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Program Structure for Children and Adolescents with Disabilities to Increase Participation in Physical Activity

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Program Structure for Children and Adolescents with Disabilities to Increase Participation in Physical Activity

By

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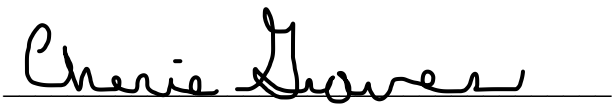
APPROVAL

This scholarly project, submitted by Abbigail Smith in partial fulfillment of the requirement for the Degree of Occupational Therapy Doctorate from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.



Dr. Cherie Graves, PhD., OTR/L

April 11, 2023

Date

PERMISSION

Title: Program Structure for Children and Adolescents with Disabilities to Increase Participation in Physical Activity

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Degree: Occupational Therapy Doctorate

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TABLE OF CONTENTS

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ABSTRACT

Background: Children and adolescents with disabilities face barriers and are often excluded from engaging in daily activities such as physical activity and social participation (Bundy & Du Toit, 2019; Hocking, 2019). Activities such as physical activity and social participation not only increase children's and adolescents' sense of belonging, mental health, and quality of life but also impact the development of skills needed to fully engage in society (Bundy & Du Toit, 2019). Opportunities for children and adolescents with disabilities to engage in physical activity and social participation are commonly seen in the form of programs supported by nonprofit organizations. These programs emphasize the benefits physical activity, and social interaction has on quality of life, mental health, academic performance, and more for children and adolescents with disabilities (te Velde et al., 2018). Furthermore, an important aspect of effective and successful programs is the prevalence of high fidelity. Fostering skill development and positive outcomes heavily relies on the structure of the program and the effectiveness of its implementation (Fisher et al., 2014).

Purpose: The purpose of the product for this scholarly project is to provide program structure to increase participation in physical activity and social participation as well as increase the quality of life and well-being of children and adolescents with disabilities.

Methods: A literature review and needs assessment were conducted to initiate this product. The focus of the literature review included barriers children and adolescents with disabilities may face with physical activity and social participation as well as best practices to support engagement in these occupations. Online databases such as CINAHL, PubMed, the University of North Dakota Scholarly Commons, etc., and governmental websites were utilized as sources for the development of this product. Through the research, it was determined that there is a need for program structure that incorporates best practices to increase the participation in physical activity and social participation for children and adolescents with disabilities. Concepts from the Ecology of Human Performance (EHP) model (Dunn, 2017) were utilized throughout the development of this product.

Conclusion: Participation in physical activity and social participation for children and adolescents is necessary and greatly impacts psychosocial health, physical health, overall well-being, and quality of life. This product was developed for occupational therapy, interprofessional, and stakeholder use. The program manual will increase awareness, provide education and structure, and promote engagement and quality experiences with physical activity and social participation for children and adolescents with disabilities.

CHAPTER I

Introduction

Problem Statement

Children and adolescents with disabilities face numerous barriers and are often excluded from engaging in daily activities such as physical activity and social participation (Bundy & Du Toit, 2019; Hocking, 2019). Youth with disabilities engage in less physical activity overall than those who do not have disabilities and more specifically engage in less vigorous and moderate levels of physical activity compared to those without disabilities (Jung et al., 2018). Based on national and international guidelines, children and adolescents should participate in at least one hour of moderate-to-vigorous physical activity each day and physical activity types should include aerobic, muscle-strengthening, and bone-strengthening at least three days a week (U.S. Department of Health & Human Services, 2018). Physical activity guidelines are recommended so children and adolescents with disabilities can receive the numerous benefits from engaging in physical activity and ultimately live healthy, high-quality lives.

Children and adolescents with disabilities used to receive ample opportunities for physical activity and social participation while in school but time cuts to physical education are being made to allow for more content-based classroom time in hopes to increase academic scores (Beauchamp et al., 2016; Singh et al., 2012; Supporting Physical Education in Schools for All Youth, 2021). Due to this, engagement in physical activity has significantly decreased in schools, and opportunities for physical activity and social participation are limited

(da Cruz, 2017). Additionally, children and adolescents with disabilities often experience social segregation, and therefore lack opportunities for socialization when participating in physical activities (Carbone et al., 2021; Santino et al., 2021).

Low participation rates in physical activity and social participation in children and adolescents with disabilities are deeply concerning since these occupations not only increase the sense of belonging, mental health, and quality of life but also impact the development of skills needed to fully engage in society (Bundy & Du Toit, 2019). A brief overview of the benefits of physical activity and social participation include the development of fine and gross motor skills, the development of social interaction skills, assisting in maintaining a healthy weight, improving quality of sleep, decreasing the risk of developing chronic diseases, supporting cognitive/executive functioning, and more (Bundy et al, 2019; Hocking, 2019; te Velde et al., 2018; U.S. Department of Health & Human Services, 2018; Wright et al., 2018).

Opportunities for children and adolescents with disabilities to engage in physical activity and social participation are commonly seen in the form of programs supported by nonprofit organizations. However, from personal experience, these programs often do not have structured programming that guides effective implementation.

Purpose and Project Objectives

The purpose of this project is to provide structure to an existing program, to increase participation in physical activity and social participation, increase

quality of life and well-being, and increase the overall performance range of children and adolescents with disabilities. Additionally, this project will foster positive program outcomes by developing a program manual to educate stakeholders on the mission and vision of the program; identify the benefits of the program for participating children and adolescents with disabilities; and provide information on how to progress the program sessions for all stakeholders.

Theoretical Framework

The author chose the Ecology of Human Performance (EHP) model to guide the development of this scholarly project (Dunn, 2017; Dunn et al., 1994). EHP is an occupation-based model that uses universal terminology and considers the dynamic relationship between a person, their context, and task demands which impact a person's performance range. Within this model, person factors include sensorimotor, psychosocial, and cognitive skills and can inhibit or support performance, as well as personal values, interests, and past experiences. Context factors, which can inhibit and/or support performance, refer to one's environment and consists of the physical context, social context, temporal context, and cultural context. Tasks are actions or observable behaviors that are completed to assist an individual in meeting a goal. Lastly, the performance range consists of tasks that an individual can complete independently with or without adaptations, modifications, alterations, etc. (Dunn, 2017; Dunn et al., 1994).

To increase an individual's performance range or the tasks they can complete independently, intervention approaches can be utilized. EHP offers five different intervention approaches that include establish/restore, adapt/modify,

create, prevent, and alter. These intervention approaches are meant to be utilized with person factors, context factors, and task demands to increase an individual's performance range. Establish/restore, "focuses on person factors and aims to improve the person's skills" (Dunn, 2017, p. 216). The approach of adapt/modify refers to changing "aspects of the context or make adjustments to task features" (Dunn, 2017, p. 216). Create, "focuses on creating circumstances that support optimal performance" (Dunn, 2017, p. 217). The intervention approach of prevent is "to preclude the development of performance problems" (Dunn, 2017, p. 217). Lastly, the approach of alter refers to finding the "best match between the person's current abilities and the context options that are available" (Dunn, 2017, p. 216).

This ecological model was chosen after much consideration as the final product of this scholarly project is intended for interprofessional use, will assess personal and contextual barriers, and will provide a structure that is person focused. Additionally, one of the aims of the product is to increase psychosocial health, physical health, overall well-being, and quality of life for children and adolescents with disabilities, which can all be connected to increasing performance range.

Significance

A low participation rate in the occupations of physical activity and social participation in children and adolescents with disabilities as well as a lack of inclusive and structured community-based programs indicates a need for skilled occupational therapy services and the product of this scholarly project.

Key Terminology

A few key terms that need to be defined to provide clarification and consistency throughout this scholarly project include the following.

- **Adolescents:** "Adolescence is the phase of life between childhood and adulthood, from ages 10 to 19" (World Health Organization, n.d., para.1).
- **Adverse Childhood Experiences (ACEs):** Traumatic experiences that occur in childhood and can include violence, abuse, neglect, loss of a family member, parental separation, or exposure to substance abuse and mental health problems to name a few (Centers for Disease Control and Prevention [CDC], 2022).
- **Child:** "a young human being below the age of puberty or below the legal age of majority" (Oxford University Press, n.d.).
- **Interoception:** "…the sense that allows us to answer the question, ***"How do I Feel?"*** in any given moment" (Mahler, 2022).
- **Occupational therapy:** "the therapeutic use of everyday life occupations with persons, groups, or populations (i.e., the client) for the purpose of enhancing or enabling participation" (American Occupational Therapy Association [AOTA], 2020b, p. 1).
- **Occupations:** "…the everyday activities that people do as individuals, in families, and with communities to occupy time and bring meaning and purpose to life. Occupations include things people need to, want to, and are expected to do" (AOTA, 2020b, p. 7).

- **Physical activity:** Forms of "…cardiovascular exercise, strength training, and balance training to improve or maintain health or decrease risk of health episodes…" (AOTA, 2020b, p. 32).
- **Proprioception:** The sense that provides "awareness of body position and space" (AOTA, 2020b, p. 52).
- **Social participation:** "Activities that involve social interaction with others, including family, friends, peers, and community members, and that support social interdependence" (AOTA, 2020b, p. 34).
- **Quality of life:** An individual's "life satisfaction, hope, self-concept, health and functioning, and socioeconomic factors" (AOTA, 2020b, p. 66).
- **Vestibular:** "Sensation related to position, balance, and secure movement against gravity" (AOTA, 2020b, p. 52).
- **Well-being:** "a general term encompassing the total universe of human life domains, including physical, mental, and social aspects, that make up what can be called a 'good life'" (AOTA, 2020b, p. 5).

Project Structure

The contents of the rest of the document includes four remaining chapters, references, and the appendix. The remaining chapters of this document are II, III, IV, & V. Chapter II consists of a literature review and highlights the benefits of physical activity and social participation, barriers to engagement (person factors and context factors), and best practices to promote participation, inclusion, and quality experiences. Chapter III reports the methodology utilized throughout the

creation of this scholarly project. Chapter IV includes a narrative of the content within the product. Chapter V consists of a summary of the scholarly project, limitations of the product, and recommendations. Appendix A contains the finalized scholarly project and Appendix B showcases the permission form to utilize Minnesota Flyers Gymnastics and Fitness logos, photos, and website information within the scholarly project.

CHAPTER II

Literature Review

Benefits of Physical Activity

Physical activity has many health benefits for children and adolescents spanning physical health, psychosocial health, academic performance, quality of life, and overall well-being. Physical health benefits include fostering the growth and development of fine and gross motor skills, reducing the risk of developing chronic diseases, enhancing cognitive functioning, improving sleep outcomes, increasing aerobic capacity, increasing muscular strength, increasing bone health, and maintaining a healthy weight (Carbone et al., 2021; da Cruz, 2017; Orr et al., 2021; U.S. Department of Health & Human Services, 2018; Wright et al., 2018). The physical health benefits of engaging in physical activity, allow children and adolescents with disabilities to experience overall well-being and high-quality life.

Physical activity is typically connected to the effects on children's physical health, but research is beginning to show that physical activity has a positive impact on psychosocial health. Considering psychosocial health benefits, physical activity includes but is not limited to fostering a sense of belonging, increasing the level of happiness, elevating moods, increasing confidence, and facilitating improved self-belief and self-efficacy (Bundy & Du Toit, 2019; Carbone et al., 2021; Hocking, 2019; Orr et al., 2021; Singh et al., 2012; Wright et al., 2018). For instance, children and adolescents who participated in physical activity in the form of sports, at least twice a week, reported greater social

acceptance, exercise self-efficacy, and global self-worth, than those who did not (Singh et al., 2012).

Engagement in physical activity for children and adolescents not only positively impacts physical and psychosocial health but is linked to increased academic performance. Participation in physical activity increases on-task behaviors, sustained attention, and performance in math and reading comprehension (Carbone et al., 2021; da Cruz, 2017; Singh et al., 2012). Participating in physical activity decreases fidgeting, impulsivity, inattention, hyperactivity, and oppositional/defiant behaviors. These positive impacts contribute to improved academic performance (Carbone et al., 2021; da Cruz, 2017; Singh et al., 2012). Therefore, more opportunities for participation in physical activity are needed because it not only has numerous health benefits but can also lead to increases in academic performance in children and adolescents with disabilities.

An increase in quality of life and overall well-being is an additional benefit of physical activity participation for children and adolescents with disabilities. Improved quality of sleep is one outcome of physical activity participation which influences the physical health and psychosocial health of children and adolescents with disabilities (U.S. Department of Health & Human Services, 2018). Additionally, participation in physical activity has been positively associated with increases in socialization which enhances the quality of life and overall well-being of children and adolescents with disabilities (Orr et al., 2021). Furthermore, research shows that physical activity can assist in countering

the harmful effects of adverse childhood experiences and meet intrinsic needs (Bundy & Du Toit, 2019). The occupation of physical activity not only increases children and adolescents' sense of belonging, mental health, and quality of life but also impacts the development of skills needed to fully engage in society (Bundy & Du Toit, 2019; Wright et al., 2018).

To reap the benefits of physical activity, it is recommended that children and adolescents participate in at least one hour of moderate-to-vigorous physical activity each day (U.S. Department of Health & Human Services, 2018). Physical activity types should include aerobic, muscle-strengthening, and bone-strengthening at least three days a week. (U.S. Department of Health & Human Services, 2018). However, the problem is that the majority of children and adolescents with disabilities are not engaging in the recommended time duration, frequency, intensity, and/or type of physical activity and thus are not receiving the multitude of health benefits (Bundy & Du Toit, 2019; Hocking, 2019). For children and adolescents, physical activity is often closely tied to social participation therefore it is important to also consider the benefits of social participation.

Benefits of Social Participation

It should be noted that research on the benefits of social participation was not conducted as extensively as research on the benefits of physical activity since it is not the main focus of this scholarly project. However, since social participation is often closely tied to physical activity for children and adolescents it is necessary to consider social participation benefits as well.

Engaging in the occupation of social participation has numerous benefits for children and adolescents with disabilities. The health benefits from social participation include improved psychosocial health, quality of life, and overall well-being (Carbone et al., 2021; Orr et al., 2021; Santino et al., 2021). The benefits of social participation include identity development, growth, and development of social interaction skills, building relationships, the development of healthy support systems, increased peer acceptance, and increased life satisfaction (Carbone et al., 2021; Hilton & Kramer, 2020). Moreover, children and adolescents with disabilities that engage in social participation report a greater sense of belonging which is correlated with a decrease in loneliness (Carbone et al., 2021; Santino et al., 2021).

Similar to engagement in physical activity, children and adolescents with disabilities face many barriers, such as social exclusion and segregation, as well as person and context factors that prevent meaningful engagement in social participation (Arnell et al., 2020; Bloemen et al., 2014; Carbone et al., 2021).

Theoretical Framework

The Ecology of Human Performance (EHP) model was chosen to guide the literature review and overall, the scholarly project. EHP is a theoretical frame of reference that uses universal terminology and takes into consideration the dynamic relationship between a person, their context, and task demands which influence and impact a person's performance range (Dunn, 2017). This ecological model was chosen after much consideration as the final product is intended for

interprofessional use and will consider personal and contextual barriers and will provide person-focused structure.

It should be noted that the Occupational Therapy Practice Framework (OTPF) was utilized to further define the EHP terminology of *sensorimotor*, *cognitive*, and *psychosocial* (American Occupational Therapy Association [AOTA], 2020; Dunn, 2017). The OTPF was chosen to further define terminology specific to this theory due to the fact that this theoretical framework was created by occupational therapists. Although this model was designed for interprofessional use, its roots reside in the profession of occupational therapy and therefore was determined appropriate.

Person Factors

Sensorimotor

A common barrier to engagement in physical activity and social participation for children and adolescents with disabilities includes functional limitations with sensorimotor factors. Sensorimotor factors encompass body functions such as joint mobility and stability; muscle power, tone, and endurance; motor reflexes, voluntary motor control; gait pattern; the cardiovascular and respiratory systems; and the sensory system which includes visual functions, hearing functions, vestibular functions, taste functions, smell functions, proprioceptive functions, touch functions, interoception, pain, and sensitivity to temperature and pressure (AOTA, 2020b). The sensorimotor skills of stabilizing, positioning, reaching, bending, gripping, manipulating, coordinating, calibrating,

enduring, and pacing are a few examples of skills found within the body functions previously listed (AOTA, 2020).

Limitations with sensorimotor factors such as gross motor function and manual abilities were found to significantly influence levels of participation (Arnell et al., 2020; Bloemen et al., 2014; Bult et al., 2011; Carbone et al., 2021; Wright et al., 2018). In fact, children and adolescents with more severe physical disabilities and functional limitations, engage significantly less than others, in physical activity and social participation, which can include active play, leisure, and recreational activities. (Bult et al., 2011; Jirikowic & Kerfeld, 2016). Furthermore, Wright et al. (2018) found that levels of energy and pain greatly influence participation in physical activity and social participation with children and adolescents that have disabilities. Lower energy levels and higher pain levels are associated with decreased engagement in physical activity and social participation (Wright et al., 2018).

Cognitive

Barriers to engagement in physical activity and social participation not only include sensorimotor factors but cognitive factors as well. Mental functions otherwise known as cognitive functions are pertinent for engagement in physical activity and social participation. Executive functions, judgment, praxis, cognitive flexibility, attention, memory, perception, energy, and functions that regulate the speed, response, quality, and time of motor production assist in engaging in physical activity and social participation (AOTA, 2020b). More specifically, cognitive functions consist of cognitive skills and social interaction skills (AOTA,

2020b). Cognitive skills may include but are not limited to paces, attends, heeds, chooses, initiates, continues, sequences, terminates, gathers, organizes, navigates, adjusts, and more (AOTA, 2020b). Additionally, social interaction skills such as initiating and terminating interactions, speaking fluently, turning towards, placing oneself, looking, expressing emotions, regulating emotions, asking questions, replying, transitioning, as well as time response and duration, can all be necessary to successfully engage in the occupation of social participation (AOTA, 2020b).

Social interaction skill difficulties that are derived from cognitive factors such as cognitive ability and communication skills were found to greatly influence children and adolescents' participation levels in physical activity and social participation (Arnell et al., 2020; Bult et al., 2011). Those who had increased difficulties with communication skills and cognitive abilities were found to have lower participation levels in physical activity and social participation than those children and adolescents who had fewer or no difficulties in these areas (Arnell et al., 2020; Bult et al., 2011). Furthermore, children and adolescents that have increased difficulty with social interaction are less likely to participate in physical activities which results in higher levels of loneliness (Santino et al., 2021).

