Using group discussion and reflection for developing student teacher autonomy

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During work-integrated learning (WIL), student teachers usually practice what they have learned in theory under the apprenticeship of mentor lecturers and teachers. This experience might not adequately prepare them for the complexities of full-time teaching. To address this concern, 252 student teachers worked in small groups to identify challenges and to suggest effective ways of mediating cooperative learning during WIL in schools. The student teachers implemented what they had suggested and reflected on their learning experiences. Student teachers' field notes and discussions regarding their anxieties, uncertainties, beliefs, practices, orientations, and their reflection on the mediation of cooperative learning were analyzed. Findings show that the use of group discussion and reflection developed student teachers' teaching autonomy, which resulted in improved teaching. We argue that the combination of group-work and reflection is an effective way of developing student teacher autonomy and for preparing them for real-life classroom teaching.

Keywords: Autonomy, cooperative learning, reflection, work-integrated learning

CHALLENGES FACING STUDENT TEACHERS

Often student teachers (a student refers to an individual studying at a higher-education institution) find the transition from teacher education to actual classroom teaching overwhelming (Frick, Carl, & Beets, 2010). Many factors are involved. First, student teachers' experiences as learners (school-going children) will have created deep-seated beliefs and impressions about teaching. Second, the changing culture of teaching and learning has resulted in increased and widened learner participation, which requires student teachers to re-conceptualize the process of teaching and learning. Third, at a national level, there are constant shifts in cultural, curriculum, and educational policies, with which most student teachers are not familiar. Finally, educational quality-assurance practices have placed increased emphasis on teacher efficiency, effectiveness, and accountability (Edwards & Nicoll, 2006), which contributes to student teachers' anxiety.

Consequently, student teachers often feel ill-prepared and inadequate in dealing with the uncertainties, realities and challenges of classroom teaching (Bezzina, 2006). Boydell (1986) observed that the primary worry of most novice teachers seems to be survival or "self-oriented" concerns regarding teaching, a search for specific short-term solutions rather than adopting a more holistic view of their own development as teachers.

Teacher-education programs usually involve formal tuition of student teachers, supported by work-integrated learning (WIL), alternatively known as teaching practice. WIL has become an integral part of mainstream pre-service teacher-education programs. Although the conceptualized models of WIL might differ between institutions, the guiding principles of most of the models are based on a triad alliance between the student teacher, a mentor lecturer from the resident university (Schulze, 2003) and a mentor teacher from the teaching-practice school (Burgess & Shelton Mayes, 2007). Such models involve formative and summative strategies, where the mentor lecturers and teachers guide, monitor,

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and assess student teachers on their classroom practice. However, in such models, the mentors and schools where WIL occurs usually determine the parameters within which student teachers operate. This means that the student teachers are not usually at liberty to individually or collectively interrogate and experiment with specific educational issues of concern.

To capture the essence of this predicament, Frick et al. (2010, p. 421) asked: "To what extent are student teachers allowed to regulate their own development based on reflection on their practice and other lived experiences?" This question is critical given the fact that student teachers' concerns are varied, unique, and personal. Addressing this diversity, Costa and Kallick (2014, p. 4) stated that "educators need to organize instruction so that students are the producers, not just the consumers, of knowledge", while Boydell (1986, p. 116) suggested the replacement of apprenticeships with "inquiry-oriented models, involving high-level reflective activity".

OVERVIEW OF THE STUDY

The researchers conducted a study with a group of 252 student teachers who interrogated their own educational concerns, devised ways of addressing them, tried their suggestions in schools, and reflected on their experiences for improved practice. This group wished to develop their professional knowledge and skills about mediating cooperative learning between learners.

At the beginning of their WIL program, students were presented with six broad teacher roles: teachers as caring experts; teachers as teaching and learning experts; teachers as professionals; teachers as ICT users; teachers as assessors and evaluators; and teachers as curriculum and subject specialists. This group of 252 students elected to explore the category 'teaching and learning experts', and then chose to explore 'how to mediate cooperative learning effectively'. This process of selection was considered vital so that the researchers were able claim that cooperative learning was of genuine interest to this group of 252 students. The following questions were addressed:

1. What are student teachers' concerns regarding their role as mediators of cooperative learning?
2. Can the combination of group-work and reflection develop student teachers' autonomy in seeking improvements in their practice with respect to mediating cooperative learning?

