Identifying the Key Factors that Impact on Rural and Remote Students' Participation in Higher Education at USQ

Project Team

Dr. Delwar Hossain Associate Professor Lorelle Burton Dr. Jill Lawrence

Professor Don Gorman



Identifying the Key Factors that Impact on Rural and Remote Students' Participation in Higher Education at USQ

Dr. Delwar Hossain Associate Professor Lorelle Burton Dr. Jill Lawrence Professor Don Gorman

Acknowledgement:

This project was funded by the Equity Incentives Fund of the University of Southern Queensland

© 2010 Hossain, Burton, Lawrence, Gorman

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without prior permission of the copyright owner.

Table of Content

Exec	cutive Summary	v
Intro	oduction	1
Pu	rpose of the study	4
Liter	rature Review	6
a.	General Information	6
b.	Head Start Program	7
c.	School Partners Program	7
d.	School Liaison Program	8
e.	School Guidance Officer Days	9
f.	Voices on the Range	9
g.	Priority Country Area Program (PCAP)	10
h.	Primary Industry Centre for Science Education (PICSE)	11
i.	Tertiary Preparation Program	12
j.	Indigenous Higher Education Pathways Program (IHEPP)	12
k.	Scholarships	13
Meth	nodology	15
De	esign of the Study	15
Po	opulation and sample of the Survey	15
Ph	nase 1: Online survey	15
Ph	nase 2: Telephone interview	17
Da	ata analysis	18
Stı	udy Funding	18
Et	hics approval	18
Resu	ılts	19
De	emographic profile	19

	Familiarity of USQ services and facilities before admission	23
	Participation in USQ services and facilities	24
	Performance of USQ services and facilities	31
	Satisfaction with USQ services and facilities	31
	Suggestions to improve USQ services and facilities	32
	Issues in accessing information before admission	33
	Issues in accessing information after admission	34
	USQ help to overcome difficulties	35
	Happiness to be a USQ student	36
	Willingness to recommend USQ to other students	37
	Open comments	37
D	viscussion	41
	Demographic profile	41
	Work and study	41
	Enrolment	41
	Decision to study at USQ	42
	Usefulness of USQ services and facilities	42
	Participation in USQ services and facilities	43
	Performance of USQ services and facilities	47
	Satisfaction with USQ services and facilities	47
	Issues in accessing information before admission	48
	Issues in accessing information after admission to USQ	48
	Perception	48
	Promotion	49
C	onclusions	50
	Familiarity of the USO services and facilities	50

Performance of USQ services and facilities	50
Participation in USQ services and facilities	50
Satisfaction to USQ services and facilities	51
Assistance and support needed: before and after admission	51
Recommendations	53
References	55
Appendices	60
Appendix A: Ethics Approval	61
Appendix B: Online Survey tool	62
Appendix C: Cover Letter	76
Appendix D: First Reminder	77
Appendix E: Second Reminder	78
Appendix F: Third Reminder	79
Appendix G: Ethics Amendment	80
Appendix H: Telephone Interview Question	81

List of Tables

Table 1: Demographic profile of respondents	19
Table 2: Ethnic background of the respondents	20
Table 3: Broadening career pathways	21
Table 4: Benefits of studying at USQ	22
Table 5: Personal development	22
Table 6: Specific career pathways	23
Table 7: Familiarity of university services and facilities	24
Table 8: Participation in USQ Head Start program	25
Table 9: Participation in distance education mode	26
Table 10: Participation in school partners program	26
Table 11: Participation in school liaison program	27
Table 12: Participation in school guidance officer days	28
Table 13: Participation in voices on the range	28
Table 14: Participation in priority country area program	29
Table 15: Participation in primary industry centre for science education	29
Table 16: Participation in tertiary preparation program	30
Table 17: Participation in Indigenous higher education pathways program	30
Table 18: Performance of USQ services and facilities	31
Table 19: Satisfaction on USQ services and facilities	32
Table 20: Suggestions to improve services and facilities	33
Table 21: Issues in accessing information before admission to USQ	34
Table 22: Issues in accessing information after admission to USQ	35
Table 23: Help from the USQ to overcome difficulties	36
Table 24: Willingness to recommend USO to other students	37

Executive Summary

Education involves producing desirable changes in knowledge, skills and attitudes of learners and the USQ strategic plan includes providing such education to rural and remote students. To this end, USQ offers various services and facilities to rural and remote students to facilitate their pathways and access to Higher Education and to encourage them to enrol, remain and complete their degrees. However, there is also a need to evaluate whether rural and remote students are benefiting from these pathways and are readily accessing the various USQ services and facilities. If the USQ is able to identify the issues (opportunities and challenges) that impact on the admission of rural and remote students to higher education, then appropriate strategies to accommodate identified needs can be put in place. This information will inform management about issues in relation to recruitment and retention of rural and remote students.

This project therefore aimed to explore the issues relevant to the University and rural communities to facilitate effective engagement strategies with rural and remote communities where possible, and thereby enhance the enrolment and retention of rural students. This engagement is expected to enhance the equity and diversity of the University. By instituting strategies based on identified issues the USQ will be better positioned to attract and retain rural and remote students.

Purpose of the study

The main purpose of the study was to identify the key issues that impact on rural and remote students' participation in higher education. Firstly, opportunities to promote participation were examined including analysis of the effectiveness of the following programs: a) Head Start Program; b) School Partners Program; c) School Liaison Program; d) School Guidance Officer Days; e) Voices on the Range; f) Priority Country Area Program (PCAP); g) Primary Industry Centre for Science Education (PICSE); h) Tertiary Preparation Program (TPP); i) Indigenous Higher Education Pathways Program (IHEPP); and j) Scholarships. Secondly, challenges that impact on participation, including pathways to university, study options, financial and other assistance to attend university, careers and support services that impact on participation by rural and remote students were investigated.

Specific objectives were:

- 1. To determine the factors that impact on rural and remote students' participation in higher education at the USQ;
- 2. To ascertain the types of assistance and support rural and regional students require to achieve the appropriate standard for enrolment;
- 3. To investigate the usefulness of services and facilities the USQ provides to rural and remote students to pursue their higher education. The services and facilities include: Head Start program, School Partners Program, School Liaison Program, School Guidance Officer Days, Voices on the Range, Priority Country Area Program Enrichment Camp, Primary Industry Centre for Science Education, USQ Scholarships, Tertiary Preparation Program and Indigenous Education Pathways Program.

Method

Data were collected in two phases using an online survey questionnaire and telephone interviews. Of the 386 rural and remote students enrolled at the University, a total of 89 students chose to participate in the study and completed the online during March 22 to April 30, 2010.

Additionally, 23 rural and remote students consented to be interviewed for supplementary information on the opportunities and challenges faced by them. Accordingly telephone interviews were conducted from July 27 to August 2, 2010.

Quantitative data were analysed using Predicative Analytic Software (PASW) Statistics 18 at the Centre for Rural and Remote Area Health (CRRAH). The descriptive statistics such as number, percent, means and standard deviations were used to summarise data. The qualitative data were analysed based on established themes.

Results

Familiarity of USQ services before admission

Except for USQ Scholarships (64%), TPP (49%), the Head Start Program (20%) and IHEPP (13%), the other services and facilities offered by the University were unknown to the rural

and remote students prior to their admission. Supplementary data collected through telephone interviews resulted in similar findings.

Participation in USQ services and facilities

The participation of the rural and remote students in the USQ services and facilities was limited due to their unfamiliarity. The highest proportion of students were not aware that Head Start (52%) and distance education mode (56%) programs allowed high school students to study from their own home and that the on-line courses were exactly the same as those offered on-campus.

Ninety two percent of students did not know that the USQ managed the School Partner Programs (SPP) relationship with high schools and only one percent knew and participated. That is, the benefits of SPP, such as academic achievement, career exploration and transitional assistance into university life, were not successfully communicated to partner schools and their students.

The majority of students did not know the USQ School Liaison Program (SLP) provided information on university pathways, financial assistance, study options, career pathways and other support services. As the USQ SLP team organises school visits and recruitment events such as, open days and career fairs, it is surprising that a large proportion of students were unaware of the program.

Half (50%) the students knew that the TPP program would boost their QTAC ranking. Over one-third (35%) of students knew that TPP sanctioned enrolment in fee-free courses at the USQ, and only six percent participated. Additionally, a direct enrolment at the USQ requires a student to have completed prior courses and/or pre-requisites. As 13 percent of students enrolled directly, they might have completed either the TPP and/or IHEPP.

Performance of USQ services and facilities

Overall the performance rating of the USQ services and facilities was good (M = 2.43, SD=.61). TPP had the best performance rating (M = 1.94, SD=.83) of all the USQ services and facilities followed by the scholarships (M = 2.21, SD=.90).

Satisfaction with USQ services and facilities

The overall rating of University services and facilities indicated that the students were neither satisfied nor dissatisfied. However, TPP had a higher level of satisfaction rating. This might be due to a percentage of students completing TPP or knowing someone who had completed the program.

Issues in accessing information before & after admission

The rural and remote students indicated the following problems in accessing information before and after their admission at the USQ:

- a) accessing information on pathways to university
- b) fee free study
- c) scholarship and bursaries
- d) school liaison program
- e) school partner program
- f) cost associated with tertiary study, and
- g) admission requirements.

Conclusions

- 1. There is a need to enhance awareness of the various USQ services and facilities relevant to student attraction and progression. Most of the students are familiar with available Scholarships, the Tertiary Preparation Program (TPP), Head Start and Indigenous Higher Education Pathways Program. However, a large proportion of students were unaware of the University's services and facilities (School Partners Program, School Liaison Program, Voice on the Range, Priority Area Program Enhancement camp, Primary Industry Centre for Science Education), particularly those targeting high school leavers.
- 2. The students indicated that the performance of TPP, Scholarships, Head Start, IHEPP and SGOD were good and the other services were just fair. The unfamiliarity with the USQ facilities and services among the students was to some extent responsible for their low level of participation in all the programs.
- 3. The students indicated they were satisfied with the TPP. However, the majority of the students were not satisfied with the various other services and facilities available at the University.
- 4. There is a need to provide additional support and assistance to students prior to their enrolment. Results indicated that students were mostly unfamiliar with the University's services and facilities and thus faced some difficulties in accessing information, including:
 - a) pathways to university
 - b) fee free study
 - c) scholarship and bursaries
 - d) school liaison program

- e) school partner program
- f) cost associated with tertiary study
- g) admission requirements, etc.

Additionally, post admission, the rural and remote students experienced some difficulties and required support in:

- a) academic matters
- b) identifying the range of courses offered
- c) tutorial assistance
- d) academic assistance
- e) economic support
- f) connectedness
- g) making transition
- h) library
- i) IT services.

Students made several suggestions about how to overcome their difficulties, including:

- a. Dissemination of information
 - 1. develop and distribute a comprehensive information pack that provides a detailed step by step guide to study
 - 2. publish university information bulletin and mail out to schools
 - 3. booklet
 - 4. information on scholarships and bursaries when and how to apply
 - 5. parental flyers
 - 6. handouts.
 - 7. user friendly websites
- b. Communication activities and opportunities
 - 8. provide academic assistance
 - 9. provide tutorial assistance

- 10. social activities
- 11. visits schools and talk to guidance officer, principal, etc
- 12. visit boarding schools
- 13. visit local businesses
- 14. visit regional and rural communities.

Recommendations

Recommendation 1:

Multiple information sources and strong university-school partnerships working collaboratively to promote higher education are crucial in delivering the right information, at the right time, through various sources. The more sources of information used, the greater the possibility of communicating information to the target groups.

Recommendation 2:

Arrange information lectures, for example invite students' parents or guardians to an informal lecture, to be held either at the USQ campus or in local regional and rural communities. As this may be the first time some parents have encountered tertiary education, specific information on degree programs and campus life should be communicated. Information communicated during these lectures should incorporate student suggestions, including pathways to university, fee-free study, scholarships and bursaries, school liaison program, school partner program, cost associated with tertiary study, and admission requirements.

Recommendation 3:

Advertise the USQ services and facilities to the target audience. For example, advertisements targeting the USQ community services and facilities would be of great benefit in reaching rural and remote students. Promotions about how to access services and facilities through multiple sources of learning tools (i.e., website, information brochures and school networks) would be advantageous.

Recommendation 4:

Develop the USQ's Regional Brand, for example promoting the USQ's regional aspects and its emphasising accessibility, including a supportive learning environment, cheaper financial lifestyle, opportunities to build social networks and the USQ's multicultural attitudes. Strategies to accentuate the USQ's industry collaborations such as with Engineering Australia and building new industry network partnerships that encourage mutual work experiences and lectures would also useful.

Recommendation 5:

Develop marketing opportunities within and outside the Toowoomba Regional Area, for example visiting local boarding colleges extolling the benefits of studying locally. Staff and/or past and current students visiting regional high schools with 'Open Day' information, including Roma, Warwick, Goondiwindi, Moura and visit boarding colleges in Rockhampton and Yeppoon. Such an advertising approach could include booth displays at large regional events, such as, FarmFest, Emerald's Agshow and Bundaberg's Agtrend.

Recommendation 6:

Transitioning Experiences, for example run workshops during orientation weeks explaining the flexibility of independent learning. Clarify what to expect, how the University operates, how to manage work, study and family/social commitments, where to go to get assistance and the types of assistance provided by the USQ. Reiterate verbal information with a concise brochure that is distributed during sessions.

Recommendation 7:

Simplify the Website in relation to on-line enrolment processes. Other strategies could include streamlining current lecture downloads, including iPod video podcasts and navigational icons to assist students in locating information on services and facilities offered by the USQ. Incorporating links that provide all necessary information for high school students to access in easy to understand terms would be useful as well.

Introduction

To improve the educational level of rural and remote communities, the USQ has a Strategic Plan to enhance the enrolment of rural and remote students and retain them to complete their higher education. In a staff forum (2009), the Chancellor stated that:

The schools throughout south-east and south-west Queensland region are to be the feeding ground for the university; as a socially responsible organisation we are fulfilling our obligation for the community. Strategically we need to engage this community to increase the utility of the University of Southern Queensland (USQ) facilities and services.

The USQ offers several services and facilities to rural and remote students and *Head Start* program is one of them. Head Start program is to high achieving Year 11 and 12 students and provides an opportunity to study on-campus at the USQ ¹. The Head Start program provides the opportunity for high school students to immerse themselves in an allied learning environment by participating in mainstream first-year classes. Students have direct interaction with lecturers, tutors and students and are thus able to build social networks with people who have similar interests and access university equipment and facilities.

On completion of the Head Start program students are guaranteed entry into a related program at the USQ provided their Year 12 is finalised and pre-requisites for the program are met. Participation in Head Start also grants students with two points towards their Queensland Certificate in Education (QCE) and an academic credit towards their chosen degree program.

The Head Start *distance education* mode has the flexibility of studying a university course from home while completing high school routines. Online communication methods allow for individual support and assistance from lecturers, student relationship officers and the Head Start coordinator. The USQ Library has borrowing privileges with other universities including a postal service to distance education students. This program is a component of the broad school-based School Partners Program relationship program.