Psychosocial

In conjunction with sensorimotor and cognitive factors, psychosocial factors also may create barriers to engagement in physical activity and social participation for children and adolescents with disabilities. A few examples of psychosocial factors that may impact engagement in physical activity and social

participation include energy level, motivation, temperament, personality, and other functions that assist in establishing meaning and purpose throughout the lifespan (AOTA, 2020b). Moreover, literature has found that inner drive, motivation, perseverance, confidence, fear, and energy significantly influence engagement in physical activity for children and adolescents with disabilities (Arnell et al., 2020; Bloemen et al., 2014). In addition, psychological factors of autonomy, competence, and relatedness were found to significantly influence participation in physical activity for adolescents with disabilities across different contexts. (Bentzen & Malmquist, 2021). Jirikowic and Kerfeld (2016) found that a child's or adolescent's motivation, attitude, and perceived competence greatly influence physical activity participation. Those who were less motivated had negative attitudes and perceived themselves to have poor competence and had lower participation levels in physical activity than others (Jirikowic & Kerfeld, 2016).

Furthermore, individuals who have limited opportunities to engage in meaningful and purposeful activities or have an impairment are at higher risk for emotional, psychological, and societal harm (Hocking, 2019; te Velde et al., 2018). Children and adolescents with disabilities that did not engage in physical activity or sports were found to have decreased psychosocial health and presented with negative self-perceptions, were more self-conscious, had low motivation, and low self-esteem and confidence (Carbone et al., 2021; te Velde et al., 2018; Wright et al., 2018). Likewise, adolescents with disabilities reported lower

autonomy, competence, and relatedness in Physical Education and organized sports than their peers without disabilities (Bentzen & Malmquist, 2021).

Context Factors

Temporal

In conjunction with person factors, context factors such as the temporal context can also create barriers to engaging in physical activity and social participation. The temporal context includes aspects of time such as chronological age, developmental stage, life cycle, and health status, each of which can create barriers to engagement in physical activity and social participation (Dunn, 2017). Limited opportunities are one of the most prominent barriers to engagement in physical activity and social participation for children and adolescents with disabilities that were found in the literature (Bloemen et al, 2014; Carbone et al., 2021; Wright et al., 2018). Considering programs that can adequately accommodate to meet the needs of children and adolescents with disabilities, parents and/or caregivers report that there are limited opportunities, long waiting lists for these programs, and time constraints (Bloemen et al, 2014; Carbone et al., 2021; Wright et al., 2018). Surprisingly, the age of children and adolescents with disabilities is another common temporal context barrier that negatively influences or prevents engagement in physical activity and social participation (Bloemen et al., 2014; Bult et al., 2011; Jirikowic & Kerfeld, 2016). As children and adolescents get older, their participation in physical activity and social participation decreases (Bloemen et al., 2014; Bult et al., 2011; Jirikowic & Kerfeld, 2016). In youth with disabilities, higher physical activity participation

levels were reported at younger ages compared to those who were older (Jung et al., 2018). This temporal context barrier highlights the importance of providing opportunities for children and adolescents with disabilities to engage in physical activity and social participation, not only for those who are younger but for older adolescents as well.

Physical

Alongside the temporal context, the physical context is an additional source of barriers impacting physical activity and social participation. The physical context encompasses natural and fabricated environments as well as any objects within those environments (Dunn, 2017). Lack of accessibility is a common theme found within the literature for physical context barriers. Lack of accessibility may include the inability to get into facilities that provide opportunities for physical activity and/or social participation for children and adolescents with disabilities or equipment within the facility that prevents engagement in these occupations (Bloemen et al., 2014; Carbone et al., 2021; Jirikowic & Kerfeld, 2016; Wright et al., 2018). Examples of physical inaccessibility may include poor parking spaces, limited or no appropriate transportation options, inappropriate entrance locations, narrow doorways, non-wheelchair accessible bathrooms, inadequate space to maneuver throughout the facility, and more (Bloemen et al., 2014; Carbone et al., 2021; Centers for Disease Control and Prevention [CDC], n.d.; Jirikowic & Kerfeld, 2016; Wright et al., 2018). Additionally, parents and/or caregivers of children and adolescents with disabilities report that even if a facility is accessible to get into, programs often

either have limited to no adapted equipment that is necessary to participate in physical activities (Arnell et al, 2020; Bloemen et al., 2014; Jirikowic & Kerfeld, 2016).

Sound and noise level is a physical context barrier to physical activity and social participation found in the literature that is commonly overlooked. For children and adolescents with disabilities, especially those with disabilities or disorders that include auditory sensitivity or hearing impairments, the level of sound and noise can significantly influence participation level in physical activity and social participation (Arnell et al., 2020).

Lastly, the physical context factors of unstructured activities and the intensity of the activity were found to be barriers to physical activity and social participation. Children and adolescents with disabilities engaged in physical activity and social participation opportunities less frequently or not at all when activities were unstructured (Arnell et al., 2020). In addition, the intensity of activity was found to greatly influence physical activity in youth with disabilities (Jung et al., 2018). The intensity of physical activity includes components such as duration, frequency, repetitions, etc. as well as whether the activity is considered to be low, moderate, or vigorous (U.S. Department of Health & Human Services, 2018). Children and adolescents with disabilities report lower participation in physical activity opportunities when intensity levels are not matched to accommodate their abilities (Jung et al., 2018).

Social

Barriers to physical activity and social participation for children and adolescents may also result from the social context. The social context includes, "family, friends, clubs, churches, governments, and other places that people engage with each other" (Dunn, 2017, p. 212). The main social context barriers, found in the literature, consist of the support parents and/or caregivers of children and adolescents with disabilities provide, poor collaboration between programs and parents and/or caregivers, as well as a lack of trained program personnel.

Children and adolescents with disabilities have been found to be more reliant on their parent's support in comparison to children and adolescents without disabilities (Siebert et al., 2016). Due to this high need for parental support, children and adolescents are influenced greatly by their parents' perception of physical activity and their parents' perception of their ability to participate in physical activity (Siebert et al., 2016). Significant correlations were found between parental support and child/adolescent participation levels in activity. In this study, parental support included parents' perceived competence, parents' self-efficacy, and their perceptions about their child's ability to engage in physical activity (Siebert et al., 2016). Additionally, exposure to social contexts was found to also impact social participation in children and adolescents with disabilities. Therefore, parental and/or caregiver social participation level was found to significantly influence child/adolescent activity participation (Taheri et al., 2017). Furthermore, children and adolescents that attended school in a "regular" classroom were found to have higher levels of activity participation than those

who only attended special needs classrooms (Taheri et al., 2017). Children and adolescents with developmental disabilities were more likely to have higher levels of activity participation if their parents had higher levels of social participation and/or if they attended school in a "regular" classroom (Taheri et al., 2017).

Parents of children and adolescents with disabilities are often more involved in their child's life. A lack of collaboration with family members or caregivers has been identified as a common barrier that influences participation in physical activity and social participation for children and adolescents with disabilities. Children and adolescents are less likely to engage in physical activity and social participation opportunities inside and outside of programs or school activities when their parents and/or caregivers are not included directly or indirectly (Jirikowic & Kerfeld, 2016; Orr et al., 2021; Siebert et al., 2016; Willis et al., 2021).

Lack of trained personnel with expertise and appropriate support is another social context factor that can become a barrier to engagement in physical activity and social participation for children and adolescents with disabilities. A main concern for parents and/or caregivers of children and adolescents with disabilities is their safety, especially when engaging in activities that involve physical activity (Siebert et al., 2016). Parents and/or caregivers are less likely to allow their children and adolescents to engage in physical activity opportunities if they feel their child will not receive support to keep their child safe (Arnell et al., 2020; Carbone et al., 2021; Jirikowic & Kerfeld, 2016; Wright et al., 2018). Likewise, children and adolescents with disabilities report that a lack of trained

personnel with expertise and inadequate support decreases their willingness to participate in physical activity and social interaction opportunities (Columna et al., 2017; Jirikowic & Kerfeld, 2016; Wright et al., 2018).

Furthermore, parents and/or caregivers of children and adolescents with disabilities report that the financial costs required to join programs, acquire adaptive equipment, and/or transportation is a major barrier to engagement in physical activity and social participation (Bloemen et al., 2014; Carbone et al., 2021; Wright et al., 2018).

Cultural

The cultural context is the final aspect of environmental barriers that may prevent engagement in physical activity and social participation in children and adolescents with disabilities. "Ethnic, religious, organizational, and other groups that contribute to a person's sense of identity or set expectations or rules of behavior" make up the cultural context (Dunn, 2017, p. 212). Due to worldwide cultural norms, children and adolescents with disabilities are often excluded from or face barriers to physical activity and social participation which not only negatively impacts the development of their skills but also their overall quality of life (Arnell et al., 2020; Bloemen et al., 2014; Bundy & Du Toit, 2019; Carbone et al., 2021). One challenge that prevents this participation is the culture of a community and their beliefs about children and adolescents with disabilities being included in physical activities (Columna et al., 2017). Although there are programs for children and adolescents that promote inclusion and engagement in physical activity and social participation, clearly the culture of inclusion and

equality for all is not widespread since one main barrier previously discussed is a lack of opportunities for children and adolescents with disabilities.

Furthermore, it was found that not only does the culture of a community impact participation in physical activity and social participation but the culture of parents and/or caregivers of children and adolescents with disabilities greatly influences participation as well. Indeed, parents' attitudes, engagement, and family prioritization impact physical activity participation in children and adolescents with disabilities (Jirikowic & Kerfeld, 2016). Parents and/or caregivers that have a positive attitude toward physical activity, engage in high levels of physical activity, and prioritize physical activity within their families result in higher child/adolescent participation in physical activity (Jirikowic & Kerfeld, 2016).

Lastly, the culture of performance expectations and activity preferences was found to significantly influence physical activity and social participation engagement. Children and adolescents with disabilities whose family or community expressed low-performance expectations resulted in low or non-existent engagement levels in physical activity and social participation (Carbone et al., 2021). Finally, children and adolescents with disabilities are more likely to engage in physical activity and social participation opportunities if they match their interests and preferences (Arnell et al., 2020). That being said, it can be assumed that a common barrier to physical activity and social participation in children and adolescents with disabilities is program opportunities that do not match their values, interests, or preferences.

Best Practices

To provide quality services and opportunities for physical activity and social participation, programs need to integrate best practices found in the literature in order to increase engagement for children and adolescents with disabilities. Best practices to foster participation that were found to be consistent with both physical activity and social participation include lower participant-to-instructor ratios; using positive feedback; including family members and/or caregivers; offering a mixture of individual and group activities; and trained personnel (Arnell et al., 2020; Carbone et al., 2021; Columna et al., 2017; Jirikowic & Kerfeld, 2016; Orr et al., 2021; Siebert et al., 2016; Willis et al., 2021; Wright et al., 2018).

Inclusion and collaboration of family members and/or caregivers as well as trained personnel are the best practices most frequently found in the literature. For instance, parents and/or caregivers report that they wish programs would offer direct or indirect training sessions to increase their competence so they can help support their child's engagement in physical activity and social participation (Arnell et al., 2020; Carbone et al., 2021; Columna et al., 2017; Orr et al., 2021; Wright et al., 2018). A few best practices to do this include incorporating educational components for parents and/or caregivers, providing guidance on how to support their child's participation, and addressing their cultural beliefs and attitudes about their children participating in physical activities (Carbone et al., 2021; Columna et al., 2017; Orr et al., 2021; Wright et al., 2018). Additionally, programs and physical activity opportunities can use parents as aides with

participants to increase parental support as well as teach parents and/or caregivers how to adapt and modify activities so their children can fully engage in physical activity (Arnell et al., 2020; Carbone et al., 2021; Columna et al., 2017; Siebert et al., 2017; Wright et al., 2018). Furthermore, best practices for physical activity and social participation include programs with trained personnel and supportive contexts that promote inclusion (Arnell et al., 2020; Columna et al., 2017; Wright et al., 2018). More support such as personnel with specific skills and knowledge are needed to increase participation in physical activity and increase the quality of experiences adolescents with disabilities have when engaging in physical activity or social participation (Bentzen & Malmquist, 2021; Columna et al., 2017; Wright et al., 2018).

Physical Activity

Despite the overwhelming number of barriers to physical activity and social participation for children and adolescents with disabilities, numerous best practices to promote these occupations were found in the literature. According to the U.S. Department of Health and Human Services (2018), children and adolescents with or without disabilities should be participating in some form of physical activity every day. To promote optimal health, it is recommended that children and adolescents engage in physical activity that targets aerobic, muscle-strengthening, and bone-strengthening at least three days a week (U.S. Department of Health and Human Services, 2018). To assist children and adolescents with disabilities in meeting this recommendation, programs should include a variety of best practices found in the literature.

A common best practice, to foster physical activity for children and adolescents with disabilities, found within the literature is "individualizing" activities (Carbone et al., 2021; Jung et al., 2018; Orr et al., 2021; Willis et al., 2021; Wright et al., 2018). Essentially, this translates to physical activity programs having the ability to adapt or modify tasks in order to meet the functional abilities of each participant. "Individualizing" activities is important because it helps programs target fundamental movement skills and foster mastery experiences while still maintaining the child's and adolescent's enjoyment and safety (Carbone et al., 2021; Willis et al., 2021). Additional best practices that assist in promoting participation in physical activity include the availability and accessibility of the program (Arnell et al., 2020; Willis et al., 2021; Wright et al., 2018). Context factors that can hinder participation in physical activity were previously discussed. With that, it is critical for programs to have an accessible environment that may include adapted or modified equipment to increase the participation and quality of physical activity for children and adolescents with disabilities (Arnell et al., 2020; Willis et al., 2021; Wright et al., 2018).

Alongside "individualizing" physical activity tasks; including routines, a variety of structured and unstructured activities, as well as individual and group activities is positively linked to influence participation and perceived quality of experiences (Arnell et al., 2020; Bloemen et al., 2014; Carbone et al., 2021; Jirikowic & Kerfeld, 2016; Willis et al., 2021). Supportive peers, group activities, and positive role models were found to facilitate engagement in physical activity for children and adolescents with disabilities, especially those that utilize assistive

mobility devices (Jirikowic & Kerfeld, 2016). Group-based activities and programs that include a range of diagnoses and functional abilities, individuals across the lifespan, and even those who do not have a disability were found to be positively associated with participation in physical activity (Orr et al., 2021; Willis et al., 2021).

Finally, there are a few additional best practices for programs that foster participation in physical activity with children and adolescents with disabilities. These include providing transportation, having modified systems for communication, and employing staff and/or volunteers that embody a strengths-based attitude (Orr et al., 2021; Willis et al., 2021). Emphasis on a strengths-based attitude was high, so the focus of programs is on changing the task or the context, instead of the person, to help increase physical activity participation (Orr et al., 2021; Willis et al., 2021).

Social Participation

Best practices to foster social participation were not as widely researched as those for physical activity; however, many strategies to foster social participation were found. Many best practices previously discussed for fostering physical activity opportunities also coincide with best practices to support social participation (Wright et al., 2018). To increase engagement and support social participation in children and adolescents with disabilities it is important to consider the aspects of autonomy, belongingness, challenge, engagement, mastery, and meaning (Santino et al., 2021). Addressing these aspects of social participation, especially during physical activity will enhance the quality of the

experience and thus decrease feelings of loneliness in adolescents with disabilities. Additional factors associated with increased engagement in social participation include program staff providing encouragement, acting as social mediators, being positive role models, and building trusting relationships with participants (Jirikowic & Kerfeld, 2016; Orr et al., 2021). Similar to physical activity, incorporating shared or group activities, as well as structured opportunities for social participation, was found to be a best practice for children and adolescents with disabilities (Arnell et al., 2020; Jirikowic & Kerfeld, 2016).

Conclusion

Participation in physical activity and social participation for children and adolescents is necessary and greatly impacts psychosocial health, physical health, overall well-being, and quality of life. Children and adolescents with disabilities and programs that offer inclusive services will considerably benefit from a program manual that provides education and structure. The program manual will increase awareness, provide education and structure, and promote engagement and quality experiences with physical activity and social participation for children and adolescents with disabilities.

CHAPTER III

Methodology

Introduction

To begin the process of the scholarly project, the author engaged in reflection on potential topics of interest. The topics of interest focused on the pediatric population but greatly varied in purpose. After reconnecting with the director of a hometown non-profit organization, the author saw an opportunity for a potential placement and scholarly project idea that would benefit the pediatric and adolescent population as well as give back to her community. A discussion and needs assessment was completed with the director of the organization and the basis for this scholarly project was conceived.

Procedures

An extensive literature review was conducted to enhance the foundation of this scholarly project. The focus of the literature review included barriers children and adolescents with disabilities may face with physical activity and social participation as well as best practices to support engagement in these occupations. Online databases such as CINAHL, PubMed, the University of North Dakota Scholarly Commons, etc., and governmental websites were utilized as sources during the development of this project. Through the research, it was determined that a program structure incorporating best practices is needed to increase the participation in physical activity and social participation for children and adolescents with disabilities.

Keywords or phrases used in the literature search included academic performance, adolescents, beliefs, children, cognition, culture, disabilities, effectiveness, occupational therapy, participation, physical activity, program, psychosocial, relationship, social participation, quality of life, and values. Inclusion and exclusion were set to guide the literature search. Inclusion criteria included research studies with children or adolescents as well as sources that related to physical activity, social participation, or academic performance. On the other hand, exclusion criteria were sources not published in English, sources older than 2010, and trials that did not include children or adolescent participants.

Additionally, a memorandum of understanding (MOU) was created and agreed upon between the University of North Dakota, the site placement, and the author of this scholarly project prior to starting the experience. The MOU contained information about all stakeholders' responsibilities; goals and objectives of the experience; learning activities to guide the creation of the scholarly project; evaluation criteria, and a tentative schedule to facilitate organization and the completion of all required components. The on-site experience began the first week of January 2023.

The first two weeks of the on-site experience mainly consisted of observing the roles of the FlyTime program; facilitating discussions about the different roles and educating people at the site about occupational therapy. Additionally, the first two weeks marked the beginning of the author utilizing her knowledge and abilities to provide services during the implementation of FlyTime sessions. Furthermore, the author discussed what the agency members would like

included in the scholarly project, reviewed past UND occupational therapy students' scholarly projects, and watched a webinar on creating professional documents. A logic model, to identify desired program outcomes, was created alongside developing an outline of the final product.

By the end of weeks three and four, the author had completed more of her learning activities and met more objectives. Similar to the first two weeks, the author continued to educate about occupational therapy and utilize her knowledge and abilities while assisting in the implementation of program sessions. Also, the author began to assist with advocacy efforts for the non-profit organization, the FlyTime program, and ultimately the population they serve. Outcome measures for program evaluation were outlined and worked upon within these two weeks as well. The author also had a discussion and visited another facility that offers similar services to gain more insight into community-based occupational therapy services. Finally, the author began to work on the program manual, which is the main product of this scholarly project.

Weeks five and six consist of a continuation of assisting with the implementation of program sessions, advocating for the organization and population, and working on the program manual. Structural needs for volunteers and program sustainability were discussed and acted upon as necessary with agency members during this period of time.

