Is it worth the effort? Evaluating a Third Generation Research Method for a Third Generation Approach to the First Year Experience in Higher Education

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Abstract: The first year experience of students studying at higher education institutions has been intensively studied over the past forty years (Nelson & Clarke, 2014). Much has been learnt, but institutions are continuing to face unacceptable levels of student withdrawal. Concerns have been raised that the constructs on which previous studies have been based may be restricting researchers' efforts to develop a deeper understanding of the first year phenomena (Kahu, 2013). There is strong support for new and creative ways to investigate the lived experience of first year students across their full first year of study. This paper details and discusses these issues and reports on a research approach using an Experience Sampling Method (ESM) with first year pre-service teachers that may better capture student perceptions of the factors they believe have a marked effect on their experiences. The authors contend the method is transferable to all first year university students. The ESM strategy applied to the first year university experience is explained in detail as well as the perceptions of the participants with regard to its effectiveness and impact. The results of the study provide a strong base for future discussions about third generation research methods and the use of an 'insider researcher' approach to investigating the first year experience.

Introduction
The Case for Further Research into the First Year Experience

Although there has been extensive research of students' first year experience in higher education it is acknowledged that there is much still to learn especially as the rate of withdrawal amongst these students remains high. In September of 2016 the Australian Newspaper reported comments from the Federal Education Minister, Simon Birmingham, stating that the national average drop-out rate for first year students was 21.09%, which reduced to 15.25% when students changing courses were taken into account (Hare, 2016). While this rate is concerning, the fact that over the last 5 years there has been a steady increase in the drop-out rate, with some universities reporting rates as high as 40%, the need for continued research into this first year experience phenomenon appears justified. Further, researchers have reported that many decisions to withdraw in later years of university study are based on the first year experiences of the students (van der Meer, Jansen, & Torenbeek, 2010).

At the same time as the drop-out rate increasing, there has also been a marked change in the demographic composition of the tertiary student body. Changes in Australian Government policy have meant that larger proportions of students from previously under-represented backgrounds are now undertaking university study (Baik, Naylor, & Arkoudis, 2015). With more students from first in family and Low Socio-economic Status (low SES) backgrounds, as well as greater numbers of students moving from rural and remote locations to study in larger cities, higher education providers are required to cater for different needs than those exhibited by students in past decades (Axelson & Flick, 2010). The landscape of the first year experience is changing, and so too are the actions of the universities to support and retain students. The question that arises here is whether the findings from previous research strategies employed to gather data on the first year experience still hold true for the 'current' student body? The authors contend that there is a need for new research approaches that can shed light on the factors that impact the first year experience of today's students.

Further, while the student cohort is changing so too are the approaches used by universities to support their first year students. Wilson (2009) described these changes in approach as belonging to different 'generations', where the university focus has moved from co-curricular activities such as Orientation and Support Services (1st generation), to curricular activities such as quality feedback, formative assessments and quality teaching (2nd generation), to the latest and most difficult to implement phase where a whole of university integrated approach to supporting first year students' academic, social and emotional needs is promoted (3rd generation). With 3rd generation approaches in their infancy in most universities, their effectiveness in meeting the needs of a diverse student body requires investigation.

The Case for Methodological Change in Research of the First Year Experience

There is wide spread agreement that much has been learnt about the students' first year experience in higher education (Nelson & Clarke, 2014). Early research focussed on the characteristics of students who were most prone to dropping out of their course of study (Astin, 1964; Spady, 1970). Tinto (1975) progressed this discussion further by proposing that dropping-out was a process impacted by not only the characteristics the students brought with them to the institution but also how students were 'integrated' into the academic and social worlds of the institution. Astin (1984, p. 519) felt that for research to move forward a more measurable construct was required and described an input-output model he called 'involvement' which describes "the amount of physical and psychological energy that the student devotes to the academic experience". Research based on the involvement construct focussed attention on the actions of the university and the activities students chose to engage with. In recent times, the 'engagement' construct has been most prominent (Kahu, 2013) and its value "is no longer questioned" (Trowler & Trowler, 2010, p. 9). Kuh, Kinzie, Buckley, Bridges and Hayek (2006) described engagement as the intersection or interplay of student behaviours (studying, working with peers) and institutional conditions (availability of academic support, effective teaching approaches) while the student was studying.

