, 1998).

In order to allow each professor to expound on their individual experiences, open-ended questions were implemented. The questions were not designed to be direct; rather each question allowed the professors to expound on personal experience related to optimal experience. The theory of Flow and the main purpose of this study was not divulged to the participants until after the interviews were completed. The interview questions were designed to provide insight into a professor's level of self-efficacy, intrinsic motivation, perceived constraints to optimal performance, type of student feedback, how positive and negative feedback is interpreted, perceived autonomy, and how he or she personally experiences Flow. The questions addressed these areas because it was determined in the literature review that self-efficacy, intrinsic motivation, perceived constraints, feedback, and perceived autonomy affect and determine if Flow can be achieved. This would allow insights as to what perceptions and types of attributes contribute and determine what constitutes Flow for professors.

<center>Results</center>

Throughout the coding process three themes emerged that related to what constitutes optimal experience for the professors that were interviewed. The three themes were challenges, skills, and feedback. All of these themes contributed to the overall theme of Mastery.

Mastery

Mastery encompasses and reinforces what has been established in the literature review that leads to self-determination (autonomy & competence) and task competency (self-efficacy). One professor expressed that the opposite of an optimal experience is when there is a "lack of mastery and you don't have as much experience with the material. The material is not just intrinsically interesting to me. You know the other thing is the students, I just don't have complete control" (Participant 1). This positive relationship that exists between intrinsic desire, autonomy, competence, and self-efficacy, support the idea that one is striving for mastery and control over a particular challenge and that mastery, even if for a short time, relates to Csikszentmihalyi's (1975) theory of Flow. Each of the categories contributes to mastery as the overall theme and interestingly, if a professor is not obtaining the objective of engaging the students, then mastery was not perceived. Engaging the students was one of the challenges and was the main objective associated with being an effective professor.

Challenges

Due to the fact that the challenge-skill balance is the most crucial factor that determines Flow, the interview consisted of questions that addressed perceived challenges and objectives that are associated with teaching. Throughout the interview common challenges were communicated that produced the opportunity for success and related to perceived teaching ineffectiveness. This section will discuss the challenges associated with teaching and the internal and external barriers that correspond to achieving Flow that was communicated by the participants of this study. Each professor tended to measure success and failure by the same scale, which resulted in the formation of the first challenge and ultimately the main objective; engaging the students.

Engaging the students.

Engaging the student allows the professors to measure success, which confirms that he or she is making the material interesting. The professors all mentioned that if students are not engaged, then the goal or objective was not realized. Participant 4 described that the opposite of having an optimal experience is when the students "all seem like they're dead and I'm just droning on. Obviously there is no exchange taking place. There is a sense of passivity and I have a lack of effectiveness and inability to bring us into conversation." Participant 3 confirms, "Frankly I don't care whether they agree with me or not with what's going on or not going on, but the fact that they're now paying attention means I did my job and I did it right." The professor's perceived objective is to engage the students or cause them to think about what is being taught.

If students are not perceived to be engaged, then the goal or objective is not realized. Participant 2 explains, "For me the type of experience where the classroom is hollow or students don't care about the material is the opposite of optimal performance. Learning is not taking place because there a sense of apathy." The ability of the professor to harness and guide dialogue was essential and imperative for gauging progress. Participant 8 agrees, "The opposite of being at my personal best is when I just love the material we're going to discuss for the day and my students could care less. I feel like I'm not very good at my job because I'm not able to grab their attention you know. I feel like I'm just ineffective at my delivery." A professor could do everything in his or her power to maximize student engagement, but unless there is interaction taking place, optimal performance cannot be perceived. It is like a comedian telling jokes without receiving laughter from the audience. Laughter would serve as the indicator that the jokes are

actually funny. Therefore, the challenge of engaging the students was the primary task

that these professors needed to master in order to perceive optimal performance. The next

challenge that prevented student engagement (main objective) was student preparation.

Student preparation.

Student preparation involves the ability of the students to prepare for a future

lecture thereby allowing him or her to respond to questions and provide input, which

serves as an indicator that he or she may be engaged or interested in the material.

Participant 9 shares, "It's intensely de-motivating to have students who haven't done the

reading and who just look like they don't want to be there. That's just a bummer you

know because I'm excited to talk about any of the stuff I talk about."Another professor

claims that she loses motivation when students do not care about being in class. She

explains, "You also know if they don't give a darn and they're totally waiting for the

hour to be done and to get the heck out of here. For those students I can try for awhile,

but then I sort of lose interest and if they don't care then I don't care anymore"

(Participant 2). Participant 10 affirms that "students who have not done the reading are

less likely to be engaged and if they're not engaged, then it is hard for me to become

energetic and enthusiastic about the material." Participant 3 agrees that "the students are

responsible for their own learning experience. However, it is extremely frustrating when

students do not face up to this responsibility and blow off education per se." Professor 1

expounds, "I lose enthusiasm when I realize that the students haven't prepared for class. I

have to kind of hold their hand and I can't move as fast if they're dragging behind."

Therefore, lack of preparation on the part of the students associated with lack of

motivation on the part of the professor; the lack of motivation possibly resulting from not achieving the objective of mastering the difficult challenge of engaging the students.

Paradoxically, professors claimed they were responsible for student involvement while stating in the same breath that the students needed to prepare to take part in classroom discussion. Participant 6 noted that "students need to prepare themselves to come to class. They have to do their part by reading the chapters ahead of time and just be there mentally." Participant 7 affirms, "It takes all of the people to be engaged in the experience for whatever reason and I would say that it takes preparation for all of the people. It takes a well-thought out plan that will lead the discussion in a way that it will be of value. It takes the students doing their homework, so there are enough people to contribute." Participant 10 agrees, "Even though I need to do my part with sufficient preparation, the responsibility of learning equally rests with the students. They need to take hold of the learning process and motivate themselves to be the best student possible and not the type that tries to take shortcuts." This finding coincides with the difficulty in managing and facilitating student interest because of the unpredictable nature of the task. The task of engaging the students is unpredictable because the choice is theirs if they decided to take interest and set aside possible distractions. Therefore, the challenge is to control and intrigue students, but it is still up to the students to become engaged. Another barrier communicated by the professors was class size.

Class size.

Class size was also seen an inhibitor of Flow and a challenge that was perceived to prevent optimal performance and student engagement. This theme is also associated with mastery because as class size increased the task to engage the students seemed more

difficult if not impossible. Participant 9 explains, "It's hard to personalize for 107 students, but it's easier to personalize it for 15 students." Students may be seen as less attentive or more distant than if it was a smaller class. Students in larger classes, therefore, may seem less engaged. Participant 2 agrees that "larger classes are sometimes harder to get people involved and more difficult to become more acquainted with the students." Participant 6 shares, "I think bigger classes are frustrating because students are more intimidated to participate and there is an obvious lack of interaction." Participant 5 agrees, "Those classes that are larger make me feel that I am not able to interact with the students how I would like. What I want is there to be interaction and discussion and with those larger classes I feel more comfortable lecturing." Therefore, to feel a connection with the student is more difficult and the type of communion associated with Flow would is less likely going to occur. A professor perceives less control and falls back to a method of teaching that would be less challenging and intimidating. With a smaller class a professor may believe that he or she is able to engage the class and monitor the learning environment rendering more opportunities for Flow to occur. Another perceived constraint to Flow is introductory courses.