The final eight weeks of the on-site experience include continuing to add and revise the program manual, implementing program sessions and demonstrating the value of occupational therapy, and advocating for the non-

profit organization and the population the FlyTime program serves. Lastly, the final draft of the scholarly project was presented to the agency members. A detailed description of what is included in the final scholarly project can be found in Chapter IV.

Theoretical Framework

As previously mentioned in Chapter I, the theoretical framework chosen to guide the development of this scholarly project was the Ecology of Human Performance (EHP) model (Dunn, 2017; Dunn et al., 1994). This model was used to guide the literature review by creating research questions related to each of the model constructs, the person, context, and task. This model also guided the scholarly project by taking into consideration intervention approaches that increase performance range by targeting person factors, context factors, or task demands. Finally, this model guided the scholarly project by incorporating universal terminology so the program manual can be easily understood across a variety of professional disciplines.

Ethical Considerations

The author was cognizant to incorporate all principles from the American Occupational Therapy Association's Code of Ethics throughout her placement and the development of the scholarly project (AOTA, 2020a). Ethical principles utilized include beneficence, nonmaleficence, autonomy, justice, veracity, and fidelity (AOTA, 2020a). The ethical principles of beneficence, nonmaleficence, and autonomy were greatly utilized during the implementation of FlyTime sessions. The safety, confidentiality, and independence of participants were

upheld throughout the placement. Veracity is another principle that was demonstrated throughout the on-site experience in order to accurately represent the profession of occupational therapy and create therapeutic relationships with program participants. Furthermore, the principle of justice was exercised throughout the entirety of the placement by advocating for the nonprofit organization and its FlyTime program as it promotes inclusive and equitable services. Finally, the author demonstrated fidelity while working in partnership with the agency members during the on-site experience and the creation of the scholarly project.

CHAPTER IV

Product

Overview

The FlyTime manual was created for the FlyTime program at Minnesota Flyers Gymnastics and Fitness. It is intended to be used as a resource and guide for coaches, staff, and volunteers when facilitating FlyTime sessions.

Purpose

The purpose of the FlyTime manual is to increase awareness of the importance of physical activity and social participation for children and adolescents with disabilities; provide stakeholder education; provide a program structure that will foster quality experiences; and promote engagement in physical activity and social participation for children and adolescents with disabilities. The objectives of this product include:

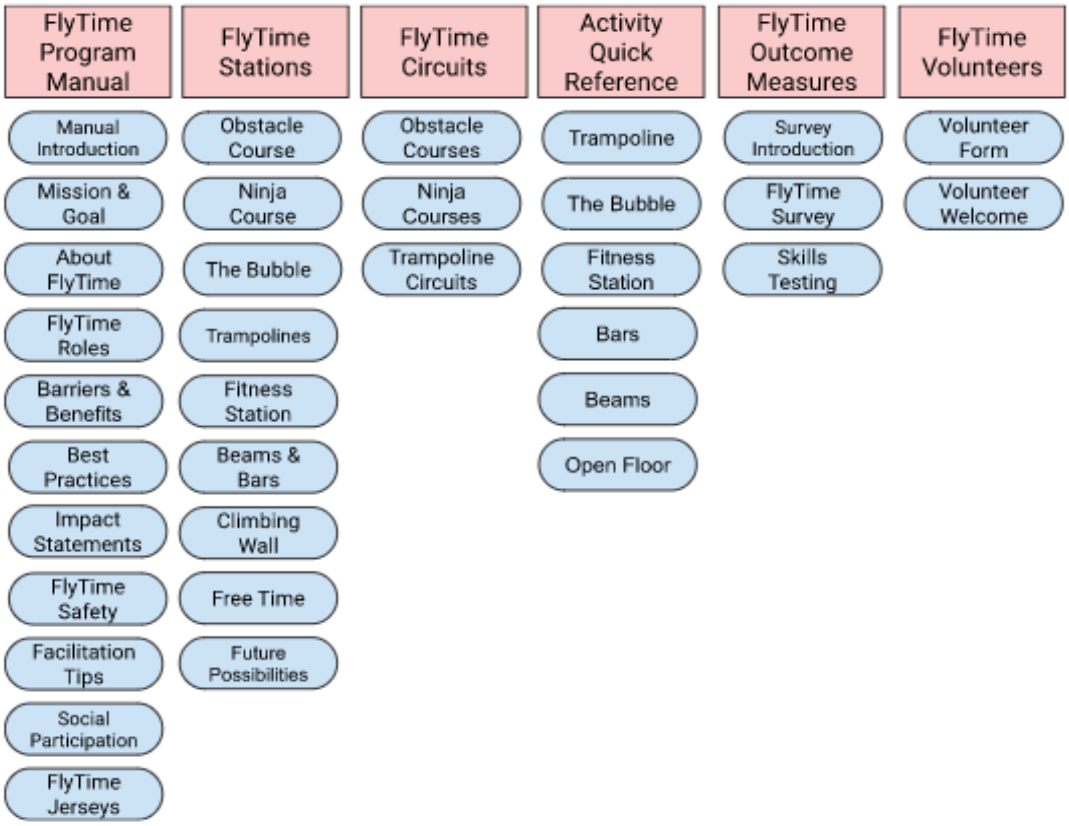
- Increase awareness of the FlyTime program
- Provide educational materials to inform stakeholders
- Provide structure to facilitate high-quality FlyTime sessions
- Provide forms to be used for measuring program outcomes

Theoretical Framework

The guiding framework within the product is the Ecology of Human Performance (EHP) model (Dunn, 2017; Dunn et al., 1994). This model is present within the scholarly project by providing suggestions for adaptations or modifications that will increase the performance range of the participants by

targeting context factors or task demands. Finally, the scholarly project incorporates universal terminology since the program manual is accessed by personnel from a wide variety of disciplines.

Organization



Section One: FlyTime Program Manual

This product begins with an extensive table of contents. The first section consists of a variety of informational pages. First, is an introduction to the program manual which includes the purpose, how to use the manual, the program manual goal, and the manual objectives. Next, the Minnesota Flyers Gymnastics and Fitness' mission and goal are presented. A section that covers how the FlyTime program is filling a gap, who they impact, and how they impact is also

included. Additionally, a table describing the different roles within the FlyTime program and what they do is provided. Three fact sheets that can be utilized as stakeholder education are provided and include barriers to physical activity and social participation for children and adolescents with disabilities, the benefits of physical activity and social participation for children and adolescents with disabilities, and the best practices FlyTime incorporates into their program. FlyTime impact statements are another important fact sheet that can be shared with the community or stakeholders. Furthermore, FlyTime safety, facilitation tips, fostering social participation tips, and information about the FlyTime jerseys are provided to end the section.

Section Two: FlyTime Stations

The second section provides information about the different stations that can be utilized within a FlyTime session. A small table provides suggestions about the timing of stations and circuit lengths depending on the group. Next, descriptions of the stations are presented and include the obstacle course, ninja course, the bubble, the trampolines, the fitness station, beams and bars, the climbing wall, free time, and future possibilities.

Section Three: FlyTime Circuits

Options for different courses and circuits for a few main stations are included in the third section of this program manual. Course and circuit options are available for the obstacle course, ninja course, and the trampolines. The obstacle and ninja course pages provide a picture(s) and numbered steps on how to navigate the course. These pages also provide suggestions on how to adapt or

modify the features of these courses. The trampoline circuits provide an outline of individual jumps for participants to try followed by a few options for sequenced jumps. Adaptations or modifications are provided in these circuits as well.

Section Four: Activity Quick Reference

The fourth section of this program manual is an activity quick reference for some of the additional stations. Activity quick references are provided for the trampolines, the bubble, the fitness station, the bars, the beams, and the open floor. These references all look slightly different depending on what is most relevant but may include images, descriptions, and suggestions on how to adapt or modify the activities or skills listed. Furthermore, all activity quick references include a bulleted list of physical, cognitive, or psychosocial factors that are targeted.

Section Five: FlyTime Outcome Measures

The fifth section of this product includes FlyTime outcome measures. An introduction to the FlyTime survey and the FlyTime skills testing are provided within this section. The FlyTime survey includes information on the purpose, how to use, a digital link to a survey, as well as a paper version of the survey. The FlyTime skills page consists of the purpose, how to use, and a scoring guide. This outcome measure is accessed through a Minnesota Flyers Gymnastics and Fitness iPad.

Section Six: FlyTime Volunteers

The sixth and final section of this product contains information for FlyTime volunteers. It includes a FlyTime volunteer form that can be used to

collect information from potential volunteers. A volunteer welcome poster is also within this section and can be used to provide a brief overview of the FlyTime program and the roles they may fulfill when they volunteer.

The product has been provided to Minnesota Flyers Gymnastics and Fitness in a digital format. This allows the entity to have the option to add or edit any information in the future. They also have the option to print out the manual and create a binder if they so choose.

Summary

The program manual, which is model-driven and created through evidence-based research, is intended to be utilized to facilitate high-quality experiences at FlyTime. This includes fostering engagement in physical activity and social participation for FlyTime participants. A note that not all of the suggested activities, adaptations, or modifications were tested. Additionally, all activities should be adapted and modified on an individual basis to fully ensure the just right challenge, the opportunity for success, and the increase of performance range for the individual. The final scholarly project is presented in Appendix A.

CHAPTER V

Summary

Purpose

Children and adolescents with disabilities face numerous barriers and are often excluded from engaging in daily activities such as physical activity and social participation (Bundy & Du Toit, 2019; Hocking, 2019). Youth with disabilities engage in less physical activity overall than those who do not have disabilities and more specifically engage in less vigorous and moderate levels of physical activity compared to those without disabilities (Jung et al., 2018). Low participation rates in physical activity and social participation in children and adolescents with disabilities are deeply concerning since these occupations not only increase the sense of belonging, mental health, and quality of life but also impact the development of skills needed to fully engage in society (Bundy & Du Toit, 2019).

The purpose of this project was to provide structure to an existing program, increase participation in physical activity and social participation, increase the quality of life and well-being, and overall increase the performance range of children and adolescents with disabilities. Additionally, this project fosters positive program outcomes through the development of the program manual which educates stakeholders about the program; highlights the benefits of the program for participating children and adolescents with disabilities; and

provides information on how to progress the program sessions for all stakeholders.

The program manual was created for interdisciplinary use and was guided by the Ecology of Human Performance (EHP) (Dunn, 2017; Dunn et al., 1994). To foster the "just right challenge" for a wide range of participants, the program manual offers a variety of activities that target aerobic capacity, bilateral coordination, motor planning, sequencing and timing, balance, the sensory systems, core and muscle strengthening, social participation skills, and more. Furthermore, the program manual provides suggestions on how to adapt and modify activities by considering person factors and contextual factors. All in all, increasing the performance range within the occupations of physical activity and social participation, of children and adolescents with disabilities, is the overarching goal of this scholarly project.

Strengths and Limitations

One strength of this scholarly project is that it is occupation-based and model-driven. The program manual focuses on activities and tasks within the occupations of physical activity and social participation with consideration of person and contextual factors. The model-driven nature of the program also means that it can be easily understood by individuals from various professional disciplines. Additionally, the program manual was created to be easily navigated. The program manual includes an extensive table of contents and organization was deeply considered throughout its creation. Furthermore, a digital copy of the program manual can be accessed which includes embedded links for quick and

easy navigation. A paper version can be easily organized in a binder. Another strength of this scholarly project is the variety of educational stakeholder information. These informational pieces can be printed out, emailed, or shared in other ways to promote, educate, and advocate for the FlyTime program and the population it serves.

A limitation of this scholarly project includes a lack of research on physical activity and social participation within the context of a gymnastics facility. Gymnastics facilities provide a safe environment for children and adolescents with disabilities to move and challenge themselves in a variety of ways. Programs such as FlyTime are extremely beneficial for participants but few of these services exist. In addition, finances can be a limitation to providing these types of services. The facility space, variety of equipment, and coaches, staff, or volunteers' time are all expenses that need to be considered, especially for programs like FlyTime that offer sessions free of charge for children and adolescents with disabilities.

Future Recommendations

Future recommendations include offering groups to come for FlyTime sessions more than once a week; providing or assisting with transportation services; incorporating more academic skills with school groups; and offering FlyTime sessions for adults and veterans. Increasing the amount of FlyTime sessions groups attend in a week will increase the amount of time these participants are engaging in physical activity. It will also allow the participants more opportunities to practice, fine-tune, and master different skills. Overall,

more movement time increases performance range, health, well-being, and quality of life for participants.

Additionally, assisting financially with transportation costs would allow more schools or different organizations that work with children, adolescents, and even adults with disabilities to attend FlyTime sessions. Thus, a greater percentage of this population can be reached and receive inclusive services.

A future recommendation for the FlyTime program is to incorporate more academic skills, especially for school groups, into their sessions. Learning through movement can be significantly beneficial for children and adolescents and FlyTime has a wonderful facility that can provide those opportunities. Incorporating academic skills into sessions or adding an academic station can help fill the gap many children and adolescents with disabilities are experiencing in their education.

Lastly, FlyTime could reach more of the population by offering sessions that are catered to adults with disabilities or veterans. FlyTime could offer sessions for Parkinson's, epilepsy, spinal cord injuries, and veterans to name a few. These populations would also immensely benefit from physical activity and an opportunity to engage in social participation with individuals with similar experiences.

Conclusion

All things considered, this scholarly project was created to enhance the performance range in daily occupations of children and adolescents with disabilities through physical activity and social participation. FlyTime offers a

wide variety of benefits for children and adolescents with the use of a gymnastics facility. The author's product will provide educational materials to inform stakeholders and advocate for the FlyTime program. Finally, it offers session structure and recommendations on how to adapt and modify activities to foster quality experiences for all who participate in this life-changing program.

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APPENDIX A

FlyTime Program Manual

Minnesota Flyers Gymnastics & Fitness

If you have questions, please contact smith.m.abbigail@gmail.com and leesa@mnflyersgym.com

Authors Note

This FlyTime program manual was created by the University of North Dakota occupational therapy student Abbigail M. Smith, class of 2023, as a scholarly project for her doctoral experiential placement.

Occupational therapy helps infants through adults become more independent in their meaningful activities or daily occupations. Daily occupations include self-care skills, home management, education, health management, rest & sleep, work, leisure, play, social participation, mental health, and so much more.

The author would like to thank Minnesota Flyers Gymnastics and Fitness director, Leesa Lindgaard, coach Mark Gloege, and other staff for all their support throughout the creation of this program manual.

Table of Contents

Manual Introduction

The purpose of this program manual is to be utilized as a resource and guide when facilitating FlyTime sessions as well as an educational piece to inform stakeholders of the value of this program. A variety of circuit options per station, a quick reference activities list, and program outcome measure forms are included within this manual.

How to Use

1. Choose circuit option
    a. Print off sheet
    b. Set up the circuit according to manual
2. Create your own circuit
    a. Utilize quick reference activities list
    b. Choose activities that incorporate a variety of equipment and movements
    c. Incorporate activities that focus on aerobic capacity, muscle-strengthening, and bone-strengthening
    d. Set up the circuit accordingly

Program Manual Goal

To provide guidance and structure to facilitate high-quality FlyTime sessions.

Program Manual Objectives

- Increase awareness of the FlyTime program
- Provide educational materials to inform stakeholders
- Provide forms to be used for measuring program outcomes

Mission & Goal

Minnesota Flyers Gymnastics & Fitness

Mission

Provide children the opportunity to achieve fitness at any level regardless of their abilities!

Goal

Create an atmosphere where fitness is fun and confidence grows!

MINNESOTAFLYERS
GYMNASTICS AND FITNESS

About FlyTime

FlyTime Is Filling the Gap

FlyTime is a program designed for individuals with special needs who may need assistance to move, climb, roll, communicate, or interact in a traditional setting. MFGF has worked in partnership with our local schools to adopt a gymnastics-based fitness and exercise program using specific equipment giving children with disabilities the opportunity to get a little sweaty, build muscle, and challenge themselves through climbing, jumping, running, crawling, bouncing, and many other fun activities, in an environment that is best for them. Our unique gymnastic setting has many features that cannot be matched in school gymnasiums, therapy rooms, classrooms, and other settings.

Our certified personal trainer adapts activities so every child can reach goals, build strength, increase coordination, and develop positive self-esteem.

Who We Impact

Currently we are able to partner with many local special needs programs such as Rossman & Roosevelt Elementary, Detroit Lakes Middle School (DLMS) & Detroit Lakes High School (DLHS), Frazee Schools, Lake Park Schools, the Developmental Achievement Center (DAC), and DL Transitions (an after high school graduation program).

How We Impact

With limited options for how to participate in traditional PE classes at school many children with special needs struggle to effectively burn energy throughout their day. Since most parents are not able to afford specialized adaptive equipment to help their children achieve movement this leaves many children with special needs behind when it comes to physical fitness. Since we began our FlyTime program we have heard time and time again from multiple paraprofessionals, teachers, and parents that when students come back to school after attending an hour of adaptive physical activity at FlyTime they have a much better ability to focus and pay attention in their classrooms!

FlyTime Roles

Role	Description
Program Director	Oversees all Minnesota Flyers Gymnastics & Fitness programming and social media outlets.
FlyTime Coach	Trained personnel ● Designs a variety of courses that foster physical activity and challenge individual development ● Facilitates FlyTime group sessions ○ Set up and tear down of courses as necessary ○ Takes attendance ○ Adapts and modifies tasks as necessary ○ Facilitates safe movement & fun
FlyTime Volunteers	May include but is not limited to high school students, college students, parents, and paraprofessionals. ● Assists with the implementation of FlyTime sessions. ○ Set up and tear down of courses as necessary ○ Takes attendance ○ Facilitates safe movement & fun ○ Assists in other ways as determined by FlyTime coach(es)
Foundations Coordinator	Obtains funding for Minnesota Flyers Gymnastics & Fitness as well as the FlyTime program.
Specialists (occupational therapists, physical therapists, fitness trainers, etc.)	Communicates participant(s) goals and relevant information to FlyTime coach(es) as well as works with a participant(s) throughout the FlyTime session to complete stations and meet their goals.

