



It Takes Work: How University Students Manage Role Boundaries when the Future is Calling

Lindsay Eastgate¹ · Peter A. Creed^{1,2} · Michelle Hood^{1,2} · Andrea Bialocerkowski³

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Abstract

Managing boundaries between students' work and study roles is crucial for success at university. Little research has examined the strategies used to manage these roles, the factors that relate to implementing them, and the outcomes associated with their use. Boundary management theory, an identity-based perspective, explains boundary management processes; yet, few studies have examined how identity affects the enactment of boundary strategies. We investigated the extent to which identity-based concepts (i.e., student role salience and future-self) were related to different types of boundary strategies (i.e., temporal and communicative), how these related to work-study balance, and, in turn, academic satisfaction. We tested our model on a sample of 266 working university students ($M_{Age} = 20.07$ years, $SD = 2.63$; 74% women) and it accounted for 41% of the variance in academic satisfaction. Significant relationships were found among identity-based concepts, boundary strategies, work-study balance, and academic satisfaction, highlighting the importance of student identity and the use of temporal strategies in achieving greater work-study balance and academic satisfaction. Suggestions for how education providers can retain students who are struggling to manage work and study are discussed.

Keywords Boundary management · Future-self · Role salience · Work-study balance · Boundary strategies

✉ Lindsay Eastgate
l.eastgate@griffith.edu.au; lindsay.eastgate@alumni.griffithuni.edu.au

Peter A. Creed
p.creed@griffith.edu.au

Michelle Hood
michelle.hood@griffith.edu.au

Andrea Bialocerkowski
a.bialocerkowski@griffith.edu.au

¹ School of Applied Psychology, Griffith University, Gold Coast, Australia

² Centre for Work, Organisation and Well Being, Griffith University, Gold Coast, Australia

³ Griffith Health, Griffith University, Gold Coast, Australia

Introduction

The aim of most students when they enrol at university is to obtain a degree that will provide them with the ability to work in their chosen field or occupation (Milovanska-Farrington, 2020). Recent data, however, suggest that students are struggling to complete their degrees, with increasing numbers either dropping out or taking longer to complete their studies (Bound et al., 2012; Milovanska-Farrington, 2020). An important factor contributing to student withdrawal is the ability to manage and balance their various roles (Avdic & Gartell, 2015). Internationally, there has been a consistent upward trend in students engaging in paid work while studying, with current projections that this trend will continue (Christiansen et al., 2019; Sanchez-Gelabert et al., 2017). In Australia, the rates of university students working while studying have increased from 20% to 1971 to 74% in 2021 (Australian Bureau of Statistics, 2001; 2021). Consequently, students are reporting challenges with managing work while studying (Baron & Corbin, 2012; Creed et al., 2015). In 2019, Australian students reported that the lack of study/life balance and needing to work were their reasons for considering withdrawal from university (Universities Australia, 2019). Research also has found that working while studying can lead to detrimental outcomes such as poorer grades (Sanchez-Gelabert et al., 2017), more dropping out (Leveson et al., 2013), and greater psychological distress (Carney et al., 2005).

For educators to be better placed to assist students, more research is required to understand the factors that contribute to students' ability to manage their work and study roles. The aim of the current study was to investigate, from a boundary management (Ashforth et al., 2000; Nippert-Eng, 1996) and identity theory perspective (Kooij et al., 2018; Strauss et al., 2012), how students do this. We proposed that student identity constructs (operationalised as role salience and future-self) were related to the role boundary strategies used by students (temporal and communicative strategies) and that the implementation of those strategies would be related to achieving better work-study balance and greater academic satisfaction. Since low work-study balance and academic satisfaction predict student intentions to withdraw from university (Gopalan et al., 2019; Wilkins-Yel et al., 2018), explaining how boundary management strategies can influence these outcomes would be useful to understand why some students drop-out and others persist with their studies.

Boundary Management and Boundary work

Boundary management theory seeks to explain how people construct and maintain their role boundaries to balance their life demands (Nippert-Eng, 1996). Although mainly positioned in the work-family literature, boundary management has been used recently as a framework to investigate how students structure and manage their competing roles (Eastgate et al., 2021). The ability of working students to effectively manage their multiple roles is essential for their academic progress, their subsequent career success (Norton & Cherastidtham, 2014), and their wellbeing (Bewick et al., 2010).

