# Work-integrated learning in higher education: Student, teacher and employer motivation and expectations

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The purpose of this paper is to explore the motivation and expectations of stakeholders (students, teachers, and employers) related to their participation in simulated work-integrated learning (WIL) taking place in a form of work-related projects in an academic environment. Analysis is based on data gathered from 49 students, four teachers and six employers who participated in WIL within four different units of study in Information and Communication Technologies (ICT) at the University of Zagreb, Faculty of Organization and Informatics (FOI), Croatia. The findings of this research revealed that student learning, student career development and increasing quality of learning and teaching are common motivational factors for stakeholders' participation in WIL. Additional factors pertinent to respective stakeholders' motivation and expectations are also detected. The results of this study can help higher education institutions (HEIs) in the organization of WIL practices to increase motivation and meet expectations of all stakeholders.

#### Keywords: Work-based learning, motivation, expectations, student, teacher, employer

University-business cooperation (UBC) in curriculum provision is not a new approach, but its importance increases when a higher emphasis is placed on the development of employability skills within higher education and a recognized need to prepare work-ready graduates (Yorke, 2005). In Europe, overarching modernization of higher education started with the Bologna declaration, followed by the establishment of the European Higher Education Area (EHEA) in 2010. Initially signed by education ministers from 29 European countries in 1999, today it has members from 49 countries. For all these countries, the main goal is to increase staff and student mobility and to facilitate employability. Employability of higher education graduates became a priority in 2007 when a working group on employability was established. A ministerial communique in 2009 issued employability related recommendations for Bologna countries (European Higher Education Area, 2009). Closer connection between HEIs and employers, embedding work-placements in study programs and on-the-job-training are recognized as important approaches to increase the international relevance of EHEA and produce a skilled workforce. As a consequence, work-based learning (WBL), a type of work-integrated learning (WIL), that encompasses an educational approach based on collaboration between academia and industry (Lester & Costley, 2010) became more popular in the European context. In the last decade, individual countries have endeavored to increase provision and quality assure WBL (Ball & Manwaring, 2010). Nowadays, the importance of developing graduates' employability skills is still increasing in professional, scientific and political terms. The Organization for Economic Co-operation and Development (OECD) recognizes current students as future agents who will need a broad set of competencies to transform society and shape the future, including creating new value, reconciling tensions and dilemmas, and taking responsibility (OECD, 2018). Consequently, a closer connection between education and industry is being given more attention in curriculum design and development, as encouraged by relevant strategic documents on skills development and the modernization of

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education (European Commission, 2017, 2020). This paper explores student, teacher and employer motivation for participation in WIL introduced within several different courses, as units of study in the discipline of Information and Communication Technology (ICT).

#### Work-Integrated Learning and Work-Based Learning

There are many different forms of WIL and WBL, and variants go by a range of names. In Europe, WBL is considered a form of UBC in the context of curriculum co-delivery that enables "employmentconnected learning" (Davey, et al., 2018), while de Villiers Scheepers et al. (2018) claim that, in its essence, WIL is the same as WBL and elaborate it is just the usage of term that differs across countries. Jackson and Collings (2018, p. 404) explain that WIL is also referred to as WBL and experiential learning and describes WIL/WBL as "the intersection of academic and workplace learning where students connect with industry as a formal component of their learning program." (Jackson, Rowbottom et al., 2017, p. 36) additionally explained WIL as a "range of activities which connect industry with education and allow students to apply their theoretical knowledge in a practical setting." Costley & Dikerdem (2012, p.11) elaborate that work-based programs have at least one of the following characteristics: "(1) accreditation of certificated or experiential learning, (2) learning agreements including employers as well as learners, (3) location of learning in the workplace, or 'work' as the subject of learning and (4) workplace or professional practice-related 'applied" projects.'