Barriers to Physical Activity & Social Participation

For Children and Adolescents with Disabilities

Physical Functional Limitations

- Joint mobility
- Muscle power, tone, & endurance
- Motor reflexes
- Poor cardiovascular & respiratory systems
- Deficits in sensory systems

Cognitive Functional Limitations

- Judgment
- Attention
- Functions that regulate speed, response time, and quality of motor movements
- Initiating & terminating interactions
- Speaking fluently & expressing emotions
- Transitioning

Psychosocial Functional Limitations

- Energy level
- Motivation
- Personality & temperament
- Low confidence or low self-worth
- Fear

Context

- Social exclusion & segregation
- Limited opportunities & time constraints
- Lack of accessibility
- Limited or no appropriate transportation options
- Limited to no adaptive equipment or activity modifications
- Unstructured activities
- Lack of trained personnel & inadequate support

(Arnell et al., 2020; Bloemen et al., 2014; Bult et al., 2011; Carbone et al., 2021; Columna et al., 2017; Hocking, 2019; Jirikowic & Kerfeld, 2016; Orr et al., 2021; Siebert et al., 2016; te Velde et al., 2018; Willis et al., 2021; Wright et al., 2018)

Benefits of Physical Activity & Social Participation

For Children and Adolescents with Disabilities

Physical Activity

- Fosters growth & development of fine and gross motor skills
- Reduces the risk of developing chronic diseases
- Enhances cognitive functioning
- Improves sleep quality
- Increases aerobic capacity, muscular strength, and bone health
- Assists in maintaining a healthy body weight
- Improves academic performance
    - Increases on-task behaviors
    - Increases sustained attention
    - Decreases fidgeting, impulsivity, hyperactivity, & oppositional/defiant behaviors
- Increases psychosocial health
    - Happiness
    - Elevates moods
    - Increases confidence
    - Improves self-worth
- Increases overall well-being and quality of life

Social Participation

- Assists in identity development
- Fosters development of social interaction skills
- Builds relationships
- Increases the development of healthy support systems
- Increases peer acceptance
- Fosters a sense of belonging and decreases loneliness
- Increases life satisfaction
- Increases overall well-being and quality of life

(Arnell et al., 2020; Bloemen et al., 2014; Bundy & Du Toit, 2019; Carbone et al., 2021; Columna et al., 2017; da Cruz, 2017; Hilton & Kramer, 2020; Hocking, 2019; Jirikowic & Kerfeld, 2016; Orr et al., 2021; Siebert et al., 2016; Singh et al., 2012; Willis et al., 2021; Wright et al., 2018)

Best Practices We Incorporate at FlyTime

- Trained personnel
- Lower participant-to-instructor ratios
- Accessible environment
- “Individualizing” activities as required
- Staff that uses positive feedback, are encouraging, are role models, act as social mediators, build trusting relationships, and embody a strengths-based attitude
- Offer a mixture of individual and group activities
- Offer a variety of structured and unstructured activities
- Incorporate activities that target aerobic capacity, muscle-strengthening, and bone strengthening
- Incorporate activities that promote autonomy and belonging
- Offer activities that have meaning to participants as well as engage, challenge, and allow for mastery

(Arnell et al., 2020; Carbone et al., 2021; Columna et al., 2017; Jirikowic & Kerfeld, 2016; Orr et al., 2021; Siebert et al., 2016; Willis et al., 2021; Wright et al., 2018)

FlyTime Impact Statements

- "Fly Time is such a wonderful opportunity for our students to express themselves fully. They love it!"
- "It's such a great sensory experience for our students. The kids look forward to it each week! It's definitely our highlight!"
- “When we head back to school after, kids are able to better focus”
- “Kids feel like they can conquer anything while in the flyer gym”
- “Volunteers and staff are amazing at helping and encouraging kids”
- “Kids never stop smiling and moving”
- “Kids ask every day how long until we go back to flyers”

FlyTime Safety

Participant Safety

- Listen to FlyTime coach(es), staff member(s), volunteer(s), paraprofessional(s), or other facilitators
- Remove shoes (unless given permission to keep shoes on)
- No chewing gum, food, or drinks (except water) in the facility
- Stay in the designated areas
- Use facility equipment appropriately and with respect
- Watch out for other participants, one participant per piece of equipment
- Do not try new skills without supervision
- One person on a trampoline at a time (unless given permission)
- No diving
- Participants are expected and encouraged to give their best efforts, no matter their abilities
- Have fun!!!

Facilitator Safety

- Demonstrate appropriate use of equipment
- Give participants time to be successful
- Do not try to “spot” skills you are uncomfortable with
- Place equipment purposefully around the facility (avoid tripping hazards)
- Teach participants how to land safely
- Be encouraging, use positive feedback, and be a role model for participants

FlyTime Facilitation Tips

- Start each group session with an opening introduction. This is an important time to share relevant information regarding the session and briefly describe each station. Include any safety information and allow for questions at the end.
- FlyTime participants do best with short and simple instructions. Additionally, participants are often eager and ready to move so their attention span and ability to focus will be limited.
- Ideal group size per station is 3-7. Too many more participants at a station mean fewer repetitions and longer waiting times.
- We want every participant to experience success at each circuit and not be overwhelmed. If participants are enjoying their time, the program can accomplish amazing things.
- Some participants will have the resiliency to adapt and keep going when they are tired or may choose to rest or move on, other FlyTime participants will need our support. Many of our FlyTime participants lack those crucial skills. Some participants will get frustrated. Some will cry. There will be teaching moments and from these moments' life skills can be developed. When practiced with enough frequency these skills can become a permanent adaptation.
- Encourage, reassure, and praise participants for their efforts, failures, and successes.
- Groups that have more cognitive or physical difficulties require more time to get the optimal number of repetitions. These groups may need fewer stations due to time constraints.
- It's important that every participant feels challenged enough by the environment created but still feels a level of achievement.
- Communication with teachers, therapists, and parents is essential before the session, during each session, and between sessions in case of changes to participant health and abilities.

Fostering Social Participation

A huge benefit of the FlyTime program is providing an opportunity and a place for children and adolescents with disabilities to interact with peers and supportive adults. During FlyTime sessions, we not only want to foster movement and engagement in physical activity but also social participation. The following are suggested tips on how to foster social participation throughout FlyTime:

- Be a positive role model. Demonstration of appropriate social skills is very important since most children and adolescents learn from observation. Examples of this include talking about your feelings and naming your emotions (mad, frustrated, etc.), asking questions, encouraging others, and more.
- Demonstrate patience, as many participants may experience social anxiety or need support to engage in social participation.
- Ask questions. Show curiosity in the participant's day or interests. For instance, facilitators can ask about their school day, the weekend, what they like to do for fun, and so forth.
- Encourage participants to cheer, praise, and demonstrate empathy toward their peers.
- Choose a station or activity that incorporates teamwork. Utilizing games that require teamwork is a great way to get participants to communicate with each other, work together, problem-solve, and work on other important life skills.
- When the opportunity arises, teach participants about respecting others' boundaries.
- Encourage listening skills, following directions, and sharing. These are all very important skills that many children and adolescents may struggle with and can greatly influence social participation.
- Teach positive coping skills. Some participants will experience strong emotions such as frustration, anger, disappointment, etc. when completing FlyTime activities. It is important to teach positive coping skills as emotional outbursts can negatively impact social participation.

FlyTime Jerseys

FlyTime logo jerseys, provided by the Minnesota Flyers Gymnastics and Fitness Board, are available for participants to wear during their sessions. Wearing the jersey is optional as some participants may have sensory issues related to clothing or they may simply not want to wear one. However, most of the participants that are in the program may never engage in an organized sport so wearing a jersey is often perceived as special and helps them feel like they are part of a team. If a participant chooses to wear a jersey, it goes over their shirt. At the end of class, jerseys are to be collected and then washed.

FlyTime Stations

Minnesota Flyers Gymnastics & Fitness

About the Stations

Depending upon the groups coming 4-7 stations are utilized. The length of time at each station varies from 5-10 minutes depending on the group present.

Group	Circuit Length	Stations	Free Time
Behavioral (EBD)	5-6 minutes	5-7	<10 minutes
Cognitive (varies on ability)	6-10 minutes	4-5	<15 minutes
Physical	6-10 minutes	5-6	<15 minutes

*All circuit lengths and the number of stations may be considered on an individual basis when determined necessary

Obstacle Course

The obstacle course (or floor course) is one of the core essentials to the FlyTime experience. Regardless of whether a participant has a physical, behavioral, or cognitive challenge, all participants receive great benefits from an obstacle course.

Balance beams are typically present in every obstacle course because the feet are rich in motor and sensory neurons. Walking on beams creates a challenge for balance and strengthens the arches and feet and improves kinesthetic awareness for all groups. This is very important for participants, who due to physical challenges, have weaker feet. Improved balance and proprioceptive abilities benefit our groups due to the increased ability to sense, coordinate, and organize movement from our function of the feet and core musculature.

Another important feature of the FlyTime obstacle course is the climbing obstacles. Groups enjoy climbing over and overcoming obstacles. Physically climbing requires reciprocal movements similar to crawling. These movements improve core strength and function. Reciprocal crawling movements in turn stimulate higher brain function in the cerebellum and hippocampus which affect our ability to obtain, recognize and process information.

The course should be long enough to become a conditioning event. Increasing the heart rate improves aerobic abilities which can lead to better physical conditioning, increased metabolism, and improved oxygen uptake.

The obstacle course should change every two weeks. The first week is for introduction and the second week is to provide the opportunity for mastery. The course is kept the same for two weeks, and no longer, so participants have a comfort level by seeing it a second time as well as feel achievement because they should demonstrate an improved ability to navigate the course.

Ninja Course

The ninja course is another core essential to the FlyTime experience. Regardless of whether a participant has a physical, behavioral, or cognitive challenge, all participants receive great benefits from the ninja course. The ninja course provides participants an opportunity to climb over various obstacles, including a ninja “wall”, as well as explore a variety of hanging obstacles on the ninja rig. Hanging obstacles include a big cheese board, hanging ladder, rock wall, grip spheres, rope swing, wingnut, flying squirrel, and more pieces of equipment. The ninja course targets participants' aerobic capacity, core and muscle strength, coordination, motor planning, and sensory systems.

The Bubble

The bubble is an air-blown landing pad that is a feature unique to gymnastic settings. It allows for landings to be made with very low impact. It is a wonderful kinesthetic tool for participants and allows the opportunity for a wide variety of challenges during FlyTime.

Movement is very challenging due to the soft and shifting surface under the feet. Participants who end up in the bubble have to come up with strategies to navigate across in order to not get stuck. The activities associated with the bubble assist in increasing strength, mobility, flexibility, and coordination, or introduce a new movement or pattern the participants may have never seen before. The introduction of new motor patterns benefits participants across the whole spectrum of FlyTime. Whenever a new movement occurs, preferably across multiple planes, it requires a coordinated effort to recruit multiple joints and muscle systems to use both sides of the body.

Free time is commonly used at this station due to the safety the bubble provides and the endless opportunities for participants to explore new movements.

Trampolines

The trampolines are a favorite of many of the participants that come into FlyTime. Fortunately, the facility has three uniquely different ones. The first is the tumbl track. It is unique because it is 45 feet long and has a stiff surface. To navigate this trampoline participants, have to travel in both a sagittal and a vertical plane. The black trampoline is the most user-friendly. It has a very soft feel to the surface and allows for longer contact times with the feet, so the users feel more in control. The white trampoline is very elastic. It is very strong and can support an adult in a powerchair. It has a rough feel to the surface. Contact time on the white trampoline is very short. Participants who become more proficient on this trampoline develop better proprioception and vestibular sense while in the air. Trampolines can be a fun and non-threatening tool for sensory awareness.

It is very important to teach and revisit safe trampoline usage. Unfortunately, trampolines are the most likely area where a recreational user will get injured. Participants are taught to stay in the center of the trampoline and to avoid the sides where the springs could pinch the feet, or a bad bounce could propel the participant off of the tramp. The safety stop or “power stop” has to be taught and reinforced. This action looks similar to sitting back in a half-squat position. It is the safest way to stop on a trampoline but also requires a strong contraction to stop the elastic energy of the trampoline. Absolutely no participants will be allowed to jump off the trampolines onto the floor.

Trampolines are remarkable tools for participants who may have physical, cognitive, or emotional challenges. Performing a jump is a milestone development for children. It takes a coordinated effort from the initial command from the brain to perform the jump. The nervous system has to send the message to the appropriate muscle groups to fire in the correct sequence in order to move the tendons, ligaments, and bones, helping our framework to overcome gravity and momentarily leave the ground. In a short time, participants are in the air, off the ground, and rapid calculations happen based on feedback from visual, vestibular, and numerous proprioceptive sources to give information on controlling our body in midair. When participants land, they rely on massive reflexive muscle contractions to protect their joints and vulnerable organs from injury. Frequent jumps allow for more practice of this amazing collaborative effort from the brain, nervous system, musculoskeletal, and cardiovascular systems. Every one of

these systems including the numerous bones, tendons, ligaments, and muscles are affected.

If participants get appropriate time on trampolines and enough muscle stress or change in blood PH they receive anabolic hormones like testosterone, growth hormone, etc. Pleasure and alertness neurotransmitters such as dopamine, serotonin, and pain-killing endorphins are also released. The effect of these endorphins and neurotransmitters is enhanced when participants are having positive interactions with other participants and staff around them. There is a release of many prohormones that encourage better alertness and brain function, enhance mood, reduce the influence of stress hormones, and lead to an increase in positive behaviors and interactions.

Fitness Station

Exercise stations are another common feature used at FlyTime. Although all groups could gain benefit from the fitness station, it is typically utilized more with groups that have physical and/or cognitive challenges. Exercises the participants might get bored or complacent with, such as repetitive core work, are recommended to be avoided in order to keep motivation and participation high. Fitness circuits are rotated every four or five sessions with these groups, so they continue to feel fun and novel. The circuits may need several modifications since some participants may have difficulties using their limbs or with body control.

Beams & Bars

The beams and bars are typically used with the behavioral groups since these stations require the greatest skill level and present increased risks.

The beam station has many benefits due to the narrow width and varying heights of the beams. The beam takes participants out of their comfort zones and allows them the opportunity to gain confidence in their abilities. This station allows participants to feel a sense of achievement and increase their self-confidence.

The quad bars, parallel bars, wall bars, and the bubble bar in the back of the gym are a station that can be used in a rotation. Typically, our arms are in an “open chain” most of the time, and our feet are in a “closed chain” during waking hours. By supporting themselves, by hanging off or holding themselves up on a bar, participants reverse that. This creates a wonderful round of feedback for their proprioceptors. Additionally,

hanging off a bar assists in decompressing the spine which helps negate too much sitting time. Furthermore, it is wonderful for upper body strength and grip strength. They are also great for targeting the proprioception and vestibular senses. Skills that are completed on bars also allow for opportunities to increase self-confidence and foster a sense of achievement for FlyTime participants.

Climbing Wall

The climbing wall is a circuit that is usually a part of each Fly Time. It is a rope that is 15 feet high resting against an incline mat. The climbing wall is a good tool to improve coordination and upper body strength.

A series of mats, springboards, and obstacles leading to the rope can make this station more challenging. A portapit and often a second on top of the first slanted down towards the base of the climbing wall pad, is typically present. This would give participants a soft landing if they were to slide off the rope.

This station provides opportunities for many proprioceptors, that give feedback on pressure, to be stimulated. The more senses we can stimulate the greater likelihood of creating mind-body connections and learning opportunities.

Free Time

An important facet of the Fly Time session is a non-structured unit of time where participants are encouraged to explore their space or revisit a station that they found fulfilling. This unit is simply called “free time”. Participants are required to move and engage and follow all gym rules of safety and conduct but they have more freedom if they’ve earned that trust. The free time period comes after all the circuits have been completed.

Future Possibilities

A future possibility for FlyTime stations includes inviting guests to sessions and allowing them to facilitate a station. Hosting a full session or a station within a session would be great advertising for the host and the FlyTime program. Guests could include yoga instructors, taekwondo instructors, dance instructors, fitness trainers, firefighters, police officers, musicians, artists, and more. There are many interesting hobbyists and

specialists in the surrounding area with expertise and they can help FlyTime participants establish or further develop new skill areas.

Another future possibility includes having an academic or “quiet” station. This station would be located in a place that has a reduced number of stimuli. It would include dim lighting, quieter sounds, and muted colors so participants would have a place to go when they feel over-stimulated. At this station, participants can work on different academic skills. These skills may include reading, spelling, sight words, math, art, fine motor skills, emotional regulation skills, social skills, sign language, colors, and so much more. Paraprofessionals can have the option to bring student work along with it to be utilized at this station, so the academic skills are personalized. Otherwise, FlyTime could invest in creating or obtaining “file folder” games that participants can use as a future possibility.

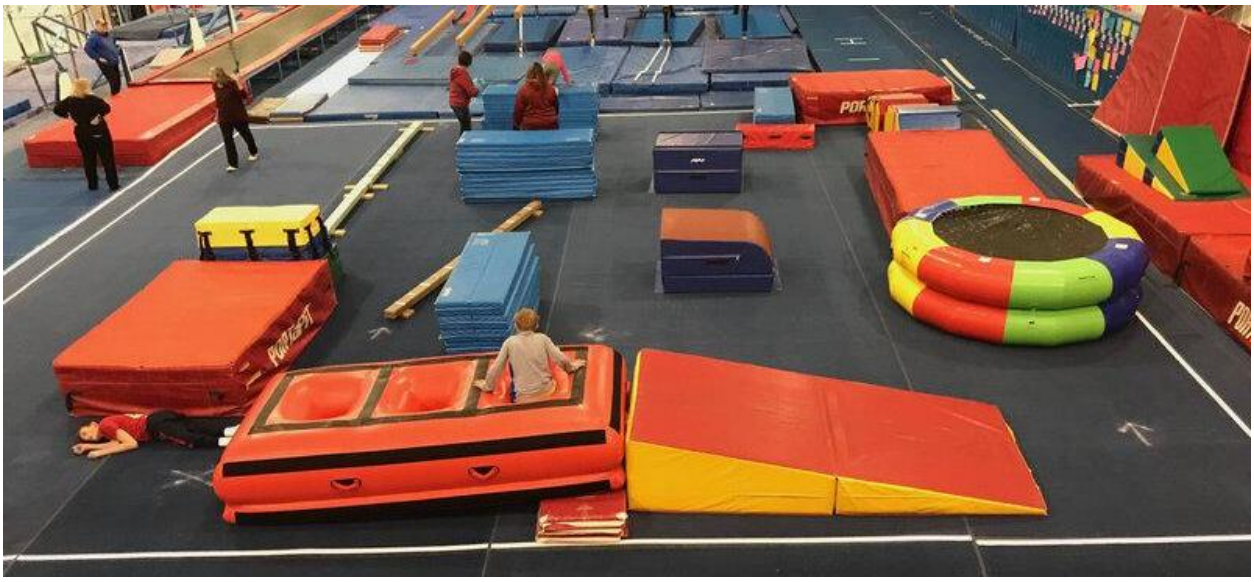
Additionally, it would be ideal to eventually incorporate academic skills throughout the other FlyTime stations as well to assist in bridging the gap students with disabilities may face. Examples of this are having participants skip count to advance across a balance beam or having participants practice spelling sight words while jumping on a trampoline. However, it should be noted that requiring participants to work on academic skills while completing courses should be determined on an individual basis in order to not create too challenging tasks that invoke frustration and failure. Providing opportunities for children and adolescents with disabilities to learn through movement is a goal area FlyTime would like to explore and expand into in the future.