Similar to the work-family literature, research on boundary management among students has focused largely on the integration (i.e., blending) or segmentation (i.e., separating) of roles and how students balance their role responsibilities by seeking to implement their own boundary preferences (Van Steenbergen et al., 2018; O'Mahony & Leske, 2019). The proposition is that individuals appraise aspects of the self in relation to environmental con-

straints and affordances, and then seek to adjust their role boundaries to enable higher or lower levels of integration and segmentation. Using a diary study over a 1-week period, Van Steenbergen et al. (2018) found that on days when students integrated their roles, they reported lower university performance and were less satisfied with their home life due to experiencing more university-work conflict. These authors, therefore, recommended that students benefitted from segmenting their roles. Other studies, however, noted that students tended to integrate their roles regardless of the preferences they held, and that students' preferences were not consistent over time and could vary depending on the situation (Eller et al., 2016; O'Mahony & Leske, 2019). Thus, time- and situation-specific strategies were needed to manage boundaries. For example, during assessment time students might bring their university materials to work and use their work breaks to study (e.g., integrate study with work); whereas during term time they might prefer to segment their work and study by leaving their study materials at home.

Also, since students typically are employed in jobs that are unrelated to their study, due to their need to fit work around their student role (Baert et al., 2016; Geel & Backes-Gellner, 2012), they might have fewer opportunities to integrate their roles if that is their preference. Thus, rather than focusing simply on students' preferences, Eastgate et al. (2021) called for additional research on boundary management strategies that went beyond integration-segmentation preferences to provide a more comprehensive picture of how students constructed and managed their role boundaries. This would allow for a fuller picture on how students engage in "boundary work" (Kreiner et al., 2009), which is "the process through which we organize potentially realm-specific matters, people, objects, and aspects of self into 'home' and 'work', maintaining and changing these conceptualizations as needed and/or desired" (Nippert-Eng, 1996; p. 7).

When engaging in boundary work, individuals use boundary strategies to maintain role integrity by repeatedly defining and refining the essence of, and relationships among, their different roles (Kreiner et al., 2009; Nippert-Eng, 1996). Sturges (2012), for example, found that employees needed to craft their different roles using boundary strategies to achieve balance among them. Although there is limited research on the strategies that individuals use, two boundary work strategies, communicative and temporal strategies, have been identified as important for boundary management by adults in the workforce (Kreiner et al., 2009; Sturges, 2012). We assessed the value of these two strategies for the first time in a sample of young adults who were working as well as studying.

Communicative strategies assist with the management of boundaries by articulating to others the role boundaries that are in place and by managing the expectations of others (Eller et al., 2016; Kreiner et al., 2009). For example, students who place strong importance on their student role will be more likely to communicate their university timetable to their employer, so they are not rostered on during those times. In addition to setting expectations, communication practices are also beneficial for managing boundary violations, which can be defined as behaviours, events, or episodes that either breach or neglect the boundaries an individual has constructed (Kreiner et al., 2009). Eller et al. (2016) found that post-graduate students often engaged communicative strategies to reduce potential problems from arising in one role due to the increased demands in one or more of their other roles. Consistent with Eller et al.'s (2016) results, Dunagan (2012) found that Master of Business Administration students who were classified as either integrators or segmentors differed in their use of communicative strategies, with segmentors more likely to confront violators and communi-

cate their boundary expectations. Similarly, Kreiner et al. (2009) found that communicative strategies were vital for confronting violators after a boundary infringement had occurred.

Temporal strategies, such as when a person schedules a break and how they organise their calendars, also assist with managing role boundaries as they locate the individual within a particular role, both physically and mentally, at that specific time (Nippert-Eng, 1996). Temporal strategies include managing time dedicated to role enactment and finding respite or balance with other role demands (Kreiner et al., 2009; Sturges, 2012). They are an essential part of boundary maintenance as the individual must decide how much time to allocate to each role and when to schedule it. According to the conservation of resources theory, individuals strive to obtain, retain, foster, and protect those things that are central to them in value (Hobfoll, 1989); however, since individuals have limited resources available to them, they must decide consciously where to place those resources. Eller et al. (2016) found that temporal strategies were important for university students to be able to manage their multiple roles and that they assisted students to gain the most from their roles. Lim et al. (2017) supported these results by finding that undergraduate students used temporal strategies to allocate time to each role. Since time is a fixed resource, it is necessary for students to decide strategically how to best utilise their time, especially when structuring their time to meet role responsibilities.

Antecedents to Boundary work: Role Salience and future-self

Before boundary strategies are implemented, the individual must decide which role is more important and, thus, merits protecting. Super (1980) called this role-identity salience. It refers to the individual's readiness to act out a role-identity based on the psychological commitment and level of meaning attached to the role (Stryker & Serpe, 1994; Winkel & Clayton, 2010). In young adults, role salience has been found to affect career plans (Niles & Goodnough, 1996) and how life roles are structured (Cinamon, 2010; Nevill & Calvert, 1996). Further, Capitano et al. (2017) highlighted the importance of role salience on boundary management preferences by finding that high role-identity salience produced an enactment and protection effect: a preference for protecting and engaging with more salient roles. By extension, if students perceive their student role as being salient, they should be more inclined to implement boundary management strategies to protect it and structure other roles to afford themselves enough time for their studies.