While the integration, involvement and engagement constructs have provided a useful basis for study of the first year experience, concerns have been raised that they have limited the development of a deeper understanding. Bryson, Hardy and Hand (2009, p. 2) believe that by isolating the student behaviours and institutional conditions from the complete student experience it "does not offer much clarity in really explaining how the student experiences education". Axelsen and Flick (2010) warn that by favouring certain aspects of the student experience it could lead to a perception that other aspects are of lesser importance. Kahu

(2013) highlights that by basing research on a construct such as engagement it may not allow researchers to unearth previously unknown factors which impact and influence the student experience. Wolf-Wendel, Ward and Kinzie (2009) further warn that the constructs may not be applicable for the greater number of historically underrepresented students, such as those from first in family or lower SES backgrounds. Given this discontent with the appropriateness of existing constructs there is a growing belief that a more holistic understanding of the student experience is needed (Vinson et al., 2010). Baird and Gordon (2009, p. 1) "suggest that the most comprehensive way to consider the student experience is as the experience of people whilst in their identities as students, recognising the interconnectedness of academic and other developmental experiences". Clearly research methods which are more flexible and investigate factors beyond the normal jurisdiction of the university are required.

Current research based on constructs such as engagement have also drawn criticism for only measuring student behaviours and institutional resources and not targeting student perceptions of how they experienced these activities (Bowles, Fisher, McPhail, Rosenstreich, & Dobson, 2013). Research which specifically investigates the students' own understanding of their experiences is very limited at this point in time (Karp, 2011). Implementing research methods which are more open-ended and allow students to tell their stories as they see them need to be developed and used if we wish to understand the first year experience in a more comprehensive manner.

Another aspect of the majority of research methods used to investigate the first year experience is that they rely heavily on the use of quantitative measures such as surveys, usually administered near the end of the students' first year of study. These forms of research do not specifically address the dynamic nature of the first year experience with all its ebbs and flows (Kahu, 2013). There is strong support for the use of longitudinal research methods with multiple touch points with Pascarella (2006) arguing that if there was as much emphasis on collecting longitudinal data as was spent on statistical analyses there would be a major improvement in our understanding of the factors impacting the student experience. The use of one off measures also draws criticism as they require students to accurately recall and report events in a manner reminiscent of their importance and impact even after long periods of time (Porter, 2011). Research methods which tap into key student experiences at the time when they occur would address this issue.

Further, not only does the student experience vary over time but it also varies from individual to individual. Harvey and Drew (2006, p. 5) highlight this situation stating that there is a "multiplicity of first year experiences". To address these issues, it would seem prudent to design research methods which were able to construct an individual student view of their personal experience, allowing them to 'tell their story'. Thus, there is growing support for the use of more qualitative research methods in the study of the first year experience (Krause & Coates, 2008). Development of these qualitative approaches is a priority if we are to deepen our understanding (Christie, Tett, Cree, & McCune, 2014).

Finally, with the move towards 3rd generation approaches supporting the needs of first year students the time would appear right for the development of a 3rd generation research method, one which is integrated into the curriculum offered by higher education institutions. To this point in time most research has maintained a clinical separation to minimise validity issues; or have been conducted on specific activities or interventions and not the full breadth of experiences of a first year university student. A research method which is viewed as part of the normal student experience and not an add-on, we believe is essential to truly implement a 3rd generation approach to student support.

Key Features of a New Research Method for Investigating the First Year Experience

If we are to further develop our understanding of the first year experience to best cater for the changing needs of students then a new creative and more inclusive research method is needed (Kahu, 2013).

Firstly, given the possible inadequacies of basing the research method on the engagement construct and the need to uncover factors which may not have come to light as yet, a research method which allows key factors of the student experience to emerge is required; a posteriori approach (O'Leary, 2007).

Secondly, as the student experience is unique to each individual and different factors may affect the student experience at varying times across a student's first year of study, a longitudinal research method is advised, in which data are collected across the full first year of study.

Thirdly, in line with a 3rd generation approach to supporting the needs of first year students, the research method should be integrated into the normal curriculum experienced by the students wherever possible, as opposed to being an add-on.

Finally, as the key data are student perceptions, having the opportunity to identify what activities/interactions impacted their personal student experience is vital, so too is the opportunity to explain the extent of the effect and why it may have caused specific 'perceptions'. The need for the inclusion of qualitative research methods, along with quantitative methods appears crucial when investigating the first year student experience.

This Study

As part of a year long longitudinal doctoral study at an Australian regional university campus conducted by the first author, a mixed methods approach was utilised to investigate the factors affecting the students' first year experience and how these factors took prominence at various times across their first year of study. At the same time, the students' perceptions of the effectiveness of the research method employed in the study was investigated. The specific research question which this paper addresses is:

> *Does an Experience Sampling Methodology (ESM) address some, or all, of the research methods weaknesses identified in the literature?*

Methodology

The research methods deemed most appropriate for this study were formulated based on a Constructivist Paradigm, reflecting a relativist ontology in which the student experience is viewed as a personal construction of the truth as they see it and a subjectivist epistemology in which the researcher acts as an interpreter of the students' stories (Guba & Lincoln, 1989). Reflecting the Constructivist Paradigm, the study was conducted in a natural setting (the campus where students attended on a regular basis). The researcher assumed there were factors still to be unearthed which impacted the students' experience of their first year of study. Thus, qualitative methods were employed to hear the students' stories, and experiences during the study were acknowledged and leveraged.