CONSTRUCTS OF IMPORTANCE IN THE STUDY

Effective Teaching

Student teachers often start their education with several pre-conceptions about teaching and learning, which need to be interrogated during their studies. However, (Frick et al., 2010, p. 422) pointed out that:

> student teachers' pre-conceptions about teaching and learning are often not understood, recognized or acknowledged by the student teachers themselves, their mentor lecturers or in-service teachers, even though these pre-conceptions may have a decisive impact on the process of learning how to teach.

Thus, student teachers need to examine and identify their preconceptions, reflect on and address them, with minimum interference from mentors, in order to enhance their teaching practice. Group-work, involving reflection, was used as a focus for developing student teachers' teaching autonomy. The

concepts of teacher autonomy, group-work, and teacher reflection, which formed the conceptual framework for the study, are now elaborated.

Teacher Autonomy

Most teachers regard autonomy as a desirable workplace attribute because they perceive it as improving their professional status and job satisfaction (Strong & Yoshida, 2014). Huang (2005, p. 203) defined teacher autonomy as "teachers' willingness, capacity, and freedom to take control of their own teaching and learning". Teacher autonomy becomes particularly important to student teachers who are inundated with a myriad of apprehensions, expectations and experiences, and who wish to seek personal and unique solutions. Teacher autonomy manifests itself in different job domains, which include curriculum development, teaching and assessment, professional development, and school functioning (Ulma Wilches, 2007). The study focused on professional development in terms of confidence in making educational decisions in a classroom, particularly with reference to mediating cooperative learning.

While it is beneficial for teachers to have autonomy in their practice, the need to interact with their peers to enrich their practice is also crucial (Vangrieken, Grosemans, Dochy, & Kyndt, 2017; Ronfeldt, Owens Farmer, McQueen, & Grissom, 2015). Teacher collaboration seems to contradict teacher autonomy; as Vangrieken et al. (2017, p. 303) pointed out, "there appears to be a complex, sometimes even paradoxical, relationship between teacher autonomy and teacher collaborations". The importance of these two concepts in education requires a re-conceptualization of the meaning of teacher autonomy, to make it a more comprehensive concept that does not exclude a collaborative culture and attitude. Koestner and Losier (1996) proposed a distinction between reactive and reflective autonomy, where reactive autonomy focuses on independence, whereas reflective autonomy is intrapersonal and accentuates personal choice and freedom to act in a self-directed manner in an interdependent context. In line with reflective autonomy, student teachers used group reflections and action to learn how to mediate cooperative learning in classrooms during WIL.

Group Learning

When students work as a group, they utilize group members' skills and work together to achieve a common goal. This form of group-work is known as collaboration (Hammer Chiriac, 2014). Many researchers (e.g., Beebe & Masterson, 2003; Gillies, 2003; Laal & Ghodsi, 2012) have pointed out the benefits of group-work, which include exposure of students to a wider range of ideas, student creativity, professionalism, achievement, unity and motivation.

Group-work can also mean working in a group, where group members individually work on separate parts of a group task, which entails cooperative learning (Gillies & Boyle, 2011). The researchers utilized both forms of group-work in different ways, in that student teachers worked as a group (collaboratively) to develop autonomy in exploring ways of facilitating learners working in cooperative groups.

Johnson and Johnson (2009) demonstrated that working as a group results in higher achievement and greater productivity; more caring, supportive, and committed relationships; and greater psychological health, social competence and self-esteem. Thus, group learning was perceived as an appropriate strategy for developing student teachers' autonomy in learning how to mediate cooperative learning in classrooms, and for preparing them for their future careers.

However, group-work has limitations, such as pressure to conform to majority opinions, domination of discussions by an individual, and lack of contribution and cooperation from some individuals (Beebe & Masterson, 2003). Ways of averting these shortcomings include the formation of small groups (the researchers used five to 10 student teachers in each group) and the assignment of responsibilities to group members.