However, student role salience might not be limited to current role perceptions, as students study to achieve their future desired roles and self (e.g., a preferred career and occupational security; Butler, 2007). Future-self salience, or the degree to which the future-self is clear and easy to imagine (Strauss et al., 2012), is psychologically relevant to the present (Oyserman, 2015), and is important when explaining proactive future-oriented behaviour and decision making (Kooij et al., 2018; Strauss et al., 2012). If individuals use only the present as the dominant time zone when making important decisions, they potentially compromise their future aspirations and achievements (Savickas, 1997). Imagining one's future is a fundamental determinant of action (Bandura, 1986). It has been linked with better performance and motivation in the present (Ruvolo & Markus, 1992), an increase in GPA in middle school students (Oyserman et al., 2007), the prevention of withdrawal during challenging academic situations while at university (Destin et al., 2018), and proactive career

behaviours (Strauss et al., 2012). Thus, students' future-self should promote boundary strategies to manage their current roles so they progress their future goals.

Outcomes of Boundary work: Work-study Balance and Academic Satisfaction

Work-study balance and academic satisfaction are important factors in student achievement, turnover (Gopalan et al., 2019; Truong & Miller, 2018), and withdrawal (Wilkins-Yel et al., 2018). Role balance is the result of the proactive behaviours that individuals utilise to manage and arrange their various roles (Gravador & Teng-Calleja, 2018). Work-study balance, specifically, refers to the individual's subjective appraisal of how well they can perform in each of these roles (Haar et al., 2014). In the work-family literature, work-life balance is associated positively with job (Brough et al., 2014; Haar et al., 2014), family (Brough et al., 2014), and life satisfaction (Tasdelen-Karckay & Bakalim, 2017). Specific to working students, work-study balance is associated with better academic performance (Tetteh & Attiogbe, 2019), wellbeing (Lenaghan & Sengupta, 2007), and satisfaction (Buda & Lenaghan, 2005). In Australia, lack of balance between work and study has been cited as a key factor in students deferring their study or withdrawing (Burns et al., 2019) and experiencing burnout (Moore & Loosemore, 2014). Thus, as students improve the balance between their work and study, they should be more satisfied academically.

Academic satisfaction, which is the "enjoyment of one's roles or experiences as a student" (Lent et al., 2007; p.87), is a critical outcome, as students who are more satisfied are more likely to persist with their academic endeavours (Truong & Miller, 2018), have better psychological wellbeing (Franzen et al., 2021), and perform better (Nurmi et al., 2003). Studies assessing academic satisfaction have focused on work-study conflict (i.e., an imbalance between the demands of work and study) and found, as expected, that work-study conflict is related negatively to academic satisfaction (Butler, 2007). However, research has yet to determine the role that boundary management strategies play in work-study balance and academic satisfaction. Studies to date have shown that temporal and communicative boundary strategies are required to achieve work-life balance (Sturges, 2012) and that employees tend to engage in goal-directed crafting behaviours to achieve work-life balance (Gravador & Teng-Calleja, 2018). Students also implement strategies to assist with the management of their roles and improve balance among them (Eller et al., 2016), although no existing study has tested the relationships between specific boundary strategies and work-study balance and academic satisfaction.

Present Study

Based on the boundary management and identity literature, we predicted that the student identity constructs of role salience and future-self would be related to academic satisfaction, and that this relationship could be explained by the serial intervening variables of boundary management strategies (i.e., temporal and communicative strategies) and, in turn, work-study balance (see Fig. 1). Specific hypotheses tested were:

H1- H2: Perceived future-self and role salience are related to temporal (H1a & H2a, respectively) and communicative (H1b & H2b) boundary strategies;

