Promoting Identity Development in Student Athletes: There’s An App for That

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Abstract

Ready Athletes, a mobile application, provides guidance on a variety of topics related to healthy identity development. This study measured changes in the identity development of collegiate student athletes using the application. While the quantitative results are not significant, those who participated in the qualitative interviews noted the benefit of the intervention in terms of positive reinforcement, goal awareness, critical thinking, aiding their identity development, and convenience in accessing such knowledge.

Introduction

The need for support of collegiate student-athletes’ identity development is readily apparent. Emerging adults are engaged in a variety of developmental tasks such as identity formation, becoming personally competent, developing interpersonal relationships, and planning for the future. Playing a sport adds an unexpectedly complex layer to these stage-related tasks (Heird & Steinfeldt, 2013). Gayles (2015) noted that student-athletes must balance a unique set of circumstances, such as balancing athletic and academic endeavors, social activities with the isolation of athletic pursuits, athletic success or lack of success with maintenance of mental equilibrium, physical health and injuries with the need to keep playing, the demands of various relationships, and reconciling the termination of an athletic career with setting goals for the future. As such, the degree to which one exclusively identifies with the athletic role, also known as athletic identity, can have a variety of implications. Specifically, over-identification with the athletic role has been tied to harmful outcomes, such as decreased college success and lower rates of completion (Harris, 2014; Comeaux, 2013; Kelly & Dixon, 2014). There is a critical need for interventions that promote student athletes’ healthy identity development.
Identity

This study used Ready Athletes, a mobile application, to promote healthy identity development in collegiate student athletes. Ready Athletes allowed student athletes to instantly and conveniently access guidance on a variety of topics related to healthy identity development and the research team measured changes in the identity development of student athletes using the application.

Literature Review

According to Berzonsky, Soenens, Luyckx, Smits, Papini, and Goossens (2013), a well-integrated identity provides a frame of reference for making decisions and interpreting experiences. Berzonsky (1990, 2004) developed a model of identity formation that suggests three different identity-processing styles: informational, normative, and diffuse-avoidant. Berzonsky et al (2013) suggest that individuals with an informational identity style have a clear sense of commitment and direction; those with a normative identity processing style are conscientious, self-disciplined, and have a strong sense of commitment, but also internalize the expectations and standards of others; those with a diffuse-avoidant style tend to put off dealing with identity conflicts and decisions as long as they can, and when they do act on decisions it is largely determined by situational circumstances and consequences. Berzonsky and Barclay (1981) suggested that these three styles embody what is presented in James Marcia’s (1966) four identity statuses: diffusion, moratorium, foreclosure, or achievement. Marcia’s four categories borrow from Erikson’s (1994) conceptualization of identity development as a task involving exploration of various possible positions in the world and ultimately making mature commitments to certain ones, such as religion, career, political affiliation or sexual orientation. Each status category can be defined by the presence or absence of exploration and commitment.
The informational identity processing style is associated with the achieved or moratorium identity status; the normative identity processing style is associated with the foreclosed identity status; and the diffuse-avoidant identity processing style is associated with the diffusion identity status (Berzonsky, 2011).

Persons in the diffused category are not actively involved in exploring possible life choices, nor have they made any firm commitments to them. While this may be fairly common in adolescence, it could become problematic later on. Persons whose identity is diffused (i.e., confused) may not trust their ability to find and commit to a meaningful path in life, or they might deny their need to do so. They may also lack a sense of optimism about the future. These individuals may also situate themselves within a highly controlling environment that dictates the conditions of their behavior and the nature of their views. The collegiate athletics landscape, in all its efforts to guide student athletes, has the potential (though preventable) to become that highly controlled environment that the diffused person seeks, which might seem okay for a while until that environment is no longer there. The persons in the moratorium category distinguish themselves from diffusion in that there is more exploration, though still a lack of commitment. The prize to be gained from this adolescent and early adult trial and error is an identity that has been personally constructed. Constructed identity is not based on a predetermined set of expectations, but represents either a personal redefinition of childhood and early adolescent goals and values or perhaps something very different from them. Foreclosure describes a category of individuals who make commitments with little or no exploration of alternatives (Marcia, 1980; Marcia, 1964). It may also characterize young people entering adolescence who incorporate the values and goals of significant others, such as their parents, without reflection. These commitments are, by definition, premature, preordained by or constrained by some circumstance.
The identity attained by those who are foreclosed is called a conferred identity, rather than a constructed one. Foreclosure’s perspective on the future involves meeting the expectations of a “prearranged set of ideals.” Identity achievement comprises individuals whose development has been marked by exploration and commitment to certain alternatives (Marcia, 1980; Marcia, 1967).