Introductory and lower division courses.

Another theme similar to class size is the difference between lower level and upper level courses. Professors communicated that introductory courses, meaning the basic courses that introduced the subject, were more difficult to teach because there was a lack of interest on the part of the students. One professor remarks, "I feel I have much more of a challenge at those thousand level classes and I find it's the hardest class to teach" (Participant 5). The challenge in the lower level courses was similar throughout

the interviews. The challenge consisted of the lack or the inability to engage the students. This concept contributes to mastery because not only are introductory classes for a particular subject larger in size, but students are less likely to be interested in the material according to the professors. Therefore, mastery was not perceived due to teaching ineffectiveness. When referring to the challenge of introductory courses, one professor claims that "appealing to all three levels of students in the intro courses is the biggest challenge" (participant 8). This particular professor claimed that there are different levels of learning in the intro courses and trying to facilitate students, when students' interest level differs, can frustrate the possibility of engaging the entire class. Another professor, when referring to intro courses states, "I think it's really hard when students are at a very high level of performance and other students are not able to perform basic sentence structures" (Participant 7). Professor 2 confirms, "Intro courses can be extremely challenging because you get all types of students in those classes. It becomes distracting in a sense because you prefer students to be on the same level." This reiterates that it is important for the whole class to be perceived as being engaged and not just a particular portion. This also confirms that optimal performance corresponds to student engagement and mastery, but perceived control over a portion of the class does not constitute control for the whole class, which is the ultimate objective.

It is possible that introductory courses also relates to the challenge-skill imbalance. A professor may feel like he or she is not able to use a higher skill set to teach a class and thus, frustration or boredom may occur. Professors are highly skilled in their respective subjects, so to be able to interact with students at higher levels would enable a professor to operate on a higher skill level.

Another challenge associated with introductory courses is overcoming the lack of knowledge that is perceived to have already existed previously. Participant 6 describes his frustration with intro courses by claiming that "you got to start at the beginning and sometimes you encounter a grotesque and really profound ignorance." Participant 3 agrees that one of the biggest challenges in introductory courses is "when students do not come with the basic skill set needed to participate in class." Participant 7 relates that "the thing that can weigh you down is a semester where I have a lot of 1010's or a lot of freshman classes and like I say in the mix you have people who will do every possible thing they need to do to get an 'A', and then you have people who are kind of more interested in everything else about school except maybe the subject and therefore, that can be for me, when I feel like I'm dragging through the process." This also confirms that the challenge-skill balance is mismatched. The students level of interest and skills directly affects the perceived performance of the professor, and therefore, professors may have to stick to a more structured format for disseminating information because of lack of skill set or varying skill set of the students in the intro courses. It may also be that the professor may not find the material associated with lower division course interesting or intrinsically rewarding.

The next challenge associated with intro courses is the pressure to engage the students to the point that they want to become majors in that particular area. Participant 3 has discovered, "A lot of them are not majors into your subject, and you would kind of like them to be and so there is more of a job of the professor to drum up interest in the subject." When referring to intro courses Participant 5 agrees, "Intro classes are more difficult in a sense because you're trying to capture them in a sense and you're trying to

get them motivated to think about a college topic seriously, maybe get them to think

about becoming a major. In a way it's a bigger challenge." Contrastingly, another

professor remarked that the greatest teaching experience he had ever had was when he

taught a graduate class. He noted that students were thoroughly involved and ready to

learn. He in turn felt like he had to be on the "top of his game" because the students

would "dissect the material and were extremely engaged. They operated at a whole other

level as opposed to those intro courses" (Participant 6). Again, these remarks confirm that

a professor measures success by student involvement. Professors already seem to enjoy

the material, but when students express interest and enjoyment the professor believes he

or she is achieving the objective of engaging the student and captivating their interest.

Another barrier that was perceived to inhibit flow was the external pressure placed on

professors from the administration.

Pressure from administration.

The final barrier is the administration and the pressure to increase majors or for

external demands to participate in extraneous events. Participant 2 shares, "One of the

biggest obstacles is the administration, because I think that the students perceive that our

primary job is to teach, but the fact is the administration imposes a considerable amount

of other responsibilities on us that's reasonable, but not given the expectation for the

course load." Another professor recounts that there is an "economic pressure especially in

the upper division courses. We've had to defend the major for years because they want to

or they think that every major has to have huge numbers" (Participant 10). This external

pressure limits the amount of perceived autonomy, which would limit the amount of

enjoyment one has in a particular profession (Deci & Ryan, 1985). Csikszentmihalyi

(1990) discovered what Deci and Ryan (1985) refer to as autonomy, but refers to this

concept as free will. Csikszentmihalyi (1990) states that Flow is linked to intrinsic

motivation and external pressure to perform a task reduces the amount of intrinsic desire

or pleasure to participate. This would nullify and counteract Flow and optimal

experience.

Now that the challenges have been discussed, it is important to discuss the skills

that are used to overcome these challenges and obtain the objective of engaging the

students, which allows the professor to feel a sense of mastery and experience Flow.

Skills

Skills are an essential part of the equation that results in Flow. Challenges provide

an opportunity for success because the participant must use his or her skills to overcome

said challenges, which allows Flow and mastery to occur. The participants addressed

what skills are needed to perform optimally, which confirms that student engagement is

the prime indicator of overcoming challenges that would prevent Flow. The first skill that

was communicated was the need for the professor to guide and facilitate the learning

process.

Acting as a facilitator or guide.

Several professors communicated that optimal levels of performance occurred

when the professor acted as a guide for learning as opposed to a disseminator of

knowledge where answers are given didactically. It seems obvious that professors cannot

completely control student engagement because the responsibility of learning also rests

with the students, but it seems that Flow was achieved when the professor felt as if they were in control of the learning process for each student. When asked to describe an optimal experience, participant 6 claims "I thinks it's the context in which the merging between myself as presenting the ideas and guiding the students through them and the way I choose do that with a particular audience at hand." This particular professor mentions that guiding students through the learning process and watching them progress due to his guiding influence is what constitutes Flow. Participant 9 claimed that he felt he was at his personal best was when he and students would "go in a different direction and it's kind of a interactive dyad between me and the students where they say one thing and I use it as a springboard to go one place and then we may spring board somewhere else." A facilitator or guide has the ability to control and monitor the enjoyment or the level of learning for participant. Participant 2 reaffirms, when asked when she is at her optimal level she claimed "when things are really going well, the students are talking to each other and I'm just facilitating". The primary contributors during these levels of optimal experience were the students and not the professors. The professors, therefore, tended to associate optimal levels of performance when they were able to guide, facilitate and control class discussion and enhance student interest.