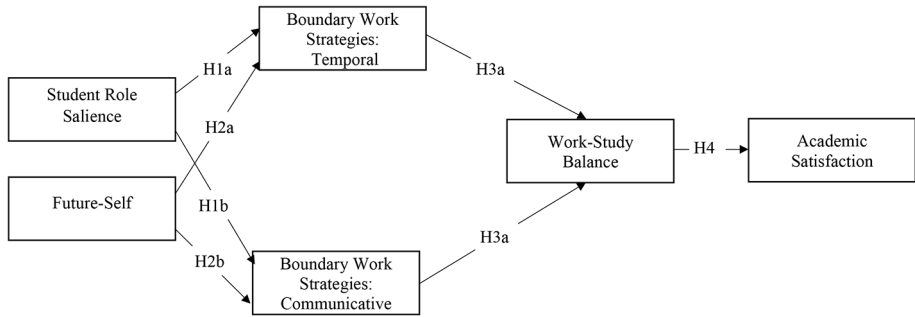


Fig. 1 Hypothesised Serial Indirect Effects Model Predicting Academic Satisfaction

Note: H5: Student role saliency and future-self are related indirectly to academic satisfaction via temporal and communicative strategies and work-study balance.

H3: Temporal (H3a) and communicative (H3b) boundary strategies are related to work-study balance;

H4: Work-study balance is related to academic satisfaction; and

H5: Future-self and student role saliency are related indirectly to academic satisfaction serially via temporal and communicative strategies and work-study balance.

Method

Participants

We recruited 280 young adult university students from a single university in Australia, although 14 were excluded from the analysis as they showed patterned responses, leaving a final sample of 266 ($M_{Age} = 20.07$ years, $SD = 2.63$, range = 17–28; 74% women). Most identified as Australian domestic students, with a small proportion of overseas students, which is typical for Australian universities. Most were first-year students ($N = 226$; 85%), the average hours worked per week was 16.4 ($SD = 9.72$, range = 2–45), and most stated that their primary role was being “a student” ($N = 214$; 80%).

Measures

An online questionnaire was used to gather demographic information (age, gender, hours worked per week, current primary role, and year of study) and responses to scales measuring future-self, student role saliency, temporal and communicative boundary work strategies, work-study balance, and academic satisfaction. All scale items used a Likert-like response format of 1 (*strongly disagree*) to 6 (*strongly agree*). Average scores were calculated for each construct, with higher scores reflecting higher levels of each construct.

Student role saliency. This was measured using Kanungo’s (1982) 4-item scale, with questions adapted to reflect the student role (e.g., “The most important things that happen to me involve my *role as a student* [original: *present job*]”). Previous reliability was good ($\alpha = 0.75$) and validity was supported by finding the expected associations with boundary

permeability preferences (Capitano et al., 2017), psychological work-to-family interference, and boundary creation (Park & Jex, 2011). In the present sample, α was 0.88.

Future-self. We adapted the 4-item Future Scale (Serafini, 2000) to assess students' perceived future-self. The main change was to key all items positively, which fit the study goals better. A sample item was "I have a good sense (original: *I do not have a sense*) of a tangible future ahead of me (e.g., my career)." Previous reliability was good ($\alpha > 0.80$), with validity being supported by finding associations with harmonious goals, identity status, and purpose in life (Serafini, 2000). In our sample, α was 0.95.

Temporal boundary strategies. We adapted the 6-item Work-Family Temporal Tactics Scale (Carlson et al., 2016) to measure the use of time-based strategies to keep work separate from study. For example, "While *studying* (original: *at work*), I try to manage blocks of time so that I can keep *study* (original: *work*) separate from *work* (original: *family*)". Previous reliability was good ($\alpha = 0.78$) and the scale was related to family satisfaction, family engagement, and job engagement, supporting validity (Carlson et al., 2016). Our α was 0.91.

Communicative boundary strategies. We adapted the 6-item Work-Family Communicative Scale (Carlson et al., 2016) to measure the strategies that students use to communicate their boundary expectations. A sample item was "I communicate clearly to my *work* (original: *family*) that I prefer not to be distracted by *work demands* (original: *family demands*) while I'm at *university or studying* (original: *work*)". Previous reliability was good ($\alpha = 0.84$) and validity was supported by finding expected correlations with family and job satisfaction (Carlson et al., 2016). We found an α of 0.88.

Work-study balance. We adapted the 4-item Work-Family Balance Scale (Tasdelen-Karckay & Bakalim, 2017) to measure students' work-study balance. A sample item was, "I can manage my roles related to *study and work* (original: *family and professional life*) in a balanced manner". Previous reliability was good ($\alpha = 0.92$), and for validity, the scale demonstrated a positive association with life satisfaction (Tasdelen-Karckay & Bakalim, 2017). Alpha in our sample was 0.91.

Academic satisfaction. Three items were adapted from the Satisfaction with Life Scale (Diener et al., 1985) to measure students' satisfaction with their academic life. For example, "In most ways my *academic* life (added: *academic*) is close to my ideal". Previous reliability for the full scale was good ($\alpha = 0.85$) and associations with emotional intelligence and career adaptability supported validity (Celik & Storme, 2018). Alpha for our adapted scale was 0.85.

