Research

Strategically aligning same-year/level peer-assisted learning implementation objectives with the aim of foundation provision for health sciences education in South Africa: A qualitative Delphi survey

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Background. The aim of foundation provision (FP) in higher education (HE) is focused on the concept 'access to success' through the provision of academic and curriculum support to previously disadvantaged students. Same-year/level peer-assisted learning (SPAL) is implemented increasingly in medical curricula worldwide to support the academic, personal and professional development of students in the same year of study. However, there is no literature available on the strategic alignment between SPAL implementation objectives and the aim of FP for health sciences education (HSE) offered in South Africa (SA).

Objective. To establish SPAL implementation objectives that were expertly and strategically aligned with the aim of FP in HSE in support of vulnerable students' academic, personal and professional development.

Methods. A four-round qualitative Delphi method was used. The qualitative questionnaires were electronically distributed to 12 purposively sampled experts in the field of HSE and health professions education (HPE). A consensus level of 75% agreement between panel members was applied for the identification of endorsed statements.

Results. SPAL implementation objectives for 16 students and four departments were identified and strategically aligned with the aim of FP for HSE students and departments.

Conclusion. A SPAL strategy was expertly validated in support of the academic, personal and professional development of previously disadvantaged students. This article offers SPAL implementation objectives that are strategically aligned with the access to success aim of FP. These implementation objectives are recommended for consideration by SA higher education institutions (HEIs) when planning SPAL for extended curriculum programme students and departments offering HSE.

Keywords: foundation provision; access to success; extended curriculum programmes; health sciences education; same-year/level peer-assisted learning

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Foundation provision (FP), offered through the implementation of extended curriculum programmes (ECPs), aims at promoting 'access to success'.[1,2] Employed by many South African (SA) universities, FP responds to the social justice call of redressing higher education (HE) access to previously disadvantaged students. However, FP additionally focuses on providing substantial academic and curriculum support to these vulnerable students to address their educational shortcomings and augment the successful completion of their studies.[1-5] Current ECP contributions are therefore also considered an academic solution for the alarmingly high dropout and failure rates noted among first-time HE students.[6] From this perspective, teaching and learning strategies that are appropriately responsive and sensitive to the diverse educational needs of ECP students are essential for the delivery of an effective and supportive FP curriculum.[6]

Peer-assisted learning (PAL) is a known teaching and learning strategy that holds potential educational benefits for both students and academic departments offering health sciences education (HSE).[7,8] Some of these benefits include enhanced academic progress and skills development noted among students, decreased failure rates, and improved teaching and learning practices for HSE departments.[8,9] Same-year/level peer-assisted learning (SPAL) is one specific form of PAL, focusing on supporting the academic progress of students in the same study cohort, and is thus regarded by many HSE departments as an alternative approach to the discredited teaching-centred methods of instruction.[8,9] Gaining increasingly more traction in HSE programmes, SPAL offers students from similar social circumstances active support to learn from one another in a self-directed manner.[9,10] SPAL therefore seems a suitable teaching and learning strategy to promote an FP curriculum in addressing ECP students' educational needs.[6] However, an initial literature search revealed that only one SA higher education institution (HEI), a university of technology (UoT), formally reported on the implementation of SPAL in HSE and highlighted the educational benefits noted in ECP students' academic and skills development.[11]

The seeming underutilisation of SPAL, despite the possible benefits it holds for both ECP students and departments in HSE at other institutions alike, could arguably be attributed to related SA literature proposing no SPAL implementation recommendations for FP in HSE to begin with. The current study formed part of a larger investigation focused on bridging this identified gap in the literature, and used the limited scholarly reports available on SPAL implementation in the SA UoT context as a point of departure. By employing a qualitative Delphi survey, this part of the research project aimed at establishing SPAL implementation objectives

(benefits) expertly and strategically aligned with the aim of FP in HSE. The significance of this article is highlighted by communicating these established SPAL implementation objectives as recommendations to the broader SA HE audience to consider when planning SPAL implementation for ECP students and departments.

Methods

Informed by earlier sections of a larger investigation and work on general pedagogical and practical benefits that PAL holds for students and academic departments, respectively,[7,8,11] a Delphi survey was developed according to the modified four-round qualitative Delphi method proposed by Sekayi and Kennedy.[12]

Sampling of participants

The following inclusion criteria were applied in the purposive sampling of known SA experts in the field of HE and/or health professions education (HPE):

- academic personnel with ≥3 years of teaching experience in ECPs in HSE;
- academic support staff in HE involved in FP curricula development for HSE; and
- heads of department co-ordinating ECPs in HSE or HPE.