By acting as a facilitator in control of student engagement allows the professor to gauge or measure student interest, which in turn determines the perceived effectiveness of his or her teaching skills. In order for a professor to measure progress or even determine optimal performance it is essential that there is immediate feedback or a way of measuring progress, which in this case is by monitoring student interest or engagement in the material presented by the professor (Csikszentmihalyi, 1990). When referring to a

personal experience as a professor, Participant 7 shares, "I'm not afraid now to take charge and I feel like you kind of have to as the professor. You kind of have to run things." Participant 2 remarked that she is at her optimal level when she is able to "break students into smaller groups and lead energetic discussions where everyone is involved." By breaking a larger class into smaller units, increases the amount of control or perceived control a professor has in the classroom, which enabled this participant to act as a facilitator or guide. Participant 1 confirms "I really enjoy small class discussions, and even more than that, working one-on-one or just with a couple of students on projects." The objective communicated by the professors is to engage students and therefore, by reducing the amount of students to engage, or by breaking up the class into small groups and working one-on-one, allows the professor to master the task because feedback can be optimized.

Interacting with a smaller audience increases the amount of interest and feedback that indicates how a teacher is performing. This, in a sense, gives the professor a feeling of mastery and control because his or goals, as it pertain to teaching, is more palpable and visible. This would be more difficult with a bigger class because the task of engaging and controlling all of the students would be more difficult along being able to measure control. Another skill that the participants claimed was essential in obtaining Flow was personal preparation.

Preparedness

Throughout the interviews each professor stressed the importance of being prepared and having a mastery over the subject matter. This theme also related to mastery because when professors were adequately prepared, each felt confident in his or her

ability to engage the students. When asked about how one achieves optimal experience in the classroom, Participant 1 succinctly stated, "Number one you got to feel you have mastery over the material." This finding correlates to what Deci and Ryan (1985) refer to as competence. Without competence there could not be any perceived autonomy or control over one's own performance and the ability to control student interest (Deci & Ryan, 1985). When asked what facilitates Flow participant 5 quickly responded, "Preparation; the first thing you have to do is be prepared. If you're going into a classroom and say you're talking about World War I and you're a little bit shaky as to the story itself, then it's not going to work. So the first thing you have to do is to be prepared." Participant 7 confirms, "I've taught an introductory level course during grad school and I've been teaching it for 15 years now. So at that point there is no nervousness, I just have to make sure that I have plan and so at that point I guess I just feel competent." Participant 3 agreed, "Preparation leads to confidence and confidence leads to credibility. When students believe that I'm a credible source of information they are more likely to ask questions and interact. So preparation is vital to being at my personal best." According to the participants, preparation was imperative to reach a state of optimal performance.

By the same token, a lack of preparation would reduce student engagement and feelings of competence. When asked what prevents a professor from obtaining optimal experience, Participant 3 admitted, "I'll admit to an occasional lack of proper preparation and that can't be good; I try to keep that to a minimum." Participant 9 confirmed, "If I don't know the subject matter I'm already nervous that I will look silly in front of my students. I tend to shy away from interacting because they may in a way find me out

because I haven't prepared enough or I don't know the material enough to feel

confident." Preparation was closely linked with subject mastery along with a plan of

delivery for that particular subject. Therefore, if one was sufficiently prepared, then

professors were able to control or have a sense of control over student interest and feel a

sense of mastery over his or her ability to involve the students where learning could be

optimized. Interestingly, the more control a professor perceived due to preparation,

seemed to lead to more flexibility and more impromptu dialogue.

> *Flexibility; the result of adequate preparation.*

Flexibility was inextricably linked to preparation and subject mastery. The majority of

the professors agreed that unless one was prepared, optimal experience would not be

achieved. Each professor stated that lack of preparation will assuredly prevent a professor

from engaging the students because of a lack of flexibility, or the inability to answer

questions and possibly deviate from a structured format. Not being sufficiently prepared

would frustrate the Flow experience because the professor would be more concentrated

on the lecture and the material and not focused on engaging the students. Participant 8

confirms:

> "I have to be prepared obviously, even though I've taught these subjects a bunch
>
> of times. Actually one of them was my web class and I wrote a whole new lecture
>
> this last weekend and the second one I talked about the new deal, which I've done
>
> 6 or 7 years and I felt like I was good on both of them because the first one I had
>
> the lecture down pat. If I had it down pat, I wouldn't have to hardly look at my
>
> notes and then I can digress, and then I can kind of play around with the group
>
> and get them engaged and I can just tell they're more into it. If I don't really know

it that well and I'm close to my notes then I'm saying 1,2,3. They'll pay attention,

but they're not as engaged. So, I was strong enough to know where I was going to

go next that I could back off and say some goofy thing about this."

Preparation allows one to feel confident and able to answer questions, which in turn

allows the professor to focus and monitor student feedback. Measuring feedback allows

the professor to gauge progress and determine optimal performance. If a professor was

too focused on the actual material due to lack of working knowledge it would be

impossible to measure success and have that source of immediate feedback that

Csikszentmihalyi (1975) claims is essential for Flow to occur.

Interestingly, when a professor is prepared and confident, he or she may also feel

more capable of challenging the students by asking questions, which in turn facilitates

class discussion and the ability of the professor to act as a guide. This skill of adequately

preparing is paramount to Flow. Flow thus leads to flexibility, which may be

synonymous with confidence in the ability to deviate from a rigid lecture by engaging the

students. One professor agrees that preparation allowed him the ability to deviate in the

lecture and take different so-called paths that were not previously outlined, allowing the

class to guide the discussion in which created an atmosphere of learning that professors

described as optimal (Participant 10). Participant 8 thought he was at his personal best

when he talked about something he knew well and without thought of delivery, engaged

the class with the ability to guide conversation. Participant 8 relates:

> For my second-class I felt like I was on today because I didn't have enough time
>
> to prepare and so what I did it was just more adlibbing on something I knew really
>
> well and as I have taught more I feel like the more I adlib and the better I do. It's

like my brain will be firing faster. FDR, what do I know about him and it's off the

top of my head and I think history is better when it's more of a conversation and

it's kind of like I was on for that class for several different reasons I was just more

on.

Although this particular professor claimed he did not prepare for the class sufficiently he

chose a topic that he knew, such as FDR and "had it down pat" (Participant 8).

Participant 6 reiterates that flexibility enabled him to feel like he was helping the students

learn through facilitating. He expounded that the Flow experience "is one of an

interactive dialogue as points lead to more points and connections where students are

starting to make connections that I don't have to show how they're made." Therefore,

signs of student progress and interest were enabled by the ability of the professor to be

flexible, which allows the students to voice and show interest.