Mediation of Cooperative Learning

Cooperative learning is based on social-cultural theory where learning is considered as a social process in which individuals discuss and co-construct meaning (McCafferty, Jacobs, & DaSilva Iddings, 2006). It typically involves learning activities that are structured by the teacher, who gives each student a specific task to perform, and assesses the outcomes of the tasks (Panhwar, Gopang, Chachar, & Baloch, 2017). Cooperative learning therefore follows traditional instruction, where the teacher retains authority over the activities of the learners. Barkley Cross and Major (2014) recommended this more structured cooperative learning for school learners who require considerable guidance from the teacher.

Effective cooperative learning involves the following five fundamental elements (Laal & Ghodsi, 2012): learners' positive interdependence, promotive interaction, individual accountability and personal responsibility, use of relevant interpersonal and small-group skills, and group processing of current functioning to improve the group's future effectiveness. The roles of teachers during cooperative learning include: structuring the cooperative groups, establishing cooperative learning experiences, designing learning tasks, assessing outcomes, and ensuring that students understand what they are expected to do and how they are expected to behave (Gillies, 2016). The student teachers who participated wanted to enhance their proficiency in developing these competencies. The desire to explore cooperative learning could have emanated from the South African Curriculum and Assessment Policy Statement (CAPS) (Department of Basic Education, 2012, p. 4) which recommends the need to produce learners who are competent in skills embodied in cooperative learning.

Importance of Teacher Reflection

Reflection enables teachers to evaluate their performance by determining their strengths and weaknesses in order to enhance their practice (Zulfikar & Mujiburrahman, 2018). Walkington (2005) stated that reflective practice is a crucial responsibility of all teacher educators because it assists in the formation of teacher identity. Bain, Ballantyne, Mills, and Lester (2002) stated that there is a consensus within the literature that reflective practice is a lifelong requirement for all educators. There is no doubt that reflection is still regarded as a core activity for all teachers in contemporary education, which makes it one of the critical tools for teacher development. The effectiveness of student teacher reflections was evaluated using the following conceptual framework.

CONCEPTUAL FRAMEWORK

The 5Rs framework for reflection (Bain et al., 2002) guided this study. The framework provides a systematic method of thinking through situations, experiences or activities, by prompting deep and purposeful thinking about what happened. The framework helps reflective practitioners to move from a reflective trigger to meaningful reflections.

The 5Rs represent reporting, responding, relating, reasoning and reconstructing. Reporting (R1) involves providing an account of a situation; our student teachers described aspects of cooperative

learning which they needed to address. Responding (R2) entails personal reaction to the situation; our student teachers shared their anxieties and uncertainties regarding the mediation of cooperative learning. Relating (R3) refers to personal or theoretical understandings relevant to the situation; our student teachers described how their previous experiences and/or their knowledge and skill of cooperative learning were linked to their anxieties and uncertainties. Reasoning (R4) pertains to explanation of the situation in terms of significant factors such as relevant theory or experience that relate to the situation; our student teachers brainstormed ideas regarding significant factors related to cooperative learning and effective ways of mediating the instructional approach. Reconstruction (R5) refers to drawing conclusions and developing a future action plan to address the situation; our student teachers planned interventions to be implemented during WIL based on conclusions drawn from brainstormed ideas. After reflecting on their intervention experiences, the student teachers discussed plans for the future. The 5Rs framework was thus an appropriate conceptual and analytic framework for the study.

METHODS

Research Sample and Sampling

This research was part of bigger study comprising 713 final-year undergraduate B.Ed. student teachers enrolled in the Faculty of Education at a South African university. Purposive sampling was used to select the study participants. The sample included student teachers who were training for all levels of school education. These student teachers were participating in compulsory WIL for the first time. Each of the 713 student teachers was required to select from a list of educational categories, a pedagogical area where s/he needed development. Our 252 student teachers, examining mediation of cooperative learning, comprised 203 (81%) females and 49 (19%) males. All students were informed of the research design and agreed to the use of their data (Ethics ref: UP 14/03/1).

Research Process

Although the study was premised on autonomous inquiry and reflections of groups of student teachers, they were provided with broad open-ended questions to provide direction for their discussions, investigations, and reflections.

At the beginning of the study, the participants attended a three-hour workshop, a month after the commencement of WIL, where the 252 student teachers worked in small groups of five to ten according to level at which they expected to teach. They remained in these groups for the second workshop. The purpose of the initial workshop was to enable the student teachers to reflect on and examine their beliefs, practices, and orientations regarding cooperative learning, as well as their anxieties and uncertainties about its mediation. Each small group identified and described the aspects of cooperative learning mediation, which they needed to address. Subsequently, they brainstormed and planned ways of doing so.