The School Partners Program is designed to facilitate communication between the USQ and its School Partners. This innovative program offers a variety of benefits and opportunities to participating schools. Teachers receive access to syllabus-based teaching resources and materials through the USQ libraries ².

Another aspect of the School Partners Program is the inclusion of a youth leadership program. By utilising modern leadership practices, self-confidence is fostered and promoted, encouraging students in the self-management of future challenges.

The benefits of university and what is on offer are demonstrated through the comprehensive School Liaison Program. This program includes campus tours, school visits, career events and activities ³. Rural, regional and remote students may visit the universities residential colleges to obtain information on accommodation options. In promoting the attributes of university life the USQ undertake school visits. Knowledge communicated during school visits focuses on applications, different tertiary options and social activities on offer at university ⁴.

The provision of professional development resources, Guidance Officer Information Days and Transition Forum days showcase the latest information available on the USQ admissions and programs ⁵. Such activities are undertaken by the School Liaison Program team. Teachers, career advisors and guidance officers are encouraged to engage in information sessions and up-to-date practical workshops.

Transition Forums are held annually at the USQ's Fraser Coast campus presenting teachers and guidance counsellors with learning material through information sessions and practical workshops ⁶. While the USQ's Toowoomba campus hosts Voices on the Range: A Youth Cultural Festival, promoting careers within the arts, in conjunction with Toowoomba City Council Library and Fairholme College ^{7,8}.

During the regional Literature Festival the USQ offered students the opportunity to connect with professionals working in the fields of photography, journalism, script writing, song writing, novelist, biographers, theatre directors, performers and cartoonists ⁹⁻¹¹.

To aid schools and school communities the USQ, in conjunction with the South-Western Priority Country Area Program (PCAP), has offered enrichment camps for students in years

eight and nine from regional, rural and remote areas of South West Queensland ¹². PCAP enhances educational opportunities through participation and outcomes and the personal development of students to match those of other students ¹³.

Similarly, the Primary Industry Centre for Science Education (PICSE) targets students from grades 5 to 12 in science based research. The aim of the program is to encourage students to investigate the importance of science in its various fields ¹⁴. The program endeavours to promote careers within the science industry by attracting students to tertiary education.

The traditional school-based entry system using an Overall Position (OP) score, based on a student's achievement in their Queensland Senior Certificate, may limit some students from gaining entry into university. Some rural and remote students may not have obtained school qualifications ¹⁵. Students who have not undertaken any post-school training or attained any work experience are faced with difficulties in gaining acceptance into a university. For these students, the USQ offers a number of pathways to assist students in gaining a placement in either a degree or diploma program.

To assist students in bridging the gap between school and university the USQ provides four programs, being: a) Tertiary Preparation Program; b) Foundation Studies Program; c) English for Academic Purposes; and d) Indigenous Higher Education Pathways Program¹⁶. The programs are designed to prepare students for university by equipping them with the academic communication skills necessary for university entry and assisting them in developing the confidence and competence to make a smooth transition into their chosen field of study.

The high cost of university study, living away from home and the responsibility of financially supporting themselves while at university is a major concern for many students and their families. Young students in rural and remote areas, particularly those from low socioeconomic status backgrounds, may have faced significant financial challenges before arriving at a university. To address some of the financial challenges and to minimise deferments rates among regional, rural and remote students the USQ offers a range of scholarships. These scholarships are an acknowledgement of a school's involvement in the USQ partner schools initiative. Scholarships are offered to students to maximise their uptake of tertiary study and to engage them in the principle of lifelong learning.

Additionally, in recognising students' excellence in either academic distinction, community services or leadership the USQ provides scholarships and bursaries through faculties, sports and university-wide schemes. Several scholarships are available to regional and rural students to assist with accommodation costs.

Deciding on a career choice while still at school may be problematic for many regional, rural and remote students. The Students Services Department communicates information through their website on employment services, employers, career and other general workforce information ¹⁷.

Therefore it can be seen that the USQ offers a range of services and facilities to rural and remote students to encourage them to enrol, remain, and complete their degrees. However, there is a need for information on whether rural and remote students are actually benefiting from these services and facilities. If the USQ is able to identify the issues (opportunities and challenges) that impact on rural and remote students' participation in higher education, then more appropriate strategies can be put in place to overcome these issues. This information will help inform management about the recruitment and retention of rural and remote students and assist them in more comprehensively understanding the issues involved.

This project has attempted to explore the issues in relation to engagement strategies with rural and remote communities to enhance the enrolment and retention of students from these areas.

Purpose of the study

The main purpose of the study was to identify the key issues that impact on rural and remote students' participation in higher education. <u>Firstly</u>, opportunities to promote participation were examined. Including analysis of the effectiveness of programs: a) Head Start Program; b) School Partners Program; c) School Liaison Program; d) School Guidance Officer Days; e) Voices on the Range; f) Priority Country Area Program (PCAP); g) Primary Industry Centre for Science Education (PICSE); h) Tertiary Preparation Program (TPP); i) Indigenous Higher Education Pathways Program (IHEPP); and j) Scholarships. <u>Secondly</u>, challenges, i.e., pathways to university, study options, financial and other assistance to attend university, careers and support services that impact on participation by rural and remote students were investigated.

Specific objectives

- 1. To determine the factors that impact on rural and remote students' participation in higher education at the USQ;
- 2. To ascertain the types of assistance and support rural and regional students require to achieve the appropriate standard for enrolment;
- 3. To investigate the usefulness of services and facilities the USQ provides to rural and remote students to pursue their higher education. The services and facilities included: Head Start program, School Partners Program, School Liaison Program, School Guidance Officer Days, Voices on the Range, Priority Country Area Program Enrichment Camp, Primary Industry Centre for Science Education, USQ Scholarships, Tertiary Preparation Program and Indigenous Education Pathways Program.

Literature Review

An extensive search of previous studies were obtained by reviewing Government documents, higher education institutions, journal articles, published and unpublished documents, dissertation abstracts, books, etc on the factors that impact on rural and remote students' participation in higher education at the university.

Literature reviews are presented under the following headings: a) General Information; b) Head Start Program; c) School Partners Program; d) School Liaison Program; e) School Guidance Officer Days; f) Voices on the Range; g) Priority Country Area Program (PCAP); h) Primary Industry Centre for Science Education (PICSE); i) Tertiary Preparation Program (TPP); j) Indigenous Higher Education Pathways Program (IHEPP); and k) Scholarships.

a. General Information

Universities Australia ¹⁸ stated promotion of educational opportunities to regional and rural students through financial and campus-based student programs are vital in improving the student experience. Many regional and rural students may move substantial distances to attend university. Regional universities are inclined to offer agriculture, education and environmental sciences to the detriment of architecture and engineering disciplines, thus limiting educational choice for rural and remote students.

The Australia National University ¹⁹ stated that one approach to broaden academic programs on offer to rural, remote and regional students is to align academic courses with local industry and employer needs. Additionally, introducing credit bearing university and workplace assessment courses, through a foundation degree, may help to address rural, remote and regional workforce shortages and may aid in sustaining regional communities. Universities initiate outreach programs that inspire and encourage high school students to participate in higher education at their particular university.

Alston and Kent ²⁰ argue the importance of including a skilled knowledge-focused workforce in regional and rural Australia. They state a major impediment to building knowledge bases in regional and rural Australia is the high financial costs associated with tertiary education. Their findings strengthen Birrell, Calderon, Dobson and Smith's ²¹ assertion that access to

higher education is impacted by family income. Regional and rural student enrolments at tertiary institutions are impacted by the government means testing parental income prior to providing financial support. Such financial disadvantage may contribute to low participation rates among regional and rural students in higher education.

b. Head Start Program

Numerous opportunities are offered to high achieving, capable, motivated and mature students in Years 11 and 12 at Australian and international universities. The Head Start program is offered through 32 universities within Australian and internationally ^{1, 22-25}. Although Head Start has similarities within the program at each university, different dimensions and strategies are presented by individual universities to personalise the program according to the university's speciality. Head Start is a transition program with similar motivations to study and outcomes being reported by students.

Crucial factors that influence a student in undertaking the Head Start program are career decisions and the direction of future study. Head Start provides an invaluable opportunity for young students to gain an insight into tertiary education and university life ²⁵. Development of academic skills, providing vocational direction and an introduction to university life were described as benefits by students of Head Start programs ^{23,26}. University of the Sunshine Coast ²² students stated the Head Start experience was an opportunity to improve knowledge, schoolwork and make new friends. Head Start students collectively stated the program had made the transition from school to university less stressful and that starting tertiary education was a more relaxing and positive experience ^{22,23,25,26}. The student's testimonials expressed how manageable the program was concurrently with Senior Certificate studies. Students emphasised how Head Start reduced their academic workload during the initial stages of their degree and reinforced their decision to proceed with tertiary education.

c. School Partners Program

Strengthening the relationship between tertiary education and high school students is the School Partners Program. According to Kruger, Davies, Eckersley, Newell, and Cherednichenko ²⁷ the University-School partnership needs to be a collaborative relationship focused on learning. Additionally, information must be communicated and contributed to by

all stakeholders, including students, teachers and university staff, on the planning and provision of appropriate programs. Through collaborative working relationships the school partnership program aims at fostering a culture promoting academic achievement while providing an opportunity for high school students to explore career options ²⁸⁻³¹. Programs enriched students' lives by contributing to self-confidence, skill and educational attainment. Through student engagement the programs assisted with university preparation. Programs are reciprocal with school teaching staff accessing innovative learning materials and support services offered by partnership universities.

Although school partnerships promote collaborative relationships Hughes ^{32, 33} noted the most common form of information presented to prospective regional and rural students is often communicated through university initiated pamphlets, distributed by school staff. Pamphlets are generic in nature hence it is important universities establish strong support networks through goal sharing with partnership schools ^{28,33}. Effective and sustainable school partnerships programs depended upon local knowledge, effort and communication. In replicating collaborative working relationships and assisting students in making informed choices about future careers, the USQ has 40 schools involved in the Priority Plus School Partners Program ³⁴. Promotion, support and collaborative communication in the School Partners Program cultivate relationships between school students and teachers and their affiliated tertiary institution.

d. School Liaison Program

A key component in establishing and maintaining strong working relationships with secondary schools and Technical and Further Education colleges (TAFE) is the engagement of school leavers and communities. As a reference point for schools and colleges School Liaison teams provide information on tertiary systems, administrative services, processes and procedures, publishing print and electronic material and organising recruitment events, such as, open days, school visits and career expo's ³⁵⁻³⁹. TAFE and secondary students in years 10 to 12 benefit from School Liaison team visit. Schools and colleges request lectures and presentations for students, parents, friends and teachers on educational opportunities, tertiary options and university life. Students are encouraged to visit universities to experience campus tours and leadership days.

e. School Guidance Officer Days

Students, teachers, family members, tertiary institutions and other professionals all engage directly with Guidance Officers to identify educational and career pathways. Guidance Officers are primarily based in secondary schools, colleges and tertiary institutions ⁴⁰. Part of Guidance Officers responsibilities is assisting students to achieve their potential in educational and career pathways. Collaboration between universities and guidance officers are integral in providing tertiary educational information, including study options, academic programs, university prerequisites, fees and support services ^{23, 39,41-43}. Guidance officers have access to immediate up-to-date, on-line resources such as quarterly publications and future student information. Tools such as tertiary planners as well as attendance at annual workshops and conferences are accessible by guidance officers.

Tertiary planners assist guidance officers in instructing secondary students on how to timeline goal exploration, options, evaluations and decision making processes when preparing for tertiary education ⁶. Conferences and workshops keep guidance officers well informed on career opportunities, degree programs, study options and navigating the application process ^{6,40,43,44}. Additionally, conferences and workshops contribute to the professional development of guidance officers whilst providing networking opportunities.

f. Voices on the Range

Collaborating with local primary and secondary schools, the USQ ¹⁰ co-hosted the annual Voices on the Range: Youth Cultural Festival. The Festival engaged young students creatively, inspiring students from years 5 to 12 to consider the spoken and written word. Workshops and presentations were conducted with poetry, fiction and biography authors, illustrators, performers, song writers and publishing industry representatives. The Festival aimed to bring a range of creative people together with children to encourage a lifelong love of literature through stimulating activities and events.

At the USQ ⁴⁵ Festival author and presenter James Moloney was impressed by student enthusiasm for book reading and the written word. Two Toowoomba secondary students who attended the literacy workshops stated they learnt effective ways to generate ideas, write biographies and short stories. While the University of Sunshine Coast (USC), ^{46, 47} stated the

festival inspired students to participate in tertiary education, extending their natural talents while perusing careers as authors. The festival was credited with developing students reading, writing and cultural skills. An important component of the festival was the opportunity to experience university life. Students noted the festival allowed for exploration of fantasy worlds and inspired the artistic creations.

Extending the USQ Festival ¹¹ through Authors in Gardens workshops popular children's book authors Ursula Dubosarsky and Duncan Ball involved 100 primary school children. Besides that journalist Mark Willacy, a USQ graduate, presented workshops to 2000 high school students from across the greater Toowoomba region. Centenary Heights State High School Toowoomba ⁴⁸ students stated workshop experiences, meeting authors and presenting their own theatrical performances at the Festival extended their abilities. Accessing cultural programs that stimulate creative possibilities, in the arts, design, science and engineering fields may be limited for some regional and rural students.

g. Priority Country Area Program (PCAP)

Regional and rural students who are educationally disadvantaged due to geographical isolation receive government funding through the Priority Country Area Program (PCAP) ⁴⁹. PCAP is an educational program aimed at supporting quality learning outcomes, extending perceptions and choices and providing access to higher educational opportunities. PCAP supported the professional development of pre-service teachers by financial subsiding placements in regional, rural and geographically isolated schools ^{50,51}.

Extending opportunities offered to regional, rural and geographically isolated students, the USQ and the PCAP have offered a one week enrichment camp for years 8 and 9 over the past 27 years ⁵². The camp presented students with the opportunity to expand on and experience branches of learning that may not be offered at their school, i.e., drama, engineering and media production. The program introduced regional and rural students to the concept of living away from home, experiencing university life and participating in social activities.

Last year the USQ hosted 60 students, broadening knowledge of tertiary education and processes while providing regional city experiences ⁵². The camp proved to be the motivational tool that encouraged a rural student to study a combined Bachelor of Education

(Secondary) and Bachelor of Science degree at the USQ. Promoting tertiary education and teacher career opportunities to year 8 and 9 students the USQ ⁵³ considered PCAP a positive influence towards future participation in higher education. The camp encouraged rural and remote students to consider potential employment opportunities, including engineering and agriculture, in country areas. Complementing PCAP's promotion of participation in higher education, a science industry initiative has been gathering strength across Australia's universities.

h. Primary Industry Centre for Science Education (PICSE)

PICSE is a national collaboration between universities and local primary industries aimed at attracting student participation into tertiary education, specifically into science fields ¹⁴. Six universities across Australia are committed to increasing the number of scientific professionals in fields ranging from research, agriculture, sustainability, and climate change to aquaculture, ecology, horticulture and water security ^{14, 54-59}. Aimed at strengthening regional and rural science industries, students and teachers are exposed to innovative scientific research through class-room presentations. Teachers are provided with professional development days, assisting with the development of curriculum activities deliverable in classroom settings.