Procedure

After obtaining ethical clearance from our university ethics committee, working students were recruited via advertisements posted on their course website and through a university-wide email. Volunteers were directed to an anonymous and confidential web-based questionnaire. For participating, they could enter a draw to win one of five \$50 shopping vouchers.

Data Analysis

Descriptive statistics and bivariate correlations were investigated initially to examine associations among variables. Then, a serial indirect effects model was tested using IBM SPSS

(V27) and the PROCESS 3.5 macro (Model 80; Hayes 2018). PROCESS is a computational tool that uses bootstrapping (5000 samples in current study) to account for the possibility of irregular sampling distributions (Hayes et al., 2017). It generates 95% confidence intervals (CIs) that are used to identify an indirect effect (i.e., the effect of the independent variable on the dependent variable via another variable), which is considered to exist if the 95% CIs do not contain zero (Hayes et al., 2017; Hayes, 2018). Model 80 examines two distinct effect levels by using a combination of parallel and serial indirect effects (Griggs et al., 2022).

Results

Descriptive statistics and correlations among variables were computed (see Table 1) before testing the hypotheses. Both student role salience and future-self were associated positively, as expected, with temporal and communicative strategies, work-study balance, and academic satisfaction. Also, as expected, temporal and communicative strategies were associated positively with work-study balance and academic satisfaction. Last, work-study balance was associated positively with academic satisfaction. The main demographic variables of age, gender, and hours worked had trivial associations with all outcome variables and, thus, were not controlled in model testing.

Model Testing

Here, we assessed the hypothesised model reported in Fig. 1, which estimated the direct and serial indirect paths from the predictors (future-self and student role salience) to boundary strategies (temporal and communicative) and, in turn, to work-study balance and academic satisfaction.

Figure 2 reports unstandardised regression path coefficients and total effects for the model. There were significant paths from student role salience and future-self to temporal ($bs=0.14$ and 0.13 , $p<.01$, respectively) and communicative strategies ($bs=0.17$ and

Table 1 Descriptive Statistics and Bivariate Correlations among Study Variables (N=266)

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Student role salience	4.15	1.20								
2. Future-self	4.61	0.85	0.30***							
3. Temporal strategies	3.78	1.06	0.22***	0.24***						
4. Communicative strategies	4.17	0.99	0.22***	0.22***	0.34***					
5. Work-study balance	4.28	0.92	0.25***	0.24***	0.39***	0.19**				
6. Academic satisfaction	3.85	1.04	0.42***	0.30***	0.35***	0.15*	0.55***			
7. Age (years)	20.10	2.63	-0.01	0.01	0.14*	-0.04	-0.13*	-0.05		
8. Hours worked	16.42	9.72	0.02	-0.12*	-0.07	-0.11	-0.16*	-0.06	0.18*	
9. Gender ^a	-	-	-0.03	0.05	0.01	0.01	0.05	0.03	0.09	-0.04

Note: ^a 0 = Female, 1 = Male; Hours worked = average per week; * $p<.05$; ** $p<.01$; *** $p<.001$

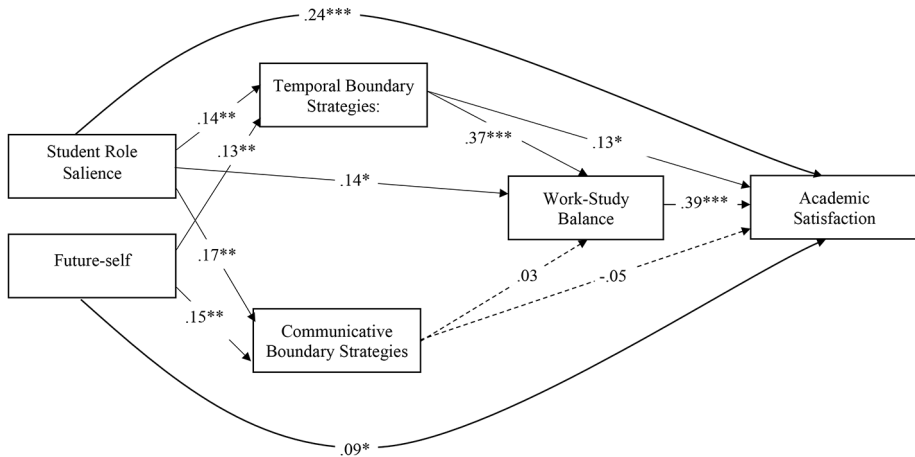


Fig. 2 Relationships between Student Role Salience and Future-Self with Academic Satisfaction via Boundary Strategies and Work-Study Balance
 Note: Unstandardised beta weights reported; dashed lines are not significant; * $p < .05$, ** $p < .01$, *** $p < .001$.