The Experience Sampling Method (ESM)

To study the students' first year experience throughout their first year of study a longitudinal approach was required. One such method that has been used extensively to study adolescents in their natural environment is ESM (Scollon, Kim-Prieto, & Diener, 2009). Wheeler and Reis (1991) identify three forms of ESM, these being interval-contingent, signal-contingent and event-contingent methods. Interval-contingent recording requires participants to provide data on their personal experiences at regular predetermined time intervals, while signal-contingent recording requires the same personal data but returned when signalled by the researcher. Event-contingent recording occurs following the occurrence of some specified event (Scollon, Kim-Prieto, & Diener, 2003). All three of these forms of ESM provide the opportunity to study the "stream of thought or behaviour" and through their implementation in natural settings increases ecological validity (Hormuth, 1986, p. 262).

While there are 3 different forms of ESM, interval-contingent recording was deemed the most appropriate so that data could be gathered as a part of the students' 'normal academic routine' throughout the year (Alliger & Williams, 1993). Students were emailed on a fortnightly basis a set of seven questions that comprised the Student Experience Scale (SES) with which they were asked to indicate their perceived level of satisfaction on a scale of 1-10, with 1 designating "very bad" and 10 representing "excellent". Csikszentmihalyi and Hunter (2003) support this type of scale contending that the use of 1-7 or 1-10 point scales are highly effective when measuring participants' perceptions of key aspects of their lives. The questions on the SES were:

1. Overall, how do you feel about being a university student?
2. How do you feel about your chances of successfully completing the courses you are studying?
3. How do you feel about your relationship with the lecturers, administration staff and other students?
4. How do you feel about the resources (such as computers, library, café etc.) provided by the university?
5. How do you feel about your ability to balance study, work, family and friends now you are a university student?
6. How are your relationships with people NOT associated with the university (family, friends, work mates, employers etc.)?
7. How do you feel about the support you are getting in relation to being a university student?

The questions were created to encompass as many dimensions of the students' lives as possible, both those directly associated with their studies as well as their lives outside of university, which the literature suggests also impact on the totality of their first year experience (Harvey, Drew, & Smith, 2006). The goal was to harvest student perceptions not directly related to specific constructs such as engagement, but to 'open the door' for students to highlight factors they perceived as important.

The data obtained through the fortnightly implementation of the SES were recorded in a Microsoft Excel spreadsheet in table form and graphed to provide 'pictures' representative of the students' journey over time.

Semi-Structured Interviews

Interviews are viewed as effective means of allowing participants to share their personal stories, in order to uncover aspects of their world that may remain hidden when other methods are applied; allowing the researcher to develop an understanding of how participants interpret the world around them (Denzin, 2001; Qu & Dumay, 2011). Specifically, semi-structured interviews were chosen as they offered the sensitivity and flexibility to change over time as new lines of investigation appeared (Corbin & Strauss, 2008). An interview guide including probes was constructed and applied as a starting point for discussions. At the interview, students were asked to look over the SES data they had provided to the researcher and explain why they had applied specific scores to each dimension, as well as explain the factors which contributed to changes in the scores from previous SES rounds; either substantially up or down.

The key questions asked in the semi-structured interviews, which address the specific research question described in this paper, focussed on the ease of use of the SES, the frequency which it was emailed out, it's effectiveness in gathering data from their whole experience as a student and whether they felt it was a useful exercise for them. Students were asked at interview how effective the 7 SES items were in supporting their reflection on their situation and their usefulness in allowing them to share their perceptions with the researcher.

The interviews were conducted in the researcher's office on campus. The interviews were digitally recorded and transcribed by the researcher. Both the audio recordings and transcripts were entered into nViVo 10^{TM} software package. The interviews were usually completed within a 15-minute timeframe so they did not cause extensive disruption to normal student activities.

Integrating the ESM and Semi-structured Interviews

Integration of the ESM encompassing the SES and semi-structured interviews into the normal first year student program was facilitated on 2 levels. Firstly, all students who accepted invitations to speak with the researcher were interviewed (n=30). Students who provided SES scores which displayed a marked change (+/- 3 points) in a dimension were targeted for prioritised interviews meaning they were approached very soon after supplying their SES scores. Those students who provided SES dimensional scores of 5 or lower were also targeted for interviews when time permitted as it was not viewed as being a positive response but borderline at best. Secondly the researcher held the role of First Year Advisor for the cohort of students and was responsible for either supporting their needs personally or directing them to other support staff at the university. The researcher also conducted weekly timetabled 'Common Time' activities. This ensured that the research methods employed were designed to be part of an integrated approach to supporting the first year experience; a 3rd generation approach. If at any stage during the semi-structured interviews a student's need for support was identified the interview was rescheduled and the researcher resumed the role of First Year Advisor, as opposed to researcher.