Universities and PICSE work together in promoting science careers, engaging students in scientific endeavours primarily through industry placements and annual camps.

Approximately 120 students across the nation participated in December, 2009 camps and January 2010 industry placements ⁵⁴⁻⁵⁹. Students reported camp experiences revealed a greater choice of science based career options than was previously known. Students acknowledged insight gained from camps will contribute to their selection of courses at tertiary institutions. Students stated that industry placements expanded their knowledge of vocational options and rural industries. Additionally, students noted industry networking opportunities, enhanced career prospects and the experience of working within local science industries as placements benefits. The collaborative relationship between PICSE and universities showed students the range of possibilities and opportunities available through participation in tertiary education.

i. Tertiary Preparation Program

Alternative pathways into higher education are offered by approximately 40 tertiary institutions and colleges across Australia ⁶⁰. According to Myfuture ⁶¹ Tertiary Preparation Programs (TPP) are non-award foundation and/or bridging courses designed to assist students in building skills, knowledge and access to undergraduate degree programs. Southbank Institute of Technology ⁶² stated TPP is offered to 17-20 year olds, adults who have not studied formal education for some time and English as second language students. The TPP is offered by six universities and colleges ⁶²⁻⁶⁷. Each university or institute tailors the TPP to complement their area of specialisation. Students reported the program instilled confidence to proceed to degree courses ⁶⁵.

In 2007 the USQ's TPP ⁶⁸ was awarded a citation for outstanding contributions to student learning by the Carrick Institute for Learning and Teaching in Higher Education. According to Clarke, Bull and Clarke ⁶⁹, TPP began 15 years ago at the USQ. Thousands of internal, external and online students have completed the program. One USQ refugee student ⁷⁰ stated the TPP helped him overcome the language barrier, leading to academic success and his current enrolment in a master's degree. Another USQ student ⁷¹ started the TPP and at the culmination of 12 years of study graduated with a Doctor of Philosophy.

j. Indigenous Higher Education Pathways Program (IHEPP)

Australian universities and colleges provide dedicated educational centres to engage Indigenous students, capitalising on local Indigenous knowledge and language ^{63, 72-76}. The University of Canberra initiated one of the first Centres 25 years ago. Notably the University of New England stated 400 Indigenous students have completed their program to date, while the USQ's 23 year-old Centre for Australian Indigenous Knowledge [CAIK; ⁷⁷] successfully transitioned nine students into undergraduate programs last year from the Indigenous Higher Education Pathways Program. It was noted that each centre provided distinct programs reflecting the differences and variety in Australian Indigenous culture. Nonetheless Indigenous Centres had comparable aims such as, mentoring partnerships with lecturers and fellow students, presenting Indigenous students with opportunities to develop academic capabilities and providing pathways into tertiary studies.

A major achievement across Indigenous Education Centre's has been the completion rate. Students at the University of New England ⁶⁴ stated programs built self-confidence while enhancing their literacy, mathematical and computer capabilities. Students at the USQ ⁷⁷ asserted motivation to attain certificates overcame intimidating study and family commitments. Embedded in IHEPP teaching practices is the development of social and emotional well-being of students and delivering cultural experiences and content ensured IHEPP students received a holistic approach to learning. Thus the IHEPP students gained valuable insights into university life, with transition into undergraduate studies being accomplished.

k. Scholarships

Students are assisted through universities, colleges and the Commonwealth offering financial, educational and accommodation scholarships. A wide variety of business, university and community sponsored scholarships recognise commitment to academic achievement, involvement in the community, financial disadvantage or geographical isolation. According to the Department of Education, Employment and Workplace Relations ⁷⁸ approximately 46 universities/campuses located in all states and territories provide scholarships. It was noted the Commonwealth ⁷⁹ and universities across Australia, for example, Monash University ⁸⁰, University of Wollongong ⁸¹, University of Queensland ⁸² and Charles Darwin University ⁸³ provided distinct financial, educational and accommodation scholarships to Indigenous Australians.

Seventy-four high achieving students from across the USQ's ^{84,85} three campuses received monetary rewards. Scholarships were provided to students whose ability to attend tertiary education may have been adversely affected by their financial position. Three scholarships, one at each of the campuses, were provided to three Aboriginal and Torres Strait Islanders who commenced full-time study with the USQ. A total of seven students from Toowoomba and Springfield campuses were recognised and rewarded with School Partners Program Scholarships in 2010. Students from CQ University ⁸⁶ and Monash University ⁸⁰ stated scholarships opened up opportunities for growth and development.

Summary

There was no scarcity of data, peer reviewed research and/or evaluation of studies into school-university partnerships, career pathways and participation and transitions by students into universities. Articles and reports indicated the value of universities, school and student relationships and their importance in disseminating information to future university students. However, investigations on specific university/high school programs highlighted the scarcity of research and/or evaluation information on Head Start, School Partners Program, School Liaison, School Guidance Officers, Priority country Area Program, Voices on the Range, Primary Industry Centre for Science Education, Tertiary Preparation Program and Indigenous Higher Education pathways Program.. Therefore this study aimed to add knowledge on these programs in attracting and retaining regional, rural and remote students.

Methodology

Design of the Study

This was a descriptive survey research. In Phase 1 an online survey method was used to collect data on the impact of a rural and remote student's admission into higher education at the USQ. Following phase 1, telephone interviews were conducted with newly enrolled rural and remote students across the USQ's campuses to explore opportunities and challenges faced by them and the USQ in facilitating effective engagement strategies to enhance their enrolments and retention.

Population and sample of the Survey

The USQ admission Office provided a list of rural and remote students enrolled at the USQ's Toowoomba, Springfield and Fraser Coast campuses and their emails addresses. A total of 4556 students (including 697* non-academic degree course -Head start program, Professional development, Indigenous Higher Education Pathway Program, Access and Equity, Engineering Academic Purposes and Single course) enrolled in the first year, first semester in 56 programs at undergraduate level in three campuses. Excluding non-academic degree students, the systematic sampling technique was used to select 386 students from the total 3859 and was invited to participate in the online survey.

Phase 1: Online survey

Instrument development

The review of literature provided the theoretical basis for developing the instrument concerning the factors that impact on the rural and remote students in attaining admission at the USQ. The respondents indicated their ideas and opinions on different types of scales.

In early 2010, an online survey instrument was developed. The instrument contained both open and closed questions. The questions were arranged systematically to be understood easily by the respondents. The instrument contained 30 items concerning the ten aspects of services and facilities offered by the USQ to facilitate the engagement of students in higher education (Head Start, School Partners Program, School Liaison Program, School Guidance Officer Days, Voices on the Range, Priority Country Area Program – Enrichment Camp,

Primary Industry Centre for Science Education, USQ Scholarships, Tertiary Preparation Program and Indigenous Education Pathways Program).

Section one of the survey contained nine questions pertaining to demographic information, e.g., age, sex, program of study, residence, ethnic background, etc. The second section contained 20 questions and provided students with the opportunity to outline factors that impacted on their participation at the USQ. Incorporated into this section were ten questions that asked students for their knowledge of the USQ's services and facilities for high school students; two questions focused on assessing a student's perception of the USQ services and facilities; two questions focused on the difficulties in accessing information on services and facilities for high school students offered through the USQ; three questions asked students for suggestions to improve services and facilities for high school students offered at the USQ; two questions assessed the satisfaction level of being a USQ student and the final question asked students to supply any additional personal comments.

Validity

Based on comments and suggestion made by the team the instrument was developed with 27 questions. The survey was established on-line through the USQ Student Surveys by the Manager, Survey Analysis and Reporting, Planning and Quality Office at the USQ. To test for content and criterion validity a pilot test was conducted during January, 2010. Eight participants from the USQ staff and students preceded the main study. Based on the suggestions and comments from respondents, modifications and the addition of three questions were made and the final version of the online survey tool used to collect data from the students (Appendix B).

Reliability

Cronbach's coefficient alpha (α) is the most commonly used statistic and was used to obtain reliability estimates of the items in the instrument: Head Start Program (.83), School Partners Program (.90), School Liaison (.94), School Guidance Officers (.96), Voices on the Range (.97), Priority Country Area Program (.86), Primary Industry Centre for Science Education(.82), Tertiary Preparation Program (69), Performance (.96), satisfaction (.97)difficulties before admission (.94) and difficulties after admission (.94). Borg ⁸⁷ pointed out that the reliability coefficients of .79 are considered to be in the median range, whereas

those with coefficients above .79 are considered to be reliable. Thus according to Borg, the reliability of the instrument was very high and acceptable.

Data collection

On the 22nd March, 2010 the 386 randomly selected students were emailed with a cover letter explaining the purpose of the study and survey link (Appendix C). The survey link contained the plain language statement, consent form and the questionnaire. Students accessed the secure online survey link and provided informed consent prior to participation. Potential respondents were assured their responses would be kept confidential and were offered the opportunity to withdraw at any time without penalty. They were encouraged to complete the questionnaire by the 30th March, 2010.

From the initial mail-out 61 students responded. A reminder email (Appendix D) re-iterating the closing date was posted on the 30th March, 2010. A further 13 students responded. A second reminder email (Appendix E) was posted on the 11th April, 2010 and a final email (Appendix F) was sent to all the students on the 25th April 2010 advising the closing date (30th April, 2010) and produced a further 15 responses. It was ascertained that 47 students of the 386 had discontinued their studies. Therefore the sample size dropped to 339 and the final response was 89 (26%). Some researchers ^{88,89} have found that late respondents are often similar to non-respondents; thus one should determine the possible nature of the replies of non-respondents by statistically comparing early respondents to late respondents. In this study, respondents were dichotomised into those who responded early and those who responded late. These two groups were compared statistically to ascertain whether any differences existed between the groups. The researcher found no significant differences in the responses of the two groups. Therefore all responses are considered representative.

Phase 2: Telephone interview

Initially the researchers had planned to organise three focus group meetings with the students to explore supplementary information on the opportunities and challenges faced by them. However, due to some unavoidable circumstances it was impossible to bring the students together for focus group sessions. The researchers then decided to collect supplementary data from the students through telephone interviews. This amendment was approved by the Ethics committee (Appendix G). Twenty-three rural and remote students consented to be

interviewed and accordingly telephone interviews were conducted from July 27 to August 2, 2010. The questionnaire is contained in Appendix H.

Data analysis

Quantitative data were analysed using Predicative Analytic Software (PASW) Statistics 18 at the Centre for Rural and Remote Area Health (CRRAH). The descriptive statistics were used to summarise data. Frequency counts, percentages, means and standard deviations were calculated for the descriptive data. The qualitative data were analysed based on established themes.

Study Funding

The Centre for Rural and Remote Area Health (CRRAH) was successful in securing funding from the University of Southern Queensland's Competitive Grant Scheme (Equity Incentives Fund – project number 1003555 to undertake this study which commenced in January, 2010.

Ethics approval

Before initiating this study the researchers forwarded the proposal, data collection instrument and other required documents to the USQ Human Research Ethics Committee for clearance. Such clearance was necessary because the study involved human subjects. Approval was granted to conduct the research (Appendix A).

Informed consent

Informed consent was electronically provided by every student participant prior to their completion of the online survey. Participants were not able to access the survey material until they entered a consent ID on the electronic consent form. Before providing informed consent, telephone interview participants were verbally briefed and given the opportunity to seek clarification on any aspect of the study.

Confidentiality

Every participant's identity remains confidential with respect to any publication of the results of the study. Any information that could identify an individual as a participant in this research was kept in a secure location. Materials were only available to the two principal researchers and their research assistants who assisted with data collection and analysis. Electronic data was stored on a password secured computer and any hardcopy data in a locked filing cabinet

Results

The findings of the study are presented in three sections: the demographic profiles in the first section, and the USQ services and facilities in the second.

Demographic profile

The highest proportion (27%) of respondents was 18 years or younger in age, compared to 26 percent aged 37 years or older (Table 1). More than three-fifths (62%) of the respondents were females, compared to 38 percent of males. Hours worked ranged from 0 to 60, with a mean of 21.92 (SD=16.92). The highest proportion (43%) of respondents had worked more than 20 hours.

Table 1: Demographic profile of respondents

Demographic profil	le	Number	Percent
Age	18 yrs or younger	24	27
	19-24 yrs	17	19
	25-30 yrs	9	10
	31-36 yrs	16	18
	37 yrs or older	23	26
	Total	89	100
Sex	Male	34	38
	Female	55	62
	Total	89	100
Work	0-10 hrs	23	34
	11 -20 hrs	16	24
	21 or more hrs	29	43
	Total	68	100
Campus	Toowoomba	75	84
-	Springfield	8	9
	Fraser Coast	6	7
	Total	89	100
Enrolment	QTAC	65	73
	Direct enrolment	12	13
	Mature age	12	13
	Total	89	100
Find University	Parent & friends	22	25
·	Web	26	29
	School visit, GO & open days	16	18
	Other (work, own research)	25	28
	Total	89	100

The majority of the respondents (84%) were based on the Toowoomba campus and the majority (73%) of enrolments were through QTAC. Students predominately used the web

(29%) as a source of information about the USQ followed by other sources (28%), which included work place, employer, QTAC, school, local resident and own research, etc.

Ethnic background

Table 2 reveals that more than three-fifths (67%) of the students had identified themselves as Australian, followed by Caucasian (12%), Anglo Saxon (4%), and European (2%) and Aboriginal (2%).

Table 2: Ethnic background of the respondents

Ethnic background	Number	Percent
British	1	1
Aboriginal	2	2
Anglo Saxon	4	4
Australian	58	67
Caucasian	11	12
Czech	1	1
English	1	1
European	2	2
Fiji	1	1
Muslim	1	1
New Zealand	1	1
Not sure	1	1
Portuguese	1	1
Total	86	100

Programs of study at USQ

Of the 35 undergraduate programs available, the highest proportion (16%) of students had enrolled in the Bachelor of Nursing, followed by the Bachelor of Psychology (9%), the Bachelor of Commerce (8%), the Bachelor of Engineering (8%), the Bachelor of Education (7%) and the Bachelor of Science (6%).

Decision to study at USQ

Students responded in a variety of ways and their responses were categorised into four broad themes: a) Broadening career pathways; b) Benefits of studying at the USQ; c) Personal development; and d) Specific career pathways.

Broadening career pathways

Students' responses indicated that change occupation, career pathways, improved skills, enhance future career, employer mandate, and obtaining/upgrading qualifications were the most important reasons for admission at the USQ (Table 3).

Table 3: Broadening career pathways

Career pathways	Number
Change Occupation – To develop the skills necessary to facilitate a career change and to retrain before re-entering the paid workforce.	11
Career pathways – Pathway to chosen career and to achieve a professional career. To gain higher skill and knowledge levels for future opportunities.	10
Improve skills – To broaden and further my knowledge and skills to give myself the best opportunities in life.	8
Enhance future career –Enhance career progression at work and improve future career prospects.	6
Employer mandated –Job qualification needed by Main Roads & Engineering Australia.	4
Obtaining/Upgrading qualifications – Obtain extra and upgrade my qualifications	3

Benefits of studying at USQ

Variety of courses, positive feedback, external education facilities, close to home, direct entry and admission opportunities were the most cited responses of the students (Table 4).