A qualitative Delphi survey does not require a large statistical sample, as such a mode of enquiry is more focused on participants' capability of processing information to convergently build judgement than on the quantification of incidences.[13,14] Hence, for the current study, a total of 12 known experts (n=12) were purposively sampled and invited by email to participate in the qualitative Delphi survey. Furthermore, the selected number of experts for the current study was also deemed sufficient, as the current literature prescribes an appropriate Delphi panel to include 7 - 15 participants and rarely exceeds 30.[12-14]

Rounds and data analysis of questionnaires

Participants were informed that four rounds of surveying were envisaged for the completion of the qualitative Delphi method. The consecutive questionnaires of the Delphi survey were distributed and returned by electronic means, and each round was accompanied by supporting documentation containing the previous questionnaire's anonymous feedback and the process of data analysis that was followed.

The first round consisted of open-ended brainstorming with lists of broad PAL implementation objectives as identified from the literature, which were provided to the participants. Experts were required to identify SPAL-specific implementation objectives for ECP students and departments in HSE from these lists and review the alignment thereof with the aim of FP delivery in HSE. Members of the Delphi panel were requested to indicate which of the respective PAL implementation objectives they viewed as 'minimally aligned', 'aligned' or 'well-aligned'. Only implementation objectives reviewed as well-aligned and aligned by 75% of the panel members were automatically put forward in consecutive rounds for further qualitative input and statement refinement. However, experts' narrative feedback on implementation objectives that they viewed as minimally aligned, was reviewed by the researcher through the use of open and axial coding. This was done to inform the discussion and substantiation of objectives not expertly recommended and thus not strategically aligned with the aim of FP.

In round two of the Delphi survey, the lists of aligned objectives were presented to all the participants. The panel members were requested to revise the lists of objectives and to provide narrative feedback in the form of applicable modifications they deemed essential in rendering the objectives representative of their expert opinion. These modifications informed the generation of more aligned and refined objectives presented as two composite statements in the third questionnaire. The formulated statements maintained the nuances of the experts' reasoning of implementation objectives they viewed as strategically aligned with the aim of FP as provided in the previous round.

The completion of the third Delphi questionnaire entailed the endorsement of each modified statement, although all members might not have indicated a specific modification to be integrated into either of the two statements. The endorsement process entailed participants designating the modified statements to either the 'not endorsed', 'endorsed' or 'strongly endorsed' response options on a three-point Lickert scale. A predetermined consensus level of 75% agreement between members was applied to consider all endorsed statements in round three of the Delphi survey as findings of the study. The fourth and final round of the Delphi survey entailed the distribution of the endorsement findings to all panel members and signalled the conclusion of data accumulation.

Ethical approval

The study was registered at the University of the Free State and ethical approval was obtained from the Health Sciences Research Ethics Committee (HSREC) (ref. no. UFS-HSD2021/1908-0003). All invited Delphi panel members consented to participate in the study before the distribution of the first questionnaire. Data accumulation only commenced after the confidential treatment of participants' personal information was guaranteed by the researcher and confirmed in the information document that accompanied the invitation and informed consent documents. Voluntary participation and withdrawal of participants at any time during the study were also emphasised in the information document.

Results

The first questionnaire was returned by only 11 participants, despite the researcher's attempt to send three reminder emails to panel members about the confirmed due dates for the return of the questionnaire. One participant withdrew from the study in this round of the Delphi survey and another participant withdrew during the second round. The withdrawal of the two participants was respected on the notion that participation was voluntary and participants who continued their participation in the consecutive rounds were anonymously informed about these withdrawals.

Sixteen of the initial 18 broad implementation objectives were expertly reviewed as aligned with the aim of SPAL implementation for ECP students, and four of the initial 10 broad implementation objectives were expertly reviewed as aligned with the aim of SPAL implementation in ECP departments. Tables 1 and 2 summarise panel members' reviews of the level of alignment between the general and broad PAL objectives and the aims of SPAL implementation for ECP students and departments in HSE, respectively.

Implementation objectives viewed as aligned and well-aligned by 75% of panel members informed the formulation of two statements presented as composite group responses in the consecutive questionnaire. Ten panel members suggested narrative modifications to these composite statements

Table 1. Experts' review of the level of alignment between broad peer-assisted learning objectives and the aim of same-year/level peer-assisted learning implementation for extended curriculum programme students in health sciences education