Approval for the Study

Approval for including first year Education students in the study was obtained from, the Dean of the Faculty of Education. A detailed Research Proposal was constructed by the researchers and was submitted to, and approved by, the University Research Ethics Committee.

The Participants and Context of the Study

All sixty-eight pre-service education students commencing their first year of study on the small campus of a regional university were invited to participate in the study. This reflected a purposive sampling process as it served an "investigative purpose rather than being a statistically representative sample" (Carter & Little, 2007, p. 1318) and was also 'convenient' given that the researcher had ready access to the participants and was known to them as the First Year Advisor for the cohort (Ritchie & Lewis, 2003).

Thirty-eight students agreed to participate in the study by completing the required consent forms, providing personal demographic data, and supplying responses to SES requests. Thirty students completed semi-structured interviews with 14 of these being interviewed on more than one occasion.

The participants were predominantly female (30/38), did not identify as being from Aboriginal or Torres Strait Islander family backgrounds (37/38) nor did they have formal responsibility for the care of a family member (31/38). Most students were aged 19 years or younger at the start of the study (25/38), and had less than a 2-year break from their previous study (33/38). Approximately two thirds of the students identified they were the first in their immediate family to study at a Higher Education institution (23/38) with a similar proportion undertaking paid employment while studying (25/38). The clear majority (35/38) lived in a Low Socio-economic Status (Low SES) area before undertaking on campus study (9th – 18th percentiles on the Australian Index of Socio-economic Advantage and Disadvantage) (Australian Bureau of Statistics, 2012). The satellite campus of a Regional University also operates in a Low SES area placed in the 18th percentile on the Australian Index of Socio-economic Advantage and Disadvantage).

Analysis of Data

The SES data were used to provide a pictorial overview of the students' full first year experience. Statistical analysis of these data was not undertaken given the focus of the main study being on student identification of the factors they perceived to be important in shaping their experience. The SES data were used to trigger further investigation through the semi-structured interview process.

Given the insider position of the researcher, a very intensive reflective process was undertaken to guard against coding information based on preconceived frameworks. The 10 stage Qualitative Analysis Guide of Leuven (QUAGOL) was applied as it required multiple checks back to the original recordings of the interviews, comparison with transcriptions, and confirmation of concepts and themes (Dierckx de Casterlé, Gastmans, Bryon, & Denier, 2012). These steps included:

1. Thorough reading of interview transcripts
2. Construction of a 1 – 2-page summary of the participant's story
3. Identification of initial concepts within the brief summaries
4. Checking of initial concepts against the original transcripts and audio recordings.
5. Within case and across case analysis completed to identify tentative 'common' concepts and themes
6. Tentative concepts recorded in NVivo 10™
7. Coding of interview transcripts using tentative concepts
8. Checking of final list of concepts and finalisation of themes.
9. Final check against interview recordings
10. Final description of results

Results

The Student Experience Scale was emailed to students on 13 occasions on a fortnightly basis throughout their first year of study, comprising two 13-week semesters. For students who completed the full first year of study the mean number of responses was 7.6.

Questions related to the implementation of the ESM and its effect on the student experience evolved as the year progressed, following interesting lines of investigation as they arose. This being the case not all students who were interviewed were asked the exact same questions. Following detailed analysis of the interview data four themes emerged.

Theme 1. The structure of the Student Experience Scale (SES) and its Distribution (Delivery and Timing)

Twenty-seven students provided responses that related to the structure of the SES, the frequency of its application, and the way the SES was delivered to students.

Eleven students provided responses related to the power of the SES to capture and report significant dimensions of their first year experience. There was general agreement that there were any other aspects of their lives missing (10/11). One student initially highlighted that the student guild may be missing but then reconsidered this upon looking at questions 3 and 4.

Twenty-four students supplied responses on the effectiveness of emailing them the SES, with 22 finding this method to be reasonable and effective.

Because I check my emails every day, like it's an easier way to do it.
(Student 1 – Female (F), 19, FinF)

While supporting the emailing of the SES a few students identified issues such as reading them and just forgetting to go back and reply, only checking their emails once a week, not seeing the emails, and even accidentally deleting them.

Fifteen students provided responses related to the frequency the SES was emailed to them. All 15 felt the fortnightly delivery was reasonable and did not cause any concerns with 3 noting they just became part of their regular routine.

It's like cleaning your teeth before going to bed.
(Student 27 – M, 37, not FinF)

Most students (23/27) described the SES as being quick to complete with 14 quoting times of 2 minutes or less.