Table 4: Benefits of studying at USQ

Benefits	Number
Courses – Offered the course I wanted or was interested in; only university that	7
offered the Diploma of Arts and a variety of subjects.	7
USQ Positive Feedback – Heard good reports from past students and better	7
things compared to other universities. Level of support, facilities, services,	7
environment, ease and apparent friendliness of the USQ.	
External education – Best choice of universities to study externally or by	E
distance education.	5
Close to home – was the closest university to me.	5
Direct entry and admission – Admission by direct enrolment and offered first-round.	4

Personal development

Students stated that life-long ambitions, building self-esteem, personal development, intellectual stimulation and increasing family income and professional recognition were the main reasons for studying at the USQ (Table 5).

 Table 5: Personal development

Personal development	Number
Personal Growth – Intellectual stimulation, personal development, builds self	12
confidence and to complete a degree for personal growth, challenge myself, and	12
improve my artistic abilities.	
Life-long ambition – It has always been a life ambition or dream to study and to	8
finish what I started 10 years ago.	
Increase professional recognition – Have credibility for my craft and obtain	3
professional and recognised qualifications.	
To earn a higher income, improving the family finances.	2
Decided to study whilst out of paid employment.	2

Specific Career pathways

Students stated that nursing, teaching, engineering, surveying, accountancy, pharmaceutical chemistry, motorsports and cadetships were the main career pathways for studying at the USQ (Table 6).

Table 6: Specific career pathways

Career pathways	Number
Nursing – Wanted a career in nursing, so choose to do a Bachelor of Nursing.	9
Teacher – Wanted to become a teacher and teach in rural settings.	2
Engineering – Wanted to call myself an engineer; part of articulation program.	2
Surveyor - Wanted qualifications to become a surveyor.	2
Accountant – Wanted to become an accountant.	1
Pharmaceutical chemist – Always planned to become a pharmaceutical chemist	1
Motorsport – to get into the field of motorsport	1
Cadetship – I obtained a cadetship and career path suggested by school guidance.	4

Familiarity of USQ services and facilities before admission

Prior to admission at the USQ, the highest proportion (64%) of students were familiar with the scholarship program, compared to Tertiary Preparation Program (49%), Head Start (20%) and the Indigenous Higher Education Pathways Program (13%). Almost all (99%) the students were unfamiliar with the Primary Industry Centre for Science Education (PICSE) followed by Priority Country Area Program (98%), Voices on the Range (97%), School Partner Program (94%), School Liaison Program (94%) and School Guidance Officers (92%) prior to admission at the USQ (Table 7).

Table 7: Familiarity of university services and facilities

Services & facilities	Yes			No
	n	%	n	%
The Head Start Program	18	20	70	80
School Partners Program	5	6	83	94
School Liaison Program	5	6	82	94
School Guidance Officer Days	7	8	82	92
Voice on the Range	3	3	83	97
Priority Country Area Program	2	2	86	98
Primary Industry Centre for Science Education	1	1	87	99
University Scholarships	56	64	32	36
Tertiary Preparation Program	43	45	45	51
Indigenous Higher Education Pathways Program	11	13	77	88

Participation in USQ services and facilities

Head Start Program

The highest proportion of students did not know that high school students would be able to receive 2 QCE points towards their academic program (87%), participate in the Head Start program(83%), enrol on campus with current USQ students (78%), and that Head Start would assist them in achieving granted entry at the USQ (74%), that they could become a part of an academic environment (69%), and be assisted in building social networks (62%). A very limited number of students (0-15 %) knew the program and participated (Table 8).

Table 8: Participation in USQ Head Start program

			Knew about		
Participation in Head Start program		Did not Know	 did not participate 	Knew and participated	Total
Study at USQ for free through Head	n	73	15	0	88
Start program					
	%	83	17	0	100
Enrol on campus with current students	n	69	14	5	88
	%	78	16	6	100
Achieve granted entry at USQ	n	65	13	10	88
	%	74	15	11	100
Receive 2QCE points that go towards their academic program	n	76	9	2	87
men deddenne program	%	87	10	2	100
Have an access to the equipment and facilities they require	n	58	17	13	88
racing they require	%	66	19	15	100
Build a great social network with people who have the same interest	n	53	19	14	86
people who have the same interest	%	62	22	16	100
Become a part of the academic	n	60	16	11	87
environment which may help them achieve their career objectives quicker	%	69	18	13	100

Distance Education Mode

Data indicate in Table 9 that the highest proportion (52%) of students did not know that high school students could study Head Start courses from their own home, compared to 27 percent who knew but did not participate and only 21 percent who knew and participated. More than half (56%) of the students did not know distance education courses had the same lecturers as on-campus and on-line courses, compared to 26 percent who knew but did not participate and only 18 percent who knew and participated.

Table 9: Participation in distance education mode

Distance education mode		Did not Know	Knew about - did not participate	Knew and participated	Total
Study from their own home	n	45	23	18	86
	%	52	27	21	100
Study the same courses with the same lecturers as		49	23	16	88
on campus and online students	n %	56	26 26	18	100

School Partners Program (SPP)

Data indicate in Table 10 that the majority of students did not know that the USQ's SPP manages the relationship between high schools and the USQ (92%), and offered scholarships each year to students who commenced full-time study and were from partner schools (87%), compared to around 11 percent who knew but did not participate and only one or two percent who knew and participated in the SPP.

Table 10: Participation in school partners program

School Partners Program		Did not Know	Knew about did not participate	Knew and participated	Total
The program manages the relationship between high	n	80	6	1	87
schools and USQ	%	92	7	1	100
USQ offers SPP					
Scholarships each year to students from the	n	76	10	2	88
partner schools commencing full-time on-campus study at USQ	%	87	11	2	100

School Liaison Program (SLP)

Data illustrate in Table 11 that the highest proportion of students did not know that the SLP provides financial information and other assistance to attend university (85%), information

sessions regarding university pathway (82%). Only a limited (1-6 percent) number of students had knowledge about the services and participated in the program.

Table 11: Participation in school liaison program

School liaison program		Did not Know	Knew about - did not participate	Knew and participated	Total
Information sessions about	n	71	14	2	87
pathways	%	82	16	2	100
Information on financial &	n	75	12	1	88
other assistance	%	85	14	1	100
Information on study	n	69	15	3	87
options	%	79	17	3	100
Information on career	n	69	15	4	88
pathways	%	78	17	5	100
Information about other	n	68	15	5	88
support and scholarships	%	77	17	6	100

School Guidance Officer Days (SGOD)

Data show in Table 12 that the highest proportion of students were not aware of the information on accommodation (75%), the USQ's SGOD administrative services (71%), sports and recreation activities and services (71%), information regarding USQ scholarships (69%), academic programs (68%), and information on the USQ fees (67%), compared to a maximum of 27 percent who knew but did not participate and only a limited number (1-5 percent) of students who knew and participated in the program.

Table 12: Participation in school guidance officer days

School guidance officer day		Did not Know	Knew about - did not participate	Knew and participated	Total
USQ administrative services	n	62	24	2	88
	%	71	27	2	100
USQ administrative	n	61	23	4	88
procedures	%	69	26	5	100
USQ fees	n	58	27	2	87
	%	67	31	2	100
USQ scholarships	n	60	24	3	87
•	%	69	28	3	100
USQ academic programs	n	58	26	1	85
	%	68	31	1	100
Accommodation at USQ	n	64	20	1	85
•	%	75	24	1	100
Sports and recreation	n	60	23	2	85
activities and services	%	71	27	2	100

Voices on the Range

Data in Table 13 demonstrate that the majority of students did not know that USQ Voices on the Range provides a range of workshops (90%) and programs for students to become familiar with the USQ services and facilities (87%) for high school students. There were only a few students (1 percent) who knew and participated in the program.

Table 13: Participation in voices on the range

Voices on the range		Did not Know	Knew about - did not participate	Knew and participated	Total
Participate in a range of workshops	n	78	8	1	87
	%	90	9	1	100
Become familiar with USQ services and facilities	n	76	10	1	87
	%	87	12	1	100

Priority Country Area Program (PCAP)

Data presented in Table 14 show that more than 90 percent of the students did not know that the USQ PCAP services provide them access to improve their secondary studies, the opportunity to become more familiar with the USQ facilities, and experience life as a university student.

Table 14: Participation in priority country area program

Priority country area program		Did not Know	Knew about - did not participate	Knew and participated	Total
Improve their secondary studies	n	77	9	0	86
	%	90	10	0	100
Become more familiar with USQ facilities	n	79	7	1	87
	%	91	8	1	100
Experience life as university students	n	80	5	0	85
	%	94	6	0	100

Primary Industry Centre for Science Education (PICSE)

It appears that more than 94 percent of the students did not know that the USQ PICSE program provides high school students with the opportunity to participate in science based research projects, five day camps at the USQ, and five-day industry based work placement opportunities (Table 15).

Table 15: Participation in primary industry centre for science education

Primary industry centre for science education	or	Did not Know	Knew about - did not participate	Knew and participated	Total
Participate in science	n	82	5	0	87
based research projects	%	94	6	0	100
Participate in five day	n	83	4	0	87
science camps at USQ	%	95	5	0	100
Participate in a five day	n	83	3	1	87
industry based work placement	%	95	4	1	100

Tertiary Preparation Program (TPP)

Data in Table 16 reveal that half (50%) of the students did not know that the USQ's TPP supports students to boost their QTAC ranking, compared to 44 percent who knew but did not participate. Similarly two-thirds (66%) of the students did not know that the USQ TPP assists them to enrol in fee-free courses at the USQ, compared to 28 percent who knew but did not participate. Only six percent of the students knew that the USQ's TPP supports students to boost their QTAC ranking and assists to enrol in fee-free courses at the USQ and participated.

Table 16: Participation in tertiary preparation program

Tertiary preparation program		Did not Know	Knew about - did not participate	Knew and participated	Total
Boost their QTAC ranking	n	45	39	5	89
	%	50	44	6	100
Enrol in fee free courses at USQ	n	58	25	5	89
	%	66	28	6	100

Indigenous Higher Education Pathways Program (IHEPP)

Data indicate in Table 17 that more than four-fifths (83%) of the students did not know that the USQ IHEPP supports Indigenous students to develop their academic knowledge and skills, compared to 17 percent who knew but did not participate in the program.

Table 17: Participation in Indigenous higher education pathways program

IHEPP program		Did not Know	Knew about - did not participate	Knew and participated	Total
Develop knowledge and skills and required for tertiary study	n	73	15	0	88
	%	83	17	0	100

Performance of USQ services and facilities

The mean ratings of TPP, USQ scholarships, Head Start Program, IHEPP, and SGOD ranged from 1.98 to 2.45, indicating the performance of these services and facilities were good (Table 18). The mean ratings of Voices on the Range, SPP, SLP, PCAP and PICSE ranged from 2.52 to 2.61, indicating the performance of these services and facilities were only fair. However, the overall mean rating (M = 2.43, SD = .65) of the USQ services and facilities indicated the performance was good.

Table 18: Performance of USQ services and facilities

Services and facilities	Mean*	SD
The Head Start Program	2.34	.76
School Partners Program	2.53	.63
School Liaison Program	2.53	.63
	2.35	
School Guidance Officer Days		.68
Voices on the Range	2.52	.66
Priority Country Area Program (PCAP) Enrichment Camp	2.55	.63
Primary Industry Centre for Science Education (PICSE)	2.61	.56
USQ scholarships	2.21	.90
Tertiary Preparation program (TPP)	1.98	.83
Indigenous Higher Education Pathways Program (IHEPP	2.39	.75
Overall	2.43	.61

^{*}Mean calculated on a 5 point scale: 1 = very good, 2 = good, 3 = fair, 4 = poor and 5 = very poor.

Satisfaction with USQ services and facilities

The mean rating of TPP was 2.45, indicating that students were satisfied with this service and facility (Table 19). The mean ratings of all other USQ services and facilities ranged from 2.58 to 2.82, indicating that the students were neither satisfied nor dissatisfied.

Table 19: Satisfaction on USQ services and facilities

Services and facilities	Mean*	SD
Head Start Program	2.74	.76
School Partners Program	2.79	.70
School Liaison Program	2.81	.68
School Guidance Officer Days	2.75	.72
Voices on the Range	2.76	.74
Priority Country Area Program (PCAP) Enrichment Camp	2.78	.67
Primary Industry Centre for Science Education (PICSE)	2.81	.65
USQ scholarships	2.58	.92
Tertiary Preparation program (TPP)	2.45	.93
Indigenous Higher Education Pathways Program (IHEPP	2.82	.73
Overall	2.76	.65

^{*}Mean calculated on a 5 point scale: 1=very satisfied, 2= satisfied, 3= neutral, 4= dissatisfied and 5 = very dissatisfied.

Suggestions to improve USQ services and facilities

Students were asked to provide their suggestions to improve the services and facilities and some students gave multiple explanation. The responses were summarised in Table 20 into the following groups: Promotion of the USQ services and facilities, Scholarships and On-line communication.

Table 20: Suggestions to improve services and facilities

Students suggestions	Number
Promotion of services and facilities – Advertise services and facilities through school visits, boarding schools, shopping centres, parental flyers and handouts. Promotion through local businesses and websites, including Isolated Children Parents Association (ICPA) and offer to those who are school leavers.	14
On-line Communication – A more user friendly website and add a link that provides all necessary information for high school students in easy to understand terms.	2
Scholarships – Make it easier to apply for and everyone who is eligible for scholarships should be automatically entered	2

Issues in accessing information before admission

Except on-campus accommodation (M = 3.57, SD = .80), the mean ratings of other information ranged from 2.98 to 3.44, indicating that the students had faced some difficulties in accessing information on pathways to university, fee free study, financial cost, the USQ requirements, and ways to meet schools' needs before their admission at the USQ (Table 21),

.

Table 21: Issues in accessing information before admission to USQ

Information access before admission		
	Mean*	SD
Pathways to university	3.39	.69
Fee-free study at USQ	2.98	1.17
Scholarships and bursaries	3.27	.91
On-campus accommodation	3.57	.80
Head Start Program	3.28	1.00
School Liaison Program	3.24	1.03
School Partners Program	3.19	1.06
Primary Industry Centre for Science Education	3.20	1.06
Financial costs associated with tertiary study (including text books, accommodation, etc)	3.11	.88
Information sessions for interested community members about USQ support services (employment and counselling)	3.20	.99
USQ requirements for admission	3.29	.79
Ways in which schools can help overcomes students difficulties in meeting admission requirements	3.44	.79
Ways in which USQ can help meet schools' needs for support	3.44	.85
Overall	3.27	.72

^{*}Mean calculated on a 4 point scale: 1= always, 2 = most of the time, 3 = sometimes, 4 = never.

Issues in accessing information after admission

The mean ratings of support for students with physical disabilities, multicultural activities, childcare facilities and employment opportunities after graduation ranged from 3.50 to 3.63. This indicates students almost never experienced difficulties in accessing this information after admission to the USQ (Table 22). The mean ratings of all other areas ranged from 3.32

to 3.45, indicating students experienced some difficulties in accessing this information after admission to the USQ. However, the overall mean rating (M = 3.61, SD = .42) indicated the students almost never faced difficulties in accessing information after admission to the USQ.