It was interesting that adlibbing became a theme that reiterated flexibility and

Flow. Participant 1 states "when people are into it there is a huge amount of feedback and

I find myself adlibbing more in that class and going more with the Flow and actually

going in whatever direction they said." This point suggests and emphasizes that a

professor that is willing to be flexible, will enable him or her to demonstrate competency,

may allow an increased opportunity for challenge-skill balance. Participate 1 affirmed

that part of Flow experience is when students "ask intelligent question that are not

necessarily in my game plan. So we get to do a little adlib." Participant 9 describes a less

than optimal experience stating, "When I stand up and read out of the textbook and say

this is what you have to know for the exam; example 1. There is no enthusiasm no energy

and no interaction. Things just drag." Thus, the antithesis to Flow according to this

professor was the absence of obvious preparation, which resulted in no flexibility and therefore, a lack of student engagement. Participant 10 observed that "When professors just get up there and talk and don't try new things, then that is boring. Students are bored and then you have a situation that is less than optimal. You got to be willing to try new things and experience new routes to stimulate the mind." The ability to prepare enough will allow the professor to try new routes, which is intriguing for the professor and for the students because skills are being stretched for both parties. When skills are stretched and new challenges arise, Flow occurs more frequently (Csikszentmihalyi, 1997).

As mentioned earlier, Csikszentmihalyi (1997) discovered that Flow tended to occur when challenges that stretched one's skills out of the normal routine were more associated with Flow than a mundane task. Flexibility within a lecture provides this opportunity.

Being flexible allows the challenge of teaching to increase because it is more difficult to adlib and guide a lecture based off of feedback as opposed to following a structured outline. Student questions seemed to be the result of flexibility, which in turn allows the professor to demonstrate competency by answering and allowing questions, and furthermore, this challenges the professor to the point where Flow may be experienced. Student questions seemed to be the essential factor that accompanied optimal experience because it provided an opportunity, if the professor is prepared, to be able to expound and be challenged thereby increasing his or her confidence. One professor mentioned that during moments when students ask challenging questions he "would take risks and take chances" (Participant 2). This risk taking, when it leads to more discussion and engagement propels the perception of high levels of performance

and feeling of mastery accompany this experience. If a professor failed to prepare or know subject matter, the ability to deviate from the lecture or planned material would be frustrated and thus, as Participant 1 explained, the opposite of optimal experience would occur. Participant 1 stated the opposite of an optimal experience "is when I have material that I'm not too familiar with and I have a step-by-step outline. I just don't have a lot of extraneous stuff." The lack of preparation leads to a more rigid and less interesting classroom atmosphere. A professor wouldn't feel confident enough to be flexible and daring with the lecture, which would inhibit his or her ability to engage students because the confidence to answer challenging questions would be limited. Preparation helps professors have confidence in their own teaching capabilities. Fear of not being competent would also inhibit the professor from opening up class discussion for questions that would exploit lack of preparation or knowledge. Participant 9 affirms that part of being flexible in a classroom is the ability to take risks. When asked to describe an optimal performance participant 9 reiterates:

> "I come to new insights and new awareness about the material I've been covering because the students are interested and I take chances and say well I wonder if this explains this principle over here and a student will ask a question and oh maybe it goes this way and we go in a different direction and it's kind of an interactive kind of dyad between me in the students where they bring me to a place and I use that as a springboard to another place and they bring me somewhere else and we springboard somewhere else".

Therefore, demonstrating competence through questions and answering would allow for even more questions and an increased ability to engage the students. This mutual interest

in the subject matter where skills are being stretched mutually is what Csikszentmihalyi (1997) refers to as group Flow.

The paradox of mastery and preparation results in the ability for a professor to be flexible. Thus, flexibility or of the ability to deviate and take student interest to a different location or destination that was not previously planned tended to be associated with those brief perceived levels of optimal performance. The paradox lies in the fact that the more prepared a professor is the more he or she is able to have fun or experience enjoyment with the subject because they do not have fears associated with challenging questions or the fear of the students not perceiving the professor as a credible source of information for a particular subject. Naturally it would seem that the less a professor prepared for a class the less structured that class would be. However, lack of preparation led to a more rigid and boring lecture as opposed to a interactive dyad where students could ask questions and a professor could then act as a facilitator. Furthermore, when professors are able to trust in the student's ability to figure out the answers for themselves students are able to achieve a level of Flow because skills are challenged and the challenge is attainable if the teacher is prepared. Another sub theme that was linked to sufficient preparation was enthusiasm.

Enthusiasm.

Frequently mentioned and communicated by the professors was the theme of enthusiasm and energy. Enthusiasm was usually accompanied with preparation and an in-depth knowledge of the particular subject matter. For some professors it was the subject of FDR or German history and for others it was the topic of Motivation to Motion (Participant 1, Participant 8). The enthusiasm associated with areas of extreme interest

and expertise seemed to accompany the ability of the professor to have more fun with the class discussions and increase class interaction. It was also noted that professors tended to be the most enthusiastic when they were sufficiently prepared. Participant 9, when asked how he felt before teaching a class remarked, "Well it depends if I feel I am adequately prepared, then I'm really excited to go in and communicate what I have prepared for the students." Another professor stresses delivery as opposed to preparation. Participant 8 explains "I think more importantly it's the presentation and the mood you're in and the life you bring to the class. I think you can know it like the back of your hand and if you just go and I kind of read it to them or you're just kind of tired, it's not going to come over. It's all about the projection." Another professor claims that by being enthusiastic serves as a way to increase student energy and feedback. Participant 5 explains that when presenting material with enthusiasm "the students will react. I think people will react on a level to anyone whether it's an entertainer or politician who seems to be really wrapped up in what he or she is talking about." Participant 5 agrees, "In order for me to draw out discussion and really engage the student, I have to feel prepared, which makes excited to teach. If I'm excited, then the students seem to be excited." Therefore, preparation not only led to flexibility and risk-taking, but also to higher levels of excitement and energy. Interestingly, each professor described themselves as enthusiastic and if that enthusiasm was mirrored by the students, the professor perceived that the objective or goal was realized. Participant 10 observed that "if the students are excited then that's all that matters for me. If the students get involved with this stuff, then I know I've done my job and that's what this is all about." Participant 4 stated, "Enthusiasm demonstrated by me is reflected in the students. I feel like when I have prepared I can go in there with

confidence and excitement and I know it's contagious." This link between preparation and enthusiasm reinforces the concept of mastery and the importance of feeling in control during those moments of optimal performance. Enthusiasm allows mastery to occur because student feedback was said to be optimal during Flow moments.

In fact, the antithesis of enthusiasm according to each professor was lack of preparation and fear of the students knowing that the said professor was not adequately versed or prepared. Participant 2 claimed that the opposite of an optimal experience is "When I'm enthusiastic and I'm excited to talk about the material and they think it's boring. It's sort of a flat classroom and I'm up and they're not and the reverse is true too. So it's when they have all of these questions and I'm not prepared." Participant 9 relates, "When I'm excited about this stuff and they don't care, then I would rather not proceed. Learning is exciting and if I can't get that across to the students, then that is the opposite of optimal." This reiterates that enthusiasm is important, but it needs to be reciprocated by the students. An interesting theme emerged when asked about enthusiasm and student involvement. The theme of incorporating relevant world and local issues fueled enthusiasm and interest among the professor and students.