It takes me about 2 minutes, maybe 3 minutes because I do think about them. I have to think about how my time is going, how is it going when I am not at university.
(Student 8 – M, 20, not FinF)

Theme 2: Attitude toward completing the SES and semi-structured interviews

Twenty-four students provided responses related to the depth of thought they used when providing scores for the SES. Twenty-three students described thinking deeply with only one commenting that she provided instantaneous answers.

Yeah, I do think about them. It helps me to be honest with myself.
(Student 26 – F, 18, not FinF)

Ten students identified specific dimensions of the SES as requiring more time, of these seven identified the 'Balancing Life' dimension and 5 identified the 'Relationships outside university' dimension.

Thirteen students were asked if the fact that the SES was part of a research project impacted on the manner in which they supplied their responses. Eight students described that knowing their answers were being used for research made them take the questions more seriously.

> *That is why I take my time answering them otherwise you are not going to get an accurate reading. I muddle around with the numbers to make it more honest.*
> *(Student 21 – F, 30, not FinF)*

Theme 3: Researcher as a known Quantity

Eighteen students identified that knowing the researcher was important. Nine students made special mention of choosing not to be involved in research if they did not know who was asking the questions.

> *There is a lot of personal stuff that goes on. If this complete stranger emails me I am not going to tell them I feel like a 2.*
> *(Student 26 – F, 18, not FinF)*

After the issue of the accuracy of SES scores was raised, subsequent interviews were adapted to investigate this further. Of the 13 students who reported their scores would quite possibly not be accurate if they did not know the researcher, 8 described how they would have made their scores higher and the other 5 explained they would have 'middled their scores', score them all as 10s, or make the drops smaller.

> *I would probably put it a bit higher and make it look as if I was OK. Make it look better.*
> *(Student 28 – F, 18, FinF)*

Twenty-seven students provided responses when questioned about openness to being approached for a semi-structured interview if there was a substantial change in their SES scores. Twenty-three identified they would be comfortable in being contacted.

> *I wouldn't mind it. It would probably get my mind back on track and my life sorted.*
> *(Student 13 - F, 19, not FinF)*

Five students made special mention that they found it very difficult to ask for help so being contacted for an interview would assist them greatly.

> *If I thought I needed help I would make sure the numbers showed I needed a chat. I don't find it easy to ask for help, so this is a way I can without obviously asking*
> *(Student 7 – F, 17, not FinF)*

Theme 4: Personal Benefits from Involvement in the Research Project

Of the 23 students who provided response regarding the personal outcomes they may associate with involvement in the research project, 21 described what have been categorised as positive outcomes. Eleven students provided comments that they developed a feeling of being supported. Five students made special mention of feeling that someone at the university cared about them.

> *Like even when you sent out the first one, I was like, someone does care. Someone wants to know how I am going – it made me feel better.*
> *(Student 16 – F, 18, FinF)*

Nine students identified that completing the SES helped them reflect on their progress with four students highlighting that it prompted them to take action to improve their current position.

It made me think especially about my relationships. I thought I could try to be a bit more friendly to people.
        (Student 30 – F, 19, FinF)

Two students stated that the SES helped them to set goals.

I kind of realised where I stood with everything and realised where I wanted to be.
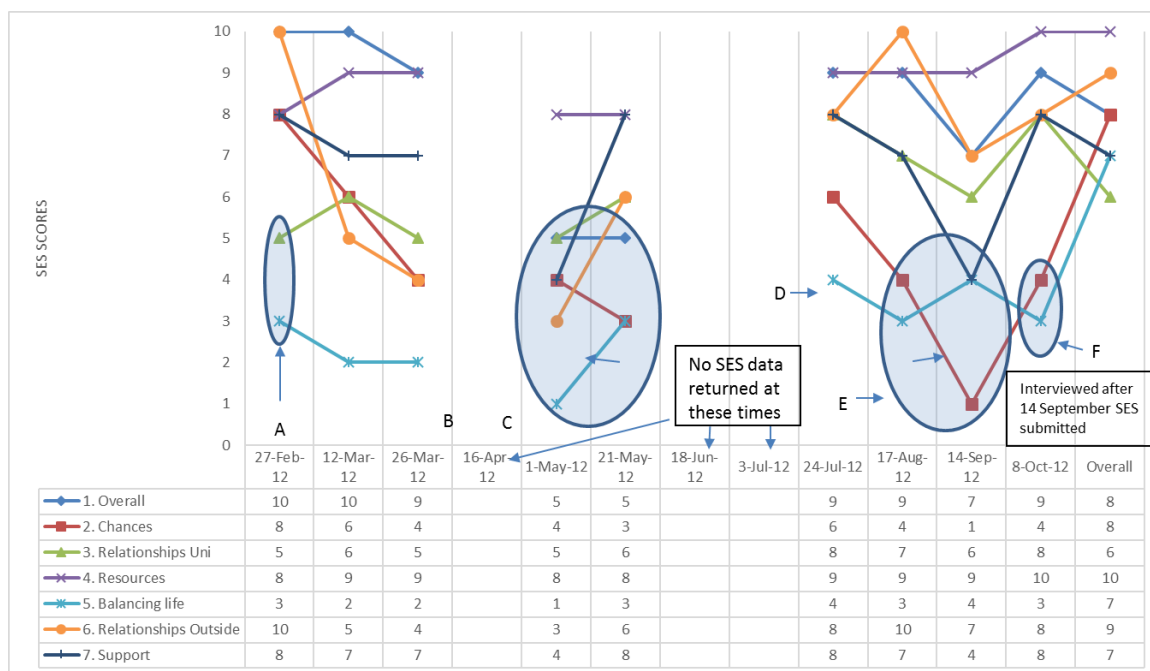   *(Student 5 – M, 20, not FinF)*