Table 22: Issues in accessing information after admission to USQ

Information access after admission	Mean*	SD
Academic support (assignment preparation)	3.32	.79
Range of courses offered by faculties	3.39	.78
Tutorial assistance to improve academic performance	3.39	.78
Knowledge about academic assistance through Student Services	3.40	.75
Childcare facilities on campus	3.57	.75
Economic support (including scholarships to study at USQ)	3.37	.89
Employment opportunities after graduation	3.50	.76
Multicultural activities	3.59	.73
Support for students with physical disabilities	3.63	.74
Feeling of connection to the university	3.38	.84
Making a successful transition to university learning	3.36	.69
Library services	3.45	.76
IT services	3.45	.73
Overall	3.61	.42

^{*}Mean calculate on a 4 point scale: 1= always, 2 = most of the time, 3 = sometimes, 4 = never.

USQ help to overcome difficulties

Table 23 summarised the responses into four groups: a) Dissemination of information; b) Online communication; c) Extra personal assistance; and d) Connectedness.

Table 23: Help from the USQ to overcome difficulties

Students responses	Number
Dissemination of information – Advertising and promotion of a comprehensive information pack would be useful to students. Pack essentials included detailed step by step guide to study, competitive acquisition of textbooks, information on available services and facilities, and scholarships and bursaries accessibility, when and how to apply.	9
On-line communication – Simplify current online enrolment processes, webpage functions and descriptions. Streamline current lecture downloads, add video podcast to iPod for lectures, add a multicultural webpage and use CSC1401 course structure as a guideline for external education.	7
Connectedness –Help with transitioning to university life for high school, rural, remote and mature students, particularly as the university experience is completely different from anything experienced before. Someone to explain time management, study flexibility, independent learning, what to expect and how the university operates would be helpful in preventing feelings of disconnection.	6
Extra personal assistance – More face to face contact, one-on-one tutoring/help with assignments, social activities, support staff to assist lecturers and computer courses for beginners would be beneficial to students.	5

However, two students noted that the current assistance provided through the learning centre was helpful and good.

Happiness to be a USQ student

Most of the students (98%) expressed their happiness to be a USQ student.

Willingness to recommend USQ to other students

Majority (90%) of the students voiced that they would recommend the USQ to other students (Table 24).

Table 24: Willingness to recommend USQ to other students

Recommend to other students	Number	Percent
Definitely	57	64
Probably	23	26
Not Sure	6	7
Probably Not	3	3
Total	89	100

Open comments

Students made multiple comments on the USQ services and facilities and the responses were summarised below:

- a. Enjoyed USQ's orientation towards regional support, external studies and multiculturalism.
- b. USQ needed to consider other payment options including direct debits
- c. USQ accommodation is too expensive
- d. Should offer more scholarships and bursaries
- e. Lecturers and staff are willing to assist, easy to talk to, eager to teach, interested in students and had gone out of their way to help and support students.
- f. Would not recommend the education faculty, the engineering and surveying faculties
- g. Some faculties attempted to be elitist.
- h. Noted difficulties with USQ's on-line communication processes.
- i. USQ study desks needed to follow a common form and suggested a collaborative effort between teaching staff to find the most effective layout.
- j. The enrolling process was difficult.

Overall feelings of the student about the USQ services and facilities

Fourteen students indicated that the services and facilities offered by the USQ were 'fantastic' and 'helps people get into university'. One student stated 'they are all good and a lot of help', while another student emphasised a 'good outlook for everyone'. However more than half of the students (13) surveyed indicated unfamiliarity with the majority of the USQ services and facilities. They stated they had 'never heard of these programs', 'I had no idea USQ provided these services' and 'most of the services offered by USQ I haven't used, I just started my studies straight from high school'.

Factors that affect students' participation at USQ

Twelve students stated that financial factors had significant impact on their participation at the USQ. Commenting they 'couldn't afford to move out', being 'close to home' with 'family support' reduced 'costs', such as 'travel to and from university', 'rent', 'food' and 'internet'. Four students stated the 'time taken to attend university' was time consuming with 'petrol costs' and 'bus rides being expensive'. Seven students remarked that personal aspirations and motivations to 'achieve goals' reinforced their 'intention of going to university'. While seven students observed that the USQ provided a 'small, personalised community with small class sizes', 'hands on learning' and 'is highly regarded by industry' as factors that influenced their decision to participate at the USQ.

Some students commented that lecturers and/or teachers were found to be 'motivating', 'supportive and encouraging'. Conversely other students noted that lecturers and/or teachers were 'boring' and there was 'no uniformity in course presentations'. A couple of students remarked that technical innovations assisted their studies saving 'travel time and money' and suggested the USQ introduce 'i-pod files' as 'web-pages time out'. Three students noted that 'work and study commitments' were 'sometimes stressful' and 'people [USQ staff] don't understand the study, work and family balance'.

Perceptions of rural and remote students about USQ

Positive perception

Fifteen students remarked that the USQ needed a 'stronger image, higher profile' and to 'develop the USQ brand'. Proposing the USQ promote the 'regional' aspect of the university;

the 'smaller classes', 'one-on-one lecturer' availability and the cheaper 'financial aspect' of living in a regional community, particularly, as 'people think it [USQ] is not up to the same standard as Brisbane and the Gold Coast'. Students recommended a focus on 'promoting student potential' through a 'good education' and the 'qualification' attained. Eight students advised the USQ to point out that the USQ was 'suited for distance education' as external students were 'not treated any differently', receiving the same 'qualification' and some programs were offered '100% on-line'.

Nine students referred to current strategies utilised by the USQ. Remarking 'open days are helpful', 'orientation week was fantastic' and current advertising is 'excellent'. However, six students commented that the USQ needed to be seen more in 'local communities' and 'rural schools'. Recommending 'current' and 'past students' 'explain ... what's good about it' to help 'take away fears and doubts'. Students proposed the USQ hold 'open days' in 'Moura or Rockhampton 'or 'sponsor things like Farmfest or Bundaberg's Agrotrend'. A couple of students noted the importance of 'building industry alliances'.

Negative perceptions

Thirteen students discussed how a negative perception of the USQ may arise 'when compared to other universities'. Students mentioned that 'it's perceived you get a better education and degree in Brisbane', that the USQ 'facilities not be as up-to-date as Brisbane' and 'you hear about the bigger universities like UQ and Griffith'. However students suggested the USQ emphasise that although 'it's a small university' 'graduates are sort after' and you 'meet people who have a regional and rural up-bringing'.

Eight students mentioned access to support services and facilities, stating that 'if not aware of services, won't access them'. Suggesting the USQ should promote 'how to access services, facilities and learning tools' among the students. Five students acknowledged the financial aspects of studying, citing 'textbook expenses' and 'travelling to Toowoomba' as additional costs. One student commented on how 'rural communities may not have employment for positions studied' thus limiting future employment. While another student remarked 'getting a job, earning money straight away instead of in four years time' may impact on study intentions.

Important in forming positive aspirations about USQ

Students remarked that advertising and marketing strategies needed to show how the USQ 'provides the pathway' in acquiring 'qualifications' for a 'profession'. Once more students noted how the regional aspect of the USQ may be positively marketed. Suggesting the 'benefits of its [USQ] supportive education environment', 'multi-cultural' attitude and Toowoomba's 'different quality of life' be promoted. Students also noted how the USQ could promote the development of 'social networks', stating 'it's fun, you meet people'.

What could be done better in relation to services and facilities

The majority of students (13) made suggestions that the USQ conduct more promotional activities in local, regional and rural schools and communities. Specifically indicating the USQ should: 'promote at Emerald Agshow', visit 'regional high schools', 'have Open Days out west' and 'hold different types of workshops'. One student proposed the USQ 'develop partnerships with larger employers', while another recommended the USQ 'refine and explain to students what is available and how easy it is to access it'.

Five students revealed their current level of satisfaction with the USQ. Stating 'nothing but positive experiences with university' and 'they [USQ] are pretty good at the moment'. Four students cited more support was needed. One student commented that the USQ should 'provide some form of support system for non-Indigenous students'. Another student noted that 'a bit of human contact ... maybe a phone call ... just a bit more than a computer screen'. While one student commented that the USQ's technology needed 'an improvement within the entire web facility'.

Discussion

Demographic profile

More than three-fifths (62%) of the respondents were female. Toowoomba is the main campus of the university and more options of studies are available; therefore this might be the reason that 84 percent of the students responded from this campus.

This is a regional university and predominantly the rural and remote students are expected to enrol at this university and international students prefer to enrol in city based university. This may be the obvious reason that the highest number of students (67%) identified themselves as Australian.

Work and study

Half (50%) of the male students aged 18 years or less worked 10 hours or less, whereas the same percentage of females in the same category worked 21 or more hours.

All male students aged 37 years or older worked 21 or more hours, whereas half (50%) of the females in the same age category worked 21 or more hours. This is in line with Boylan and Hill ⁹⁰ who noted that rural and remote students are very concerned about financial matters in the first year of their study and sought some form of part-time work to supplement financial assistance.

Enrolment

Across all age groups, both male and female students predominately used QTAC as their preference for enrolment at the USQ. QTAC enrolment is the accepted norm for entry into tertiary education and is widely acknowledged and promoted through schools and universities⁹¹. Burton and Dowling ⁹² stated that QTAC ranking was one of the main factors used in the allocation of university placements. Hence students aged 18 years or younger enrolled into tertiary education through QTAC from high school.

Only 15 percent of males and 13 percent of females applied for direct enrolment into the USQ. Direct enrolment requires students to have completed a minimum requirement bridging course or workshop to gain entry into a tertiary institution ⁶¹. Thus a small percentage of

students completed either the Tertiary Preparation Program or the Indigenous Education Pathways Program (IHEPP) to have enrolled directly.

Though the web is a popular source of information to find the USQ for admission, only 35 percent of females and 21 percent of male students used this source.

Decision to study at USQ

Thirty five percent of the students noted that they had decided to study at university to broaden their career pathways. While others wished to enhance their career opportunities, knowledge and skills. As more than half (54%) of the students are aged 25 years or over, experience with professional & industry requirements may have influenced them to contemplate and initiate tertiary education.

Usefulness of USQ services and facilities

Familiarity of USQ services before admission

Other than the USQ Scholarships (64%), TPP (49%) the Head Start Program (20%) and IHEPP (13%), other services and facilities offered by the university were virtually unknown by the students prior to their admission. Further telephone interviews revealed that the majority of rural and remote students were unfamiliar with the USQ services and facilities.

the USQ scholarships may be more extensively known because universities advertise, market and promote scholarships to attract students ⁷⁸. Financial assistance over and above government allowances and/or family support is highly sought after by students ²¹. Therefore, scholarships may assist students in paying up-front university costs such as courses fees, accommodation payments and general living expenses. Knowledge of scholarships is often communicated through parents, friends, peers, schools, universities and the general public.

Four students revealed, during interviews, that they had completed TPP. Although the number of students who completed the TPP was not captured by the on-line survey, the number of students who were aware of TPP may be due to the large number of programs offered ⁶¹. Knowledge of the Head Start Program may be due to its availability within Australia. Students who have recently entered tertiary education from high school may have been aware of Head Start due to themselves, friends and/or peers completing the program. High schools may have promoted the Head Start program that is offered by a large number of

universities ⁹³. The relatively small percentages of students who were familiar with the IHEPP is congruent with Hossian, Gorman, Williams-Mozely and Garvey ⁹⁴ findings that Indigenous high school students were unaware of the IHEPP.

Supplementary data support these views. One third of the students indicated they had knowledge of the Scholarships, Head Start Program, TPP and the IHEPP program. A number of students commented that they had completed the TPP and/or obtained a scholarship.

Participation in USQ services and facilities

Head Start and Distance Education

The highest proportion of students were not aware that Head Start (52%) and distance education mode (56%) programs allowed high school students to study from their own home and that the on-line courses were exactly the same as those offered on-campus.

The Head Start program and distance education mode is offered by most universities in Australia. Knowledge of the programs may be due to advertising and support offered to schools ^{22,23,25}. Students who have completed the Head Start program have promoted the benefits of the program, such as, how the program made the transition into university life easier and how starting tertiary education was a more relaxed and positive experience ^{22,39}.

School Partners Program

Ninety two percent of students did not know that the USQ managed the SPP relationship with high schools and only one percent knew and participated. One reason may be the ineffective promotion of the collaborative relationship with partnership schools ³³. Another reason may be the planning and provision of the program with partnership schools may not have had input from all stakeholders, including high school students, teachers, and university staff ²⁷, thus reducing the success and sustainability of the high school and university partnership. Considering that just under two-thirds (64%) of students were aware that the USQ offered scholarships, it is surprising that only 13 percent of students knew the USQ offered SPP scholarships each year to new, on-campus and full-time on-campus students from partnership schools and only two percent of students participated. The reason could be that students were not given the opportunity to engage with the program ²⁸. As noted by Hutchison ⁹⁵, outreach programs offered by universities targeting high schools must be aimed at building student

capacities and offer support during critical transitioning periods. Hence the benefits of SPP, such as academic achievement, career exploration and transitional assistance into university life, were not successfully communicated to partner schools and their students.

School Liaison Program

The majority of students (77% to 85%) did not know the USQ SLP program provided information on university pathways, financial assistance, study options, career pathways and other support services. Although the USQ SLP team organises school visits and recruitment events such as, open days and career fairs, it is surprising that a large proportion of students were unaware of the program, considering more than one-quarter of students (27%) were aged 18 years or younger. Therefore the partnership between schools and the USQ needs to be taken into account. According to Mayers and Schnorr ⁹⁶ the partnership must encourage mutual planning and provision of appropriate programs that engage high school students, increasing the retention and comprehension of information delivered.

School Guidance Officer Days

According to DEET ⁴⁰ SGO are based in secondary schools, thus students aged up to 25 years of age should be aware of SGO days. The students made comments on the need to disseminate information, not only to high school students but also to parents and the general public through "flyers" and "advertisements". Mature aged students (54%) aged 25- and over may not have had access to SGO, however students stated "more awareness of these programs" and a "need to be notified about these services" would be beneficial.

Voices on the Range

Only one percent of the students knew and participated in the Voices on the Range program. Predominately students did not know they could participate in workshops (90%) or become familiar with the USQ services through workshops (87%). The Voices on the Range Festival was offered in conjunction with local partner schools from 2004 to 2008. Students' familiarity with the Festival may have been impacted due to this specific program and it's relatively short life-span ⁸.

Priority Country Area Program (PCAP)

A small proportion (2%) of students knew of the PCAP program. The fact that PCAP provided students with the opportunity to improve secondary studies, become more familiar

with the USQ facilities and experience university life through university camps was virtually unknown by the majority of students (90% to 94%). According to DEEWR ⁷⁹ students from geographically isolated areas are provided with financial support to attend educational opportunities presented through PCAP camps. However, six to ten percent of students from regional and rural areas knew and participated or knew and did not participate in PCAP opportunities.

This could be because the majority of students who responded to the questionnaire were from regional areas as opposed to isolated areas. Another consideration is that PCAP is a government funded community-based rural education program ⁴⁹, thus access to education, social and cultural opportunities may be limited simply because of the tyranny of distance. Accessing educational opportunities requires funding and PCAP and DEEWR ⁴⁹ have firm eligibility criteria and funding restrictions, thus participants who were exposed to the benefits of PCAP may have been minimal.