Making the material relevant.

Relevancy was the ability of the professor to create and foment class discussion/interaction through taking a current issue and applying it to a more abstract concept. Relevancy was a skill that could not be ignored because of its association with Flow. This theme does not necessarily fit in the Flow model, but it did associate with the optimal experience for professors. This theme reiterates the metaphor of a facilitator or guide and further reinforces the need for student interaction in order to reach optimal

levels of performance. Relevancy also coincided with flexibility. It seemed that when

relevant issues were utilized, it sparked more student interest and questions, which

allowed the professor to utilize his or her skills to facilitate and guide learning.

Participant 8 mentions:

"One of the biggest things I try to do is make it relevant to them and I think that's

the thing I try to have, a segue. Like today I'll give you an example. We're talking

about this group of bonus marchers and WWI veterans and how they demanded

their veteran bonuses in the great depression. So before that I tried to make it

relevant by asking what's going on in the news right now with the veterans and

how they're being treated. I feel like I can catch them with that, like this is a big

deal and then I launch into that. It was extremely successful."

When asked what aides them to get to the level of optimal performance Participant 9

responded, "I think when there's world events for example that are compelling to people

and that are really engaging and capturing to people that we can use in my class, like

psychological principles to explain those events and that's part of what leads me to the

enthusiasm. That this stuff really matters." Another professor relates that relevant topics

allow room for facilitating and controlling classroom discussion. It was also a way for her

to showcase her knowledge concerning the material. Participant 2 expounds and explains

the Flow experience:

"Sometimes it's serendipitous and sometimes you don't expect it to happen and

sometimes I'm glad it's it is happening, but it's always the case that there is high-

energy and high interaction in high focus on the discussion or the issue. In some

ways when that happens and it's really going well, they are talking as much or

more to each other and I'm facilitating it and adding substantive information to their discussion. An example might be the last couple of days because of elections here on campus, because it's an American government class, we were talking about parties voting behavior and campaigns and the issue of gender came up. And there's misinformation or no information that the students have about female candidates and our habits as a culture in electing people. So the fact that they were interested in that topic and they were debating among themselves and I was able to add information to their discussion to me it's the best. That's where you really hit it.

The ability of the students to make connections on their own because of the guiding influence of a professor seemed to correspond with Flow and feelings of accomplishment. This particular professor obtained Flow because she facilitated learning with the use of relevant and current topics. This would also be extremely difficult to attain if one was not prepared. Participant 6 claims that seeing students make those connections is what constitutes optimal experience and the way he does that is through making it relevant to his students. Participant 6 relates that his objective and optimal level of performance is:

"How do I get in real world language or how do I show you examples and illustrations in this kind of concern, but when you do that and once that connection is made for the student, then there's some relevance in what we're talking about and if I can make that happen with an organized kind of outline without reading my notes in class or anything that will lead the students to hopefully go back and put it together."

This finding reinforced all of the previous themes by accenting the importance of preparation, being flexible with the topic and discovering new ways to present information, utilizing enthusiasm with an relevant topic, and thereby maximizing student engagement. When all of these components come together, professors described this experience as optimal and they came away with feelings of empowerment because of feeling of mastery. However, Flow and optimal performance would be impossible without being to determine or measure said performance. Feedback is therefore a critical component that allows participants to feel as if they are mastery a challenging task.

Feedback

Immediate feedback according to Csikszentmihalyi (1997) is critical for Flow to occur; otherwise it would be impossible to assess levels of mastery or control over a particular task. Participant 5 confirms, "I feel like I've done my best and the only way I can tell this is by reading the students. If you're doing your best you'll see that the students are interested and they are willing to turn off all of the other distractions and all of the other stuff that's happening in their personal life and just be with you for 50 minutes." Student interest was the primary indicator and measuring stick that professors used in determining teaching effectiveness. In fact, it was concluded that it would impossible for Flow to occur unless the students were engaged. Participant 1 agrees that the antithesis of Flow is when "The kids are just frozen. It's like the dawn of the dead in there." Participant 4 stresses the importance of feedback because when things are not going as planned "they all seem like they're dead and I'm droning on. Obviously there is no exchange taking place." Each professor measured student interest by the same scale. The measurement of student interest consisted primarily of student questions. Participant

1 confirms that "A big part of it is the feedback. So I've got a class that's going well, the students are listening and the students are participating and they're asking good questions." Student questions that were considered "insightful" and "challenging" was related to the most common indicator and outward expression of student engagement (Participant 10). One professor mentioned that "it showed the students were thinking critically and taking into consideration principles that were being taught" (Participant 5). Participant 2 claims that "the types of questions that students are asking demonstrate that they're thinking about this stuff. That they're engaged and interested. I feel like I've done my job when I can get students to that point when they can no longer sit quiet, but venture out to ask insightful questions that may challenge the material or add to the lecture." Participant 5 agrees, "Those optimal experiences are almost always accompanied with interested students and I can tell they're interest because they ask questions." Another indicator of student engagement and measuring device for performance was body language.

Body language and other nonverbal cues were also common threads throughout the interview that determined student interest. Participant 1 confirms during those moments of optimal experience "you got more eye contact going on they're following what you're doing you know, they're not just instant messaging, they're not reading on their laptop you know or falling asleep, they got questions and are just following along." Participant 9 agrees, "I like seeing students get it. There is a look in their eyes and on their faces when they finally understand the concept and to me that's really rewarding." Participant 2 explained the way she gauges student feedback by describing that "usually a couple of students are trying to talk over each other and then there are a few that have

their hands raised. So it's more body language than anything and their tone of voice and their energy. There're fast so they are responding to each other so it's a whole physical thing, it's very physical and their funny when they crack jokes, which tells me they're into it somehow." Participant 3 confirms that body language questions are an indicator of student interest, "You just know, you can see it in their eyes and can see it in the tone of voice in their questions, the quality of their questions." All of the professors gauged and measured teaching effectiveness by student feedback that came in the form of questions, levels of interaction with each other, eye contact, tone of voice and putting away other distractions. Among all of the nonverbal messages available to evaluate feedback, eye contact was considered the primary measurement to gauge interest. Each professor described themselves as sensitive and being cognizant of determining whether students were engaged. Being able to recognize the visible signs of interest is critical otherwise it would impossible to individually measure performance and ultimately experience Flow.

Student interest is the source of feedback that Csikszentmihalyi (1975) claim is essential for obtaining Flow. The same way that athletes or musicians are able to gauge progress by observing objective and measurable outcomes, student interest indicated optimal performance for professors. This finding was reiterated and it was discovered that without student feedback and engagement, it would be impossible to measure Flow and for a professor to feel that he or she was realizing his or her objective. In fact, professors did not have to be at their personal best to be in a Flow state. If the students were engaged then it was sufficient for the professors to label said experience as optimal. This finding makes it more difficult to predict Flow for professors, but also illuminates the understanding and stresses the importance of how Flow among professors is

completely dependent upon student interaction and measuring student interest. Each

professor indicated that preparation was vital in optimizing student engagement and

necessary for obtaining optimal experience. Preparation also allows the professor to

outline clear goals and have realistic expectations, which is essential in obtaining Flow.