0.15, $p < .01$), supporting H1 and H2. There was a significant path from temporal strategies ($b = 0.37, p < .001$; H3a), but not from communication strategies ($b = 0.03, p > .05$; H3b), to work-study balance (i.e., H3 was partially supported), and the path from work-study balance to academic satisfaction was significant ($b = 0.39, p < .001$; H4 supported). In addition, there were significant direct paths from both student role salience and future-self to academic satisfaction ($bs = 0.24, p < .001$, and $0.09, p < .05$) and from temporal, but not communicative, strategies to academic satisfaction ($bs = 0.13, p < .01$, and $-0.05, p > .05$).

The serial indirect paths from student role salience and future-self to academic satisfaction via temporal strategies and work-study balance were significant (both CIs: 0.01 to 0.04). As there were significant direct paths from both student role salience and future-self to academic satisfaction, these indirect effects can be considered partial (i.e., explained part but not all of the variance between identity constructs and satisfaction). The indirect paths from student role salience and future-self to academic satisfaction via communicative strategies and work-study balance were not significant (CIs: -0.01 to 0.02 and -0.01 to 0.01), indicating no indirect effects via these paths. There was a significant indirect path from student role salience (CIs: 0.01 to 0.12), but not from future-self (CIs: -0.01 to 0.08), to academic satisfaction via work-life balance. Again, this indirect effect was partial because the direct effect from student role salience to academic satisfaction remained significant. H5 was partially supported.

Overall, the identity constructs explained 8.01%, $F(2, 263) = 11.45, p < .001$, and 7.47%, $F(2, 263) = 10.62, p < .001$, of the variance in temporal and communicative boundary strategies, respectively. The model explained 19.24% of the variance in work-study balance, $F(4, 261) = 15.55, p < .001$, and a total of 41.28% of the variance in academic satisfaction, $F(5, 260) = 36.55, p < .001$.

Discussion

Following calls for further research on boundary management strategies (Ammons, 2013; Eastgate et al., 2021), we examined whether student identity constructs of role salience and future-self were related to temporal and communicative boundary management strategies and, via them, to greater work-study balance and academic satisfaction. It is important to understand the factors that enable working students to achieve better work-study balance and academic satisfaction, as these are key predictors of students' ability to survive and thrive at university (Franzen et al., 2021; Nurmi et al., 2003). Understanding these relationships is even more pertinent as the number of students working while studying is increasing (Christiansen et al., 2019; Sanchez-Gelabert et al., 2017); for many, to their detriment due to reduced quantity and quality of study and interference with degree completion (Béduwé & Giret, 2021).

We extended the existing literature on boundary management strategies by demonstrating that the identity constructs of student role salience and future-self were related to greater use of proactive boundary management strategies, more work-study balance between roles, and, ultimately, to greater academic satisfaction. Our findings highlight the importance of identity and how it might affect student role management. Although previous studies have demonstrated that role salience is related to boundary management (Capitano et al., 2017; Winkel & Clayton, 2010), we extended this by showing that having a clearer and more salient future-self is also related to greater boundary management. Therefore, our results align with previous studies that found that identity is linked to the engagement of general proactive behaviours (Strauss & Parker, 2018).

Perceiving the student role to be more salient and having a stronger future-self were related to greater use of both temporal and communicative strategies, which aligns with research that found that employees often craft their roles based on their salience and the desired balance among them (Erdogan et al., 2021; Sturges, 2012). Erdogan et al. (2021) suggested that employees who have a salient role or organise their roles hierarchically experienced less conflict, and that individuals with a decided role salience were better placed to craft role balance. In our study, student role salience and future-self were related to where students should place their limited time and energy and the way their boundaries should be structured, and these, in turn, were related to better outcomes. Similar to cognitive crafting, which involves re-defining and reframing perceptions (Sturges, 2012), a stronger focus on identity can be considered important for creating better self-targeted, intentional, and meaningful change to the management of roles (Zhang & Parker, 2019).

We focused on temporal and communicative proactive strategies in our study, as these have been shown as key mechanisms to manage work-family boundaries in adult samples (Carlson et al., 2016; Kreiner et al., 2009) and to manage roles in student samples (Eller et al., 2016). Carlson et al. (2016) found that communicative strategies were related to less job and family satisfaction in adults but suggested that this unexpected finding was due to potential ill-will that was created with other members when individuals communicated their boundary expectations.