New technologies open opportunities for innovative approaches to developing healthy identities for student-athletes. The use of technology offers the opportunity for creating high impact and time efficient interventions, which are critical given the time demands already placed on student-athletes. Given the unique time demands that student-athletes endure, a mobile app creates a unique mechanism through which such identity development can efficiently occur. The use of technology maximizes instructional time, which is critical given the time demands already placed on student-athletes (Walker, 2011). Using a mobile app can facilitate and enhance individual and collaborative learning experiences independent of time and place (Biden & Ziden, 2013).

The use of Ready Athletes, a mobile application that can be installed on any mobile device can allow student athletes to instantly and conveniently access guidance on a variety of topics. Such a multidimensional sense of self has been found to protect one’s self-concept in the event of failure in one dimension (Heird & Steinfeldt, 2013).

**Research Questions**

1) Does the utilization of the Ready Athletes mobile application have an impact on the identity development of collegiate student athletes?
2) How do collegiate student athletes make meaning of their use of Ready Athletes mobile application?

**Conceptual Framework**

Mobile learning (M-Learning) refers to the use of wireless or mobile devices for the purposes of learning while in transition (Park, 2011). M-learning solutions are incredibly useful for making learning more flexible and personalized, enabling education to be provided independent of time and space (Tetard, Patokorpi, and Carlsson, 2008). Transactional distance theory (TDT) is the primary framework through which Ready Athletes is conceptualized and delivered. The learning outcome of this project is identity development, which is understood through the lens of identity status theory, the study’s secondary framework.

TDT is one of the primary theoretical underpinnings in the field of distance education, and generally describes the relationship between three variables: dialogue, structure, and learner autonomy (Moore, 1980, 1993). Moore (1980, 1993) suggests that transactional distance is a psychological and communication space that needs to be crossed by “instructor” and learners. When autonomy is low, the need for structure is high, and when structure is low the need for autonomy is high. Further, interventions with low dialogue require a high degree of learner autonomy, and interventions with low dialogue and structure require a high degree of learner autonomy. Ready Athletes is structured to provide learners with a high degree of autonomy, thus minimizing the transactional distance (see Figure 1.)

Identity status theory, espoused by Marcia (1967) suggests that there are four identity statuses that individuals can occupy: Diffusion, moratorium, achievement, and foreclosure.
Marcia (1967, 1980) suggests that an adolescent’s identity is shaped by crises, or the extent to which one’s values and choices are being reevaluated, and commitment. Each status category can be defined by the presence or absence of exploration and commitment (see Figure 2).

_Figure 1._

**A 3D Model of transactional distance**

![Diagram showing a 3D model of transactional distance with axes labeled Dialogue, Structure, and Transactional distance. The model illustrates how as one steps away from the origin (dialog or structure), the steps also increase in height (autonomy).]

_Transactional distance can be viewed as a set of tiered platforms. As one steps away from the origin (dialog or structure), the steps also increase in height (autonomy)._

_Figure 2._
Methodology and Data Collection

Participants

The goal of this project was to develop and assess the impact of Ready Athletes, a mobile application designed to promote the healthy identity development of student athletes. Ready Athletes alerted participants to messages 3 times per week for 5 weeks. The timing of the intervention was determined, in large part, by the timing of the funding for the project.