Primary Industry Centre for Science Education (PICSE)

Almost all the students were unaware of PICSE and the possibility of experiencing science based research projects, science camps and science industry work-based placements. A reason for the PICSE program being relatively unknown could be that only 6 percent of students who participated in the survey were undertaking science degrees.

PICSE ¹⁴ stated the collaborative relationship between universities and local primary industries was paramount in attracting high school students into the science fields. Another explanation for the PICSE program being virtually unknown, as suggested by students, may be because awareness of a specialised science education program was not communicated effectively to the broader community through promotion, advertising and support.

Nonetheless, consideration on the success of the PICSE program has to be taken into account. Students noted that insights gained into career options and rural industries through camps would contribute to their course selections at tertiary institutions ^{55,59,97}. Hence, students may have chosen to study at specific tertiary institutions that specialised in their field of interest.

Tertiary Preparation Program (TPP)

Half (50%) the students knew the TPP program would boost their QTAC ranking, from these, six percent participated. Over one-third of students knew that TPP sanctioned enrolment in

fee-free courses at the USQ, but only six percent participated. An explanation for the relative familiarity of the TPP program is acknowledged in the Southbank Institute of Technology ⁶² statement that any adult who has no formal education, has not studied for some time or for whom English is a second language is eligible to study a TPP. Considering 73 percent of students were aged 19 years and older, some of the students may have become familiar with TPP through researching tertiary education.

Additionally, a direct enrolment at the USQ requires a student to have completed prior courses and/or pre-requisites. As 13 percent of students enrolled directly, they might have completed either the TPP and/or IHEPP. Some students indicated that they have "lifelong ambition to study", "always wanting to study" and "want to obtain professional qualifications". These driving forces might assist them to be familiar with TPP.

Indigenous Higher Education Pathways Program (IHEPP)

Only two percent of students identified themselves as having an Indigenous background.

Accordingly these students did not transition into undergraduate programs at the USQ through the IHEPP as no participant acknowledged that they knew and participated in IHEPP.

However, 83 percent of students were unfamiliar with IHEPP. Given government policy, specialised liaison personal, such as police and school, and educational centres it may be that more awareness, information and notification of the program is required. As noted by Muloin ⁹⁸ Indigenous programs face constant challenges in funding, promotion and staff support. Student comments of "provide more information earlier and visits the areas and schools" and "advertise it more", suggest the delivery of information on IHEPP is not reaching the community.

Further supplementary data collected from telephone interviews with the students indicated that financial reasons where one of the main factors that affected their participation in higher education at the USQ. The university reports (Universities Australia, ¹⁸ and the ANU, ¹⁹ endorsed the view that some regional and rural students may face considerable financial costs when relocating to participate in higher education. Thus it is not surprising that financial aspects influence decision making processes on whether or not one will participate in higher education.

Performance of USQ services and facilities

Overall the performance rating of the USQ services and facilities was good (M = 2.43, SD=.61). TPP had the highest (M = 1.98, SD=.83) performance rating of all the USQ services and facilities. This may be explained by 49 percent of students being familiar with TPP prior to admission and rating its performance. Another reason may be due to the fact that bridging courses into higher education are offered by 40 tertiary institutions and colleges in Australia 60 . Hence advertising, promotion and information on alternative pathways into tertiary education are more accessible.

Scholarships had the second highest (M = 2.21, SD=.90) performance rating. This finding is congruent with knowledge of scholarships prior to admission. Although scholarships had a high positive rating, several students commented specifically on improvements to the program, such as, "make it easier to apply for scholarships" and "everyone should be automatically applied to the scholarships they are eligible for".

PICSE had the lowest (M = 2.61, SD=.56) performance rating among the USQ services and facilities. The reason might be that students were not familiar with the PICSE program prior to admission. The PICSE program is a relatively new initiative between the USQ and PICSE, hence student involvement and knowledge may be limited 58 .

Satisfaction with USO services and facilities

The overall rating (M = 2.76, SD=.65) of university services and facilities indicated that the students were neither satisfied nor dissatisfied. The reason might be that the majority of university services and facilities were virtually unknown and/or students' experiences with its services and facilities were minimal. Few students suggested that "a more user-friendly website one that is easy to navigate and provides all the information in easy to understand terms of services available" would be of assistance to high school students.

TPP had a higher level of satisfaction (M = 2.45, SD=.93) rating. This might be due to a percentage of students completing TPP or knowing someone who had completed the program. As previously stated, promotion, advertising and general accessibility of information on TPP might have contributed to the higher level of satisfaction by the students.

Issues in accessing information before admission

Prior to admission students encountered some difficulties (M = 3.27, SD= .72) in accessing information on university services and facilities; except on-campus accommodation (M = 3.57, SD= .80). They stated that they encountered most difficulties in accessing information on pathways to university, fee free study, scholarship and bursaries, school liaison program, school partner program, cost associated with tertiary study, and admission requirements. A few students made the suggestion that "better online descriptions and functions" and "simply some areas online to do with prerequisites and the enrolment process" would provide better on-line communication. They further noted that "need more info about the services", "more info on a study course for people who have never studied at uni before" and "advertise it better" would provide as additional methods for overcoming difficulties in accessing information.

Issues in accessing information after admission to USQ

After their admission, students experienced some difficulties in nine of the 13 selected university services and facilities (mean ranged from 3.32 to 3.45). One reason might be that the students were unaware of how to access information. In overcoming these difficulties a few students suggested that the university should include "some sort of transition from high school to university" and "have someone take rural and remote kids around and explain things ... it's completely different to anything that we have experience before". Other students suggested extra personnel to assist students, i.e., "more availability of staff support", and "personally engage students early" might help to decrease difficulties.

Perception

Interestingly, what students identified as creating positive perceptions and aspirations in regional and rural communities, the USQ's regional aspects they noted, may lead to the creation of negative perceptions. Students specifically commented on how the USQ is perceived when compared to other universities. Noting young adults are attracted to metropolitan universities as they are perceived to provide better educational outcomes and city lifestyles. Therefore regional and rural students need to consider not only the affordability of a city lifestyle but also their level of comfort associated with the university size, ease of social interactions and distance/travel expenses.

Promotion

Students from both the on-line survey and telephone interviews mentioned the USQ need to extend their brand. Recommending the USQ advertise more in regional and rural areas away from the greater Toowoomba regional area. It is of note that a couple of interviewed students recommended the USQ specifically promote higher education to mature-age students. This suggestion complements the on-line survey which had more than half the respondents (54%) aged over 25 years.

Conclusions

Familiarity of the USQ services and facilities

Most of the students were familiar with university Scholarships, the Tertiary Preparation Program, Head Start and the Indigenous Higher Education Pathways Program. However a large proportion of students were unaware of the university's services and facilities, particularly those targeting high school leavers. This low level of familiarity might be due to the attendance at information sessions being voluntary or insufficient activities undertaken to promote the services. Hughes ³³ asserts that multiple information sources on educational pathways were important in decision-making processes for high-school students. Hence a strong university-school partnership working collaboratively to promote higher education is crucial in delivering the right information at the right time. One way to familiarise the services and facilities is to invite the students and their parents to an informal lecture. These lectures may take place at either the university campus or in local rural communities. As this may be the first time some students and parents have encountered tertiary education, specific information on degree programs and campus life should be communicated. Information communicated during these lectures should incorporate student suggestions, i.e., pathways to university, fee-free study, scholarships and bursaries, school liaison program, school partner program, cost associated with tertiary study, and admission requirements.

Performance of USQ services and facilities

The performance of TPP, scholarships, Head start, IHEPP and SGOD were good (mean rating ranged from 1.98 to 2.45) and the other services were just fair (mean rating ranged from 2.52 to 2.61). Therefore, it could be concluded that there is a need to promote other services and facilities such as School Partners Program, School Liaison Program, Voices on the Range, Priority Country Area Program – Enrichment Camp and Primary Industry Centre for Science Education.

Participation in USQ services and facilities

Very few students knew about and participated in the USQ services and facilities. This limited participation may be due to unfamiliarity with the services and facilities by the students.

Therefore, there is a need to promote the USQ activities among the rural and remote students to increase their participation in the program and reap the benefit of the services.

Satisfaction to USQ services and facilities

The students indicated they were satisfied with the TPP. However, the majority the students were not satisfied with the USQ's other services and facilities. The reason could be that the students were either unfamiliar or have had little experience with university's services and facilities. Therefore, there is a need to promote university programs, such as, Head Start program, School Partners Program, School Liaison Program, School Guidance Officer Days, Voices on the Range, Priority Country Area Program – Enrichment Camp, university Scholarships and Indigenous Higher Education Pathways Program in rural and remote regions so students are aware of the programs, enrol in the desired course and remain at the university.

Assistance and support needed: before and after admission

Before their admission the students were mostly unfamiliar with university services and facilities and thus faced some difficulties in accessing information on:

- a) pathways to university
- b) fee free study
- c) scholarship and bursaries
- d) school liaison program
- e) school partner program
- f) cost associated with tertiary study
- g) admission requirements, etc.

After their admission the students also experienced some difficulties in:

- a) academic support
- b) identifying the range of courses offered
- c) tutorial assistance
- d) academic assistance
- e) economic support
- f) connectedness,
- g) making transition

- h) library
- i) IT services.

This information is required by the rural and remote students before and after their admission. Students enunciated several suggestions to overcome their difficulties. A few of them are:

- a. Dissemination of information
 - 1) develop and distribute a comprehensive information pack that provides a detailed step by step guide to study
 - 2) publish university information bulletin and mail out to schools
 - 3) booklet
 - 4) information on scholarships and bursaries when and how to apply
 - 5) parental flyers
 - 6) handouts.
 - 7) user friendly websites
- b. Communication activities and opportunities
 - 1. provide academic assistance
 - 2. provide tutorial assistance
 - 3. social activities
 - 4. visits schools and talk to guidance officer, principal, etc
 - 5. visit boarding schools
 - 6. visit local businesses
 - 7. visit regional and rural communities

Therefore there is a need to provide support and assistance to rural and remote students in these areas for their higher education at the university.

Recommendations

Recommendation 1: Multiple information sources

Strong university-school partnerships working collaboratively to promote higher education are crucial in delivering the right information, at the right time, through various sources. The more sources of information used the greater the possibility of communicating information to the target groups.

Recommendation 2: Arrange information lecture

Invite students' parents or guardians to an informal lecture, to be held either at the USQ campus or in local regional and rural communities. As this may be the first time some parents have encountered tertiary education, specific information on degree programs and campus life should be communicated. Information communicated during these lectures should incorporate student suggestions, i.e., pathways to university, fee-free study, scholarships and bursaries, school liaison program, school partner program, cost associated with tertiary study, and admission requirements.

Recommendation 3: Advertise USQ services and facilities to the target audience

Advertisements targeting the USQ services and facilities would be of great benefit in informing rural and remote students. Promotions about how to access services and facilities through multiple sources of learning tools (i.e. website, information brochures and school networks) would also be useful.

Recommendation 4: Develop USQ's Regional Brand

Promotions targeting the USQ's regional aspects, in particular those emphasising its accessibility, supportive learning environment, cheaper financial lifestyle, opportunities to build social networks and the USQ's multicultural attitudes would also be useful.

Accentuating the USQ's industry relationships with Engineering Australia as well as building

53

new industry network partnerships to encourage mutual work experiences and lectures would comprise advantageous strategies.

Recommendation 5: Marketing opportunities within and outside the Toowoomba Regional Area

Increase marketing strategies to include visiting local boarding colleges and extolling the benefits of studying locally. Staff and/or past and current students visit regional high schools with 'Open Day' information, i.e. Roma, Warwick, Goondiwindi, Moura and visit boarding colleges in Rockhampton and Yeppoon. An advertising approach to include booth displays at large regional events, such as, FarmFest, Emerald's Agshow and Bundaberg's Agtrend.

Recommendation 6: Transitioning experiences

Run workshops during orientation weeks explaining the flexibility of independent learning. Clarify what to expect, how the university operates, how to manage work, study and family/social commitments, where to go to get assistance and the types of assistance provided by the USQ. Re-iterate verbal information with a concise brochure that is distributed during sessions.

Recommendation 7: Simplify Website

Simplify the on-line enrolment processes. Streamline current lecture downloads. Include iPod video podcasts. Include navigational icons to assist students in locating information on services and facilities offered by the USQ. Incorporate links that provide all necessary information for high school students to access in easy to understand terms.

References

- 1. University of Southern Queensland, in *Head Start Program* edited by University Of Southern Queensland (USQ, Toowoomba, 2010).
- 2. University of Southern Queensland, School partners program reaps rewards for Ipswich students, Available at http://www.usq.edu.au/newsevents/news/2007/schoolipswich, (2007).
- 3. University of Southern Queensland, School liaison program Available at http://www.usq.edu.au/futurestudents/teachers/school/, (2009).
- 4. University of Southern Queensland, School visits, Available at http://www.usq.edu.au/futurestudents/teachers/school/visits, (2009).
- 5. University of Southern Queensland, Professional development, Available at http://www.usq.edu.au/futurestudents/teachers/profdev, (2009).
- 6. University of Southern Queensland, Teachers and career advisors, Available at http://www.usq.edu.au/futurestudents/teachers, (2009).
- 7. University of Southern Queensland, Voices on the range: A youth cultural festival, Available at http://www.usq.edu.au/newsevents/news/2008/votr08, (2007).
- 8. Fairholme College, Toowoomba City Council Library, University of Southern Queensland,, edited by Fairholme College, University of Southern Queensland, and Toowoomba City Council Library (Toowoomba, 2008).
- 9. University of Southern Queensland, Kath and Kim script editor to attend voices on the range., Available at http://www.usq.edu.au/newsevents/news/2006/voicerange, (2006).
- 10. University of Southern Queensland, Youth culture nurtured by experts, Available at http://www.usq.edu.au/newsevents/news/2005/voices, (2005).
- 11. University of Southern Queensland, Thousands of students attend voices on the range, Available at
- $\frac{http://www.usq.edu.au/newsevents/usqnews/USQ\%\,20News\%\,202007/newsitems/news/voices}{ontherange,\,(2007).}$
- 12. J Pinkerton, in *USQ Media, Toowoomba*, edited by Toowoomba USQ Faculty of Education (2009).
- 13. Queensland Government, (Queensland government: Department of education and training, 2002).
- 14. Primary Industry Centre for Science Education, edited by Primary Industry Centre For Science Education (2009).
- 15. University of Southern Queensland, Pathways to university, Available at http://www.usq.edu.au/futurestudents/mature/pathways.htm, (2009).
- 16. University of Southern Queensland, Program and courses: Foundation studies program, Available at http://www.usq.edu.au/handbook/current/lang/FSNO.html, (2009).
- 17. University of Southern Queensland, Careers and employment, Available at http://www.usq.edu.au/studentservices/careers, (2010).
- 18. Universities Australia, (Universities Australia, 2009), pp. 6.
- 19. The Australian National University, edited by Australia National University (Australian National University, Canberra, Australia, 2009), pp. 3.
- 20. M. M. Alston and J. Kent, Australian Journal of Education 47 (1), 5 (2003).
- 21. B. Birrell, A. Calderon, I. R. Dobson et al., *People and Place* 8 (1), 50 (2000).