One student made a point of explaining how without the SES and semi-structured interview she would probably have withdrawn from her studies.

If I hadn't had the SES, I would have probably fallen off the side (withdrawn). If we hadn't had that meeting 2 days later I would have really struggled.
        (Student 3 – F, 18, FinF)

Graphical Representations of the Students' Experience with Explanations Emanating from the Semi-Structured Interviews

Of the 38 students who provided SES survey data, 30 were interviewed on at least 1 occasion so they could explain the reasoning behind the scores they supplied. An example of the graphical representation of this data with the associated story told by the student is provided here to illustrate the connection between the quantitative and qualitative data.

	27-Feb-12	12-Mar-12	26-Mar-12	16-Apr-12	1-May-12	21-May-12	18-Jun-12	3-Jul-12	24-Jul-12	17-Aug-12	14-Sep-12	8-Oct-12	Overall
1. Overall	10	10	9		5	5			9	9	7	9	8
2. Chances	8	6	4		4	3			6	4	1	4	8
3. Relationships Uni	5	6	5		5	6			8	7	6	8	6
4. Resources	8	9	9		8	8			9	9	9	10	10
5. Balancing life	3	2	2		1	3			4	3	4	3	7
6. Relationships Outside	10	5	4		3	6			8	10	7	8	9
7. Support	8	7	7		4	8			8	7	4	8	7

Figure 1. Student SES scores across their first year of university study (Student 28). This graph illustrates a student with 3 or more major 'disturbances' to their first year experience, defined as SES dimensions with scores <5 and/or significant distress identified in the interview.

Six major points of interest were identified by the researcher for investigation when analysing Student 28's SES survey data. The semi-structured interview data were analysed to identify the reasons why Student 28 associated scores of 5 or lower for the dimensions of the SES. Student 28 explained that initially (Point A) she was struggling to get used to the

change in expectations from High School to University. The heavy workload was the main issue at that time.

> *I just felt that maybe it wasn't the best choice. I was like I preferred to be a high school student back then because it was a little bit easier.*
> > *(Student 28 - F, 18, FinF)*

While this issue was a concern at the start for Student 28, it was not associated with any of the following scores for the SES dimensions and she still felt confident she would be able to successfully complete her studies (*Chances of being successful dimension* = 8).

In the following SES survey (12 March), Student 28's SES score for the *Relationships outside University dimension* decreased markedly from a 10 to a 5, and her score for the *Balancing life dimension* moved even lower from a 3 to a 2 (Point B). When asked about the circumstances behind this change, Student 28 explained that her father had incurred a major injury; he was incapacitated, could not work, and could not care for the younger children in the family. As Student 28's parents were separated, she was required to take on added responsibilities for the care of her father and younger siblings

> *A lot of stuff happened with dad's leg because it wasn't healing properly.*

With the added responsibilities and needing to be her father's carer, Student 28 was unable to attend on-campus classes regularly resulting in increased doubt about whether she could satisfactorily complete her assessments.

Point B would appear to have been a major disturbance to Student 28's first year experience, as she reported that she was disengaged from the University staff and students, lost confidence in her ability to be successful, and was very concerned about not being able to balance her life. This issue was also not short-lived and continued for an extended period of time. Student 28 was interviewed on 15 March and this was followed by a support session where the researcher changed role to that of First Year Advisor to provide support to the student. Notwithstanding, the scores for the subsequent SES surveys continued to decrease or maintain their previous levels.

After Student 28 submitted her 1 May SES scores (Point C), the researcher noted that 6 dimensions were scored at 5 points or lower, and there had been a substantive decrease in the *Overall feeling about being a University student dimension*. Student 28 explained that her father's health and the need for her to care for him and her siblings was still a major issue. Also, she was looking for support from her lecturers to get extensions and was finding this difficult.