After IRB approval, the majority of student athlete participants were recruited through a course taught by a co-investigator that had an enrollment of 235 students, 40% of which were student athletes. Emails were sent to all student athletes at this University, regardless of whether or not they were in this course. Fourteen (14) participants were in the treatment group and had access to the Ready Athletes content. They were sent messages related to identity development
on Mondays, Wednesdays, and Fridays throughout the semester. Thirteen (13) participants in the control group received placebo messages through Ready Athletes. Efforts were made to ensure that no student athletes felt compelled or coerced to participate.

**Intervention**

The messages in the app were written through the framework of identity status theory. Each message is constructed in such a way that encourages the informational processing style which aligns with achievement and moratorium. The treatment group received messages through Ready Athletes on Mondays, Wednesdays, and Fridays for five (5) weeks. On Mondays, an “Awareness” message highlighted some aspect of identity development. On Wednesdays, an “Advice” message provided a suggestion for how the student athletes could operationalize Monday’s “Awareness” message in their own lives, with the intent of maximizing their ownership of their identity development. On Friday, an “Advance” message provided encouragement and reinforcement that extended Wednesday’s “Advice” message. The participants in the control group were sent messages unrelated to identity development through Ready Athletes.

**Data Analysis**

The Revised Identity Style Inventory (ISI – 5) was the quantitative measure used in this study, while phenomenological interviews provided a qualitative inquiry into the efficacy of the intervention. This mixed-method approach was embraced so as to provide as holistic a understanding of the impact of this intervention as possible.
For quantitative analysis, descriptive statistics were assessed as a first step to determine the mean scores and standard deviations for each identity processing style on the pre- and post-administrations of the ISI-5. Reliability estimates of each component of the inventory (pre and post) were also assessed. A split-plot repeated measures analyses of variance (ANOVA) was conducted to evaluate the between groups, within subjects, and interaction effects on each of the four component scores in the inventory.

The researchers also utilized a limited number of in-depth, semi-structured interviews with those from the treatment group willing to participate (i.e., 5 participants) to further understand the meaning of the intervention for the participants. Open-ended questions with prompts and follow-up questions were employed in order to elicit both breadth and depth in responses (Breakwell, 1995). The interviews were recorded and transcribed, after which the researchers employed a thematic analysis, a foundational method for qualitative analysis (Braun & Clarke, 2006).

The following steps were taken by the research team in conducting the thematic analysis: 1) Read through the entire data set at least once prior to coding; 2) After producing a list of ideas about what is in the data, generated initial codes from the data, coding for as many potential themes/patterns as possible using NVivo software; 3) Sorted the codes into identified potential themes; and 4) Reviewed the themes, collapsing themes into others where appropriate, and ensure that data within themes are consistent. Sample questions are provided in the Appendix.

**Findings**

**Quantitative**

Reliability estimates on all component scores in the pre-measurement were below normally acceptable levels ($\alpha = .70$) except for the Informational Style component ($\alpha = .75$). In
the post measurement all components exceeded normally acceptable levels of reliability except for the Normative Style component (α = .63). Table 1 shows the means and standard deviations for all four of the identity processing style scores on the pre- and post- administrations of the ISI-5. Table 2 shows the results of the split-plot repeated measures ANOVA models. Figure 3 is a plot of a power analysis conducted to determine the sample size required to detect a significant difference in the interaction effect given the effect sizes and correlations between pre and post scores found in this study.

**Table 1.**

*Means and standard deviations by pre / post test and treatment condition. (n\textsubscript{treatment} = 14 and n\textsubscript{control} = 13)*

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<thead>
<tr>
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<th>Pre Test</th>
<th>Post Test</th>
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<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
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<tr>
<td>Informational Style</td>
<td>35.86 (3.57)</td>
<td>34.39 (4.44)</td>
<td>35.86 (4.60)</td>
<td>34.92 (4.46)</td>
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<td>Normative Style</td>
<td>23.64 (3.63)</td>
<td>27.08 (2.90)</td>
<td>24.71 (3.69)</td>
<td>26.54 (3.73)</td>
</tr>
<tr>
<td>Diffuse-Avoidant Style</td>
<td>19.50 (3.80)</td>
<td>22.92 (3.82)</td>
<td>19.57 (4.67)</td>
<td>21.08 (4.89)</td>
</tr>
<tr>
<td>Strength of Communication</td>
<td>36.00 (3.33)</td>
<td>34.46 (4.41)</td>
<td>35.93 (5.15)</td>
<td>36.46 (4.26)</td>
</tr>
</tbody>
</table>
Table 2.