Literature suggests that WBL and WIL include different forms of work placements and internships in companies (European Training Foundation, 2018; Smith, 2012), which in Europe is commonly associated with vocational education and training (VET) (Perusso & Wagenaar, 2021). Except in a workplace, WBL and WIL take place in educational settings, and include simulations and virtual companies (European Training Foundation, 2018; Smith, 2012), and different forms of entrepreneurship courses in collaboration with the industry (Perusso & Wagenaar, 2021). Kay et al., (2019) provide a detailed overview of emerging and innovative WIL practices that include micro-placements, online projects or placements, hackathons / competitions and events, incubators / start-ups and consulting. These authors indicate the online form of WIL as an alternative to WIL conducted in workplaces or educational settings. Interest in online and remote forms of WIL heightened recently with the impact of the COVID-19 pandemic which saw many educational activities shifted to the online environment. Wood et al. (2020) categorized WIL into three main types: 1) conventional WIL that considers relevant work-based experience, 2) simulated WIL that emulates the functions of a workplace with inputs by the workplace and 3) remote WIL that focuses on students completing authentic tasks for an organization through a remote connection.

Many papers explore WIL as a form of internship and different work placements (Jackson, 2018; Jackson, Ferns et al., 2017; Paull et al., 2019). There is a lack of research in exploring motivation and expectations of stakeholders (students, teachers and employers) for involvement in simulated WIL that is not obligatory for either stakeholder. This paper focuses on simulated WIL where employers are involved in the provision of courses in work-related projects in an academic environment. The collaboration between academia and industry researched within the present study fits with the definition of simulated WIL as "an immersive WIL experience in a context created to emulate the functions of a workplace with input by the workplace/community, educational institution, and the student" (Wood et al., 2020, p. 333). Stakeholders' motivation for and expectations from this kind of collaboration in the ICT discipline are the focus of this study.

#### Stakeholder Motivation and Expectations from Participation in Work-Integrated Learning

The three main stakeholder groups in WIL include students, teachers and employers. The partnership between a higher education institution (HEI) and employers is crucial to ensuring suitable conditions for WIL provision, including infrastructure to support learning and defining projects that reflect the needs of the workplace (Fleming et al., 2018; Reeve & Gallacher, 2005). However, Jackson, Rowbottom, et al. (2017) reported a lack of shared understanding of WIL among stakeholders. A closer and longer relationship in different models of UBC can contribute to a better understanding of one another's needs and provide the basis for successful WIL implementation, where each stakeholder has a different role. For teaching staff, work based learning pedagogies represents a shift from traditional knowledge transmission "into a combination of roles including coaching, mentoring and formative assessment" (Costley & Dikerdem, 2012, p. 10). Moreover, the teacher becomes a mediator in a tripartite relationship with students and employers. Employers, on the other hand, partially take on the teachers' role in providing mentoring support and contribute to assessment for students (Reeve & Gallacher, 2005). Students need to adapt to an additional supervisor besides a teacher and clearly understand the industry supervisor's role in the formal teaching process. Thus, the mutual understanding of different stakeholders' roles, as well as their motivation and expectations from WIL, is crucial for the success of WIL and for leveraging the benefits for all parties involved.

Efforts were made to research challenges and barriers for implementing WIL (Jackson, 2017b; Jackson, Rowbottom et al., 2017), as well as a university-business partnership in WBL (Reeve & Gallacher, 2005). Misalignment in expectations was recognized as one of the barriers to successful WIL implementation. The importance of clarifying stakeholders' expectations in the early stages of WIL implementation is highlighted by Jackson, Rowbottom, et al. (2017). The reality is that work/company culture differs from academic culture (Reeve & Gallacher, 2005), and a balance needs to be found in order to meet the expectations of both parties. Smith et al., (2006) argue that there is not always a shared vision for the purpose of industry placements as a form of WIL between academic supervisors and industry mentors - this is evident in industry mentors' different levels of commitment and understanding of the purpose of WIL; their capacity and possession of adequate skills; and their understanding of the quality of WIL placement as well as their role in achieving it.

Along with their expectations, stakeholders' motivation for participation in WIL has substantial impact on successful outcomes. Stamov Roßnagel et al. (2020) see students' motivation through the prism of usefulness, perceived competence, effort and enjoyment, and reported its positive connection with constructive alignment indicators that include intended learning outcomes (ILO). Motivation factors have been researched in a broader context of university-industry collaboration that include, not only knowledge transfer in different forms of WIL, but also research and technology transfer. Six motivational factors emerged from a systematic review on university-industry collaboration, namely: necessity, reciprocity, efficiency, stability, legitimacy and asymmetry (Ankrah & Al-Tabbaa, 2015). Jackson, Rowbottom et al. (2017, p. 48) refer to motivational factors and recognize recruitment as a factor prevalent among employer motivation—they see WIL as an opportunity to produce "skilled graduates who would form a suitable talent pool for future recruitment needs." Ogilvie & Homan (2012) detected that student motivation for participating in WBL originated in supporting career prospects by raising their profile in work, establishing key contacts and learning about the business itself.