> *At school, it was easier to get an extension. If you were away teachers offered them and asked how they could help. I just felt there was so much pressure with being a Uni student.*

Student 28 also described conflict with her mother at this time and feeling like she was not getting enough help to look after her siblings. This affected her score for the *Support dimension*. Point C was classified as a *major disturbance* due to the number of SES dimensions being rated at 5 or lower, the significant drop in the student's rating for their *Overall feeling of being a University student* and the pattern of low scores preceding this disturbance.

Although the 24 July SES scores submitted by Student 28 displayed a marked improvement (Point D) from those that preceded this time, the researcher chose to analyse the interview data regarding the score of 4 for the *Balancing life dimension,* and also to identify what may have caused this change in perspective. The student associated the change in her SES scores to receiving positive assessment results, a marked improvement in her father's health, and commencing a part-time job that she enjoyed.

> *I had that break and I came back with a new perspective. I got really good marks. I think I got a Distinction and 2 Credits. Dad got better so he could take on more chores. It was just one less stress that I had to think of.*

At this same time Student 28 had met her new lecturers and found their positive attitude really helped her be positive too.

> *S was really good, she walked into the classroom and was bright and bubbly. I like that.*

The score of 4 for the *Balancing life dimension* was described by Student 28 as an improvement, and she started to see that she could manage all her responsibilities.

> *I was starting to balance things better.*

The following 2 sets of SES scores (Point E), reflected a marked decrease in how Student 28 perceived her student experience, with the *Chances of being successful* and *Support dimensions* reflecting the greatest decrease (decreasing by 3 points). When the student interview data were analysed the reasons for the changes in the SES scores were explained as being due to ill health. Student 28's comments also reflect how she continued to struggle with University expectations.

> *I was sick and you know in high school when you are sick the teachers just take all that work away and say don't worry about it. At Uni, they don't take that work away, it's still there.*

The decrease in score for the *Chances of being successful dimension* on the 14 September SES was interrogated further. Student 28 described that she had received a low mark on an assessment and this had upset her. She perceived that the information she had been provided before the assessment had been flawed.

> *I just failed my whole assignment because what they teach here and what the actual curriculum is are 2 different things.*

During the time Student 28 was unwell, she did not attend classes regularly and also missed work sessions at her part-time job. This was described as resulting in feelings of being alone and unsupported.

> *I just felt as if I was closed off from the world. I was in bed for 2 weeks. I hardly spoke to anyone, it just felt as if I was all alone.*

Point E would appear to have, once again, marked a major disturbance to Student 28's first year experience, due to the range of issues she faced, the level of concern she associated with this experience (low SES scores), and the period of time the student was affected by these concerns.

The final section of Student 28's first year experience that was identified for detailed investigation is labelled as Point F on Figure 1. Although there was an improvement in the SES scores compared to the 14 September survey, two dimensions still received scores below 5. This set of SES scores followed the completion of the semi-structured interview with Student 28 and as such, the reasons why these scores were applied and the significance of these reasons to the student could not be confirmed.

Three students provided SES data that resulted in graphs similar to that of Student 28 but with very different stories explaining the experiences and their effects. The graphical representations of 10 students' experiences were deemed to be 'consistent with little variation and no major disruptions identified during the semi-structured interviews, e.g. Figure 2. Fifteen students were deemed as having faced 1 or 2 major disruptions similar to Figure 3 below.
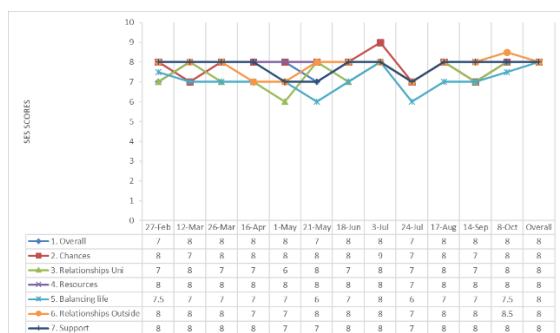
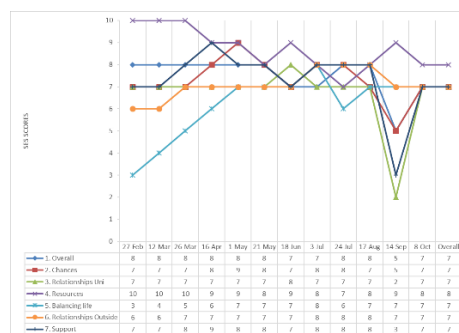Figure 2: no major disruptions

Figure 3: 1 or 2 major disruptions

Discussion
Structure and Implementation of the Research Method

A goal of the SES was to provide students with an opportunity to reflect on their lives and all of its dimensions while studying their first year at university, and for them to provide a regular score that represented their level of satisfaction with each dimension. The emphasis being to allow the student the opportunity to highlight what they deemed to be the most important factors, not being limited to only those suggested by current literature. The inability of students to identify any important aspects of their lives which were not aligned with one of the seven dimensions measured by the SES supports the assertion that the SES was successful in achieving this aim. Thus, the SES was successful in assessing the holistic student experience allowing for the semi-structured interviews to illicit from the students exactly which factors were affecting their experience and why. The use of the 7 questions/dimensions of the SES as discussion starters, and the fact these dimensions were very general in nature allowed the students to interpret them in the manner they felt most appropriate, not constricted by theoretical constructs or the researcher's preconceived ideas.