Objective	Broad PAL objectives supporting students to:	Well- aligned, %	Aligned,%	Minimal alignment, %
1	Clarify basic concepts relating to the subject matter*	81.8	18.2	0
2	Clarify threshold concepts relating to the subject matter*	45.5	45.5	9.1
3	Clarify and understand complex concepts relating to the subject matter	36.4	36.4	27.3
4	Voice concerns to tutors and not only to faculty staff*	36.4	45.5	18.2
5	Voice concerns other than subject-related matters*	27.3	54.5	18.2
6	Understand assessment procedures*	45.5	45.5	9.1
7	Understand self-preparation for assessments*	54.5	45.5	0
8	Be aware of course expectations and the hidden curriculum*	18.2	63.6	18.2
9	Explore other learning methods or learning styles*	63.6	18.2	18.2
10	Apply deep and active learning*	36.4	63.6	0
11	Enjoy learning*	54.5	45.5	0
12	Adjust to university life*	54.5	36.4	9.1
13	Develop professionally (e.g. leadership skills)*	36.4	54.5	9.1
14	Develop personally (e.g. communication skills, time management)*	63.6	36.4	0
15	Understand and participate in discipline discourse(s)*	45.5	45.5	9.1
16	Discuss pastoral or social concerns	9.1	54.5	36.4
17	Receive instruction informally in their mother tongue*	54.5	45.5	0
18	Progress to subsequent study periods (e.g. articulation into mainstream programmes)*	72.7	27.3	0

PAL = peer-assisted learning.
*Aligned objectives at a consensus level of 75% agreement.

to emphasise their expert views more clearly. The detailed and refined statements were presented in the third questionnaire and all remaining participants (n=10; 100%) endorsed both statements at the consensus level of 75% agreement. Table 3 recaps the findings of the endorsement process and represents the final list of validated statements.

Discussion

Overall, the study confirmed that although SPAL places a strong focus on supporting students with their academic and skills development horizontally, it also complements the vertical support structure of cross-year/level PAL (CPAL). Experts endorsed certain SPAL implementation objectives that are mainly associated with CPAL, such as adjusting to university life and voicing concerns to peers on non-academic-related matters as objectives that might also be accomplished by SPAL.[15] The outcomes of the study further revealed the suitability of SPAL as a teaching and learning strategy for FP in HSE, as the expertly confirmed academic and developmental support it could offer to previously disadvantaged students in particular, is aligned with the aim of the FP concept.[6]

The SPAL implementation objectives viewed as aligned by the study experts to promote the academic development of ECP students in HSE did not only include creating opportunities for students to clarify module and threshold concepts. Some of these aligned implementation objectives alluded to offering support for student development regarding the assessment aspect of the teaching, learning and assessment continuum. The study's experts asserted that SPAL might also objectify support to ECP students for enhancing their assessment preparation skills and comprehension of the assessment procedures.[16] The literature cautions that inadequate prior learning and instruction in a language other than a student's mother tongue could easily overwhelm already vulnerable students.[1,17,18] This possible perpetuating disadvantage noted in marginalised student groups most probably influenced the Delphi experts' recommendation of including proper didactical training for ECP students' assessment preparation as a SPAL implementation objective.

Previous studies also concluded that academic progress observed in PAL participants improves their assessment preparation practices and the development of confidence in their assessment participation.[9,16] The exposure to different teaching and learning styles,[19] the activation of deep and active learning,[7] and the rendering of the learning process to be enjoyable[20] are validated SPAL implementation objectives that, according to the participating experts, could establish a learning environment that enables reciprocal peer-learning between SPAL participants.[10] The experts also believe that creating awareness of the hidden curriculum would benefit both ECP tutors and tutees academically.[21] The author therefore argues that these validated SPAL implementation objectives would additionally promote epistemological access for ECP students to discover discipline-specific ways of how HSE does, thinks and constructs knowledge.[6,22,23] Encouraging students to participate in discipline discourses, as additionally recommended by the study participants, would portray an FP curriculum that condemns generic or remedial teaching and learning practices, as quite frequently employed and observed in ECP programmes.[22]

Implementation benefits that experts reviewed as minimally aligned with the aim of SPAL implementation for FP in HSE specifically, offered students the opportunity to clarify complex concepts and to discuss pastoral matters. Without demeaning the necessity of achieving these objectives in marginalised student groups, experts viewed these objectives as more likely achievable through CPAL.[15] By alluding to ECP tutors being socio-educationally vulnerable, experts cautioned that such tutors might not be sufficiently experienced, or lack seniority, to realise the achievement of these objectives and subsequently need safeguarding against becoming overwhelmed.[1,8]

Table 2. Experts' reviews of the level of alignment between broad peer-assisted learning objectives and the aim of same-year/level peer-assisted learning implementation for extended curriculum programme departments in health sciences education

Objective	Broad PAL objectives supporting departments to:	Well- aligned, %	Aligned, %	Minimal alignment, %
1	Reduce the workload on academic staff	27.3	27.3	45.5
2	Decrease drop-out rates*	63.6	36.4	0
3	Survive a possible lack of adequate human resources (academic staff)	9.1	54.5	36.4
4	Survive budget cuts and employ cost-efficient ways of teaching and learning	0	54.5	45.5
5	Assist academic staff in meeting other key performance areas such as research outputs	9.1	45.5	45.5
6	Grow Scholarship of Teaching and Learning portfolios	45.5	9.1	45.5
7	Foster employable graduates for the discipline*	54.5	36.4	9.1
8	Foster lifelong teaching and learning in students*	63.6	36.4	0
9	Address missing parts identified in curricula	18.2	54.4	27.3
10	Inform future re-curriculation practices*	27.3	54.4	18.2

PAL = peer-assisted learning.
*Aligned objectives at a consensus level of 75% agreement.