The student teachers implemented their plans in schools during WIL over a period of six weeks and recorded their experiences. The University had previously obtained consent from the schools where student teachers were posted, as well as from the provincial Department of Education. Although the student teachers were observed and globally assessed by both mentor lecturers and teachers once or twice during WIL, their intervention plans were neither assessed, nor interfered with, by these mentors. At the end of the WIL session, the student teachers attended another three-hour workshop where they

reflected on their learning experiences, identified their successes and new challenges, and devised plans for future practice in cooperative learning mediation.

The student teachers took field notes and audio-recorded their discussions, investigations and reflections. The data were transcribed, coded and categorized into themes.

FINDINGS

Table 1 shows the overall theme pattern of analyzed responses, while Table 2 shows the number of student-teacher responses per theme.

TABLE 1: Overall theme pattern of analyzed responses from student teachers.

Code	Theme
Effectiveness of student teachers' reflections in the first workshop	
A (R1 & R2)	Challenges of mediating cooperative learning
B (R3)	Links between identified concerns and student teachers' previous experiences, skills and knowledge of cooperative learning
C (R4)	Significant factors related to cooperative learning and its mediation
D (R5)	Understanding and reconstruction of cooperative learning practice during WIL
Student teachers' perceptions of their learning experiences in the second workshop	
E	Effective mediation of cooperative learning
F	Challenges experienced during the mediation of cooperative learning
G	Plans for further enhancement in mediation of cooperative learning
H	Perceptions about the overall process of group-work and reflection

Note: Themes A to D relate to the 5Rs framework for effective reflection, while themes E to F represent student teachers' perceptions of their learning experiences during WIL.

TABLE 2: Number of student-teacher responses per theme.

Theme	No. of individual responses
A (R1 & R2)	166
B (R3	135
C (R4)	209
D (R5)	52 (group response *)
E	156
F	184
G	116
H	151

* The researchers could not quantify the individual responses for theme D (*Understanding and reconstruction of cooperative learning practice during WIL*) because group members brainstormed and planned interventions collectively. There were 52 groups.

Student teachers benefited in several ways from the use of small collaborative groups and reflection to learn about the mediation of cooperative learning. First, students were able to describe the issues that concerned them regarding the mediation of cooperative learning. Second, it allowed them to elicit their anxieties about mediating cooperative learning. Third, student teachers were empowered to establish the links between their previous experiences, skills or knowledge of cooperative learning and the elicited concerns. Fourth, they brainstormed ideas regarding significant factors related to the

implementation of cooperative learning and effective ways of mediating the instructional approach. Fifth, the approach enabled them to plan and implement interventions to enhance their mediation of cooperative learning. Finally, it enabled them to reflect on their intervention experiences. These learning opportunities are analogous to the five elements of the 5Rs framework for effective reflections, as described in themes A to D in Table 1.

Effectiveness of Student Teachers' Reflections According to the 5Rs Framework

During data analysis, it was difficult to distinguish between narratives related to the first two themes (descriptions of the issues that concerned them regarding the mediation of cooperative learning and the elicitation of their anxieties about mediating cooperative learning). Therefore, responses related to these two themes were placed under the theme 'challenges of mediating cooperative learning'. Bain et al. (2002) alluded to the difficulty in distinguishing narratives from the first two elements of the 5Rs framework. They pointed out that the reporting and responding elements of the 5Rs are often combined to provide a 4Rs framework.

The codes used consisted of three characters; the first uppercase letter in the code represents a theme, the subsequent number represents a specific student teacher, and the last Roman numeral represents the number of the response statement given by the specified student teacher, in the theme. So, A23i means that the quoted response relates to theme A, it was given by student teacher 23, and it is the i^{th} response statement given by student teacher 23, in relation to theme A.

Theme A: Challenges of mediating cooperative learning

Student teachers' challenges related to learners; learner apathy, dominance by high achievers, the possibility of learners deviating from the topic, and learners' language deficiencies. A119iii commented "Some learners are not fluent in English, therefore they will not be able to participate in the group discussions or contribute to the group, while others do most of the talking". Other challenges are associated with classroom management. These include the need for constant monitoring and control of learners, difficulty in assessing individual learners and time constraints. As student A93iii said: "It is difficult to keep up with time because time is wasted trying to organize learners in the groups than in learning content".