The decision to email the SES to students on a fortnightly basis would appear to have been successful as it was positively supported by 22/24 student responses. While this is encouraging the return of SES data occurred on average 7.6 times out of the 13 possible replies does mean there are gaps in the individual student journeys which may contain information pertinent to research. Further investigation of the delivery and timing would seem warranted to improve the return rate. A comparative study using email and other electronic means such as SMS would be useful. The lack of negative student responses regarding the number of times they were asked to supply scores for the SES was encouraging. This context and the comments from students in the semi-structured interviews that knowing the researcher was important may reflect that a "research alliance" had developed, one which sustained the students' commitment and persistence in participating in the study and the first year at university (Csikszentmihalyi & Larson, 1987, p. 529). It would seem reasonable that successful longitudinal studies of the student first year experience may be enriched by the researcher being an 'insider' (Brannick & Coghlan, 2007). Certainly, in this study, it provided benefits to the students that other research methods do not. This was validated by the students' comments.

Integration of the Research Method into a 3rd Generation Approach to the First Year Experience

The results of this study clearly identify that the first year students perceived that being asked to participate in a research project which collected data on their personal

experiences meant that they felt an added responsibility to actively engage with the process and to seriously and accurately supply response to the dimensions of the SES. It would seem that the students felt that research was part of what universities do, and as such, was not a separate action detached from their studies but part of the normal university experience. However, the responses of the students detailing that they may not provide accurate scores if they did not know the researcher raises the issue that 'insider researchers' may be best placed to investigate the depth and breadth of the students' first year experience. In this study, the researcher holding the role of First Year Advisor and conducting timetabled Common Time sessions appears to have put the students' minds at ease as the person asking the questions (SES) was known to them and had a good reason for enquiring about their progress and wellbeing. The linking of the completion of SES scores with semi-structured interviews may have meant that visiting the First Year Advisor's office was seen as not 'out of the ordinary' and thus less confronting.

A key aspect of 3rd generation approaches to the first year experience is the development of a student's feeling of belonging. Importantly, students participating in this study reported developing feelings that they were being cared for and that if they struggled someone was watching to check how they were going and could help. The use of the research process to enhance feelings of belonging reflects an integration of research activities into the curriculum, and not as a separate entity.

Limitations

The nature of the ESM method requiring students to provide data on multiple occasions (13), over an extended period of time (first year of study or two semesters), may mean that participants who were comfortable in making long term commitments would be over represented, with other students who felt they might not have the time, being underrepresented. Alternatively, the approach might have picked up students who felt they needed the extra support and were not comfortable asking for it in any other way (Theme: Personal benefits from involvement in the research project). As a function of 3rd generation research, on this basis the approach has significant merit.

Another aspect related to the accuracy of the data provided by participants is that of reactance, defined by Bolger, Davis, and Rafaeli (2003, p. 592) as "a change in participant's experience or behaviour as a result of participation in the study". In this study, the students were asked to reflect on their recent experiences and to provide scores on their feelings. The very act of reflecting may have changed what the students would do in the future and thus shape their future experience. Whilst this may be viewed as tainting the data, reflection, reassessment of priorities, problem solving, and planning, could all be viewed as "intelligently dealing with modern life" and thus be viewed as a normal part of a student's first year university experience (Chickering & Gamson, 1987, p. 3). Whilst highlighted by Bolger et al. (2003) as a possible limitation, they also found this to be a very small threat to the validity of ESM data.

Conclusion

The aim of this paper was to describe a research methodology which addressed some of the concerns raised in current first year experience research literature; specifically, the need to investigate factors which may impact on student experience beyond those believed to be under the jurisdiction of the universities, but those perceived by the students as having

importance. The manner in which the research methods were integrated into the curriculum of the students so that it became part of the 'normal' student experience was highlighted. The goal being to initiate a discussion as to how research methods could better reflect a 3rd generation approach to first year student support (Wilson, 2009).

The results from this study provide strong support for similar 3rd generation research methods as well as the investigation of the role of First Year Advisors, or staff with close links to the student body, as insider researchers given their relationship with the students, and their identification as having a role in student support. Their role in future longitudinal studies of the first year experience may be critical.

Finally, to answer the original question, "Is it worth the effort?", the authors have come to the conclusion that the depth of understanding resulting from the application of an E.S.M. methodology and rigorous analysis using the QUAGOL process justifies the effort involved.

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