*F* statistics, *p* values, and eta squared effect sizes resulting from the fixed effect split plot repeated measures ANOVAs.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Group</th>
<th><em>F</em></th>
<th><em>p</em></th>
<th>(\eta^2_{\text{partial}})</th>
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<td>Group</td>
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<td>.025</td>
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<tr>
<td>Time</td>
<td>0.158</td>
<td>.694</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>Group x Time</td>
<td>0.158</td>
<td>.694</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>Normative Style</td>
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<tr>
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<td>.185</td>
<td></td>
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<tr>
<td>Time</td>
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<td>.736</td>
<td>.005</td>
<td></td>
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<tr>
<td>Group x Time</td>
<td>1.060</td>
<td>.313</td>
<td>.041</td>
<td></td>
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<tr>
<td>Diffuse-Avoidant Style</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>2.768</td>
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<td>Time</td>
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<td>.052</td>
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<tr>
<td>Group x Time</td>
<td>1.603</td>
<td>.217</td>
<td>.060</td>
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<tr>
<td>Strength of Communication</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Group</td>
<td>0.117</td>
<td>.735</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>1.496</td>
<td>.233</td>
<td>.056</td>
<td></td>
</tr>
<tr>
<td>Group x Time</td>
<td>1.726</td>
<td>.201</td>
<td>.065</td>
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</table>

The power of the significance tests in this study were hampered by the small sample \((N = 27)\), but the power analysis provides some guidance as to how many participants would be needed in future research to obtain statistically significant results \((N = 788 \text{ when power} = .80)\).
Additionally, increased sample size would allow researchers to confirm the factor structure of the ISI-5, which would enhance the argument for the validity of the measurements. Another limitation was the time of treatment (5 weeks). Since, as Marcia (1967, 1980) suggests, adolescent identity is shaped by crises that drive the reevaluation of values and choices, sufficient time must be allowed for these processes to occur and future research should extend the length of the treatment. The preferred identity processing style is the information identity processing style, as individuals who embody this style intentionally seek out, evaluate, and utilize self-relevant information (Berzonsky et al, 2013).

**Figure 3.**

![Graph showing total sample size vs. power (1-β error prob)]

**Qualitative**

The semi-structured interviews conducted with 5 of the participants yielded five themes from the data: Identity, positive reinforcement, goal awareness, critical thinking, and limited time.
and the need for convenience. The themes are further explicated below, along with representative quotes from the interviewees.

**Theme 1: Identity**

Identity was a central theme espoused throughout the interviews with the student-athletes. The purpose of the project was to focus on identity development of student athletes. It was mentioned multiple times throughout each interview and in some cases was a new concept for the student-athletes to learn about and understand.

“*And so, and this, reminds you about your identity and like where you came from and like where you are trying to get to. I think it is very beneficial to see that and know that 1. That athletics isn’t everything and there is a lot more that goes into just being a good player and I think when you’re feeling healthy and better about the other aspects of your life, you are able to perform on the field at a higher level with more confidence.*”

-George, Junior, 21 yrs old, Male, White, Lacrosse player

**Theme 2: Positive Reinforcement**

Participants indicated that the messages received through the app helped to motivate them and inspire confidence in themselves. Overall, the messages served as positive reinforcement for the positive activities they were currently doing and the goals they were aspiring to achieve.