We found that temporal strategies only were related to greater work and study balance and higher academic satisfaction. Differences in research methods between our and previous studies could explain our finding for communicative strategies. We used inferential analytic approaches to examine the relationships of both types of strategies simultaneously

with work-study balance and academic satisfaction; thereby isolating unique relationships. In contrast, some previous studies were qualitative (i.e., descriptive) using relatively small samples and with no investigation of outcomes related to the implementation of specific strategies (Eller et al., 2016; Kreiner et al., 2009). In contrast to the adults examined by Carlson et al. (2016), students might find it more difficult to communicate their boundaries to others due to a power imbalance. For example, students might feel uncomfortable telling their employers not to contact them while they are studying for fear that could compromise their employment or telling their lecturers that they cannot attend class on a certain day due to work for fear that this could compromise their academic grading. Also, students communicating they do not want to be contacted while in a given role might not be effective as they have to manage violations via multiple communication channels (e.g., mobile phones, social media, text messaging, email; Lim et al. (2017).

Temporal strategies might be more effective in balancing role demands as they involve more direct control over work scheduling and time management. For example, a student can decide how they allocate their time between work and study by setting aside blocks of time to create balance between their roles and to ensure they can complete their study tasks or assignments on time. Lenaghan and Sengupta (2007) found that organising time was vital for working students to gain role balance and succeed at university.

Beyond the indirect paths through engaging in temporal boundary strategies, we found that holding a salient student role was related directly to more work-study balance and academic satisfaction. This is consistent with findings by Capitano et al. (2017) and Hecht and Allen (2009) who found that when a role is salient, an individual is more inclined to protect it from intrusions from other roles, while also attempting to enact it in other life domains when possible. This can give a sense of balance between roles and more satisfaction with the salient role (Lima & Gaspar, 2021). Our findings, therefore, extend existing literature that has previously focused on the relationship between role salience and work-family conflict (Cinamon, 2010; Erdogan et al., 2021), demonstrating that role salience is also relevant in work-study balance. Thus, students can benefit from their student role being more salient as it contributes not only to the use of proactive boundary management strategies but to the cultivation of work-study balance and, via those mechanisms, to academic satisfaction.

Envisioning one's future-self also related to the use of proactive strategies and was associated with higher academic satisfaction; thereby, suggesting future-self might provide clarity around the actions an individual needs to take to best utilise their time and resources to attain their end goals. Oyserman and Markus (1990) suggested that future-self provided individuals with the motivational resources to control the direction of their own actions. Our results also confirm Lang et al.'s (2013) finding that anticipation of one's future-self assists individuals to be more proactive in their behaviours and can assist with present satisfaction. However, unlike current role salience, future-self was not related directly to work-study balance, only indirectly via temporal strategy use.

Implications

Our results have implications for students, education providers, and academic counselors. Student withdrawal during the first year of university has been attributed to poorly developed career identities, which reduce students' enthusiasm for engaging in academic

learning (Wilkins-Yel et al., 2018). Meijers et al. (2013) found that students who had a stronger career identity felt more committed to their studies. Thus, when counsellors assist to strengthen students' current and future career identities, there is likely to be improved academic motivation and student satisfaction. Stelnicki et al. (2015) reported that students needed to be future-focused to achieve their goals and, by being so, were more likely to maintain a full course load and to graduate. This could be of great importance to those students who must work to afford university (e.g., low SES students). If academic counsellors can assist students to link their student role to their future-self, they should enhance their chances of success and improve their wellbeing.

Eastgate et al. (2022) found that focusing on the future often provided students with additional motivation to continue with their studies even in the face of challenges. Thus, for struggling students, focusing on the future-self could help them clarify why they were studying and provide the necessary motivation to persevere despite the challenges of juggling work and study. Recently, academic counsellors have realised the importance of a student identity in academic advising, with Burton and Lent (2016) noting the benefits of using visualisation techniques, such as a vision board, to assist students define and clarify what they want in their lives. By doing so, students can imagine where they want to be in the future, what roles they want to be salient, and what plans or strategies are needed to achieve these priorities.

Our study provided plausible mechanisms through which stronger identity (i.e., student role salience and future-self) was related to academic satisfaction. These mechanisms of boundary management strategies, especially temporal ones, and role balance can inform future counselling interventions. In our study, temporal strategies were the strongest predictor of work-study balance and academic satisfaction, which highlights the importance of students effectively managing the time dedicated to each role. Academic counsellors could assist students by discussing the structure of their day and how to best allocate their time to various roles. This should ensure that the student role receives the necessary allocation. Students could be guided by education providers to implement virtual calendars or planning boards, which would assist them to visualise their time commitments. Lahav et al. (2020) found that virtual counselling assisted students to decide how to integrate their work and study roles more effectively, but that specific interventions on how to balance roles were rare. Thus, providing students with more guidance on how to manage their time should allow them to improve the balance between their work and study roles.