While the literature touches on stakeholders' motivation for and expectations from WBL and WIL, there is a lack of systematic research of stakeholders' motivations and expectations in simulated WIL. The

present study researches student, teacher and employer motivation and expectations from simulated WIL that takes place in an academic environment, in the form of work-related projects, and is not obligatory for either party. The study provides answers to the following research questions: (1) What is the main motivation of students, teachers and employers for participation in simulated WIL that takes place in an academic environment, in the form of work-related projects? and (2) What are the expectations of the three stakeholder groups (students, teachers and employers) in simulated WIL that takes place in an academic environment, in the form of work-related projects?

## METHODOLOGY

The present study was undertaken at the University of Zagreb, Faculty of Organization and Informatics (FOI), Croatia. The sample includes bachelor students in Information Systems and Business Systems and master students in Informatics that were for the first time formally introduced to the WIL concept in the academic year 2020/2021. Some teachers had tried forms of WIL prior, but it was not harmonized across FOI, nor approached systematically.

This section first describes how WIL was introduced at FOI in general and particularly in each of courses included in this study. Then, it details information on the sample population, instrument design, and data collection and analysis methods.

# Introducing Work-Integrated Learning at the Faculty of Organization and Informatics

WIL was systematically introduced at the FOI in the academic year 2020/2021. A working group was established to develop WIL, and prepare guidelines for stakeholders willing to participate in WIL. Moreover, operational support was provided from the Student Support and Career Development Centre (CPSRK), the FOI organizational unit responsible for collaboration with employers and connecting teaching staff with employers, and student internship organizations, etc. Prior to involvement in WIL, several meetings were held between teachers and interested employers to explain the course structure and ILOs, and collaboratively negotiate expectations of employers and associated workload. For each course, a written agreement was negotiated which represented a consensus among teachers and employers. Moreover, a template of contract was prepared by the CPSRK for companies that wanted to formalize the agreed arrangement.

In this particular case, WIL has the following characteristics: 1) HEI appoints teacher(s) in certain course willing to cooperate with the employer company, 2) company appoints mentor(s) with dedicated time for WIL 3) company mentor(s) participate in preparing proposal for student projects, project mentoring and evaluation, in coordination with the course teacher and 4) due to COVID-19 pandemic, all activities take place virtually (with the exception of on-site project introductory sessions in Course 4 at the beginning of semester). The described WIL can be characterized as an innovative WIL model according to Kay et al. (2019) who recognized online projects, activities co-designed with industry and coach/mentorship for students being a characteristic of innovative WIL models. Wood et al. (2020) classify these types of activities with industry involvement as potential WIL opportunities characterized by medium proximity and medium authenticity, as it includes questions and answers with industry, input and feedback from industry on real case studies and mentoring student teams by industry.

At the beginning of each course, students were introduced to the possibility of collaborating with employers. Participation was optional, but limited to a number of students based on the employer's capacity to participate in WIL. Students could choose to participate in WIL until the vacancies were

filled. The difference in course activities between students who participated in WIL and those who did not was in collaboration with the employer that included: 1) project task in WIL was created by the company, 2) company mentor participated in some classes and provided mentorship for students and 3) company mentor participated in final student project presentation and provided feedback. Students who chose not to participate in WIL, worked on projects without the agreed collaboration with employers. It is important to mention that, at the beginning of semester, students were presented the possibility that WIL will include short-term placements related to dedicated project work in a company. However, due to the unfavorable epidemiological situation, that was not feasible. Table 1 lists the main characteristics of courses that were included in WIL using constructive alignment in terms of ILOs, teaching methods and assessment (Biggs, 2014). Additionally, employer involvement in each course is described.