Realistic expectations.

One of the components of Flow is to have a clear goals and realistic expectations.

Participant 10 expressed the importance of student feedback, "I always tend to judge

myself traditionally on the feedback of the students in the class like if they're engaged."

The process of having a clear goal presupposes that the professors have a way of

measuring if the objectives or goals or are met. When asked what is the main goal and

objective of a professor, Participant 9 responded, "The students walk out the door more

informed consumers of information. They can be critical thinkers and they had some

really amazing life-changing experiences." Participant 3 confirms, "Frankly I don't care

whether they agree with me or not with what's going on or not going on, but the fact that

they're now paying attention means I did my job and I did it right." Therefore, the

professor's objective is to engage the student or cause them to think about what is being

taught. Again, the way to gauge that influence was to measure the amount of feedback or

student engagement. When asked to describe the teaching atmosphere during a Flow

experience, Participant 4 stated, "They completely respond. I don't feel it could be

optimal if the students were not reciprocating or if it's just me talking and they were

silent. I base those moments on how much feedback I'm getting and how much the

students are involved." Participant 7 reiterates, "When the students are having success, in

some ways those kinds of measurable visible indications of progress are something that makes you feel good."

It is essential according to Csikszentmihalyi (1975) that the goals serve the purpose of measuring performance, but when expectations are too high, this limits the amount of autonomy one has in a given task. Participant 1 stated, "It's intensely de-motivating to have students who haven't done the reading and who just look like they don't want to be there. That's just a bummer you know because I'm excited to talk about any of the stuff I talk about." Participant 5 claimed when trying to explain what constitutes Flow, "It's a mystery at some level to me. You'll bring a lecture that you'll just think is great and you're really happy with it and I can't wait to get in to class to give it and sometimes it will just fall flat, and sometimes I'll give a lecture on a topic that I don't find especially interesting and the students will get into it." Participant 3 shares a similar experience, "At times I walk into class knowing that I am not as prepared as I should be and walking out thinking I did a great job and other days I walk in fully-prepared and I walk out thinking what did we just do here." To have clear expectations or goals is essential to gauging positive feedback. Expectations, according to Csikszentmihalyi (1990), goals need to be attainable yet challenging. This allows the professor to avoid frustration because the challenge is not too great for the effort. This may be the reason why optimal performance was reached when a professor's expectations were low because the challenge that seemed unattainable was mastered and goals were met. Expectations or having high hopes for the learning level of a class sometimes renders poor results in the perception of the professor. The professors that experienced disappointment because of high hope lacked mastery because what they

foresaw happening was not realized. He or she was not in control of the learning process; rather they were subject to the lack of engagement by the students that made them feel as if they were not a success.

Group flow.

Flow for the professor also seemed to correlate to perceived Flow for the students. A professor experiencing Flow believed that the same was true for the students. Participant 7 expounds that the personal Flow experience also constitutes Flow for the student. She states that Flow is "when they are having or making good observations about the reading and taking the things I've told them and having sort of epiphanies. Where everyone is engaged and everybody is making discoveries themselves and pulling things out of the text that interests them." Participant 4 agrees, "I don't think I could feel like I have achieved my personal best unless I felt that the students were at their best. If I see the students interested in what I'm teaching or covering, then that just excites me and I know I'm at that level of optimal performance." Participant 2 reaffirms, "The only way I know I'm performing my best is by observing and seeing the students change because of my influence. To see them digest the material and come to new insights is awesome and the epitome of what I consider optimal." Professors always included student feedback when referring to optimal performance and never measured those moments off of personal perception; rather on how the students reacted to his or her personal performance. Perceived group Flow was commonly communicated among the professors when they were experiencing Flow.

Discussion

By being able to understand teacher motivation and what constitutes optimal

performance, teachers will be able to increase their effectiveness in the classroom and be

able to increase job enjoyment. The Flow model is based on optimal performance and the

biggest contributor is the challenge-skill balance (Csikszentmihalyi, 1997).

Challenges

The main challenge that was derived from the interviews was engaging the

students. The goal and challenge of engaging the students may seem to contradict control

to an extent because students were able to control their own engagement. However, this

made the experience of engaged students all the more rewarding and resulted in the

perception of mastery for the professor. Even if professors did not feel adequately

prepared, they still perceived levels of mastery if student engagement was high.

However, if a professor believed he or she was extremely well-versed in the subject

matter, and if students did not participate in class, then professors perceived that goals

were not attained. Thus, student engagement affected the entire outcome and perceived

performance levels.

A professor should therefore, be understanding that student involvement should

be optimized to feel a sense of control and enhance a more rewarding experience. A

professor could implement strategies to ask students challenging questions that foster an

environment of interaction. This is why preparation was emphasized because it was the

primary prerequisite that determined skill level. However, if a professor wasn't

adequately prepared, he or she may want to form challenging questions that would bring

the class into a discussion and that these questions should include relevant topics. This

would allow the challenge of engaging the students more attainable without demonstrating lack of preparation.

It is also important to note and understand that it is possible that a teacher's personality may limit the amount of feedback from particular students. A professor that is negative or lacks patience for student questions will likely limit the amount of student interaction. A professor should therefore create a class environment where students are able to trust the professor and feel that his or her comments will be valued. This corresponds to the skill of being a facilitator of classroom discussion. This skill seemed to be associated with the paradox of mastery and control by allowing the students to control discussion and guide conversation. Again, this confirms that the ability to engage the students by having them participate is crucial. Another challenge that confirmed that student engagement is the main objective is the challenge that introductory courses present.

The challenge and frustration associated with introductory courses demonstrates how the challenge-skill balance may not be in a state of equilibrium because the challenge of engaging students that are not motivated or the pressure placed by administration to increase numbers is too difficult. It is possible that introductory courses make it more difficult for a professor to feel motivated to teach at his or her personal best due to perceived pressure and lack of interest on the part of the student. Simply stated, students are not as motivated in these classes because not all are majors in the area being taught and communicated and there does exist different levels of learning within these classes. However, by understanding the dynamics of these courses may provide

professors a blueprint for success. It was also suggested that introductory courses contain a vast amount freshman.

Freshman may not be as motivated to participate in class due to a lack of understanding of how a college class operates or they may be affected by a high level of uncertainty that leads to fear. Professors may want to ensure that class gets to know each other in these classes so that students feel a level of confidence to speak or ask questions. It may also be advantageous to break these classes into smaller group or units so that students can get to know each other and also prevent the fear of speaking in front of a large audience.