Table 3. Results of endorsement process and list of validated statements

Statement	Endorsed statements	Strongly endorsed, %	Endorsed, %	Not endorsed, %
1	SPAL implementation objectives that are aligned with the aim of FP in HSE to support ECP students to: Clarify basic concepts relating to the subject matter Clarify threshold concepts relating to the subject matter Voice concerns to tutors and not only to faculty staff Voice concerns other than subject-related matters Enjoy learning Receive instruction informally in their mother tongue Understand and participate in discipline discourse(s) Understand assessment procedures Understand self-preparation for assessments Be aware of course expectations and the hidden curriculum Explore other learning methods or learning styles Apply deep and active learning Adjust to university life Develop professionally (e.g. leadership skills) Develop personally (e.g. communication skills, time management) Progress to subsequent study periods (e.g. articulation into mainstream programmes)	80	20	0
2	SPAL implementation objectives that are aligned with the aim of FP in HSE to support ECP departments to: Decrease drop-out rates Foster lifelong teaching and learning in ECP students Develop employable graduates in the discipline Inform future re-curriculation practices	70	30	0

SPAL = same-year/level peer-assisted learning; FP = foundation provision; HSE = health professions education; ECP = extended curriculum programmes.

Experts further acknowledged that SPAL indeed focuses on the personal and professional development of students.[7,11] Delphi panel members believed that the implementation of SPAL could enable the development of communication, leadership skills and graduate attributes in these marginalised students, supporting them to socially adjust to HE.[7,8,24] Theoretical concepts in support of these findings are Vygotsky's 'zone of proximal development' theory and the social and cognitive congruence claimed to exist between peers.[25] Sufficient communication is required for the identification and ultimate resolution of students' educational challenges, which are probably more likely achieved socially among peers than between students and academic staff.[10] SPAL therefore serves as a platform where marginalised students can voice and communicate their challenges in their mother tongue, receive the necessary support in addressing them accordingly and potentially assist with the progression to subsequent study years. This study's findings thus validated SPAL as a suitable teaching and learning strategy supporting the aim of FP, which is focused on academically and socially preparing ECP health science students for their current and future studies.[1,5,6]

Four of the 10 broad implementation objectives were endorsed by the experts as aligned objectives to consider when planning SPAL implementation for ECP departments offering HSE. SPAL implementation objectives addressing departmental challenges with human resources, research outputs and academic performance management were viewed as implementation objectives not supporting the aim of FP. Experts therefore believed that SPAL implementation should rather be focused on addressing students' educational needs and not departmental operational challenges.[1,3,6,8] The participating experts consequently endorsed SPAL implementation objectives for ECP departments that are considered safe to pursue and are not achieved at the possible expense of students – as the literature prescribes the expected intent of SPAL.[25]

The envisaged support SPAL can offer for the development of graduate attributes and lifelong learning in students, as well as for future departmental re-curriculation practices, were expertly validated objectives worthwhile pursuing by HSE departments, without compromising the aim of FP. The author of this article posits that these objectives could additionally form part of the reflection practices of ECP departments to evaluate how well SPAL is promoting the delivery of an FP curriculum that is effectively supporting marginalised HSE students with their educational challenges and completion of their studies.[1,4,6]

Study limitations

The withdrawal of two experts from the study was identified as a limitation. The author consequently believes that these experts' continued participation could have contributed to the establishment of a more comprehensive list of SPAL implementation objectives to offer SA HEIs. Their expert input could also have enhanced the contribution made by the study towards the delivery of effective and supportive FP in HSE.

Conclusion

This study endeavoured to bridge an identified gap in the literature on SPAL implementation recommendations for SA HEIs offering ECPs in HSE. The author therefore concludes that SPAL implementation can objectify the academic, personal and professional development of previously disadvantaged students. These SPAL implementation objectives for ECP students and departments in HSE are recommended to SA HEIs, which are seemingly underutilising SPAL, to consider when planning a SPAL strategy. These endorsed recommendations support the employment of a SPAL strategy that is sensitive and responsive to marginalised HSE students' educational needs and potentially promotes the access to success aim of FP delivery. However, further research on the effective and timely achievement of these identified objectives through the strategic designation of roles and responsibilities regarding SPAL implementation is recommended.

Data availability. The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request.

Declaration. The research for this study was done in partial fulfilment of the requirements for RS's PhD degree at the University of the Free State.

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Conflicts of interest. None.

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