“For me it was more of a reinforcement of what I already knew. But I think it was really helpful in the sense that these are not things that I think about all the time or like they might cross my...”
mind but I don’t focus in on it all the time so basically like if I kind of have goals for myself, like I am not a great, I am a good goal setter, I am very goal oriented but I am really great at trying to get myself there. Like sometimes especially a long-term goal. So there was one day where it came out and said you have to put yourself around people that are kind of going in the direction you want to go. Um, that can kind of help you mold your identity and kind of what you want to see yourself doing in the future things like that. And it was just like a good reminder because sometimes people get wrapped up in the day, what you have to do, what you are doing right here and now.”

-Jackie, Junior, 20 years old, Female, Black, Women’s basketball player

**Theme 3: Goal Awareness**

Participants did mention that goal setting was a major component of their lives and how the app made them reflect on, reinforce or even re-think the academic, athletic and career goals they set for themselves.

“I think it [the app] was really helpful in the sense that these are not things that I think about all the time or like they might cross my mind but I don’t focus in on it all the time so basically like if I kind of have goals for myself, like I am not a great, I am a good goal setter, I am very goal oriented but I am really great at trying to get myself there.”

-Jackie, Junior, 20 years old, Female, Black, Women’s basketball player

“I just learned to like visualize different things while working, and you know, when I’m tired, I really don’t want to get up in the morning, I really don’t want to do something that I have to do,
“...you just think about your future self and you know if you try to build yourself to be that person.
That is just never something I applied in my life until I read some of these things.”

-Richard, Freshman, 19, Male, White, Football player

**Theme 4: Critical Thinking**

The participants expressed statements that highlighted how the app prompted them to think critically about concepts, situations, and behaviors that were relevant to their lives. As opposed to being just something they read and forgot about, the messages forced the student-athletes to engage with the material and concepts in order to get a better grasp of the ideas.

“You were able to get the messages across...you are able to interpret it in your own way because of the medium you’re getting it under so you like the message could be broad ...and they might take it and say like oh wow, okay this helps me motivate me to keep working on my progress that I am making. Whereas you might have someone that is struggling in classes and [says to themself] “you know what I should put more time into this” so because you're reaching so many different people and you don’t know what they’re going through and...it was left to interpretation, I think you were able to get to different people and affect them all in unique ways and help them individually.”

-Christina, Senior, 21 yrs old, Female, White, Softball player

“They feel like it [the app] is prompting you to do the thinking on your own. Which I definitely liked because I feel like a lot of the tutoring or life skills stuff you have to like kind of have the motivation to go there and spend an hour or two like whatever once a week at this set time...
whereas this kind of just buzzes and you could look at it 40 minutes later and it would still be there. And most of it is just kind of sparking the thought process within.”

-Mike, Senior, 21, Male, White, Soccer player

**Theme 5: Limited time and the need for convenience**

With the participants being student-athletes, it is assumed prior to the study and confirmed through the interviews that they had a limited amount of time to focus on activities outside of core academic work and sport-related commitments. Participants overall felt that the app allowed them to do activities that would typically take longer in group or individual sessions or classes.

“...through this app you, like you can look back at it or the tasks aren’t daunting or you’re not sitting through an hour long lecture or an hour long presentation. But with this [app] it had the ability to reach you and you could go back and check it out another time.”

-Christina, Senior, 21 yrs old, Female, White, Softball player

“I mean the fact that it came through my phone was super convenient um again, I think if it was one click and you were there, it would be a lot simpler, but the fact that it was still on my phone and I didn’t have to read a book to find it, I didn’t have to go on my computer to find it, the fact that it was in the palm of my hand, I didn’t even have to look it up, it was there for me and it was something I could still use every message was useful, every message I could apply to my everyday life.”

- Richard, Freshman, 19, Male, White, Football player
Discussion

The quantitative findings suggest that there is promise for the utility of the Ready Athletes mobile application amongst collegiate student athletes. While the sample size proved limiting, the results suggest that use of the mobile application facilitated growth along the information processing style continuum. While designed to facilitate the transition and success of collegiate student athletes, the often-highly controlled environment of athletics departments also increases the potential for student athletes to adopt the diffused-avoidant style. Having an easily accessible, convenient mechanism for knowledge, awareness, and skills to actively promote one’s identity development can be critical for student athletes. Such development has implications for their success in college and beyond.