Theme B: Links between identified concerns and experiences, skills and knowledge of cooperative learning

The student teachers indicated that the sources of their perceptions about the mediation of cooperative learning included: their methodology lecturers at university, their peers, their own perceived incompetence in mediating cooperative learning and previous experiences as learners themselves. B87iii: stated that "I remember how our teacher used to struggle to make some of the learners to take part in the group discussions. They just sat there doing nothing, but the shining ones would talk non-stop".

Theme C: Significant factors related to cooperative learning and its mediation

The student teachers asserted that cooperative learning develops several competencies in learners. Cooperative learning enables learners to depend on each other to learn. C88i said "Children are able to feed off each other's knowledge; learning from peers is more beneficial for some learners". Student teachers also felt that cooperative learning encourages learners to take responsibility of their learning. As C79ii commented: "Learners develop a sense of responsibility and learn independently". Other

cited advantages for cooperative learning are that it enhances the development of social and communication skills, encourages learners to search for information, develops leadership skills, encourages learners to be tolerant of one another, enhances conceptual understanding, fosters creativity, and promotes learner participation. They also felt that cooperative learning is fun and that it lessens teachers' work.

Most student teachers seemed unsure of their role in mediating cooperative learning. Their discussions mainly focused on the formation of small groups and allocation of tasks to the groups. One student teacher summed this up by saying: "In cooperative learning, the teacher divides the learners in small groups and give them work to do together, and then the teacher should guide them when they are stuck (C53ii)".

Theme D: Understanding and reconstruction of future cooperative learning practice

Based on the brainstorming session, the student teachers planned one or two interventions to address some of the identified challenges. These interventions, planned at a group level, included various activities, such as interviewing or observing in-service teachers and learners, conducting teacher or learner surveys, implementing relevant instructional strategies. Student teachers implemented these plans in their respective schools during WIL after the first workshop.

Student Teachers' Learning Experiences

Upon their return from WIL to the university, the student teachers attended a second workshop where the small groups reflected and provided feedback on their intervention experiences. They discussed and noted their learning experiences in relation to the effectiveness of mediating cooperative learning, the challenges they experienced, their plans for the future, as well as their perceptions regarding the learning methods used in the study.

Theme E. Effective Mediation of Cooperative Learning

Over 90% of student teachers indicated that: cooperative learning was interesting and motivational to most learners; it enhanced peer-assisted learning; learners were enthusiastic and participated more during lessons; it also gave learners a sense of responsibility and enhanced their conceptual understanding. In addition, they stated that learners were able to build better relationships with their peers and that their communications skills improved. Most importantly, the student teachers claimed to have learned that certain qualities are necessary for effective mediation of cooperative learning. They identified teacher creativity, innovativeness, and thorough lesson preparation as essential attributes for effective mediation of cooperative learning.

The student teachers highlighted the importance of effective classroom management. Teachers need to monitor learners constantly, remain in control of the learning activities, and to be firm and consistent when mediating cooperative learning. One of the group summed it up by saying:: "Make sure you are in control by setting rules and apply them, to keep them focused, but let the learners still 'facilitate [be in charge of]' the lesson"(E119i). In addition, positive reinforcement for deserving learners is crucial in mediating cooperative learning.

The student teachers also argued that individuals within cooperative learning groups should be assigned roles according to their ability, and that weak learners should be given more support than

their high-achieving counterparts. Furthermore, they suggested the assignment of leadership roles to disruptive students to make them accountable for the activities of their groups.

Theme F: Challenges experienced during the mediation of cooperative learning

Despite their careful plans, the student teachers identified challenges. These included time constraints, discipline problems, domination of discussions by academically gifted learners, the need to remind learners constantly about what is expected of them, and the inability of some learners to participate in discussions fully due to language deficiencies. Student teachers also experienced unexpected challenges, the most common of which was lack of support and indifference from stakeholders in the school. They observed that some learners, parents, teachers and principals preferred traditional ways of teaching, where the teacher provides information to learners. Some of them even considered teachers who used cooperative learning to be lazy and unwilling to do their job properly. As student F61ii put it: "Some teachers and parents think that you are lazy to teach, when you ask learners to learn on their own".