FlyTime Circuits

Minnesota Flyers Gymnastics & Fitness

Obstacle Course #1

*1-3 times through depending on time & ability



1. **Inflatable bouncer**
    a. Jump x3 (coach picks or their choice)
    b. Crawl, walk, or roll across portapit to rollers
2. **Rollers**
    a. Superman/woman roll over the rollers (on stomach - arms and legs straight and up)
    b. Crawl, walk, or roll across portapit, panel mat, and red block to reach the vaulting blocks
3. **Blocks**
    a. Jump, climb, or roll up and over blocks x2
4. **Panel mat #1**
    a. Climb up and over panel mats
5. **Beam #1**
    a. Walk across beam (or complete skill as designated by coach)
6. **Panel mat #2 & #3**
    a. Climb up and over panel mats over x2
7. **Balance beam #2 & #3**
    a. Walk across beams (or complete skill as designated by coach)

8. **Wall climb**
    a. Climb up and over panel mat wall or use springboard to “vault” up and over x2
9. **Pirate ship**
    a. Walk or crawl across pirate ship
10. **Big cheese**
    a. Log, forward, backward, or egg roll down big cheese

Adapt or Modify

- **Inflatable bouncer**
    - Add steps or blocks to make climbing up easier
- **Rollers**
    - Place rollers closer or farther apart to make crossing less or more difficult
- **Blocks**
    - Add layers to the blocks to make climbing more difficult
    - Allow participants to use a springboard, steps, or smaller blocks to assist in climbing up and over
- **Panel mats**
    - Allow participants to use a springboard, steps, or smaller blocks to assist in climbing up and over
    - Remove top layer of panel mat to make climbing up and over less difficult
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Make it more challenging by making a section of the beam slope upward or downward
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Wall climb**
    - Remove top layer of the wall to make it less challenging
    - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to jump on
- **Pirate ship**
    - Flip pirate ship over to the flat side so crossing the obstacle is less challenging
- **Whole course**
    - Time participants to see how fast they can go through the course to make it more challenging

Obstacle Course #2

*1-3 times through depending on time & ability

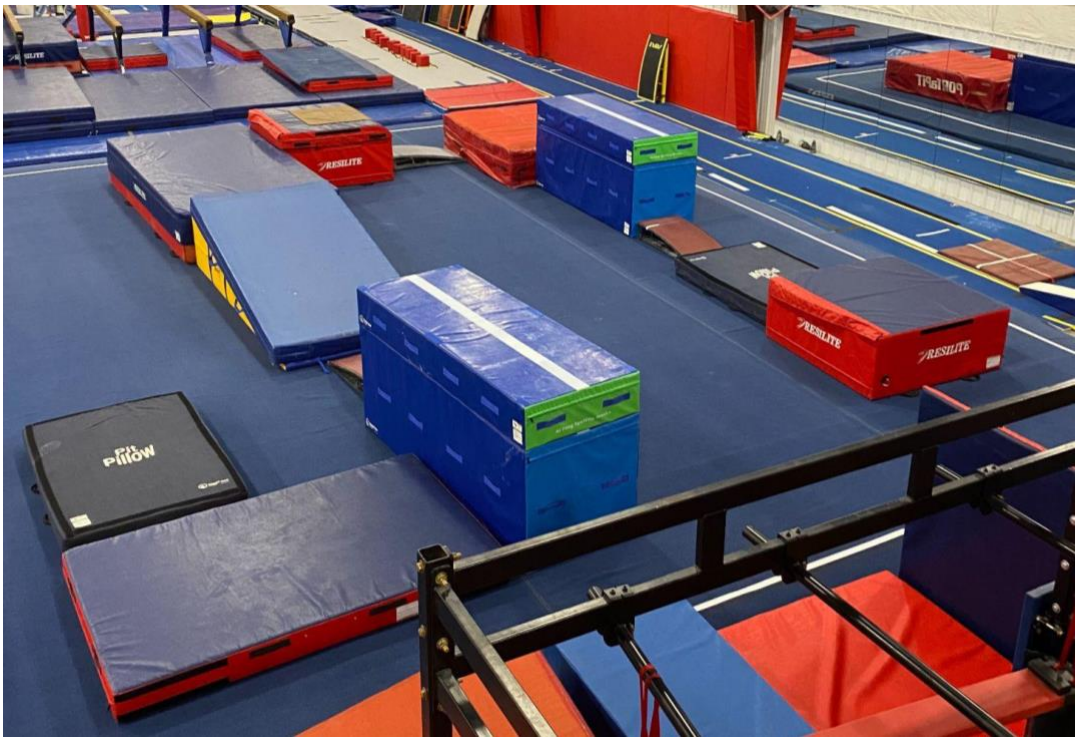
1. **Ninja jumps**
    a. Jump back and forth between the blue mats and the red mats
2. **Balance beams**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
3. **Vault**
    a. Use springboard to vault onto the block
4. **Tunnel**
    a. Crawl through tunnel x2
5. **Mat climb**
    a. Climb onto and across mats
    b. Jump, roll, or slide down resilite mat
6. **Carpet skiing**
    a. Place knees on red block (with 2-3 sliders underneath the block) and hands on the forester bars, pull/scootch body across the floor

Adapt or Modify

- **Ninja jumps**
  - Place mats closer together to make jumping back and forth less challenging
  - Move mats farther apart to make it more challenging
  - Use mats with different heights or stack mats so participants have to jump higher
- **Balance beam**
  - Have balance beams stay consistent at the same height
  - Make it more challenging by making a section of the beam slope upward or downwards
  - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Vault**
  - Remove top layer of the block to make it less challenging
  - Use a bigger springboard that requires more power and strength to bounce and jump on
- **Tunnel**
  - Make tunnel width larger or narrower to make crawling through easier or more challenging
- **Mat climb**
  - Add more or fewer mats stacked on top of each other to make climbing more or less difficult
- **Carpet skiing**
  - Add more or fewer sliders under the red block to make movement less or more difficult
  - Only use the sliders for participants who have difficult distributing their weight
  - Have participants use their hands or one forester bar for easier pulling or pushing motion
- **Whole course**
  - Time participants to see how fast they can go through the course to make it more challenging

Obstacle Course #3

*1-3 times through depending on time & ability



1. **Resilite mat**
    a. Climb up and across resilite mat
    b. Jump, drop, or roll onto pit pillow
2. **Vault #1**
    a. Use springboard to jump and climb up onto blocks
    b. Crawl across and jump, drop, or flip onto portapit
3. **Vault #2**
    a. Use springboard to jump and climb up onto block
    b. Walk, crawl, roll across resilite mat
4. **Big cheese**
    a. Log, forward, back, egg roll, or flip down big cheese
5. **Vault #3**
    a. Use springboard to jump and climb up onto blocks
    b. Jump or slide down onto mat
    c. Jump, roll, or flip onto pit pillow

Adapt or Modify

- **Vaults**
    - Remove top layer of the block to make it less challenging
    - Use a smaller springboard that is easier to bounce and jump on
- **Whole course**
    - Time participants to see how fast they can go through the course to make it more challenging

Obstacle Course #4

*1-3 times through depending on time & ability

1. **Balance beam #1**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
2. **Vault #1**
    a. Use springboard to jump and climb up onto blocks
    b. Crawl across and jump, drop, or flip onto portapit
3. **Vault #2**
    a. Use springboard to jump and climb up onto blocks
    b. Crawl across and jump, drop, or flip onto pit pillow
4. **Balance beam #2**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
5. **Springboards**
    a. Jump (preferably using two feet) from springboard to springboard
6. **Vault #3**
    a. Use springboard to jump and climb up onto blocks
    b. Crawl across and jump, drop, or flip onto resilite
7. **Resilite mat**
    a. Walk, jump, roll across resilite mat
    b. Jump, drop, or roll onto pit pillow

8. **Balance beam #3**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
9. **Tunnel**
    a. Crawl into tunnel and find the “minecart”
    b. Participant lies with their stomach on the “minecart” (red block that has sliders underneath) and grab rope with strong hands/arms
    c. Hold onto rope tightly as another participant or coach pulls the “minecart” (hand over hand in sitting position) out of the tunnel

Adapt or Modify

- **Balance beam**
    - Have balance beams stay consistent at the same height
    - Make it more challenging by making a section of the beam slope upward or downward
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Vaults**
    - Remove top layer of the block to make it less challenging
    - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to bounce and jump on
- **Springboards**
    - Challenge participants to jump across springboard path sideways, backward, or on one foot
- **Tunnel**
    - Make the tunnel width wider or narrower to make crawling/sliding through less or more difficult
    - Add more or fewer sliders to the “minecart” to make pulling less or more difficult
- **Whole course**
    - Time participants to see how fast they can go through the course to make it more challenging

Obstacle Course #5

*1-3 times through depending on time & ability

1. **Tumbl pad**
    a. Run to block #1
2. **Block #1**
    a. Use tumbl pad to jump up and onto the block
3. **Rollers #1**
    a. Superman/woman roll across rollers (on stomach - arms and legs straight and up)
    b. Crawl, walk, or roll across pit pillow
4. **Block #2**
    a. Climb up big blue block
    b. Jump onto resilite
5. **Big cheese #1**
    a. Log, forward, back, or egg roll down big cheese
6. **Balance beams #1, #2, & #3**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
7. **Vault**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or flip onto resilite

8. **Rollers #2**
    a. Superman/woman roll across rollers (on stomach, arms and legs straight and up) and onto big cheese mat
9. **Big cheese #2**
    a. Crawl, walk, or run up big cheese
    b. Drop down onto beam
10. **Balance beam #4**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)

Adapt or Modify

- **Blocks**
    - Add layers to the blocks to make climbing more difficult
    - Allow participants to use steps or smaller blocks to assist in climbing
- **Rollers**
    - Place rollers closer or farther apart to make crossing less or more difficult
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Make it more challenging by making a section of the beam slope upward or downward
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Vault**
    - Remove top layer of the block to make it less challenging
    - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to bounce and jump on
- **Whole course**
    - Time participants to see how fast they can go through the course to make it more challenging

Obstacle Course #6

*1-3 times through depending on time & ability

1. **Balance beams #1, #2, & #3**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
2. **Wall climb #1**
    a. Climb up wall and then crawl or walk across to the inflatable bouncer
3. **Inflatable bouncer**
    a. Jump x3 (coach picks or their choice)
    b. Crawl, walk, or roll across portapit to bosu balls
4. **Bosu balls**
    a. Step or jump (preferably with two feet) from bosu ball to bosu ball
5. **Pirate ship**
    a. Walk or crawl across pirate ship
6. **Big cheese**
    a. Log, forward, back, or egg roll down big cheese
7. **Balance beam #4**
    a. Walk across beam - first step over objects and then dip foot to tap red blocks on the side
8. **Small cheese**
    a. Walk, crawl, forward roll, or backward roll down big cheese

9. **Rainbow arch**
    a. Crawl under or slide through the rainbow arch
10. **Wall climb #2**
    a. Climb up wall and crawl or walk across to the rollers
11. **Rollers**
    a. Superman/woman roll across rollers (on stomach - arms and legs straight and up) onto pillow mat
12. **Panel mats**
    a. Climb up panel mat stairs and slide, jump, fall, or flip onto portapit

Adapt or Modify

- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Remove objects (squeakers, pit cubes, bean bags, etc.) from beams to make crossing or have them carry weighted objects
- **Wall climbs**
    - Remove layer(s) to the block wall to make climbing less challenging
    - Allow participants to use steps or smaller blocks to assist in climbing
- **Bosu balls**
    - Place bosu balls closer or farther away to make crossing less or more challenging
- **Pirate ship**
    - Flip pirate ship over to the flat side so crossing the obstacle is less challenging
- **Rainbow arch**
    - Add or remove blocks underneath half-circle mat to make crawling/sliding less or more difficult
- **Rollers**
    - Place rollers closer or farther apart to make crossing less or more difficult
- **Panel mats**
    - Add smaller blocks in between “steps” to make climbing up each panel mat less challenging
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #7

*1-3 times through depending on time & ability

1. **Tunnel**
    a. Crawl through tunnel
2. **Balance beams #1, #2, #3, #4, #5, & #6**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
3. **Vault**
    a. Jump, roll, or flip onto porta pit
    b. Cross second portapit (walk, crawl, roll) to pirate ship
4. **Pirate ship**
    a. Walk or crawl across pirate ship
5. **Inflatable bouncer**
    a. Jump x3 (coach picks or their choice)
6. **Big cheese**
    a. Log, forward, backward, or egg roll down big cheese
7. **Mat climb**
    a. Climb up and across mat to rollers

8. **Rollers**
    a. Crawl across (do not jump because they will tip) first 3 rollers
    b. Superman/woman roll across last 2 rollers (on stomach - arms and legs straight and up)
9. **Panel mats**
    a. Climb up panel mat stairs and slide, jump, fall, or flip onto portapit

Adapt or Modify

- **Tunnel**
    - Have tunnel sloped (on small cheese) upward or downward to make crawling through more difficult
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Make it more challenging by making a section of the beam slope upward or downward
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Pirate ship**
    - Flip pirate ship over to the flat side so crossing the obstacle is less challenging
- **Rollers**
    - Place rollers closer or farther apart to make crossing less or more difficult
- **Panel mats**
    - Add smaller blocks in between “steps” to make climbing up each panel mat less challenging
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #8

*1-3 times through depending on time & ability

1. **Tunnel**
    a. Crawl through tunnel
2. **Circle mat**
    a. Crawl upward and out of the circle mat
    b. Move onto side block
3. **Balance beams #1 & #2**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
4. **Portapit #1**
    a. Walk, crawl, run, or roll across portapit
5. **Balance beam #3**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
6. **Portapit #2**
    a. Walk, crawl, run, or roll across portapit
7. **Balance beam #4**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)

8. **Wall climb**
    a. Climb up wall and then crawl or walk across to the inflatable bouncer
9. **Inflatable bouncer**
    a. Jump x3 (coach picks or their choice)
10. **Pirate ship**
    a. Walk or crawl across pirate ship
11. **Big cheese**
    a. Log, forward, backward, or egg roll down big cheese
12. **Small cheese #1 & #2**
    a. Crawl, walk, run, or jump across two small cheeses
13. **Small cheese #3**
    a. Crawl, slide, forward roll, or backward roll down small cheese

Adapt or Modify

- **Circle mat**
    - Add or remove blocks underneath circle mat to make climbing upward more or less challenging
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Wall climb**
    - Remove layer(s) to the block wall to make climbing less challenging
    - Allow participants to use steps or smaller blocks to assist in climbing
- **Pirate ship**
    - Flip pirate ship over to the flat side so crossing the obstacle is less challenging
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #9

*1-3 times through depending on time & ability

1. **Rollers**
    a. Superman/woman roll across each roller (on stomach - arms and legs straight and up) onto the mat
    b. Push roller back so next participant can cross
2. **Balance beams**
    a. Walk across beam (or complete skill or certain type of walk as designated by coach)
3. **Vault**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or flip onto portapit
4. **Block climb #1**
    a. Climb up onto block
    b. Jump or slide down to landing mats
5. **Block climb #2**
    a. Climb up onto resilite block
    b. Climb over and across block bridge
    c. Jump, flip, or slide down onto resilite

Adapt or Modify

- **Rollers**
  - Place rollers and mats closer or farther apart to make crossing less or more difficult
- **Balance beams**
  - Have balance beams stay consistent at the same height
  - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Vault**
  - Add a layer to the block to make climbing more difficult
  - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to bounce and jump on
- **Block climbs**
  - Add layers to the blocks to make climbing more difficult
  - Allow participants to use steps or smaller blocks to assist in climbing
- **Whole course**
  - Time participants to see how fast they can go through the course

Obstacle Course #10

*1-3 times through depending on time & ability

1. **Balance beams #1, #2, & #3**
    a. Walk across beam, stepping over pit cubes
    b. Place pit cubes back on beam if participant knocks them over
2. **Vault #1**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto mat
3. **Block climb**
    a. Climb up onto block
    b. Jump or slide down onto mat
4. **Vault #2**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto pit pillow
5. **Vault #3**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto sloped mat
6. **Mat climb**
    a. Crawl, walk, or run up sloped resilite mat
    b. Jump, flip, or slide down onto landing mats

7. **Vault #4**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto pit pillow

Adapt or Modify

- **Balance beams**
    - Remove pit cubes from balance beams to make crossing less challenging or have participants complete different types of walks (backward, sideways, etc.) to make it more difficult
- **Vaults**
    - Add a layer to the block to make climbing more difficult
    - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to bounce and jump on
- **Block climbs**
    - Add a layer to the blocks to make climbing more difficult
    - Allow participants to use steps or smaller blocks to assist in climbing
- **Mat climb**
    - Increase or decrease the slope of the mat to make crossing more or less difficult
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #11

*1-3 times through depending on time & ability

1. **Vault #1**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto mat
2. **Vault #2**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto mat
3. **Vault #3**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto resilite mat
4. **Rollers**
    a. Superman/woman roll across both rollers (on stomach - arms and legs straight and up) to the big cheese
5. **Big cheese**
    a. Log, forward, backward, or egg roll down big cheese
6. **Vault #4**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto pit pillow

7. **Vault #5**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto mat
8. **Sliders**
    a. Use sliders and go around green roller, next to the red roller, and finally back to the start pad

Adapt or Modify

- **Vaults**
    - Add a layer to the block to make climbing more difficult or remove a layer to make it less difficult
    - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to bounce and jump on
- **Rollers**
    - Place rollers and mats closer or farther apart to make crossing less or more difficult
- **Sliders**
    - Have participants carry weighted objects such as dumbbells, exercise bars, medicine balls, etc. to make task more challenging
    - Have participants go around rollers in different paths or multiple times
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #12

*1-3 times through depending on time & ability

1. **Ladder**
    a. Bear crawl up the ladder (hands on the sides - not on the rungs of the ladder)
2. **Big cheese**
    a. Climb over and jump down from folded big cheese onto mat
3. **Vault**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto resilite mat
4. **Block climb #1**
    a. Climb up and over block
    b. Jump, drop, slide, or flip onto portapit
5. **Block climb #2**
    a. Climb up and over block
    b. Follow smaller blocks down to the agility ladder
6. **Agility ladder #1**
    a. Cross agility ladder (one foot in each space or as directed by coach)
7. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
8. **Agility ladder #2**
    a. Cross agility ladder (one foot in each space or as designated by coach)

9. **Balance beams #2 & #3**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)