- 22. University of the Sunshine Coast, Headstart Program, Available at http://www.usc.edu.au/Students/Future/Year10-12/Headstart/, (2010).
- 23. University of Adelaide, Resources for primary and secondary schools, Available at http://www.adelaide.edu.au/community-engagement/resources/schools.html, (2010).
- 24. University of Ottawa, Head start for high-school students, Available at http://www.admission.uottawa.ca/Default.aspx?tabid=2603, (2010).
- 25. Headstart EDT, Headstart EDT: Science and engineering experience courses, Available at http://www.headstartcourses.org.uk/, (2010).
- 26. University of Birmingham, Before university: Headstart, Available at http://www.eng.bham.ac.uk/study/info.shtml, (2010).
- 27. T. Kruger, A. Davies, B. Eckersley et al., 2009.
- 28. Edith Cowan University, School partnerships, Available at http://www.education.ecu.edu.au/partnerships/school.html, (2010).
- 29. Berkeley University of California, School/university partnership program, Available at http://students.berkeley.edu/outreach/sup/, (2010).
- 30. University of Southern Queensland, USQ School Partners Program Scholarship, Available at http://www.usq.edu.au/scholarships/indig/schpart.htm, (2010).
- 31. Macquarie University, School partners, Available at http://www.schoolpartners.mq.edu.au/, (2010).
- 32. L. Brady, Australian Journal of Teacher Education 27 (1), 1 (2002).
- 33. L. Hughes, *Education in Rural Australia* **15** (1), 17 (2005).
- 34. L. Beams.
- 35. Monash University, Information for schools and teachers, Available at http://www.monash.edu.au/study/schools/, (2010).
- 36. Charles Sturt University, Academic advice: Student liaison officer, Available at http://www.csu.edu.au/division/studserv/guide/academic-advice/, (2010).
- 37. University of New England, School liaison team, Available at http://www.une.edu.au/mpa/recruitment/slt.php, (2009).
- 38. Queensland University of Technology, School liaison, Available at http://www.go.qut.edu.au/liaison/about.jsp, (2009).
- 39. University of Southern Queensland, GO News: Quarterly newsletter for teachers and career advisors, Available at
- http://www.usq.edu.au/futurestudents/teachers/school/enewsletter, (2009).
- 40. Department of Education and Training, Guidance and counselling services, Available at http://education.qld.gov.au/studentservices/protection/supportive/guidance.html, (2006).
- 41. CQ University, Schools and careers, Available at http://content.cqu.edu.au/FCWViewer/view.do?page=11396, (2010).
- 42. University of the Sunshine Coast, Guidance officers, teachers and career advisors, Available at http://www.usc.edu.au/Community/GOTeachers, (2010).
- 43. University of Leeds, Information, advice and guidance, Available at http://www.leeds.ac.uk/lifelonglearningcentre/students/guidance.html, (2009).
- 44. The University of Queensland, Activities and resources available to your school and students, Available at http://www.uq.edu.au/guidance/, (2010).
- 45. University of Southern Queensland, Local teens engage in cultural festival, Available at http://www.usq.edu.au/newsevents/news/2008/votr08, (2008).
- 46. University of the Sunshine Coast, Top authors attend Voices on the Coast at USC, Available at http://www.usc.edu.au/University/NewsEvents/News/2007News/Voices.htm, (2007).

- 47. University of the Sunshine Coast, Voices festival is Community Event of the year, Available at
- http://www.usc.edu.au/University/NewsEvents/News/2008News/VoicesAward.htm, (2008).
- 48. Centenary Heights State High School Toowoomba, in *NEWS from the heights*, edited by Toowoomba Centenary Heights State High School (2007).
- 49. Department of Education Employment and Workplace Relations, Country Area Program, Available at
- http://www.deewr.gov.au/Schooling/Programs/CAP/Pages/General.aspx, (2010).
- 50. Priority Country Area Program, (PCAP Organisation, 2010).
- 51. James Cook University, Information for students, Available at http://cms.jcu.edu.au/education/profex/students/index.htm, (2010).
- 52. University of Southern Queensland, Education student connects with her PCAP roots, Available at http://www.usq.edu.au/newsevents/news/2009/pcapcamp09, (2009).
- 53. University of Southern Queensland, in *Community*, edited by University of Southern Queensland and Faculty of Education (USQ Toowoomba, 2010).
- 54. Flinders University, Flinders Journal 21 (1), 8 (2010).
- 55. University of New England, Precision Agriculture Research Group, Available at http://www.une.edu.au/parg/, (2010).
- 56. University of Tasmania, 2006.
- 57. The University of Western Australia, PICSE: Teachers, Available at http://www.fnas.uwa.edu.au/community/picse/teachers, (2010).
- 58. University of Southern Queensland, Camp to increase student interest in science, Available at http://www.usq.edu.au/newsevents/news/2007/picsecamp, (2007).
- 59. University of the Sunshine Coast, USC/PICSE Science Industry Placement Scholarship and Camp., Available at http://www.picse.net/USC/ips.htm, (2009).
- 60. Charles Darwin University, Bridging qualifications currently accepted by Charles Darwin University, Available at
- http://www.cdu.edu.au/study/documents/Approved_Enabling_Foundation_Programs.pdf, (2010).
- 61. Myfuture, Tertiary Preparation. Available at http://www.myfuture.edu.au/services/default.asp?FunctionID=5350&CourseID=17677&ProviderID=263, (2010).
- 62. Southbank Institute of Technology, Adult Tertiary Preparation, Available at http://studyinqueensland.studylink.com.au/display/course/course-info.html?pid=pid-mm-01-02010d&cid=cid-mm-01-9741, (2007).
- 63. University of Newcastle, Alternative Entry Paths, Available at http://www.newcastle.edu.au/study/undergraduateadmissions/altentry.html, (2010).
- 64. University of New England, Tertiary Preparation Program: TRACKS, Available at http://www.une.edu.au/oorala/tracks.htm, (2010).
- 65. University of the Sunshine Coast, Tertiary Preparation Pathway, Available at http://www.usc.edu.au/Students/Handbook/TPP/, (2010).
- 66. University of Southern Queensland, Tertiary preparation program, Available at http://www.usq.edu.au/futurestudents/mature/tpp.htm, (2009).
- 67. Griffith University, Tertiary preparation workshop, Available at http://www.griffith.edu.au/music/open-conservatorium/programs-courses/tertiary-preparation-workshop, (2010).
- 68. University of Southern Queensland, USQ Tutors help prisoners build a brighter future, Available at http://www.usq.edu.au/newsevents/news/2008/prisonersfc, (2008).

- 69. J. A. Clarke, D. D. Bull, and J. R. Clarke, (2004).
- 70. University of Southern Queensland, Success for Sudanese TPP Students, Available at http://www.usq.edu.au/newsevents/usqnews/USQ%20News%202007/newsitems/news/sudanesetpp, (2007).
- 71. University of Southern Queensland, From TPP to PhD, Available at http://www.usq.edu.au/newsevents/news/2007/tppphd, (2007).
- 72. The Australian National University, Future students, Available at http://indigenous.anu.edu.au/future-students, (2010).
- 73. Charles Darwin University, Future students, Available at http://www.cdu.edu.au/study/highered.html, (2010).
- 74. Murdoch University, Handbook, Available at http://handbook.murdoch.edu.au/services/aboriginal.html, (2010).
- 75. The University of Melbourne, Seamless transition education pathway program (STEPP), Available at http://www.services.unimelb.edu.au/cie/programs/STEPP/index.html, (2010).
- 76. University of Canberra, The Ngunnawal foundation program, Available at http://www.canberra.edu.au/ngunnawal/studying, (2010).
- 77. University of Southern Queensland, IHEPP providing more than just a pathway for Indigenous students, Available at http://www.usq.edu.au/newsevents/news/iheppgrad, (2010).
- 78. Department of Education Employment and Workplace Relations, Scholarships at Australian universities, Available at
- http://www.goingtouni.gov.au/Main/FeesLoansAndScholarships/Postgraduate/Scholarships/UniversityScholarships/ScholarshipsAtAustralianUniversities.htm, (2010).
- 79. Department of Education Employment and Workplace Relations, Commonwealth Scholarships Available at
- $\frac{http://www.deewr.gov.au/HigherEducation/programs/studentsupport/CommonwealthScholarships/Pages/Home.aspx, (2010).$
- 80. Monash University, Scholarships, Available at http://www.monash.edu/study/local/rural/, (2010).
- 81. University of Wollongong, Scholarships for Accommodation of Prospective Students, Available at http://www.uow.edu.au/about/scholarships/prospective/UOW004362.html, (2010).
- 82. The University of Queensland, Scholarships & Prizes, Available at http://www.uq.edu.au/atsis/index.html?page=41655, (2010).
- 83. Charles Darwin University, Indigenous scholarships, Available at http://www.cdu.edu.au/scholarships/indigenous-scholarships.html, (2010).
- 84. University of Southern Queensland, Student achievement recognised at Scholarship ceremony, Available at http://www.usq.edu.au/newsevents/news/scostory, (2010).
- 85. University of Southern Queensland, 2010 USQ Springfield Scholarship Reception, Available at http://www.usq.edu.au/newsevents/news/springscholcer, (2010).
- 86. CQ University, Scholarships, Available at http://content.cqu.edu.au/FCWViewer/view.do?page=11396, (2010).
- 87. W. R. Borg, *Applying educational research: A practical guide for teachers*. (Longman, New York, 1981).
- 88. J.A. Clausen and R. N. Ford, *Journal of the American Statistical Association*, 42 (1947).
- 89. S. W. Newman, Journal of Advertising Research 2 (2), 37 (1962).
- 90. C. Boylan, D. Hill, and K. Russell, *Rural Society Journal* **4** (3-4), 041 (1994).

- 91. Queensland Tertiary Admissions Centre, Queensland Centralised Tertiary Applications Centre, Available at http://www.qtac.edu.au/, (2010).
- 92. L. J. Burton and D. G. Dowling, presented at the Higher education in a changing world: Proceedings of the 2005 Annual International Conference of the Higher Education Research and Development Society of Australasia (HERDSA), The University of Sydney, Australia, 2005 (unpublished).
- 93. Headstart, (2010).
- 94. D. Hossain, D. Gorman, J. William-Mozley et al., *The Australian Journal of Indigenous Education* **37**, 9 (2008).
- 95. H. Hutchison, 2009.
- 96. C. M. Mayers and D. L. Schnorr, *Education* **124** (1), 108 (2003).
- 97. Primary Industry Centre for Science Education, in *Network*, edited by Primary Industry Centre for Science Education (2009).
- 98. S. Muloin, in *FYHE Conference* (Queensland University of Technology, Brisbane, 2009), pp. 01.

Appendices

Appendix A: Ethics Approval



REALISM CONTRACTOR OF SOME STREET, AND STR

AUSTRALIA

TELEPHONE +61 7 4631 2300

www.usq.edu.au

OFFICE OF RESEARCH AND HIGHER DEGREES

William Farmer Ethics Officer PHONE (07) 4631 2690 | FAX (07) 4631 2955 EMAIL will.farmer@usq.edu.au

Friday, 11 December 2009

Delwar Hossain CRRAH USQ Toowoomba, 4350

Dear Delwar,

Thankyou for submitting your project below for human ethics clearance. The Chair of the USQ Human Research Ethics Committee's Fast Track Committee recently reviewed your responses to the HREC's conditions placed upon the ethical approval for the above project. Your proposal meets the requirements of the National Statement on Ethical Conduct in Human Research and full ethics approval has been granted.

Project Title	Identifying the key factors that impact on rural and remote students' participation in higher education at USQ.
Approval no	H09REA123
Period of Approval	10/12/2009 –10/12/2010
HREC Decision	Approved

The standard conditions of this approval are that:

- (a) you conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC;
- (b) you advise the HREC (email: ethics@usq.edu.au) Immediately if any complaints or expressions of concern raised, or any other issue in relation to the project which may warrant review of ethics approval of the project;
- (c) You make submission to the HREC for approval of any amendments, or modifications to the approved project before implementing such changes;
- (d) in the event you require an extension of ethics approval for this project, please make written application in advance of the end-date of this approval;
- (e) you provide the HREC with a written "Annual Progress Report" for every year of approval. The first progress report is due 12 months after the start date of this approval (by 26/11/2010);
- (f) you provide the HREC with a written "Final Report" when the project is complete;
- (g) if the project is discontinued, you advise the HREC in writing of the discontinuation.

For (c) to (f) proformas are available on the USQ ethics website: http://www.usq.edu.au/research/ethicsblo/human

Please note that failure to comply with the conditions of approval and the National Statement on Ethical Conduct in Human Research may result in withdrawal of approval for the project,

You may now commence your project. I wish you all the best for the conduct of the project

William Farmer

Ethics Officer

Yours sincer

Office of Research and Higher Degrees

Toowoomba • Springfield • Fraser Coast

ktere worth watt

Appendix B: Online Survey tool

Survey



Home | Contact us

Rural/Remote students' participation at USQ

Page 1 of 13



Information about this survey

This survey is to help us identify the key factors that impacted on your participation in higher education at USQ.

To show our appreciation for your participation in this survey, all qualifying respondents' names will be entered into the draw to win an **Apple iPod** mini.To be eligible to win the Apple iPod mini you need to complete the survey by midnight on the **26 March 2010**.

It will take you approximately seven minutes to complete the survey.

Your participation is entirely voluntary and you are free to withdraw from the survey at any time. The data collected will be treated confidentially. The survey contains two sections: section one relates to your demographic information and section two asks you questions about the factors that impacted on your decision to study at USQ.

Any questions regarding the study can be directed to: Dr. Delwar Hossain, CRRAH (phone: 07 4631 5443) or Associate Professor Lorelle Burton (phone: 07 4631 2853) or Dr. Jill Lawrence (phone: 07 4631 1004) or

 $http://usqsurvey.usq.edu.au/\sim student_participation~(1~of~2)11/03/2010~3:47:59~PM$

Surve

Professor Don Gorman, Director, CRRAH (phone: 07 4631 5456).

Any concerns you may have about ethical issues in this study should be directed to the Human Research and Ethics Committee, University of Southern Queensland. Phone: 4631 2956.

Thank you for your assistance with this study.



Page 2 of 13

		18 o young	19-	24 2	25-30	31-36	37 or olde
1. Wha age?	t is your						
						Male	Female
2. Wha	t is your g	ender?					
3. Wha	t is your p	ostcode?)				
	ı work, ho o you gen						
5. Wha	t is your e	thnic orig	gin?				

http://usqsurvey.usq.edu.au/~student_participation (1 of 2)11/03/2010 3:48:05 PM

6. How			
How			
did			
you find			
find			
out			
about			
USQ?			

- 7. What is your program of study?
- 8. What campus are you studying at?

	QTAC	Direct enrolment	Mature aged student
9. How did you get admission to USQ?			

10. Why did you decide to study at university?



Page 3 of 13

11. Were you familiar with the following USQ services and facilities for rural and remote students before your admission?

Please tick yes or no.