Our results indicated, contrary to predictions, that advising students to communicate boundaries around their study role did not affect work-study balance independently and, via that, their satisfaction with their student role. Thus, students might benefit from more guidance on using proactive strategies to control their own time and structure and prioritise their student role, rather than be given support on the communication of their boundaries. Leveson et al. (2013), however, noted that student dissatisfaction and withdrawal from university can be due to factors that are outside an educational institution's control, such as time pressures of paid employment. Education providers can counteract these pressures by assisting students to strengthen their career and student role identities and future-self, and to generate effective temporal boundary management strategies, which should result in a better role balance and more academic satisfaction.

Limitations and Future Directions

Although this was the first study, to our knowledge, to quantitatively investigate the relationship between identity constructs, boundary management strategies, and academic satisfaction, it had some limitations. Data collection occurred during the peak COVID pandemic (in 2020) when participants' working hours and conditions might have been affected. Since students are often employed in part-time jobs, many lost their jobs or had their hours reduced during the pandemic (Aristovnik et al., 2020; Browning et al., 2021). Although this could have provided them with extra time to study, many might have experienced stress about their financial situation and how they were going to afford their living expenses (Browning et al., 2021). Thus, they might have been less likely than usual to reject work hours if that clashed with study commitments. If so, structuring temporal boundaries could have been more difficult and how they viewed and managed their roles might have been altered notably during this time (Zheng et al., 2020).

Universities moved classes online, and thus, the strategies that students needed to implement to be successful likely changed as well (Aristovnik et al., 2020); for example, they needed to complete more independent study away from the in-person support of the classroom. Therefore, the management of temporal boundaries might have been more important since their home and study lives were likely to be more integrated than before the pandemic. The move to online learning also might have meant that they did not need to communicate boundaries around their study role to their employers as much as pre-pandemic, as their university schedules became more flexible with recorded lectures and less in-person attendance requirements. This might have contributed to communicative strategies having non-significant relationships.

Although further studies need to confirm and extend these findings, the results do capture important strategies that students can implement to navigate the new reality of university life. The changes that universities made during the pandemic (e.g., online classes) have continued and seem likely to persist into the future (Zancajo et al., 2022). Presently, more students are harnessing the flexibility that is provided by online lectures and hybrid learning to enable them to better allocate time to each of their roles (Prasetyanto et al., 2022). Thus, while the results of our study captured the initial strategies that students implemented during the pandemic, those strategies should be applicable outside of the pandemic.

The results relied on cross-sectional data based on self-reports of first-year students. It is difficult to gather data on identity perceptions outside of self-reports. To strengthen future research, diary studies could be used to gain a multi-wave, longitudinal perspective on the relationships between daily use of boundary strategies and student work-study balance and satisfaction. In addition, it would be useful to examine these relationships among students who are in the later stages of their degree. As students progress through their degree, they could alter the strategies they implement and their identities also could change. For final-year students, their future-self could become more relevant as they are closer to the transition to their career. It is also important for future studies to examine the relationships between identity (e.g., student work identity), boundary strategies, and other student outcomes, such as academic performance (e.g., GPA), and work outcomes. For some students, the work they engage in while studying could be aligned with their future-self; therefore, future studies could investigate how student work identity relates to future-self, and if it affects the boundary management strategies they implement.

Last, we only investigated temporal and communicative boundary strategies, and other boundary management strategies, such as behavioural or cognitive strategies, might be important. For example, managing transitions between roles has been found to assist individuals to detach psychologically from one role before entering the next and to lessen role conflict and increase role satisfaction (Jachimowicz et al., 2021). Students, therefore, might perceive their roles as more balanced if they used their commutes or role transition times as strategic periods to transition mentally from one role and another. Thus, this area of research would benefit from more studies assessing other boundary management strategies and testing how they relate to identity-constructs and student outcomes.

Conclusion

This was the first study, to our knowledge, to examine how role salience and future-self were related to boundary strategies, role balance, and satisfaction in working students. Our results suggested that when students identify more with their student role and future-self, they are more likely to implement boundary management strategies, particularly temporal strategies, and gain an improved work-study balance and higher academic satisfaction. Thus, to facilitate satisfaction with their studies, educational institutions should assist students to tap into these identity constructs and to develop effective temporal boundary strategies. By doing so, students will be better equipped to manage and balance their roles successfully.

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