Adapt or Modify

- **Ladder**
    - Increase or decrease the slope of the ladder to make crossing more or less difficult
- **Vault**
    - Add a layer to the block to make climbing more difficult or remove a layer to make it less difficult
    - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to bounce and jump on
- **Block climbs**
    - Add layers to the blocks to make climbing more difficult
    - Allow participants to use steps or smaller blocks to assist in climbing
- **Agility ladders**
    - Have participants complete more difficult ladder skills such as shuffling, hopping, in-and-out, etc.
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #13

*1-3 times through depending on time & ability

1. **Big cheese #1**
    a. Crawl/run up big cheese to tip it over and make a bridge to the resilite mat
2. **Big cheese #2**
    a. Climb over and jump down from folded big cheese onto pit pillow
3. **Big cheese #3**
    a. Log, forward, backward, or egg roll down big cheese
4. **Tunnel**
    a. Crawl through tunnel
    b. Exit out the side onto balance beam
5. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
6. **Block climb #1**
    a. Climb up and over block
    b. Step or slide down to balance beam
7. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
8. **Block climb #2**
    a. Climb up and over block
    b. Step or slide down to balance beam

9. **Balance beam #3**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
10. **Block climb #3**
    a. Run, jump, and climb up and over block
    b. Jump, drop, or slide down onto portapit

Adapt or Modify

- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Block climbs**
    - Add layers to the blocks to make climbing more difficult or remove layers to make it less difficult
    - Allow participants to use steps or smaller blocks to assist in climbing
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #14

*1-3 times through depending on time & ability

1. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
2. **Ladder**
    a. Bear crawl up the ladder (hands on the sides - not on the rungs of the ladder)
3. **Tunnel**
    a. Crawl through the tunnel (tunnel is “L” shaped and has a corner)
4. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
5. **Vault #1, #2, & #3**
    a. Use springboard to jump and climb up onto block
    b. Repeat with the next two vaults
    c. Slide or jump down onto pit pillow after vault #3
6. **Balance beam #3**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)

7. **Mat climb**
    a. Climb up and onto stacked resilite mats
    b. Slide, jump, or flip onto portapit
    c. Cross the remaining two mats to reach springboard path
8. **Springboard path**
    a. Jump (or step) back and forth between springboards while moving forwards
9. **Vault #4 (not pictured)**
    a. Use springboard to jump and climb up onto block
    b. Cross resilite mat to reach rope climb
10. **Rope climb (not pictured)**
    a. Use the rope to climb up the wall and ring the bell

Adapt or Modify

- **Ladder**
    - Increase or decrease the slope of the ladder to make crossing more or less difficult
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Vaults**
    - Add a layer to the block to make climbing more difficult or remove a layer to make it less difficult
    - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to bounce and jump on
- **Mat climb**
    - Remove top layer or add bigger block to make the mat easier to climb
- **Springboard path**
    - Place springboards closer or farther apart to make crossing less or more difficult
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #15

*1-3 times through depending on time & ability

1. **Big cheese #1 & #2**
    a. Walk or run up the first big cheese
    b. Push, kick, or jump on the second big cheese to make it fall down
    c. Walk, run, or roll down the cheese onto the pit pillow
2. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
3. **Block climb**
    a. Climb up and over block
    b. Slide, roll, or jump down on pit pillow
4. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
5. **Vault #1**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto pit pillow
6. **Balance beam #3**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)

7. **Vault #2**
    a. Use springboard to jump and climb up onto block
    b. Crawl across and jump, drop, or slide onto mat
8. **Balance beam #4**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
9. **Rollers**
    a. Superman/woman roll across both rollers (on stomach - arms and legs straight and up)
10. **Teeter-totter**
    a. Tip teeter-totter while on stomach, on hands-knees, kneeling, or standing
11. **Vault #3**
    a. Use springboard to jump and climb up onto block or flip over block
    b. Crawl across, jump, drop, slide, or flip onto portapit
12. **Mat climb**
    a. Climb up mat and crawl, walk, or run across remaining mats

Adapt or Modify

- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Vaults**
    - Add a layer to the block to make climbing more difficult or remove a layer to make it less difficult
    - Use a bigger springboard that requires more power and strength to bounce and jump on or a smaller springboard that is easier to bounce and jump on
- **Mat/block climbs**
    - Remove top layer or add bigger block to make the mat easier to climb
- **Rollers**
    - Place rollers and mats closer or farther apart to make crossing less or more difficult
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #16

*1-3 times through depending on time & ability

1. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
2. **Block climb #1**
    a. Climb up and over blocks
    b. Slide, roll, or jump down on portapit
3. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
4. **Block climb #2**
    a. Climb up and over block
    b. Slide or jump down on pit pillow
5. **Block climb #3**
    a. Climb up and across block
    b. Slide or jump down on pit pillow
6. **Balance beam #3**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
7. **Mat climb #1**
    a. Crawl, walk, or run up mat ramp
    b. Slide or jump down onto resilite

8. **Agility ladder**
    a. Cross agility ladder (one foot in each space or as designated by coach)
9. **Hopscotch**
    a. Cross hopscotch mat
10. **Balance board**
    a. Complete balance board

Adapt or Modify

- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Mat/block climbs**
    - Remove or add layers to make the climb easier or more difficult
- **Agility Ladder**
    - Have participants complete more difficult ladder skills such as shuffling, hopping, in-and-out, etc.
- **Hopscotch**
    - Have participants complete it different directions such as forward, sideways, or backward to make obstacle more or less difficult
- **Balance board**
    - Use bigger balance boards to make it easier or smaller ones to increase difficulty
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #17

*1-3 times through depending on time & ability

1. **Ramp**
    a. Crawl, walk, or run up ramp
    b. Cross block and jump or slide onto pit pillow
2. **Rollers #1**
    a. Superman/woman roll across both rollers (on stomach - arms and legs straight and up)
3. **Block climb**
    a. Climb up and across the block
    b. Move to block slide
4. **Slide**
    a. Sit down or lie on your stomach/back and use the “blanket” to slide down
5. **Floor bars #1 & #2**
    a. Bear crawl or walk across floor beams
    b. When choosing to walk, can put a foot on each beam or both on one
6. **Rollers #2**
    a. Superman/woman roll across both rollers (on stomach - arms and legs straight and up)
7. **Ladder**
    a. Bear crawl up the ladder (hands on the sides - not on the rungs of the ladder)

8. **Balance beams #1**
    a. Place one foot on each beam and cross
    b. Can go forwards or backward
9. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)

Adapt or Modify

- **Ramps**
    - Remove or add layers to make ramp less or more steep and thus easier or more difficult to climb
- **Block climb**
    - Remove or add layers to make the climb easier or more difficult
- **Rollers**
    - Place rollers and mats closer or farther apart to make crossing less or more difficult
- **Ladder**
    - Increase or decrease the slope of the ladder to make crossing more or less difficult
- **Balance beams #1**
    - Can move beams closer or farther apart to make crossing less or more challenging
- **Balance beam #2**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #18

*1-3 times through depending on time & ability

1. **Ramp #1**
    a. Crawl, walk, or run up the ramp
2. **Ramp #2**
    a. Forward, backward, log, or egg roll down ramp
3. **Goal post**
    a. Crawl, walk, or run up and through the goal post
4. **Vault #1**
    a. Use springboard to jump and climb up onto block
    b. Slide or jump down onto pit pillow
5. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
6. **Block climb #1**
    a. Climb up and over block
7. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
8. **Vault #2**
    a. Use springboard to jump and climb up onto block
    b. Slide, jump, or flip onto resilite
9. **Block climb #2**
    a. Climb up onto the block
    b. Slide, jump, or flip onto resilite

10. **Block climb #3**
    a. Climb up onto the block
    b. Slide, jump, or flip onto resilite
11. **Ramp #3**
    a. Forward, backward, log, or egg roll down ramp
12. **Mat climb**
    a. Climb up onto mat
13. **Ramp #4**
    a. Forward, backward, log, or egg roll down ramp
14. **Ninja jumps**
    a. Jump back and forth between the panel mats

Adapt or Modify

- **Block/Mat climbs**
    - Remove or add layers to make the climb easier or more difficult
- **Vaults**
    - Add a layer to the block to make climbing more difficult or remove a layer to make it less difficult
    - Use a bigger springboard that is harder to bounce or a smaller springboard that is easier to bounce and jump on
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Ninja jumps**
    - Place mats closer together to make jumping back and forth less challenging
    - Move mats farther apart to make it more challenging
    - Use mats with different heights or stack mats so participants have to jump higher
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #19

*1-3 times through depending on time & ability

1. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
2. **Block climb #1**
    a. Climb up onto the block
    b. Slide, or step down onto springboard
3. **Springboard path**
    a. Jump from springboard to springboard
4. **Block climb #2**
    a. Jump using the springboard or climb up onto block
    b. Jump or slide down onto pit pillow
5. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
6. **Ramp #1**
    a. Crawl, walk, or run up the ramp
    b. Slide, jump, or flip onto resilite
7. **Balance beam #3**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)

8. **Ramp #2**
    a. Crawl, walk, or run up the ramp
    b. Jump or slide down onto pit pillow
9. **Block climb #3**
    a. Climb up and over the block
10. **Ramp #3**
    a. Crawl, walk, or run up the ramp
    b. Slide, jump, or flip onto pit pillow
11. **Rope path**
    a. Step or jump from number to number without touching the rope

Adapt or Modify

- **Block climbs**
    - Remove or add layers to make the climb easier or more difficult
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Ramps**
    - Increase or decrease the incline of the ramps to make climbing them more or less difficult
- **Rope Path**
    - Have number dots closer or farther apart
    - Add different types of objects to step on (squeakers, logs/stumps, etc.)
- **Whole course**
    - Time participants to see how fast they can go through the course

Obstacle Course #20

*1-3 times through depending on time & ability

1. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
2. **Vault**
    a. Use springboard to jump and climb up onto block
    b. Slide or jump onto pit pillow
3. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
4. **Lily pads**
    a. Crawl, walk, run, or jump across lily pad path
5. **Big cheese**
    a. Crawl, walk, or run up the big cheese
6. **Rollers**
    a. Crawl, walk, or run across the rollers
7. **Mat climb**
    a. Climb up onto mat
    b. Slide, step, or jump down onto pit pillow

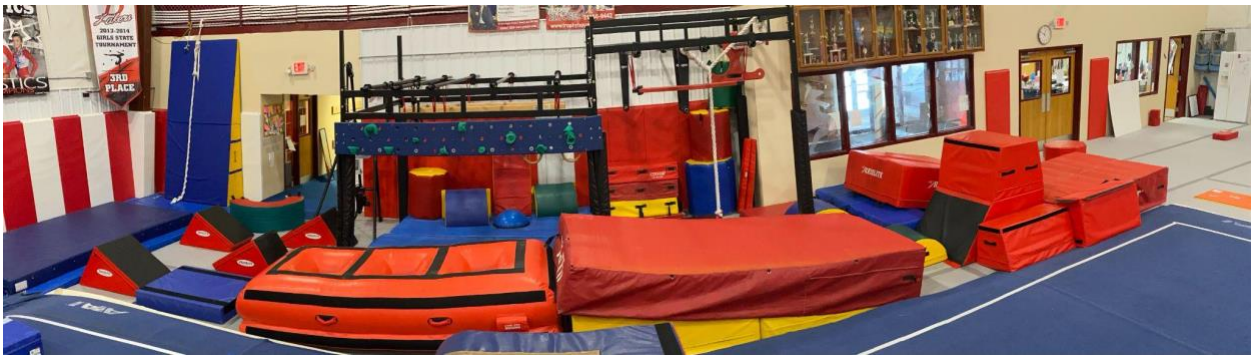
8. **Balance beam #3**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
9. **Ramp #1**
    a. Crawl, walk, or run up the ramp
    b. Jump, roll, or slide down onto pit pillow
10. **Tunnel**
    a. Crawl through the tunnel
11. **Ramp #2**
    a. Crawl, walk, or run up the ramp
    b. Jump, roll, or slide down onto portapit
12. **Platform beam**
    a. Walk across the platform beam (or complete skill or certain type of walk as designated by coach)

Adapt or Modify

- **Vault**
    - Add a layer to the block to make climbing more difficult or remove a layer to make it less difficult
    - Use a bigger springboard that is harder to bounce or a smaller springboard that is easier to bounce and jump on
- **Mat climb**
    - Remove or add layers to make the climb easier or more difficult
- **Balance beams**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Ramps**
    - Increase or decrease the incline of the ramps to make climbing them more or less difficult
- **Lily pad path**
    - Have pads closer or farther apart or facing different directions/angles
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #1

*1-3 times through depending on time & ability



1. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
    b. Land on blue block
2. **Pirate ship**
    a. Walk or crawl across pirate ship
3. **Big cheese**
    a. Log roll, forward roll, backward roll, or flip down big cheese
4. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit
5. **Octagon Steps**
    a. Jump from octagon step to octagon step
6. **Mat climb**
    a. Crawl, walk, or run up slanted mat
7. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)
8. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

Adapt or Modify

- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Pirate ship**
    - Flip pirate ship over to the flat side so crossing the obstacle is less challenging
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Octagon steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Mat climb**
    - Increase or decrease the slope of the mat to make climbing more or less challenging
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #2

*1-3 times through depending on time & ability

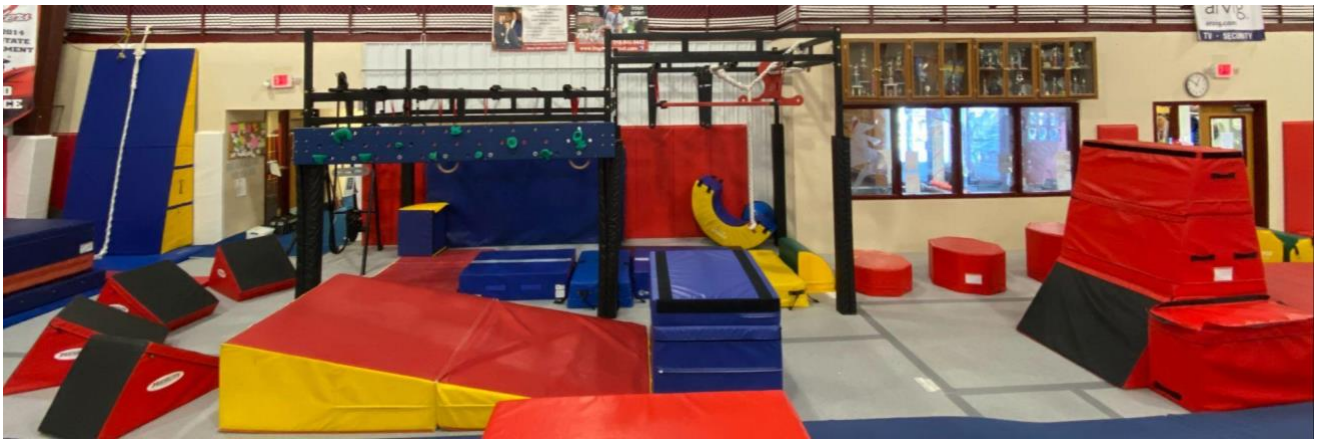
1. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
    b. Land on blue block
2. **Big cheese**
    a. Climb up and over folded big cheese
    b. Land on portapit
3. **Rollers**
    a. Crawl across rollers onto slanted resilite block
    b. Log roll down slanted resilite block
4. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit
5. **Octagon steps**
    a. Move to blue block
    b. Jump from octagon step to octagon step
6. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)
7. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

Adapt or Modify

- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Rollers**
    - Use big or smaller rollers to increase or decrease the difficulty of climbing over
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Octagon steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #3

*1-3 times through depending on time & ability



1. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
    b. Jump or step to big cheese
2. **Big cheese**
    a. Log, forward, backward, or egg roll down cheese
3. **Block climb**
    a. Climb up and over block
    b. Slide or jump down to carpet
4. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit
5. **Rollers**
    a. Crawl or walk across rollers
6. **Octagon steps**
    a. Jump from octagon step to octagon step
7. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)

8. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

Adapt or Modify

- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Rollers**
    - Use bigger or smaller rollers to increase or decrease the difficulty of climbing over
    - Remove panel mats to make rollers less stable and thus more difficult to cross
- **Octagon steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #4

*1-3 times through depending on time & ability

1. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
    b. Move onto octagon step
2. **Roller #1**
    a. Place hands and knees on roller and push off block to roll to the next one
3. **Roller #2**
    a. Place hands and knees on roller and push off block to roll to the big cheese
4. **Big cheese**
    a. Log roll, forward roll, backward roll, or egg roll big cheese
5. **Roller #3**
    a. Place hands and knees on roller and push off big cheese to roll to the next octagon block
6. **Roller #4**
    a. Place hands and knees on roller and push off block to roll to the next one
7. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit

8. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)

9. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

Adapt or Modify

- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Rollers**
    - Place rollers closer or farther apart to make crossing less or more difficult
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #5

*1-3 times through depending on time & ability

1. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
    b. Move onto half-circle mat
2. **Half-circle mat**
    a. Climb under or over half-circle mat
    b. Move onto stepping stone path
3. **Stepping stone path**
    a. Run, walk, or jump from “stone” to “stone”
4. **Octagon steps**
    a. Jump from octagon step to octagon step
5. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit
6. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)

7. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

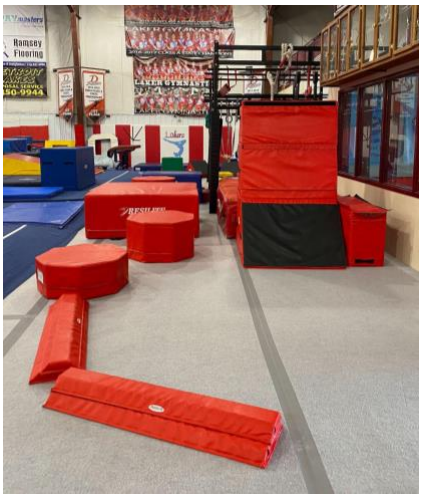
Adapt or Modify

- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Stepping stone path**
    - Place “stones” closer or farther apart to make crossing less or more difficult
- **Octagon steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #6

*1-3 times through depending on time & ability

1. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
    b. Move onto half-circle mat
2. **Stepping stone path**
    a. Run, walk, or jump from “stone” to “stone”
3. **Octagon steps**
    a. Jump from octagon step to octagon step
4. **Balance path**
    a. Walk across balance path steps
5. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit
6. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)