Course	Course 1	2	Course 3	Course 4
	3 <sup>rd</sup> year Bachelor level	3 <sup>rd</sup> year Bachelor level	1 <sup>st</sup> year Master level	1 <sup>st</sup> year Master level
Course ILO related to WBL	Model data in organizations and apply models in the development of information systems.	Develop the strategy of the selected IT service and design the service.	Methodological approach to the development of software products Implement and use	Solve real-world problems in ICT with methods from graph theory and discrete math.
			appropriate methods, techniques and tools in every phase of the software development lifecycle.	
Teaching methods related to WBL	Students work in teams on projects suggested by employers and related to machine learning algorithms and their application in the selected application domain.	Student works in teams of 3. They represent an IT company designing an IT service defined by potential customers (employers).	Student work in teams of 3-4 on the design, development and implementation of IT projects that are defined by employers.	Students work in teams of 3 on problem-posing and problem-solving tasks that are authentic and proposed by employers.
Assessment of student work	Students reflect on their work through presentations and documentation.	Students have a simulation of business meeting where they present their final prototype to employers.	Students reflect on their work through a work log, presentations and documentation.	Students presented a final project and participated in peer- and self- assessment.
Employer support	Team has mentors both from company and among teachers.	Both teacher and company mentors are available to student teams for consultations and guidance in their project work.	Depending on the product's requirements, companies provided students with the necessary infrastructure, software and/or equipment. Additionally, the company supported students through mentorship and product and code review services.	Each team has a mentor from the company to consult during the work on problem-solving tasks.

TABLE 1: Description of courses characteristics and employer involvement.

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## Sample

The sample for this study included four teachers participating in WIL via four different courses, and six employer representatives. Two of the courses (Course 2 and 3), each had two companies involved whereas the other two courses worked with one company each. If there was more than one teacher delivering the course, the staff member who participated in the WIL completed the survey. As for students, teachers could choose whether they wanted to participate in WIL. Collectively, 61 students were involved in the WIL across the four courses, some students studying more than one course. However, students were encouraged to answer the questions for each course separately. Data were collected as a project activity comprising part of WIL, with the primary purpose to further improve development of WIL at FOI. However, participants were informed that data might be used for scientific evaluation of WIL, hence their participation was voluntary and anonymity assured. Ethics approval from the FOI Ethical Committee was obtained based on a clear procedure for collecting and using data for scientific purposes, as well as ensuring the consent of stakeholders to participate in the research. Table 2 shows the number of respondents to the questionnaire.

Course	Students involved		Survey	% of
			completed	responses
Course 1		16	12	75.00%
Course 2		30	25	83.33%
Course 3		9	8	88.89%
Course 4		6	4	66.67%
	Sum	61	49	80.33%

TABLE 2: Students	' responses	by	courses.
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## Instrument

A form was created in Google Docs with several open-ended questions for all three stakeholder groups. The course teacher or CPSRK staff shared access to the online survey via email with students and employers. Additionally, participants were provided with a leaflet explaining WIL goals, with short instructions for both students and employers. The questionnaire consisted of three parts:

- 1) Short introduction and explanation note for stakeholders participating in WIL, describing the purpose of the questionnaire and the potential use of collected data for evaluation of WIL
- 2) List of courses participating in WIL so stakeholders' answers could be associated with a certain course
- 3) Questions related to stakeholders' expectations and motivation, as follows:
  - Please briefly state your MOTIVATION for involvement in the implementation of the WIL
  - Please briefly state your EXPECTATIONS from STUDENTS/ TEACHER/ EMPLOYERS in the implementation of the WIL

# Data Analysis

The inductive approach as a systematic procedure for analyzing qualitative data was applied. The main analysis technique used in this study is coding, which was applied to stakeholders' descriptions of their motivation and expectations. Manual coding was undertaken as proposed by Saldaña (2013) who suggests organizing and grouping similarly-coded data that share certain characteristics into categories. In inductive research aimed at developing a new theory, recoding and re-categorizing is

repeated iteratively until the final set of codes is developed (Saldaña, 2013, pp. 9-10). Therefore, this study used a two-cycle coding process: (1) An exploratory method was used to assign preliminary codes to the data. This step resulted in the construction of initial categories; (2) Second-cycle coding methods included reorganizing and reanalyzing data coded through the first round of coding into a smaller number of categories. The quality of the present qualitative research is ensured using several strategies as suggested by (Korstjens & Moser, 2018). Credibility of research is ensured using prolonged engagement and persistent observation as the authors themselves participated in WIL and invested sufficient time to become familiar with the setting and context. To ensure dependability and confirmability of research results, the steps of the coding process were systematically recorded in Excel sheets and saved for further research.