Introductory courses are usually bigger in size the ability to engage this many students is difficult. Students may not want to speak up and feedback may be minimal. However, by breaking the classroom up into smaller groups and giving each group a topic to be discussed later with ensure participation in the class and the teacher will be acting as a facilitator/guide. One professor mentioned that by breaking the class into smaller groups helped facilitate the Flow experience. This in turn gives the professor more control over class involvement and would also reduce the fear associated with speaking for students that regularly seem disengaged. The professor is able to act as a guide and facilitator students will also feel more confident to voice their opinions in smaller groups. These small group discussions will hopefully force or at least provide an opportunity for more involvement and may increase the amount of mastery or control a professor has in the classroom, especially for bigger classes. The skill set of the professor should be realistic and that lack of interest may be based on class dynamics and not on lack of preparation. Csikszentmihalyi (1997) mentions that by understanding the

objective and how Flow is achieved will allow the participant to develop clear goals and expectations, which allows the participant to measure personal performance.

Goals and expectations allow the participant to feel that he or she has control over the experience. The individual feels more empowered now that he or she is able to accomplish a challenge that is within his or her reach. The accomplishing of the task is essential to Flow and supports the theme of mastery and the ability to influence positive outcomes. However, if goals and expectations are not realistic or clear, it could be counterproductive and act as the antithesis of optimal experience. Therefore, it is imperative to understand that a professor's perception of control leads to Flow, but also that extraneous factors and variables may play a larger role than perceived and limit feelings of mastery. This would help the professor shape and establish clear goals and expectations. By having clear goals and realistic expectations, the challenge-skill balance can be more readily realized.

Skills

The skills communicated by the professors all centered on engaging the students. The most communicated skill one must possess according to the professors was preparation. Preparation was the hinge that allowed all of the other skills to contribute to the Flow experience.

Proper preparation allows the participant to have realistic expectations for self and class. Having too little of expectation can result in a Flow experience, but it seemed to be rare. This had more to do with exceeded hopes, which resulted in a feeling of mastery when mastery was not expected. Having too high of expectations leaves more room for disappointment and as a result a participant may feel less competent because goals were

not realized and mastery over engaging the students did not occur. However, preparation and mastery over the material eliminated an important barrier that inhibited Flow; fear of failure or fear of not being sufficiently competent.

Flexibility was a central component to Flow. Flexibility defined for the purpose of comprehension is the ability of the professor to take comments from the class and use the class energy to relate to unforeseen destination. In fact, it was noted that professors should plan to be flexible or plan on being able to go in different directions. This process allows Flow to occur because the professor if properly prepared and will not fear inquiries from the students. Throughout the interviews it was discovered that as mastery and control over the subject matter increased, the amount of flexibility as it pertains to classroom teaching increased, and the more salient the challenge and skill balance became. Therefore, preparation allowed the professor to deviate and answer challenging questions and augment student engagement due to increased perception of the professor's ability to answer questions and express subject competency. This cyclical process reinforces intrinsic motivation, which allows the professor to engage in challenges and stretch the skill level of the professor, which could increase his or her credibility and his or her self-efficacy. Those professors that were prepared and challenged sufficiently were able to tap into their skill sets and allow more adlib comments that demonstrate and increase self-efficacy. The ability to demonstrate competency and increase enjoyment would be frustrated if the professor did not ask challenging questions that would draw out student feedback.

It is essential that a professor plans and polishes the skill of creating an atmosphere where students will ask challenging questions. This will allow the professor

to use his or her skill level within a given topic or task to answer said questions and facilitate class discussion. This unpredictable atmosphere will be exciting due to the nature of the challenge and with the proper preparation. It will also allow the students to gain trust in the competency level of their professor. This cyclical process will allow opportunity for the professor to experience Flow because it is a challenge beyond normal tasks, and thus, more skill is required. The professor not only utilizes his or her respective skills, but also perceives a sense of control due to his or her efforts. By allowing the class to guide discussion also allows students to provide feedback, which enables the professor to gauge effectiveness. By challenging students, students will also be active participants in the Flow process. This process of engaging the students through challenges allows Flow for all participants to occur. This is referred as group Flow.

As mentioned earlier, if only a portion of the students were engaged, then it would not suffice the professor to perceive the goal was attained and it would decrease the chances of Flow. It was proposed in the rationale that according to the teachers, when a they experience Flow, students also experience Flow simultaneously (Huang, 2003). The interviews also support this premise and therefore, this could be added to theory of Flow, that professors should challenge themselves by challenging the students. It has been determined that the challenge-skill balance was salient and supported according to Csikzsentmihalyi (1997) latest model of Flow, and it is further supported in the interviews that students also have a need to feel challenged. Professors claim that there is a high level of energy and enthusiasm in the classroom when Flow occurs. One professor believed it is a two-way process and that students are experiencing Flow simultaneously (Participant 8). Therefore, based on this information, professors should find ways in

which to challenge the students sufficiently so that skill level could be utilized to overcome the challenge. This could come in the form of challenging questions or small group activities where students also feel a sense of control over their own learning.

It can be hypothesized that control for the professor is paradoxically and mutually linked to perceived control for the students. For example, when students are engaged, they ask questions and there is a type of dialogue and the professor responds. The students may feel engaged at this point and have a sense of control over the lecture and learning process. The professor, however, feels that he or she has control of the class because the students seem to be engaged and interested in the topic, even if students are the ones dictating the topic. Students when engaged ask challenging questions, professors feel challenged and feedback is apparent, the professor facilitates discussion in the direction that the students dictate, and thus, the professor uses his or her skills and feel a level of control while the students feel they are also guiding discussion through their own inquiries. This may seem complicated, but group Flow may occur and all participants may feel a sense of autonomy and increased levels of competence. Therefore, student involvement and levels of optimal performance is intertwined to the Flow experience of the professor. Flow also seemed to occur when students were thoroughly engaged and professors remained silence. Professors may feel a sense of autonomy just for the sake of choosing a topic that interests the students. Again, professors should focus on the students' levels of interest. This central challenge seemed to be overcome using relevant topics.

Relevant topics emerged in an unpredictable fashion. This finding does not seem to coincide with Flow models except for the fact that it was the tool often correlated to

overcoming the challenge of engaging the students. A professor should therefore prepare to be flexible in order to challenge the students and hope to be challenged and should implement relevant topics in order to explain more abstract principles.

Relevancy enhances the challenge-skill model because it presents a challenge for the professor to implement relevant issue to a more abstract concept it also challenges the students to make their own connections to the learning material. Therefore, it can serve a two-fold mission. Professors should note that Flow was often accompanied with feelings of control because he or she facilitated the learning and allowed students to make their own epiphanies and connections. This concept also reinforces group Flow and the mutual challenge to both students and professors. Professors should refrain from giving answers and allow students to feel autonomous in learning principles facilitated by the professor. The ability to make connections or observe the students making connections is more of a challenging concept for teachers as opposed to giving them the answers and making it more relevant for their lives. In order to do this a professor must be prepared and must be able to be flexible during a class to answer unforeseen questions that challenged the competency or skill level of a professor. This concept of mastery and control when one implements flexibility renders more opportunity for Flow to occur because the students feel challenged to make connections and the professors are challenged to answer insightful questions. Therefore, relevancy extrapolates competency and the challenge-skill balance is in a state of equilibrium where the task is just manageable. Therefore, relevant issues seem to augment this finding and could increase learning through increased optimal experience. This finding further justifies that it is imperative that a professor is able to engage the class by allowing students to discuss and challenge the

professor. However, if a professor is unable to deliver his or her message to the class without enthusiasm and a salient intrinsic desire, then the students will reciprocate and student engagement would be minimal.