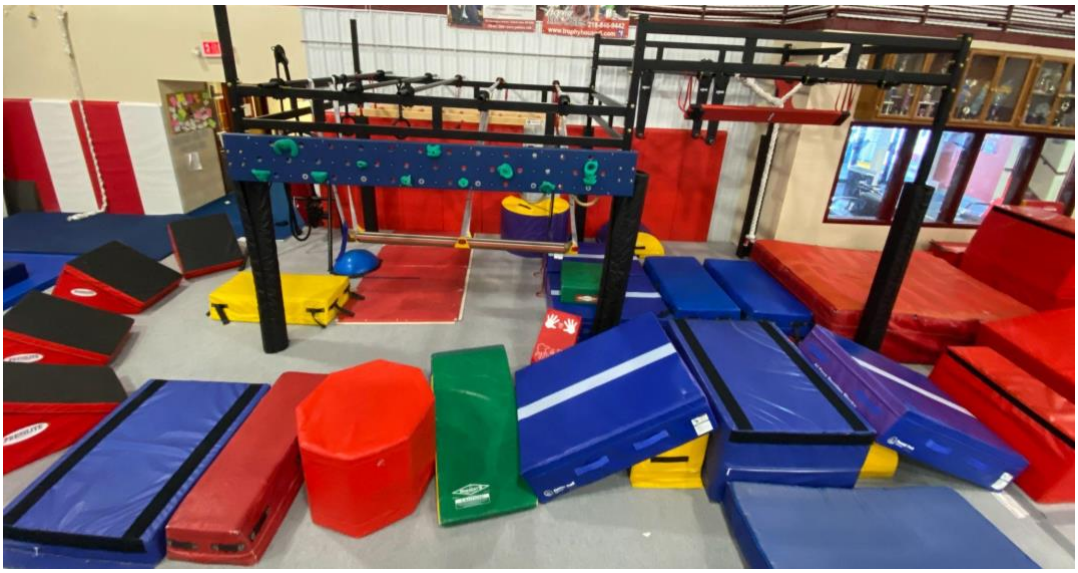
7. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

Adapt or Modify

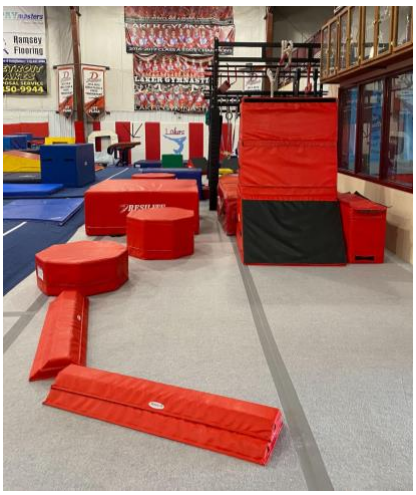
- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Stepping stone path**
    - Place “stones” closer or farther apart to make crossing less or more difficult
- **Octagon steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #7

*1-3 times through depending on time & ability



1. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
    b. Crawl, walk, or run across connecting mats to ramps
2. **Ramp #1**
    a. Crawl, walk, or run up and then down ramps (blue blocks)
    b. Move to the next ramp
3. **Ramp #2**
    a. Crawl, walk, or run up second ramp (red block)
    b. Slide or jump down onto mat (not pictured)
    c. Move to octagon steps
4. **Octagon steps**
    a. Jump from octagon step to octagon step
5. **Balance path**
    a. Walk across balance path steps
6. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit



7. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)
8. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

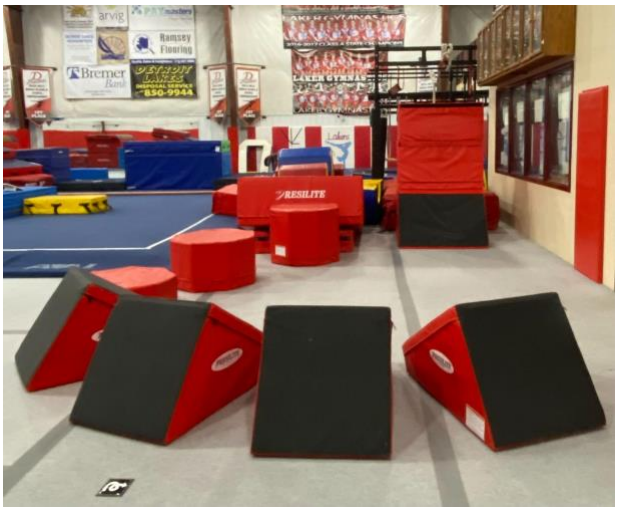
Adapt or Modify

- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Octagon steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Ramps**
    - Make ramps lower or higher to make crossing less or more difficult. Or provide more or less stabilization to make blocks more or less tipsy when crossing.
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #8

*1-3 times through depending on time & ability

1. **Balance beam**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
2. **Mat climb**
    a. Crawl, walk, or run up mats
    b. Move to rollers
3. **Rollers**
    a. Crawl, walk, or run down the rollers
    b. Move to ramp
4. **Ramp**
    a. Crawl, walk, or run up the mat
    b. Step or jump down to octagon steps
5. **Octagon steps**
    a. Jump from octagon step to octagon step
6. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
7. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit



8. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)
9. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

Adapt or Modify

- **Balance beam**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Octagon steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Ramp**
    - Make ramps lower or higher to make crossing less or more difficult. Or provide more or less stabilization to make blocks more or less tipsy when crossing.
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #9

*1-3 times through depending on time & ability

1. **Balance beam**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
2. **Block climb**
    a. Crawl, walk, or run up mats
    b. Move to rollers
3. **Rollers**
    a. Crawl, walk, scootch or slide down the rollers
    b. Move to ramp
4. **Ramp**
    a. Crawl, walk, or run up the mat
    b. Step or jump down to octagon steps
5. **Octagon steps**
    a. Jump from octagon step to octagon step
6. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
7. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit

8. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)
9. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time

Adapt or Modify

- **Balance beam**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Rollers**
    - Add more or fewer rollers or add bigger or smaller rollers to make crossing more or less difficult
- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Octagon steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Ramp**
    - Make ramps lower or higher to make crossing less or more difficult. Or provide more or less stabilization to make blocks more or less tipsy when crossing.
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #10

*1-3 times through depending on time & ability

1. **Balance beam**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
2. **Mat climb**
    a. Climb up and over mat
    b. Move onto block
3. **Ramp #1**
    a. Crawl, walk, or run up ramp
    b. Slide or jump down onto mat
4. **Ramp #2**
    a. Crawl, walk, or run up ramp
    b. Slide or jump down onto the octagon step
5. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
6. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit
7. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)

8. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time
9. **Rope climb**
    a. Hold onto the rope and then walk your hands up the rope and feet up the mat

Adapt or Modify

- **Balance beam**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Ramp**
    - Make ramps lower or higher to make crossing less or more difficult. Or provide more or less stabilization to make blocks more or less tipsy when crossing.
- **Wall climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Rope climb**
    - Place a bigger or small mat as well as have the incline of the mat be bigger or small to make climbing more or less difficult
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #11

*1-3 times through depending on time & ability

1. **Balance beam #1**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
2. **Mat climb #1**
    a. Climb up and over mat
    b. Move onto block
3. **Balance beam #2**
    a. Walk across the beam (or complete skill or certain type of walk as designated by coach)
    b. Step up onto medium cheese and move to second mat climb
4. **Mat climb #2**
    a. Climb up and over mat
    b. Move onto block
5. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
6. **Balance path**
    a. Walk or run across the balance path
7. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit

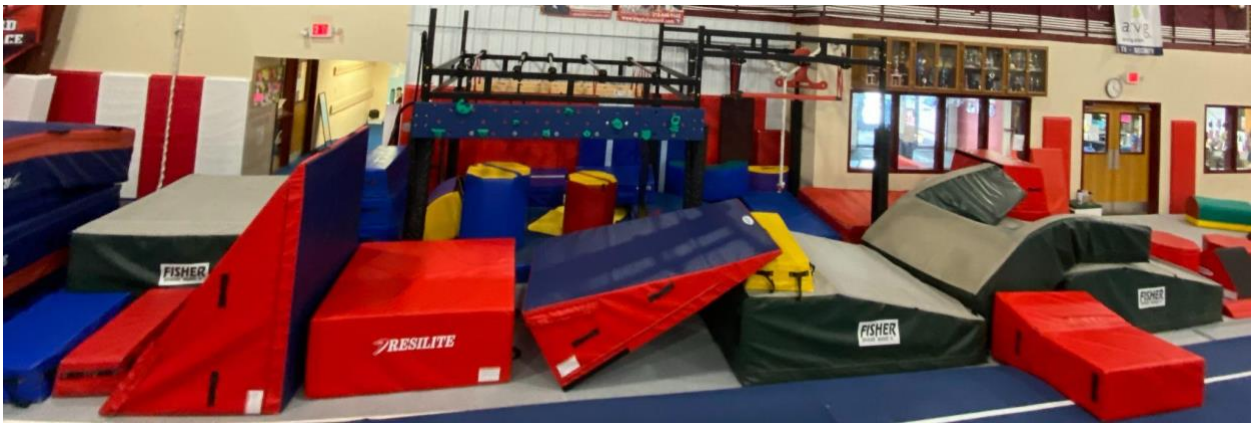
8. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)
9. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time
10. **Rope climb**
    a. Hold onto the rope and then walk your hands up the rope and feet up the mat

Adapt or Modify

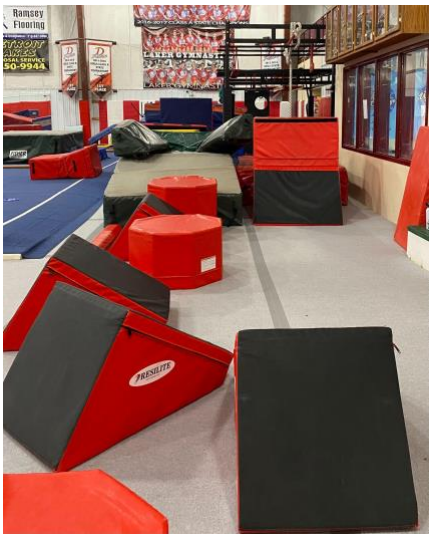
- **Balance beam**
    - Have balance beams stay consistent at the same height
    - Add objects (squeakers, pit cubes, bean bags, etc.) onto the beam for participants to step on or over or have them carry weighted objects
- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Wall/Mat climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Rope climb**
    - Place a bigger or small mat as well as have the incline of the mat be bigger or small to make climbing more or less difficult
- **Whole course**
    - Time participants to see how fast they can go through the course

Ninja Course #12

*1-3 times through depending on time & ability



1. **Mat climb #1**
    a. Climb up and over mat
    b. Move onto block
2. **Ramp**
    a. Crawl, walk, or run up the ramp
3. **Goal post**
    a. Crawl, walk, or run up and through the goal post
    b. Move onto octagon step
4. **Banked steps**
    a. Walk, run, or jump from banked step to banked step
5. **Wall climb**
    a. Climb up on top of the wall
    b. Slide, jump, fall, or flip onto portapit
6. **Ninja rig**
    a. Participants choose which ninja rig features they would like to complete (rope swing, cheese board, hanging ladder, rock wall, grip spheres, wingnut, flying squirrel, etc.)
7. **Endless rope**
    a. Utilize endless rope (pulling down hand over hand) in standing or seated position until designated distance or time



8. **Rope climb**
    a. Hold onto the rope and then walk your hands up the rope and feet up the mat

Adapt or Modify

- **Banked steps**
    - Move the steps closer or farther apart to make crossing less or more challenging
- **Wall/Mat climb**
    - Add or remove layers to make climbing more or less difficult
- **Endless rope**
    - Increase or decrease the tension of the rope
    - Have participants go for a set amount or time or distance
- **Rope climb**
    - Place a bigger or small mat as well as have the incline of the mat be bigger or small to make climbing more or less difficult
- **Whole course**
    - Time participants to see how fast they can go through the course

Trampoline Circuit #1

Individual Jumps

*1-2 times through depending on time

- Run
- Straight jump
- Tuck jump
- Straddle (or starfish) jump
- Full turn
- Free-style

Sequence Jumps

*1-3 time through depending on time

- Straight jump, tuck jump, straight jump, tuck jump
- Tuck jump, straddle jump, tuck jump, full turn
- Straight jump, full turn, straight jump, straddle

Free Time *depending on time

Adapt or Modify

- Add more or fewer jumps to sequences
- Have participants complete jumps while holding medicine balls or weighted exercise bars
    - Make this more challenging by having participants hold weighted item by their chest, up to their chin, or over their head
- Have participants create their own jump sequence
- Have participants complete the jumps sideways or even backward

Trampoline Circuit #2

Individual Jumps

*1-2 times through depending on time

- Run
- Straight jump
- Staddle (or starfish) jump
- Pike jump
- Full turn
- Free-style

Sequence Jumps

*1-3 time through depending on time

- Straight jump, straddle jump, straight jump, straddle jump
- Pike jump, straddle jump, Pike jump, full turn
- Straight jump, full turn, straight jump, free-style

Free Time *depending on time

Adapt or Modify

- Add more or fewer jumps to sequences
- Have participants complete jumps while holding medicine balls or weighted exercise bars
    - Make this more challenging by having participants hold weighted item by their chest, up to their chin, or over their head
- Have participants create their own jump sequence
- Have participants complete the jumps sideways or even backward

Trampoline Circuit #3

Individual Jumps

*1-2 times through depending on time

- Run
- Straight jump
- Tuck jump
- Donkey kick
- Half-turn
- Free-style

Sequence Jumps

*1-3 time through depending on time

- Straight jump, tuck jump, straight jump, tuck jump
- Donkey kick, tuck jump, Donkey kick, half-turn
- Straight jump, half-turn, straight jump, free-style

Free Time *depending on time

Adapt or Modify

- Add more or fewer jumps to sequences
- Have participants complete jumps while holding medicine balls or weighted exercise bars
    - Make this more challenging by having participants hold weighted item by their chest, up to their chin, or over their head
- Have participants create their own jump sequence
- Have participants complete the jumps sideways or even backward

Trampoline Circuit #4

Individual Jumps

*1-2 times through depending on time

- Run
- Tuck jump
- Straddle (or starfish) jump
- Pike jump
- Zig-zag
- Free-style

Sequence Jumps

*1-3 time through depending on time

- Straddle jump, tuck jump, straddle jump, tuck jump
- Pike jump, tuck jump, pike jump, run
- Tuck jump, zig-zag, straddle jump, free-style

Free Time *depending on time

Adapt or Modify

- Add more or fewer jumps to sequences
- Have participants complete jumps while holding medicine balls or weighted exercise bars
    - Make this more challenging by having participants hold weighted item by their chest, up to their chin, or over their head
- Have participants create their own jump sequence
- Have participants complete the jumps sideways or even backward

Trampoline Circuit #5

Individual Jumps

*1-2 times through depending on time

- Run
- Donkey kick
- Pike jump
- Split jump
- Zig-zag
- Free-style

Sequence Jumps

*1-3 time through depending on time

- Pike jump, split jump, pike jump, split jump
- Donkey kick, zig-zag, pike jump, run
- Free-style, zig-zag, split jump, free-style

Free Time *depending on time

Adapt or Modify

- Add more or fewer jumps to sequences
- Have participants complete jumps while holding medicine balls or weighted exercise bars
    - Make this more challenging by having participants hold weighted item by their chest, up to their chin, or over their head
- Have participants create their own jump sequence
- Have participants complete the jumps sideways or even backward

Activity Quick Reference

Minnesota Flyers Gymnastics & Fitness

Trampoline

Types of Jumps
Straight Jump  Arms reaching up to the sky, legs together and straight, toes pointed.
Tuck Jump  Arms reaching up to the sky, bring knees up front to your stomach (tuck), toes pointed.

Star Jump

Arms reach up and make a “v”, legs go out sideways and create a “v” at the same time.
Should look like a star or mid-jumping jack.

Straddle Jump

Arms start by reaching up high and then move down to reach for toes.
Legs go out in front and create a “v” at the same time.

Pike Jump

Arms start by reaching up high and then move down to reach for toes.
Legs go out in front, are together, and straight at the same time.

Split Jump

Arms reaching up to the sky.
Legs split, one leg in front the other behind, keeping legs straight and moving at the same time.

Half-turn

Form is the same as a straight jump but turning the body 180°.

Full turn

Form is the same as a straight jump but turning the body 360°.

Donkey kick

Hands go on the trampoline surface, and legs jump up and back like a donkey.

Zig-zag

Form is the same as a straight jump but jumping continuously from the left to the right side of the trampoline surface.

Free-style

Participants can pick their favorite jump to complete or can create their own jump/jump sequence.

What do these target?

- Aerobic capacity
- Bi-lateral coordination
- Motor planning
- Sequencing & timing
- Balance
- Proprioceptive and vestibular senses

Adapt or Modify

- Add more or fewer jumps to sequences
- Have participants complete jumps while holding medicine balls or weighted exercise bars
    - Make this more challenging by having participants hold weighted item by their chest, up to their chin, or over their head
- Have participants create their own jump sequence
- Have participants complete the jumps sideways or even backward

The Bubble

Types of Activities		**Adapt or Modify**
Balance game	Participant tries to stay standing on the bubble surface while a designated person walks, jumps, etc. around.	More challenging: Have participants try to stay balanced on one leg. Less challenging: Have participants get down on all fours and lift one leg and one arm at the same time, or even less challenging by lifting either a leg or arm.
Simon Says	Participants use their listening skills and attempt to complete the actions as said/demonstrated by the designated "Simon".	More challenging: Have "Simon," say more difficult tasks such as balancing on one foot, hopping, or completing a full turn. Less challenging: Have "Simon," say less difficult tasks such as closing your eyes, putting both hands on your head, etc.
Relay Race	Participants take turns in the relay race to cross the bubble, touch the wall, and return as fast as they can.	More challenging: Encourage participants to run or carry an object (unweighted or weighted). Less challenging: Have participants walk or get assistance from a facilitator to cross the bubble.
Bobsled Pushes	Participants take turns pushing another participant on a makeshift bobsled into the bubble. *Bobsled consists of a small cheese on top of two scooters*	More challenging: Have participants push other participants or facilitators that weigh more or add heavier objects such as mats to make the sled harder to push. Less challenging: Have participants push other participants or facilitators that weigh less or have no added weight on the sled.
Ninja Launch	Participants run down the bubble "runway" up a big cheese placed on the edge of the "runway" and jump off (completing their best ninja moves) and into the	More challenging: Require participants to try certain types of movements (180- or 360-degree turn, forward roll, tuck jump, straddle jump, etc.). Less challenging: Allow participants to

	bubble.	complete their own jumps or easier ones.
Floor is Lava	Spotting blocks and mats are laid down at various heights and distances apart (depending on ability) across the whole length of the tumbl strip and across the bubble. Participants try not to touch anything but the mats.	More challenging: Participants are encouraged to jump off with both feet or challenge participants to see how few jumps it takes to navigate the whole course. Provide only a few mats/blocks across the “course”. Less challenging: Provide more mats/blocks across the “course”. Have mats/blocks closer together or with shorter heights.
Pirate Ship Race	The inflatable pirate ship is placed somewhere on the bubble. Participants run onto the bubble and climb up and into the ship as fast as possible.	More challenging: Place obstacles along the tumbl track and bubble (they have to go around) to make the race more difficult. Make participants have to flip the ship before climbing in. Or give participants a time constraint they need to complete the task within. Less challenging: Provide mats/blocks with harder surfaces to make crossing the bubble and climbing into the pirate ship easier.
Keep It Up	Participants can work individually, as a group, or as teams to keep a balloon up in the air. The goal is to prevent the balloon from touching the surface of the bubble.	More challenging: Designate rules such as a participant cannot touch the balloon twice in a row, participants need to stay moving at all times, participants need to stay in certain areas, participants have to use pool noodles to keep the balloon up, have more than one balloon, etc. Less challenging: Do not have designated rules or change rules as needed (such as having participants stay in certain spots but closer together).
Pit Cube Basketball	Participants can work individually, as a group, or as teams to throw pit cubes into “baskets”.	More challenging: Place the baskets further away, change the position of the baskets, use smaller baskets, have participants follow designated rules

	Participants stand on the edge of the bubble “runway” and throw pit cubes into the baskets which are placed somewhere on the bubble.	(stand on one foot, throw with a non-dominant hand, etc.), and more. <u>Less challenging:</u> Do not have participants follow designated rules, place the baskets closer to participants, use bigger baskets, etc.
Free Time	Participants are allowed to be creative and do whatever they would like within the bubble, as long as it is appropriate, respectful, and safe.	*Participants have the choice to complete easier tasks or try and practice more difficult tasks with facilitator supervision.