	Yes	No
The Head Start Program		
School Partners Program		
School Liaison Program		
School Guidance Officer Days		
Voices on the Range		
Priority Country Area Program (PCAP) Enrichment Camp		
Primary Industry Centre for Science Education (PICSE)		
USQ Scholarships		
Tertiary Preparation program (TPP)		
Indigenous Education Pathways Program (IHEPP)		

http://usqsurvey.usq.edu.au/~studen	_participation (1	of 2)11	1/03/2010 3:	48:09 PM
-------------------------------------	-------------------	---------	--------------	----------

Survey

Other, please specify	



Page 4 of 13

12. How aware you of the following? That high school students can:

	Did not know about this	Knew about but did not participate	Knew and participated
Study at USQ for free through the Head Start Program?			
Enrol on campus with current USQ students			
Achieve granted entry at USQ			
Receive 2 QCE points that go towards their academic program			
Have easy access to the equipment and facilities they require			
Build a great social network with people who have the same interests			
Become part of the academic environment which may help them achieve their career objectives quicker			

13. Did you know about USQ distance mode and the Head Start Program? That high school students can:

http://usqsurvey.usq.edu.au/~student_participation (1 of 2)11/03/2010 3:48:13 PM

	Did not know about this	Knew about but did not participate	Knew and participated
Study from their own home			
Study the same courses with the same lecturers as on-campus and on-line students			



Page 5 of 13

14. Did you know about USQ School Partners Program? That:

	Did not know about this	Knew about but did not participate	Knew and participated
The program manages the relationship between high schools and USQ			
USQ offers School Partners Program Scholarships each year to students from the partner schools commencing full-time on-campus study at USQ			

15. Did you know about the USQ School Liaison Program? That this program:

	Did not know about this	Knew about but did not participate	Knew and participated
Gives information sessions about pathways to university			
Provides information on financial and other assistance to attend university			
Provides information on study options			

 $http://usqsurvey.usq.edu.au/--student_participation~(1~of~2)11/03/2010~3:48:17~PM$

Survey

Provides information on career pathways	
Provides information about other support services and scholarships, etc	



Page 6 of 13

16. Did you know that School Guidance Officer Days provide information in relation to:

	Did not know about this	Knew about but did not participate	Knew and participated
USQ administrative services			
USQ admissions procedures			
USQ fees			
USQ scholarships			
USQ academic programs			
Accommodation at USQ			
Sports and recreation activities and services			

17. Did you know that Voices on the Range provides opportunities for high school students to:

Did not know about this	Knew about but did not participate	Knew and participated
-------------------------	--	-----------------------

 $http://usqsurvey.usq.edu.au/\sim student_participation~(1~of~2)11/03/2010~3:48:23~PM$

Survey

Participate in a range of workshops	
Become familiar with USQ services and facilities	



Page 7 of 13

18. Did you know that Priority Country Area Program (PCAP) conducts an enrichment camp for school students to:

	Did not know about this	Knew about but did not participate	Knew and participated
Improve their secondary studies			
Become more familiar with USQ facilities			
Experience life as university students			

19. Did you know that Primary Industry Centre for Science Education (PICSE), in conjunction with USQ, provides opportunities for high school students to:

	Did not know about this	Knew about but did not participate	Knew and participated
Participate in science based research projects			
Participate in five day science camps at USQ			
Participate in a five day industry based work placement			

http://usqsurvey.usq.edu.au/~student_participation (1 of 2)11/03/2010 3:48:28 PM



Page 8 of 13

20. Did you know that the Tertiary Preparation Program (TPP) supports students to:

	Did not know about this	Knew about but did not participate	Knew and participated
Boost their QTAC ranking			
Enrol in fee-free courses at USQ			

21. Did you know that the Indigenous Higher Education Pathways Program (IHEPP) supports Indigenous students to:

	Did not know about this	Knew about but did not participate	Knew and participated
Develop knowledge and skills required for tertiary study			

http://usqsurvey.usq.edu.au/~student_participation (1 of 2)11/03/2010 3:48:33 PM Survey



Home | Contact us

Rural/Remote students' participation at USQ

Page 9 of 13

22. How would you rate the performance of the following USQ services and facilities?

	Very Good	Good	Fair	Poor	Very Poor
The Head Start Program					
School Partners Program					
School Liaison Program					
School Guidance Officer Days					
Voices on the Range					
Priority Country Area Program (PCAP) Enrichment Camp					
Primary Industry Centre for Science Education (PICSE)					
USQ Scholarships					

Tertiary Preparation program (TPP)			
Indigenous Higher Education Pathways Program (IHEPP)			

http://usqsurvey.usq.edu.au/~student_participation (2 of 2)11/03/2010 3:48:40 PM



Page 10 of 13

23. How would you rate your satisfaction with the following USQ services and facilities?

	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied
The Head Start Program					
School Partners Program					
School Liaison Program					
School Guidance Officer Days					
Voices on the Range					
Priority Country Area Program (PCAP) Enrichment Camp					
Primary Industry Centre for Science Education (PICSE)					
USQ Scholarships					

http://usqsurvey.usq.edu.au/~student_participation (1 of 2)11/03/2010 3:48:45 PM

Tertiary Preparation program (TPP)			
Indigenous Higher Education Pathways Program (IHEPP)			

24. What suggestions do you have that will help USQ to improve its' services and facilties for high school students?

http://usqsurvey.usq.edu.au/~student_participation (2 of 2)11/03/2010 3:48:45 PM



Home | Contact us

Rural/Remote students' participation at USQ

Page 11 of 13

25. Before your admission to USQ did you face difficulties in accessing information about:

	Always	Most of the time	Sometimes	Never
Pathways to university				
Fee-free study at USQ				
Scholarships and bursaries				
On-campus accommodation				
The Head Start Program				
School Liaison Program				
School Partners Program				
Primary Industry Centre for Science Education (PICSE)				
The financial costs associated with tertiary study (including text books, accommodation, etc)				

http://usqsurvey.usq.edu.au/~student_participation (1 of 2)11/03/2010 3:48:49 PM

Information sessions for interested community members about USQ support services (employment, counselling)	
USQ requirments for admission	
The ways in which schools can help overcome students' difficulties in meeting admission requirements	
The ways in which USQ can help meet schools' needs for support	

http://usqsurvey.usq.edu.au/~student_participation (2 of 2)11/03/2010 3:48:49 PM



Home | Contact us

Rural/Remote students' participation at USQ

Page 12 of 13

26. After your admission to USQ did you face difficulties in accessing information and help about:

	Always	Most of the time	Sometimes	Never
Academic support (assignment preparation)				
The range of courses offered by faculties				
Tutorial assistance to improve academic performance				
Knowledge about academic assistance through Student Services				
Childcare facilities on campus				
Economic support (including scholarships to study at USQ)				
Employment opportunities after graduation				
Mulitcultural activities				
Support for students with physical disabilities				
Feelings of connection to the university				
making a successful transition to university learning				

http://usqsurvey.usq.edu.au/~student_participation (1 of 2)11/03/2010 3:48:53 PM

Library services		
IT services		
Other (please specify)		

27. What help would you like to have from USQ to overcome these difficulties?

 $http://usqsurvey.usq.edu.au/\sim student_participation~(2~of~2)11/03/2010~3:48:53~PM$

Survey



Home | Contact us

Rural/Remote students' participation at USQ

Page 13 of 13

28. Are you happy to be a USQ student?						
	Definitely	Probably	Not sure	Probably not	Definitely not	
29. Would you						

Yes

No

30. Any other comments?

recommend USQ to other students?

31. If you would like to be considered for the draw for the IPod, please enter your name and email address here so we can contact you.

Name		
Email address		

Thank you for taking the time to participate in this research. Please submit the survey by clicking the button below.

 $http://usqsurvey.usq.edu.au/\sim student_participation~(2~of~2)11/03/2010~3:50:26~PM\\$ University of Souther Queensland



Contact Us | Search | About this Site

Exit Survey

http://usqsurvey.usq.edu.au/~student_participation11/03/2010 3:50:30 PM

Appendix C: Cover Letter

Dear <firstname>

The university is providing several services to the rural and remote students and would like to develop appropriate strategies to accommodate identified needs (opportunities and challenges) that impact on your admission for higher education at USQ.

This project will explore the issues of the university and the rural communities to facilitate effective engagement strategies with the community where possible and thereby the enhancement of enrolments and retention of rural students.

I would like to invite you to participate in this research by answering a short survey. Your participation is entirely voluntary and you are free to withdraw from the survey at any time. The collected data will be treated confidentially. It will take you approximately seven minutes to complete the survey.

To show our appreciation for your participation in our survey, all qualifying respondents' name will be entered into the drawing to win an **Apple iPod mini**.

To be eligible to win the **Apple iPod mini** you need to complete the survey by midnight on the 30th March 2010.

Click here to BEGIN THE SURVEY

Any questions regarding this survey can be directed to:

Dr. Delwar Hossain (Phone: 07 4631 5443, email:Delwar.Hossain@usq.edu.au).

Any concerns you may have about ethical issues in this study should be directed to the Human Research and Ethics Committee, USQ (Phone: 07 4631 2956).

Thank you for your assistance with this study.

Delwar Hossain

Appendix D: First Reminder

Dear

Last week I contacted you to invite you to participate in a research project by answering a short survey. The university is providing several services to the rural and remote students and would like to develop appropriate strategies to accommodate identified needs (opportunities and challenges) that impact on your admission for higher education at USQ. This project will explore the issues of the university and the rural communities to facilitate effective engagement strategies with the community where possible and thereby the enhancement of enrolments and retention of rural students.

If you have already responded to this survey, thank you I appreciate your support with this project.

- Your participation is entirely voluntary and you are free to withdraw from the survey at any time.
- The collected data will be treated confidentially.
- It will take you approximately seven minutes to complete the survey.

To show our appreciation for your participation in our survey, all qualifying respondents' name will be entered into the draw to win an **Apple iPod mini**.

To be eligible to win the <u>Apple iPod mini</u> you need to complete the survey by midnight TONIGHT, 30th March 2010.

Click here to BEGIN THE SURVEY

Any questions regarding this survey can be directed to:

Dr. Delwar Hossain (Phone: 07 4631 5443, email: Delwar.Hossain@usq.edu.au).

Any concerns you may have about ethical issues in this study should be directed to the Human Research and Ethics Committee, USQ (Phone: 07 4631 2956).

Thank you for your assistance with this study.

Delwar Hossain

Appendix E: Second Reminder

Dear

Last week I contacted you to invite you to participate in a research project by answering a short survey. The university is providing several services to the rural and remote students and would like to develop appropriate strategies to accommodate identified needs (opportunities and challenges) that impact on your admission for higher education at USQ. This project will explore the issues of the university and the rural communities to facilitate effective engagement strategies with the community where possible and thereby the enhancement of enrolments and retention of rural students.

If you have already responded to this survey, thank you I appreciate your support with this project.

- Your participation is entirely voluntary and you are free to withdraw from the survey at any time.
- The collected data will be treated confidentially.
- It will take you approximately seven minutes to complete the survey.

To show our appreciation for your participation in our survey, all qualifying respondents' name will be entered into the draw to win an **Apple iPod mini**.

We have extended the date for entry into the draw. To be eligible to win the *Apple iPod mini* you need to complete the survey by midnight 11th April 2010.

Click here to BEGIN THE SURVEY

Any questions regarding this survey can be directed to:

Dr. Delwar Hossain (Phone: 07 4631 5443, email: Delwar.Hossain@usq.edu.au).

Any concerns you may have about ethical issues in this study should be directed to the Human Research and Ethics Committee, USQ (Phone: 07 4631 2956).

Thank you for your assistance with this study.

Delwar Hossain

Appendix F: Third Reminder

Dear

Over the last couple of weeks I have contacted you to invite you to participate in a research project by answering a short survey. The university is providing several services to the rural and remote students and would like to develop appropriate strategies to accommodate identified needs (opportunities and challenges) that impact on your admission for higher education at USQ. This project will explore the issues of the university and the rural communities to facilitate effective engagement strategies with the community where possible and thereby the enhancement of enrolments and retention of rural students.

If you have already responded to this survey, thank you I appreciate your support with this project.

- Your participation is entirely voluntary and you are free to withdraw from the survey at any time.
- The collected data will be treated confidentially.
- It will take you approximately seven minutes to complete the survey.

To show our appreciation for your participation in our survey, all qualifying respondents' name will be entered into the draw to win an **Apple iPod mini**.

We have extended the date for entry into the draw. To be eligible to win the *Apple iPod mini* you need to complete the survey by midnight 25th April 2010.

Click here to BEGIN THE SURVEY

Any questions regarding this survey can be directed to:

Dr. Delwar Hossain (Phone: 07 4631 5443, email: Delwar.Hossain@usq.edu.au).

Any concerns you may have about ethical issues in this study should be directed to the Human Research and Ethics Committee, USQ (Phone: 07 4631 2956).

Thank you for your assistance with this study.

Delwar Hossain

Appendix G: Ethics Amendment

From: Helen Phillips

Sent: Monday, 26 July 2010 3:34 PM

To: Delwar Hossain

Subject: Request for Amendment H09REA123

Importance: High

Dear Dr Hossain,

The Ethics Chair has recently reviewed your application for amendments to approved project "Identifying the key factors that impact on rural and remote students' participation in higher education as USQ" (H09REA123) as stated in your memorandum dated 26.07.2010. The requested amendments have been endorsed and full ethics approval has been granted.

Your amendment approval number is H09REA123.1

The standard conditions of this approval are:

- (a) conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC
- (b) advise (email: ethics@usq.edu.au) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project
- (c) make submission for approval of amendments to the approved project before implementing such changes
- (d) provide a 'progress report' for every year of approval
- (e) provide a 'final report' when the project is complete
- (f) advise in writing if the project has been discontinued.

For (c) to (e) proformas are available on the USQ ethics website: http://www.usq.edu.au/research/ethicsbio/human

Please note that failure to comply with the conditions of approval and the *National Statement* on *Ethical Conduct in Human Research* (2007) may result in withdrawal of approval for the project.

You may now implement the amendments. I wish you all the best for the conduct of the project.

Regards

Helen

Mrs Helen Phillips Ethics and Research Integrity Officer Office of Research and Higher Degrees

Appendix H: Telephone Interview Question

Hi

I appreciate that you have taken time to participate in this interview. We are conducting research to identify the key factors that impacted rural and remote students' participation in higher education at USQ. I am very interested in your views, and please remember that there are no 'right or wrong' answers. Your views will be kept anonymous.

If you would like to get a summary of the result you can let me know. Now may I start by asking...

- 1. What is your overall feeling about the way the USQ is providing the facilities and services to rural and remote students?
- 2. What do you see as the factors that are affecting your participation at USQ?
- 3. What are some of the things that you feel may create positive perceptions in rural and remote people's minds about USQ services and facilities for them?
- 4. What are some of the things that you feel may create negative perceptions in rural and remote people's minds about USQ services and facilities for them?
- 5. What sorts of thing do you feel are most important in forming the positive aspiration of the rural and remote students about USQ services and facilities for them?
- 6. What things do you think could be done better in relation to USQ services and facilities for rural and remote students?

Thanks again, I do appreciate your time and contribution to this research.