Student teachers also realized that cooperative learning is not always practicable, as it may not be feasible for certain topics, subjects and group sizes. They cited topics such as the structure of an atom, or DNA replication, where group members had insufficient knowledge to effectively participate As one student teacher commented "It was difficult for most of the learner to say anything about DNA replication, because they did not know it." (F19i). They also observed that cooperative learning was less effective when cooperative learning groups were too large.

Theme G: Plans for further enhancement in mediation of cooperative learning

Their ideas demonstrated their appreciation and interest in the learning methods used in the study. As one pointed out: "I wish we could use this method in other subjects, it very good." (G82v). They emphasized the importance of reflections to identify their needs and strengths, and the significance of investigating their own practices without following instructions from their mentors. They also highlighted the significance of working in collaborative groups on a regular basis, to share thoughts, ideas, challenges and experiences to improve their practice. They further suggested the use of team teaching to learn from each other. Lastly, they indicated that they would work closely with their mentor teachers to learn from their cooperative learning mediation experience.

Theme H: Perceptions about the overall process of group-work and reflection

Student teachers unreservedly indicated that they appreciated and benefited from the methodology used in the study. They pointed out that deciding on what they wanted to learn, and how they wanted to learn helped them to address the specific issues which affected them. Student teacher H201i noted that "The study helped us to investigate issues that really worried us about cooperative learning". They also indicated that working collaboratively with other student teachers helped them to learn from each other by sharing ideas, their apprehensions, successes, failures, and frustrations in mediating cooperative learning. Student teachers generally felt that the teaching and learning methods used in their traditional teacher education did not prepare them adequately to deal with the complexities of mediating cooperative learning.

DISCUSSION AND RECOMMENDATION

The findings suggest that student teachers benefited from peer collaborations where the group could work autonomously and engage in reflection, to enhance their role in mediating cooperative learning in classroom teaching. Student teachers' reflections were in line with the elements of the 5Rs (4Rs in this study) framework for effective reflections. First, the student teachers were able to describe issues that concerned them regarding the mediation of cooperative learning (theme A, reporting and responding in the 5Rs framework). Second, they managed to connect their anxieties about cooperative learning mediation to role players in their academic lives, and their previous experiences and knowledge of cooperative learning, which resonates with the third element (relating) of the framework. Third, they were able to identify most of the principles of cooperative learning, which could be linked to the fourth element (reasoning) of the framework, although the ideas and knowledge of student teachers regarding the mediation of cooperative learning were limited. Most student teachers were unable to outline clearly the responsibilities of teachers during the mediation of cooperative learning, and they seemed to equate cooperative learning to group-work. Lastly, the student teachers planned and implemented interventions to enhance their competence in mediating cooperative learning, and later reflected on their intervention experiences and planned further interventions, exemplifying the fifth element (reconstruction) of the 5Rs framework.

The findings confirm the benefits of cooperative learning which are listed in literature, such as mastery of content, accountability, interdependence, and the development of social skills (Laal & Ghodsi, 2012). The student teachers also learned some good strategies for cooperative learning mediation, including creativity, innovativeness, thorough lesson preparation, constant monitoring of learners, classroom control, all of which are acknowledged in literature (Gillies, 2016). In addition, student teachers suggested strategies for maintaining discipline and order during lessons, such as differential provision of support and assignment of tasks to learners according to their ability and behavior during lessons.

While the student teachers benefited from group discussions and reflection, they also experienced some of the challenges of mediating cooperative learning, also acknowledged in literature (Randall, 1999). Examples include time constraints, discipline problems, domination of discussions by high achievers, constant monitoring of learners, and language deficiencies. Although student teachers were aware of these challenges prior to the interventions, it was important for them to experience them, so that they could reflect on them and plan interventions to avoid them. The unexpected challenges experienced by student teachers, such as lack of support or resistance to the use of cooperative learning from stakeholders, are also acknowledged by researchers (Ulma Wilches, 2007, p. 267) who indicated that "professional development for teacher autonomy has different implications for teachers, administrators, legislators, and educational researchers". These barriers highlight the need for stakeholder education before implementing educational interventions, over and above the usual consent application.