The student athletes interviewed helped explicate the app’s benefit in terms of their identity development. Specifically, there may be constructive and positive behaviors that contribute to healthy identity development that student athletes are already displaying, but that may go unreinforced, which could lead to discontinuing such behavior. Ready Athletes confirms, via research-based messages, that such behaviors should not only be continued, but increased. It also provides reasons as to why and how such behaviors can translate into success that the student athletes seek during and beyond their playing days.

Further, given the limited time that student athletes have, given their commitments, it proves beneficial to be prompted to reflect upon the type of individual they are and who they want to be. This behavior is critical to their developing autonomy and making decisions that are based on their own exploration. Naturally, then, we can see more success amongst student athletes in their transitions out of their sport, whenever that time comes. To that end, student
athletes who have athletic aspirations are more readily amenable to such prompting when they perceive that such guidance is not mutually exclusive of their athletic pursuits. The Ready Athletes intentionally supports the athletic endeavors of student athletes with the encouragement to proactively pursue healthy identity development which will have benefits in and out of their sport. Sports participation, as previous research clearly suggests, can be a critical mobilizing mechanism. It, in and of itself, is not the problem. The organization and delivery of such experiences is what Ready Athletes attempts to augment in ways that mitigate what could be negative effects of participation in an increasingly complex collegiate athletics landscape.

**Limitations and Future Research**

The potential for the app’s content is limitless. Work on additional content that aligns with identity status theory, as well as learning and study strategies content for the app is already underway by the researchers and will be included in future research.

Further, future research should also increase the sample size and extend the time of treatment such that the results can be more generalizable to the population.

Lastly, future research should include a disaggregation of data, particularly by race and gender. Black male student athletes, for example, have disproportionately negative experiences in comparison to their White student athlete and Black male non-student athlete counterparts (Harper, Williams, & Blackman, 2013). For example, it has long been established that Black male student athletes underperform academically at NCAA member institutions (Cooper & Hall, 2016). Critical race theory as a theoretical paradigm within which to pursue such research should also be considered (Carter-Francisque, 2015; Singer, 2016). Research that extends this study will
Identity

add to the growing but small body of work (Martin, Harrison, & Bukstein, 2010) that is devoted to interventions that contribute to the success of Black male student athletes.

**Conclusion**

All college students are encouraged to engage in self-exploration in order to develop a clear sense of self, commitment, and direction. Playing a sport can either complement or impede this process, and much depends on the supports in place for student athletes.

Ready Athletes, a mobile application, was developed to support the healthy identity development of student athletes in and out of their sport in a time efficient manner. Ready Athletes includes a library of messages that are rooted in identity status theory and provide practical guidance on how to develop a healthy identity.

Our findings suggest that the Ready Athletes allowed for student athletes to access information and guidance on their own time, and that the messages provided specific action steps for the student athletes to implement.

The free Ready Athletes can easily be incorporated into the practices of life skills coordinators, sport psychologists, student affairs administrators, and any other campus level personnel for whom the identity development of student athletes is a priority. Further, content can easily be expanded and updated to align with institutional programs designed to meet the needs of current student athletes. It also has the potential to greatly enhance the efficiency of the delivery of services already received by student athletes. Delivery of such content in this way enables advisors, instructors, and other stakeholders to maximize personal time spent with student athletes, building on the content delivered through Ready Athletes.

**References**


Directions for Student Services, 93, 47-53.