# RESULTS

## Stakeholder Motivation for Participation in Work-Integrated Learning

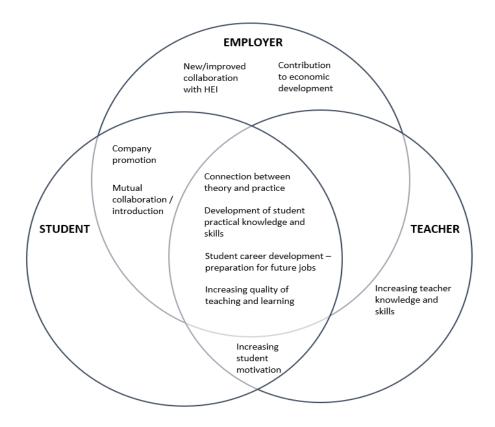
The first cycle in the coding process resulted in 10 categories of motivational factors from student perspective, nine from employers and eight from teachers. After the second-cycle coding process, seven main categories with a total of 10 motivational factors were detected:

- 1) Student learning
  - Development of students' practical knowledge and skills connection between theory and practice
  - Possibility for students to see how what they learn within HEI looks in practice
- 2) Student career development
  - Preparing students for the labor market and growing their competitiveness
  - Introducing students to potential future careers
- 3) Student motivation
  - Increasing student motivation
- 4) Quality of teaching and learning
  - Increasing quality of teaching process through new teaching methods
  - Increasing knowledge and skills of teachers
- 5) Company promotion
  - Company promotion among students / Introducing students to the company
  - Collaboration with young talents / Collaboration with employers
- 6) University-business collaboration
  - New/improved collaboration with HEI
- 7) Community contribution
  - Contributing to the development of the economy through UBC

The 10 motivational factors of all three stakeholder groups for participation in WIL are summarized in the Venn diagram in Figure 1. All three stakeholder groups recognized (1) student learning (the development of student knowledge and skills; establishing a connection between theory and practice; showing students how theory looks in practice), (2) supporting students' career development (preparing students for the labor market and enhancing their competitiveness; introducing students to potential future jobs), and (3) increasing the quality of the teaching process through new teaching methods as motivational factors for participation in WIL. Teachers and students shared category for increasing student motivation through collaboration with employers (interesting projects, student curiosity), while employers and students shared the motivation for improved connections with

industry for students. Finally, some motivational factors are characteristic of a single stakeholder. Teachers are the only ones who see WIL as an opportunity to increase their knowledge and skills. Employers are motivated to establish new or improved collaborations with HEIs, as well as contributing to the economy through UBC. In the next section, we offer a deeper explanation and elaboration of motivational factors for each stakeholder group, based on responses to the open-ended questions.

FIGURE 1: Stakeholder motivational factors for participation in Work-Integrated Learning.



#### Employers' Motivation

Employers have shown a very broad spectrum of motivational factors for participation in WIL. Five of the six employers in the study had a well-established prior collaboration with FOI, and all employees involved in the WIL activities are FOI alumni. Therefore, it is not surprising that their experience during the study at FOI motivated them to collaborate with students now that they are 'on the other side':

When I was a student, I constantly complained that employers were not involved enough, that we did not have real contact with the profession. Now I have the opportunity to change that and I would love for students to get something from my experience.

Knowledge sharing and connecting theory with practice, aimed at increasing students' competitiveness in the labor market, can be found in responses from employers as well. One of the employers

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summarized it as follows "The motivation is to bring students closer to the development of a software product in the profession using best practices. As a result, students prepare for the job market and their competitiveness grows."

For employers that already had a long-term relationship with the HEI, successful prior collaboration is one of the triggers for future collaboration, but in connection with increasing the quality of the teaching process and connecting with young talent:

Our main motivation for joining the WBL program is to maintain excellent relations with the Faculty and to promote our company among students. Most of our employees come from FOI and therefore it is very important to help the Faculty in maintaining a quality educational process.

Additionally, the employers emphasized they wish to "strengthen cooperation with educational institutions such as FOI on current and future projects, and achieve cooperation and bring talented and top individuals closer to the career opportunities offered within our company."

For the only employer without prior collaboration with the HEI, the motivation lies primarily in "new collaboration with a reputable HEI, company promotion, collaboration with young talents."