What do these target?

- Aerobic capacity
- Bi-lateral coordination
- Motor planning
- Core & muscle strength
- Balance
- Proprioceptive and vestibular senses
- Sense of hearing and vision
- Teamwork

Fitness Station

Type of Exercise		**Adapt or Modify**
Band Work	Participants complete a variety of band exercises (seated rows, arm curls, sit-ups, lateral raises, internal/external rows, etc.).	More challenging: Bands that have higher tensions or complete more repetitions/sets of the exercises. In a seated or standing position depending on the participant. Less challenging: Bands with lower tensions or complete fewer repetitions/sets of the exercises. In a seated or standing position depending on the participant.
Medicine Ball Slams	Participants lift a medicine ball straight up over their head and then use force to throw/slam the medicine ball down onto the ground.	More challenging: Use a medicine ball that is heavier in weight or complete more repetitions of the movement. Less challenging: Use a medicine ball that is lighter in weight or complete fewer repetitions of the movement.
Sit-ups	Participants will lie flat on their back (with their knees bent or straight) and move their upper body into a seated position.	More challenging: Have participants hold a weighted object such as a medicine ball or exercise bar or have participants complete more repetitions/sets of the exercise. Less challenging: Have participants sit on a wedge mat or complete fewer repetitions/sets of the exercise.
Squats	Participants will stand with their feet shoulder-width apart and slowly bend their knees into a crouched position.	More challenging: Have participants hold a weighted object such as a medicine ball, exercise bar, or dumbbell. Try different types of squats such as sumo, pulsing, or split. Have participants complete more repetitions/sets of the exercise. Less challenging: Have participants complete less difficult types of squats such as half-squats or stand-ups (start sitting on a block or chair and have

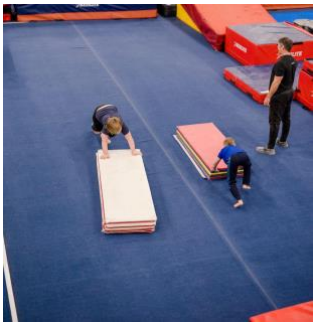
		participants stand up). Have participants complete fewer repetitions/sets.
Dumbbell Work	Participants will complete a variety of dumbbell exercises (curls, overhead press, squats, triceps extensions, etc.)	More challenging: Have participants use heavier dumbbells or complete more repetitions/sets of the exercise. In a seated or standing position depending on the participant. Less challenging: Have participants use lightweight dumbbells or complete fewer repetitions/sets of the exercise. In a seated or standing position depending on the participant.
Sled Pulls	Participants will pull a "sled" (which consists of rings, rope straps, a big slider, and two little sliders). One participant will sit on the big slider and put their feet on the little sliders while holding onto one end of the rings and rope. Another participant will use the other end of the rings and rope to pull the "sled" and the riding participant across the floor.	More challenging: Have participants or coaches who weigh more sit on the "sled". Require more repetitions of sled pulls. Less challenging: Have participants or coaches who weigh less sit on the "sled". Allow participants to complete fewer repetitions. Have participants work together to pull the sleds.
Panel Pushes	Participants will place their hands on the end of a panel mat and use their legs to drive and push the panel mat across the floor.	More challenging: Have participants use heavier panel mats or have another participant or coach sit on the panel mat. Allow participants to try "flipping" the mat. Require participants to complete more repetitions. Less challenging: Have participants use lighter panel mats or complete fewer repetitions. Have participants work together to push the mats.
Carpet skiing	Participants place their knees on the red block	More challenging: Place smaller or fewer sliders under the red block. Have

	(with sliders underneath the block) and hands in front (and slightly to the side) on the wooden dumbbells. Participants will coordinate their upper and lower bodies to pull or “scootch” their bodies across the floor.	participants complete more repetitions across the floor. Have participants go backward (pushing). <u>Less challenging:</u> Place larger or more sliders under the block. Only use the sliders. Have participants cross the floor once. Have participants use one wooden dumbbell for both hands.
Agility ladder	Participants will complete a variety of agility ladder exercises.	<u>More challenging:</u> Have participants complete more challenging exercises such as in-and-out, hopping, shuffles, and more. Time participants to see how quickly they can maneuver through. Have participants complete multiple sets or repetitions. <u>Less challenging:</u> Have participants complete less challenging exercises or complete fewer sets and repetitions.

*Participants are encouraged to complete the exercises 1-5 times depending on ability, time, & motivation

What do these target?

- Aerobic capacity
- Bi-lateral coordination
- Motor planning
- Core & muscle strength
- Proprioception
- Teamwork



Bars

Types of Activities		**Adapt or Modify**
Chin Up	Participants hang from a bar and use their upper body strength to pull their body upwards until their chin is above the bar.	More challenging: Have participants try a chin-up hold. Can make the hold more difficult by requiring the participant to hold the chin up for a determined time amount. Have the participant complete more repetitions of the exercise. Less challenging: Allow participants to use an exercise band to assist in the chin-up. Have the participant complete fewer repetitions.
Front Support	Participants will press down on the bar to push their body upwards while keeping their arms tense and straight.	More challenging: Have participants try this movement on a bar that is higher up. Have participants hold the position for longer periods of time. Require the participant to complete more repetitions. Less challenging: Have participants complete movement on a bar that is lower to the ground. Allow participants to complete fewer repetitions.
Glide Swing	Participants will hang from the bar and swing back and forth with their legs straight out in front of themselves.	More challenging: Have the participant try to hold the “glide” or the pike position in a stationary position while hanging from the bar. Less challenging: Use a block, roller, or coach to help facilitate the gliding movement.
Pull-up Pull-over	Participants will stand behind a bar that is level with their necks or higher. Hands will be placed on the bar shoulder width apart, elbows pointed down towards the ground. Participants will then complete a chin-up and at the same time tuck their	More challenging: Have participants complete the skill on a bar that is higher. Less challenging: Have participants complete the skill on a lower bar or receive assistance from a coach.

	knees or swing their legs up and around the bar, so they roll over the bar backward.	
Ladder Races	Participants will stand in front of a wall bar and climb the ladder as fast as they can.	More challenging: Have the participants race each other, can time each participant individually, or have two participants race each other at the same time. Have participants climb up and down the ladder. Have them complete multiple repetitions or multiple repetitions with little rest in between. Less challenging: Have a coach, staff, paraprofessional, or volunteer provide assistance while climbing the ladder. Allow increased time to complete the ladder race.
Leg Lifts	Participants will hang from a bar, with their legs together and straight out in front of themselves and lift their legs up and down.	More challenging: Have participants hold the pike position for a length of time. Have participants complete multiple repetitions. Have participants lift their legs past their chests and up above their heads. Less challenging: Have participants use the wall bar, sit on the ground, and try to just lift their legs off the ground. Have a coach, staff, paraprofessional, or volunteer provide assistance.

What do these target?

- Bi-lateral coordination
- Motor planning
- Core & muscle strength
- Proprioception & vestibular senses

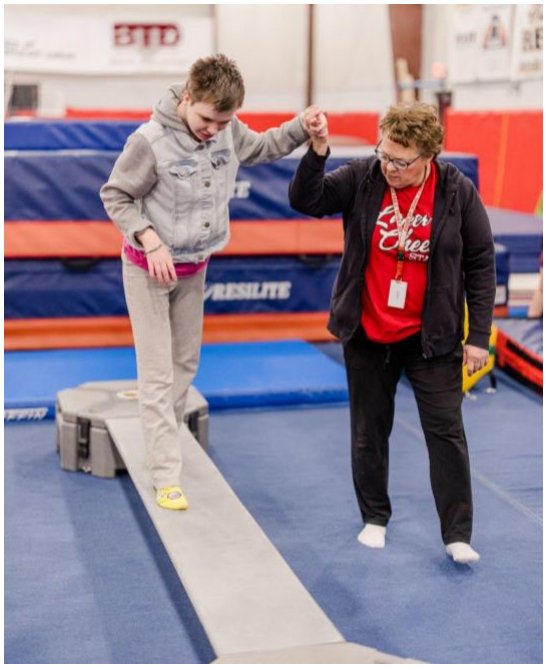
Beams

Types of Activities		**Adapt or Modify**
Walks	Participants will complete a variety of walks across the beam (forward, backward, sideways, marching, kicks, etc.).	More challenging: Have participants complete the walks on a higher beam or have them speed up their movements. Have participants carry a weighted object such as a medicine ball or exercise bar. Less challenging: Have participants complete the walks on lower or floor beams.
Jumps	Participants will complete a variety of jumps across the beam (straight, tuck, turn, etc.).	More challenging: Have participants complete the jumps on a higher beam or have them speed up their movements. Less challenging: Have participants complete the jumps on lower or floor beams.
Over-unders	Participants climb over the first beam and then crawl/roll under the second beam and continue this until they reach the end.	More challenging: Have participants complete more repetitions, more repetitions with fewer breaks in between, or try and complete the task within a certain amount of time. Less challenging: Have participants complete fewer repetitions, and allow for longer breaks, or an increased amount of time to complete the task.
Switching Places	Have participants try to switch places while on the same beam.	More challenging: Have participants complete the task on a higher beam or within a certain amount of time. Increase the number of participants on a beam and thus increase the number of repetitions. Less challenging: Have participants complete the task on a lower beam or with an increased amount of time.
Contests	Participants will engage in a variety of contests (Stick it, monkey hang, etc.).	More challenging: Require participants to complete a variety of skills while on the beam or hanging upside down.

		Less challenging: Have participants complete less difficult skills while on the beam or simply try and stand/hang as long as possible without additional movements.

What do these target?

- Aerobic capacity
- Bi-lateral coordination
- Motor planning
- Core & muscle strength
- Proprioception & vestibular senses
- Teamwork



Open Floor

Types of Activities		**Adapt or Modify**
Relay Races	Participants take turns completing instructed movement patterns (backward, sideways, skipping, hopping, zig-zag, bear crawl, forward/backward roll, etc.) across the floor and back to their team.	More challenging: Instruct participants to complete more difficult movement patterns. Have participants cross the floor multiple times before their turn is over. Have participants carry, pull, or push weighted objects (medicine ball, dumbbell, panel mat, sled, etc.). Less challenging: Instruct participants to complete less difficult movement patterns. Have the teams stagger their participants on each side of the floor so they only have to cross once.
Group Warm-up or Cool-down	Participants will complete warm-up or cool-down activities such as yoga or calisthenics.	More challenging: Have participants complete more difficult movements. Have participants complete movements at a faster speed. Can be modified by sitting, standing, balancing on one leg, etc. depending on the participant. Less challenging: Have participants complete less difficult movements. Allow for slow movements and provide longer times to complete movements. Can be modified by sitting, standing, balancing on one leg, etc. depending on the participant.
Parachute	Participants will work together as a group to complete various parachute activities (sharks & lifeguards, cat & mouse, tent, duck duck goose, popcorn, merry-go-round, etc.).	More challenging: Have participants sit or kneel (core strength). Use heavier objects in the popcorn game. Have participants skip, hop, or complete more difficult movements during the merry-go-round. Less challenging: Have participants stand. Use lighter objects during the popcorn game. Have participants walk at a slower speed during the merry-go-round. Have participants focus on their breathing in time with the parachute lifts.

Organized Games	Participants will engage in organized games such as dodgeball, variations of tag, capture the flag, and more.	More challenging: Change the time amount, longer or shorter depending on the game. Add or change rules throughout the game. Provide fewer or more materials depending on the game chosen. Less challenging: Choose simple organized games. Keep rules the same throughout the game. Provide fewer or more materials depending on the game.

What do these target?

- Aerobic capacity
- Bi-lateral coordination
- Motor planning
- Core & muscle strength
- Proprioception & vestibular senses
- Teamwork

FlyTime Outcome Measures

Minnesota Flyers Gymnastics & Fitness

FlyTime Survey Introduction

Purpose

To gather paraprofessionals, teachers, caregivers, or family members' perceptions of the psychosocial and behavioral benefits of the FlyTime Program. Results from the survey can be used as evidence of the benefits of the program in the form of stakeholder or community education, grant funding, and more.

How to Use

Send the FlyTime survey link or paper version (as seen below) to relevant personnel that can accurately report psychosocial and behavioral observations of FlyTime participants. The survey will be completed by relevant personnel at the beginning of the school year, preferably within the first two weeks of attending FlyTime, as well as a second time at the end of the school year.

https://forms.gle/RxNdHKHBgsWXZJBk7

*See the paper version of the survey on the next page

FlyTime Survey

1. **Date: _____**

2. **Name of participant: _____**

3. **Who is filling out the survey?**

   _____ Paraprofessional

   _____ Caregiver/Family Member

   _____ Teacher

   _____ Other

4. **What is the diagnosis(es) of the participant?**

   _____

   _____

5. **What gender does the participant identify as?**

   _____ Female

   _____ Male

   _____ Prefer not to say

   _____ Other

6. **Please specify the ethnicity of the participant.**

_____ Caucasian

_____ African American

_____ Latino or Hispanic

_____ Asian

_____ Native American

_____ Native Hawaiian or Pacific Islander

_____ Two or more

_____ Other/unknown

_____ Prefer not to say

7. **What grade is the participant in?**

_____ Kindergarten

_____ 1st

_____ 2nd

_____ 3rd

_____ 4th

_____ 5th

_____ 6th

_____ 7th

_____ 8th

_____ 9th

_____ 10th

_____ 11th

_____ 12th

_____ Post-graduation

8. **Rate the attention span/ability of the participant to focus on non-FlyTime days or before attending a FlyTime session.**

Poor	1	2	3	4	5	Outstanding

9. **Rate the attention span/ability of the participant to focus after attending a FlyTime session.**

Poor	1	2	3	4	5	Outstanding

10. **On non-FlyTime days or before FlyTime, how often does the participant need to be re-directed?**

Never	1	2	3	4	5	Always

11. **After attending a FlyTime session, how often does the participant need to be re-directed?**

Never	1	2	3	4	5	Always

12. **FlyTime increases the academic performance of the participant.**

Strongly Disagree	1	2	3	4	5	Strongly Agree

13. **FlyTime improves the mood of the participant.**

Strongly Disagree	1	2	3	4	5	Strongly Agree

14. **FlyTime increases the participant's confidence.**

Strongly Disagree	1	2	3	4	5	Strongly Agree

15. **FlyTime assists in the participant's development of social skills.**

Strongly Disagree	1	2	3	4	5	Strongly Agree

16. **FlyTime improves the quality of life for the participant.**

Strongly Disagree	1	2	3	4	5	Strongly Agree

17. **Any other thoughts/comments/positive examples you would like to share?**

_____
_____
_____
_____
_____

FlyTime Skills Testing Introduction

Purpose

To evaluate observable behaviors and/or skills of FlyTime participants to demonstrate the benefits of the FlyTime program. Results from the skills testing can be used as evidence of the benefits of the program in the form of stakeholder or community education, grant funding, and more.

How to Use

Skills testing will be completed by a FlyTime coach at the beginning of the school year, preferably within the first two weeks of attending FlyTime, as well as a second time at the end of the school year. Skills testing will be completed through the iClassPro app on an MFGF iPad.

A few examples of skills that may be tested include jumping with two feet, climbing over an obstacle, walking across a balance beam, following 1-step direction, regulating behavior, following rules, and more.

Scoring Guide

1 Star	Participant cannot complete or is in the beginning stages of learning
2 Stars	Participant can sometimes complete the skill or needs assistance
3 Stars	Participant demonstrates mastery of the skill. They can complete the skill every time, without assistance

*Access the iClassPro app on an MFGF iPad for the skills testing tool

FlyTime Volunteers

Minnesota Flyers Gymnastics & Fitness

FlyTime Volunteer Form

Personal Contact Information

Name: _____ Date: _____

Address: _____

Phone: _____

Email Address: _____

Emergency Contact Information

Name: _____ Relationship: _____

Address: _____

Phone: _____

Email Address: _____

Availability

Start Date: _____ Completion Date: _____ Hours Needed: _____

Please Check All That Are Applicable:

I Am Available

- Mornings (Mon-Fri)
- Afternoons (Mon-Fri)
- Once a week
- More than once a week
- One time only
- As needed
- Other

MINNESOTAFLYERS
GYMNASTICS AND FITNESS

Volunteer Welcome

About FlyTime

FlyTime is a program designed for children with special needs who may need assistance to move, climb, roll, communicate or interact in a traditional setting. MFGF has worked in partnership with our local schools to adopt a gymnastics-based fitness and exercise program using specific equipment giving children with disabilities the opportunity to get a little sweaty, build muscle, and challenge themselves through climbing, jumping, running, crawling, bouncing and many other fun activities, in an environment that is best for them. Our unique gymnastic setting has many features that cannot be matched in school gymnasiums, therapy rooms, classrooms, and other settings.

Your Role

May include but is not limited to

- Assisting with the implementation of FlyTime sessions
- Set up and tear down of courses as necessary
- Taking attendance
- Facilitating safe movement & fun
- Assisting in other ways as determined by FlyTime coach(es)

MINNESOTAFLYERS
GYMNASTICS AND FITNESS

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APPENDIX B

Permission Form

I give permission for the use of Minnesota Flyers Gymnastic and Fitness logos, photos, and website information in the University of North Dakota occupational therapy student's doctoral experiential placement and scholarly project.

Signature _____
Minnesota Flyers Gymnastics & Fitness Director

Date 1/10/23