Identity


Appendix
I. Revised Identity Style Inventory (ISI-5)

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</tr>
</tbody>
</table>

1. I know basically what I believe and don’t believe.
   
   1 2 3 4 5

2. I automatically adopt and follow the values I was brought up with.
   
   1 2 3 4 5

3. I’m not sure where I’m heading in my life; I guess things will work themselves out.
   
   1 2 3 4 5

4. Talking to others helps me explore my personal beliefs.
   
   1 2 3 4 5

5. I know what I want to do with my future.
   
   1 2 3 4 5

6. I strive to achieve the goals that my family and friends hold for me.
   
   1 2 3 4 5

7. It doesn’t pay to worry about values in advance; I decide things as they happen.
   
   1 2 3 4 5

8. When facing a life decision, I take into account different points of view
before making a choice.

1 2 3 4 5

9. I am not really sure what I believe.

1 2 3 4 5

10. I have always known what I believe and don’t believe; I never really have doubts about my beliefs.

1 2 3 4 5

11. I am not really thinking about my future now, it is still a long way off.

1 2 3 4 5

12. I spend a lot of time reading or talking to others trying to develop a set of values that makes sense to me.

1 2 3 4 5

13. I am not sure which values I really hold.

1 2 3 4 5

14. I never question what I want to do with my life because I tend to follow what important people expect me to do.

1 2 3 4 5

15. When I have to make an important life decision, I try to wait as long as possible in order to see what will happen.

1 2 3 4 5

16. When facing a life decision, I try to analyze the situation in order to understand it.

1 2 3 4 5
17. I am not sure what I want to do in the future.
   1 2 3 4 5

18. I think it is better to adopt a firm set of beliefs than to be open-minded.
   1 2 3 4 5

19. I try not to think about or deal with personal problems as long as I can.
   1 2 3 4 5

20. When making important life decisions, I like to spend time thinking about my options.
   1 2 3 4 5

21. I have clear and definite life goals.
   1 2 3 4 5

22. I think it’s better to hold on to fixed values rather than to consider alternative value systems.
   1 2 3 4 5

23. I try to avoid personal situations that require me to think a lot and deal with them on my own.
   1 2 3 4 5

24. When making important life decisions, I like to have as much information as possible.
   1 2 3 4 5

25. I am not sure what I want out of life.
   1 2 3 4 5
26. When I make a decision about my future, I automatically follow what close friends or relatives expect from me.

   1  2  3  4  5

27. My life plans tend to change whenever I talk to different people.

   1  2  3  4  5

28. I handle problems in my life by actively reflecting on them.

   1  2  3  4  5

29. I have a definite set of values that I use to make personal decisions.

   1  2  3  4  5

30. When others say something that challenges my personal values or beliefs, I automatically disregard what they have to say.

   1  2  3  4  5

31. Who I am changes from situation to situation.

   1  2  3  4  5

32. I periodically think about and examine the logical consistency between my life goals.

   1  2  3  4  5

33. I am emotionally involved and committed to specific values and ideals.

   1  2  3  4  5

34. I prefer to deal with situations in which I can rely on social norms and standards.

   1  2  3  4  5

35. When personal problems arise, I try to delay acting as long as possible.
36. It is important for me to obtain and evaluate information from a variety of sources before I make important life decisions.

II. Semi-Structured Interview Questions

1. Tell me about your experience using the app?
2. What if anything, did you learn that you did not know prior to utilizing the app?
3. How, if at all, has your behavior changed as a result of utilizing the app?
4. Did any particular message(s) have a major impact on you? Explain
5. What meaning or impact did this experience and these daily messages have on you? Academically? Athletically? Personally?
6. Explain in detail your opinion on how the information was delivered to you? Frequency? Technology? Etc.
7. How can we make this app and intervention better? What do you see as areas for improvement?
8. What other types of (i.e. particular subjects or skills) messages should be added to this app?
9. What areas do you think would be important to your peers? 1st years? 2nd years? 4th years? Scholarship? Walk-On
10. How often did you complete the prompts/assignments that were given to you via the app? Were these assignments helpful? Explain
11. Would you recommend this app and program to your peers, friends, or colleagues?

   Explain why or why not.

12. How does this experience compare to other life skills workshops (in-person, online, conference presentation, one-on-one, group, class) in which you’ve participated? Explain in detail.

13. Is there anything else you’d like to discuss or any other feedback that you have regarding this experience that we haven’t covered?