## Teachers' Motivation

Teachers are oriented primarily to the quality of teaching and students' learning, which includes the development of the teachers' own skills.

My motivation is always to make student education as relevant as possible to the job market, primarily through connecting with employers. I believe that in this way, a better teaching process is achieved and that students acquire the skills needed in the labor market... Also, I as a teacher expand my knowledge and skills in this way because there is always something to learn from employers.

Moreover, some teachers believe that WIL "is one of the best ways in which students, and indirectly teachers, can gain insight into the practical application of the theoretical knowledge we teach at the Faculty", which is often hard to achieve in an isolated academic environment.

As evident from teachers' comments, the development of students' professional and generic skills and making the education relevant for the labor market are the predominant motivating factors:

Students in the course work on project tasks anyway, by first setting a project task (problem posing), and then another team solves it (problem solving). I find this an important skill for their job, as they not only link theory and practice but generally develop generic teamwork and problem-posing skills. They do this under the mentorship of a teacher, but it seems to me that they could do it even better if the mentors were employers who 'own the problem.' That way, they would gain in the authenticity of the task and the connection with the real business environment.

# Students' Motivation

As a result of the first cycle of coding, it emerged that the dominant motivating factors among students is acquiring concrete knowledge and skills through working with employers and acquiring experience

related to practice. Students often recognize this as connecting theory to practice and are motivated to "gain new experience and work habits through a given project" or "work on real projects, that is, to see how the theoretical knowledge we have acquired works in practice."

Aside from gaining relevant knowledge, skills and practice, students are very motivated in the context of their future employment and career development. They see collaboration with employers as an opportunity to gain insight into organizations, clarify possibilities for the future and introduce themselves to an employer as a potential future employee:

I was motivated by the fact that we will work on specific tasks with employers, so we have a better insight into the business of a particular organization and get an insight into what we would like to do in the future.

My motivation for getting involved in the implementation of the WIL is that I want to see roughly what it is like to work with the company and within the company itself. I think this is a kind of practice for me, the first encounter with the work and mentoring of a company, and I think that all this will be very useful for my future.

Some students simply indicated their motivation as "curiosity," "to learn something new," "sounds interesting" or "a different approach to learning new skills and knowledge."

It is important to mention that motivation was also dependent on the way the WIL was implemented in courses and presented to students. For example, within a course where employers suggested one of the topics for student projects, most of the students indicated that "the topic of the employer was the most interesting among those offered for the project." In another course, which initially included a plan for students to spend part of their hours in the company, they were more motivated by the prospect of "gaining experience in the work environment."

# Stakeholder Expectations from Participation in Work-Integrated Learning

In addition to motivation, expectations are also an important factor influencing success and satisfaction with the implementation of the WIL. Based on the results of the coding process, expectations for each stakeholder group are summarized in main concepts and presented in this section.

# Employers' Expectations

Employers' expectations of teachers fell into four main categories:

- Providing support in program implementation, assistance in technical mentoring and project team management, and infrastructural and organizational support in task development
- Being a partner who will always give open and honest feedback and nurture good cooperation and communication
- Informing employers of their obligations in a timely manner
- Effectively incorporating company participation into the context of the course interest areas, noticing common technical and operational interests and suggesting additional opportunities for cooperation.

Employers' expectations of students can be summarized in four main categories as well:

- Effort and commitment to project task—students will give their maximum to solve the project task in an innovative way; they will show willingness and motivation to learn and interest for work
- Open communication—both with employers and within their student teams
- Creative and innovative projects results—including focus on its application in business
- Skills development—both professional and soft skills.

# Teachers' Expectations

Teachers' expectations of employers are focused more on course provision and directed toward students, including:

- Giving specific tasks and examples from practice
- Assisting students and providing guidance on their work
- Supervising students' project development and helping them to connect theory learned within the course to practical application in a working environment
- Providing infrastructural support (e.g. device and associated licenses) and enabling students to spend some time in the company
- Participating in project assessment/evaluation

Besides those 'operational' tasks, teachers also expect employers to establish good communication with students and show active involvement and interest in student work, as evident from one teacher's quote:

I expect them to 'enjoy' the topic, that is, to be interested in working with students and to be able to take their time for that. I do not want them to get involved if it is an obligation imposed on them.