It is clear from the student teachers' comments and suggestions for the future that they appreciated and benefited from the methods used in the study to learn about the mediation of cooperative learning. Their engagement in collaborative groups provided them with a social support group, which acted as a resource hub. By working in small groups, student teachers were able to learn from each other by sharing their experiences, ideas, successes, and challenges. The groups also engendered a sense of unity, trust, and interdependence among the group members, as evident from their plans for mediating cooperative learning in the future (see Theme G). Such cohesion and teamwork are likely to have contributed to their professional development as teachers.

Allowing student teachers to work together to express their concerns and ideas, as well as providing them with the opportunity to interrogate them and explore possible solutions, is likely to go a long way towards alleviating student teachers' apprehensions and possible misconceptions about teaching. This is especially significant because mentor lecturers and teachers do not always have enough time, capability, or expertise to sufficiently deal with student teachers' individual uncertainties.

Despite their appreciation of the autonomy accorded to them, student teachers indicated that they would work closely with their mentor teachers to learn from their cooperative learning mediation experience. It appears that the student teachers valued the experience of competent in-service teachers. These findings complement results from other studies, which found that students perceived cooperative education experiences to be positive and beneficial (Nasr, Pennington, & Andres, 2004). Furthermore, the results suggest the need to investigate ways of exposing student teachers to the experience of in-service teachers during cooperative education, without compromising their autonomy. This suggestion corresponds with an observation by Rowe and Zegwaard (2017) that WIL experience alone is not a guarantee of success; rather WIL activities must be meaningful, relevant, and intentionally integrated (Clarke, 2018).

The findings suggest that engaging student teachers in group-work and critical reflection could be used to improve student teachers' understanding of other educational topics and to enhance their teaching proficiency more widely. The researchers therefore recommend the incorporation of these learning methods in teacher-education curricula. One way of incorporating these learning approaches is by intrinsically incorporating the learning experiences into the entire teacher-education curriculum, where student teachers continuously engaging in discussion, reflection, and action to improve their understanding of educational practices.

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International Journal of Work-Integrated Learning
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About the Journal

The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues dealing with Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE). Since then the readership and authorship has become more international and terminology usage in the literature has favored the broader term of WIL, in 2018 the journal name was changed to the International Journal of Work-Integrated Learning.

In this Journal, WIL is defined as "*an educational approach that uses relevant work-based experiences to allow students to integrate theory with the meaningful practice of work as an intentional component of the curriculum*". Defining elements of this educational approach requires that students engage in authentic and meaningful work-related task, and must involve three stakeholders; the student, the university, and the workplace. Examples of practice include off-campus, workplace immersion activities such as work placements, internships, practicum, service learning, and cooperative education (Co-op), and on-campus activities such as work-related projects/competitions, entrepreneurships, student-led enterprise, etc. WIL is related to, but not the same as, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal's main aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, co-op/WIL practitioners, and researchers. The Journal desires to encourage quality research and explorative critical discussion that leads to the advancement of effective practices, development of further understanding of WIL, and promote further research.

The Journal is financially supported by the New Zealand Association of Cooperative Education (NZACE), www.nzace.ac.nz.

Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL is primarily of two forms; 1) *research publications* describing research into aspects of work-integrated learning and, 2) *topical discussion* articles that review relevant literature and provide critical explorative discussion around a topical issue. The journal will, on occasions, consider best practice submissions.

Research publications should contain; an introduction that describes relevant literature and sets the context of the inquiry. A detailed description and justification for the methodology employed. A description of the research findings - tabulated as appropriate, a discussion of the importance of the findings including their significance to current established literature, implications for practitioners and researchers, whilst remaining mindful of the limitations of the data. And a conclusion preferably including suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical and scholarly discussion on the importance of the issues, critical insights to how to advance the issue further, and implications for other researchers and practitioners.

Best practice and program description papers. On occasions, the Journal also seeks manuscripts describing a practice of WIL as an example of best practice, however, only if it presents a particularly unique or innovative practice or was situated in an unusual context. There must be a clear contribution of new knowledge to the established literature. Manuscripts describing what is essentially 'typical', 'common' or 'known' practices will be encouraged to rewrite the focus of the manuscript to a significant educational issue or will be encouraged to publish their work via another avenue that seeks such content.

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