Enthusiasm was allows the professor to emotionally charge the class to listen and pay attention because of its effect on attentiveness. A professor may be adequately prepared, allow flexibility, act as a facilitator, included relevant topics, but if he or she does not care about the material or does not care that students learn the material, Flow will most likely not be achieved. Enthusiasm is essentially the intrinsic desire that is essential for Flow to occur. Interestingly, Flow increases intrinsic desire and increased intrinsic motivation increase optimal performance, which also increases the likelihood of seeking out challenges and increases effort expenditure to master a respective challenge. Enthusiasm, therefore, affects the entire process and emphasis should be given to its importance.

A professor should constantly remind him or herself, why his or job is important and the intrinsic rewards associated with educating individuals. This is why external pressure from administration and extraneous responsibilities associated with being a professor may distract from the reason why a professor wanted to teach in the first place. The skill of enthusiasm may then be redefined as the ability of the professor to recharge the inner battery that allows intrinsic motivation to be as high as possible and to communicate this passion and love for teaching with his or her students.

Conclusion

Salient signs of Flow were apparent throughout the interviews. However, professors perceived levels of optimal performance were more associated with student

feedback than expected. In Flow, it is essential to have a way of gauging feedback, but even when professors did not contribute, they perceived they were at their personal best when students were engaged and interested. It was also interesting to find that preparation led to flexibility and the ability of the professor to deviate from a structured format to a less predictable delivery.

Another finding that was not anticipated was the emphasis on relevant issues. Relevant issues also seemed to enhance flexibility and if the professor was prepared to facilitate the class, then this seemed to always lead to levels of optimal experience. However, it is possible that other factors contributed to Flow rather than the challenge-skill balance because of the emphasis on student engagement and with different components and antecedents then previously outlined by Csikszentmihalyi (1997). By studying Flow as it pertains to college professors, it could increase the amount of Flow occurrences, increase learning, and job satisfaction.

 In order to increase perceived mastery it is imperative to master the subject matter to a point where one can be flexible and where one can create learning atmospheres that encourages questions and class interaction. It was interesting to find that the paradox of preparation and control allows for more deviation, which seemed to increase the role of facilitator and guide that seems to accompany optimal levels of performance.

If the goal of the professor is to engage the students, then preparation and mastery of the subject matter is not enough. Preparation should include challenging questions or challenging material that allows the students to contemplate material that will affect them personally. Interestingly, optimal levels of performance usually accompanied with

relevant material that was linked to learning principles or material that would otherwise

seem irrelevant. Therefore, preparation should include creative thought by implementing

relevant situations that stimulate cognitive processes by allowing the student to make

connections between their personal life and how a particular principle will affect the

students on a personal level. The application of knowledge associated with relevancy

seems to be more engaging and allows the professor to facilitate learning if they are

adequately prepared to answer more challenging questions.

The goal of a professor should not be to disseminate information, at least in the

College of Humanities and Social Science; rather to guide student discussion through the

implementation challenging questions, realistic expectations and a learning atmosphere

that is conducive to class interaction. By allowing students to make the connection for

themselves, is intrinsically rewarding because the goal of enhancing interest is realized.

However, a fragile and sensitive balance between dictator and facilitator should be

understood and carefully managed. The balance between a class where interaction can be

maximized and the ability to control class involvement is imperative to obtaining optimal

levels of performance. Being too controlling will not facilitate and increase class

participation and reduce student feedback.

<center>Limitations/Recommendations</center>

The participants for this study included only professors from the College of

Humanities and Social Sciences at Southern Utah University. Professors from a variety of

colleges or other universities would solidify findings and help saturate existing themes

and possibly provide new insights.

The sample also consisted of ten participants. This limited number of participants could limit the amount of feedback associated with the proposed questions. It is recommended that more participants be interviewed to ensure that findings are supported by more data and ensure greater potential for transferability.

Another limitation was the absence of verification. Verification is the process of affirming with the participants of this study that what they said during the interview was indeed what they meant. By utilizing the process of verification, the researcher's interpretation of the individual quotes and passages would therefore be more concrete and grounded as opposed to interpretation based on assumption and opinion. It is recommended that this process be implemented for future studies.

Some of the professors that participated in this study were psychology professors and it was apparent in the interview that they knew the design of the study and the purpose of the interview questions. Flow is a theory associated with psychology and therefore, a preconceived knowledge of the study could affect the results and answers.

Another recommendation is to observe class discussion and professor performance to confirm that the existing categories in reality relate to their perception of optimal performance. This would strengthen the findings and allow more interpretation of Flow communicated by professors. In class observation and post class interviews would also increase the amount of retention that accompanies optimal performance or performances where the Flow did not occur, which would allow more information to include in the study. Observation using this method may increase accurate information as it relates to Flow.

It was mentioned in the rationale that for a teacher to experience Flow would also constitute Flow for the students. There is not any research that supports this claim and the fact that Flow occurs simultaneously between teach and students. A future study should examine if this is possible and how students experience Flow collectively. This would help professor and teachers reinforce the notion when a optimal level of performance occurs, the same is true among the students. It is also recommended that a grounded theory approach be utilized from the perspective of the student to allow common themes to emerge that will allow a research to compare and contrast those findings with what constitutes Flow for a professor.

In the literature review, there were obvious links between Bandura's Self-Efficacy Theory and Deci and Ryan's Self-Determination theory to Flow, however it is recommended that possible pretesting or pre-Flow observations be made through interviews and contrast these findings with post-observation and questioning that focuses on self-efficacy and/or the three elements of the Self-Determination Theory after Flow is achieved. This would strengthen the links that were drawn based on similar research that connects these theories to Flow and provide insights how mastery is linked to Flow and how this sense of mastery is based primarily on perception.

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Appendix A

Interview Guide

Why did you choose to become a college professor?

What do you enjoy most about teaching?

How do you feel before teaching a class?

What types of challenges do you face as it pertains to teaching in the classroom?

What skills do you utilize to overcome challenges associated with teaching?

What are your expectations for the students?

What is your perception of the skills and abilities of the students you teach?

How much control do you think you have in the classroom? Why?

How well do you know the material you typically teach?

How much responsibility do you put on yourself for student engagement and/or student

learning?

Would you be able to describe for me a time when you were at your best in the

classroom?

How do you assess or how do you know when you are at your personal best?

What are your thoughts and feeling after this type of experience?

Would you be able to describe for me a time when you were NOT at your personal best?

How do you assess or how do you know when you are NOT at your personal best?

What are your thoughts and feeling after this type of experience?