Teachers' expectations of students involved in WIL are:

- To ask relevant questions in dialogue
- To successfully engage in the additional commitment that WIL requires
- To find classes interesting
- To be open to seeing connections between theory and practice, not just being motivated by the final grade.

# Students' Expectations

Students' expectations of employers covered a broad range of different aspects:

- Project proposal—provide interesting and realistic projects in which students can connect theory with practice
- Simulation of real environment simulation the real environment through project proposals, treating students as employees, enabling students to spend some time in a company
- Mentorship and support—establish clear guidelines, instructions and information for working on the project
- Feedback—critically assess student work and provide useful feedback, as they would provide to their employees

- Knowledge sharing—to share their knowledge and experience to enhance student learning
- Career development—preparation for early career development, insight into labor market and company work
- Social aspects—assist students in their work and show patience, understanding, cooperation, accessibility, availability and to establish good communication.

Students' expectations of teachers are as follows:

- Support in performing tasks—assist students with problems they encounter and clarify misunderstandings; to help them correct mistakes and meet employer expectations
- Collaboration and mentorship—providing advice and guidelines, useful feedback for improvements, encourage students and continuously monitor their work
- Mediator role between students and employers—appropriately match the work and ideas of employers with the abilities of students, solving potential problems in communication with employers, ensuring employers are aware of student obligations within the course and assessment criteria
- Teaching aspect—timely publication of teaching material, giving examples from practice, to teach students something new, evaluate students work correctly and fairly
- Social aspects—understanding students' other obligations, collegiality, being patient, good communication, accessibility and availability to students, openness for students' questions and dilemmas, being available for help.

## DISCUSSION

The results show that there is a shared motivation among stakeholders involved in WIL, but that there are also motivational factors that are specific to a particular stakeholder. The motivation is aligned with stakeholders' expectations that vary in a range of areas. This section discusses results of the present study in relation to research questions and to the outcomes of previous studies. Additionally, suggestions for WIL implementation are provided that will increase stakeholders' motivation and meet their expectations.

Knowledge transfer, connecting theory with practice, enabling student insight into practice and developing students' work-ready skills are among the common motivation factors of all stakeholders. This is in line with previous research indicating that different forms of WIL are a vehicle for the development of students' work-ready skills (McManus & Rook, 2021;. Smith & Worsfold, 2015). Thus, the main goal in introducing WIL should be to develop students' professional knowledge and skills, which is a shared interest of teachers, employers and students themselves. It is the academics' responsibility to familiarize employers with ILOs and prepare agreements on employer involvement in courses in a way that supports the achievement of certain learning outcome(s). On the other hand, WIL activities are often undertaken on a voluntary basis and students may not recognize their importance for the development of work-ready skills (McManus & Rook, 2021), or they are afraid that passing a course that includes WIL will be much harder. Therefore, teachers play an important role in introducing the benefits of WIL to students and motivating them to participate.

It is evident that students are motivated when they are offered an insight into the company work through the simulation of working environments within HEIs. The most important consideration for them is the realistic simulation of a working environment, that refers to concrete project tasks, guidance from employers and constructive feedback. Within the ICT study area this connection to real working environments in student project work is recognized as authenticity (Abad et al., 2019). As presented in

Table 1, authenticity of project tasks within courses included in this research was incorporated in different ways, including simulation of a working environment within HEI e.g. in a form of role-playing in Course 2 (Abad et al., 2019; Delgado et al., 2017) or problem-posing and problem-solving exercises in Course 4 (Divjak, 2015). A common characteristic of all four courses is industry involvement in providing tasks and setting requirements for a project, in addition to mentoring student teams and assessing student work (Bruegge et al., 2015; Spichkova, 2019). As mentioned in the introduction, WIL can comprise different forms of industry involvement in the teaching process. Ultimately, all forms of WIL can be valuable and beneficial for stakeholders if implemented in the right way.

A long-term benefit of participation in WIL is student career development. WIL's contribution to student career development is among the most frequently discussed topics related to WIL, including the development of a student's pre-professional identity (Jackson, 2017a), development of career management competencies (Jackson & Wilton, 2016), development of employability skills (Huq & Gilbert, 2013; Jackson, 2015). Accordingly, networking with industry is recognized as an important aspect of students' learning by both students and academics, while students consequently recognize increased employability as one of the main benefits (McManus & Rook, 2021). Therefore, it is not surprising that students see WIL as an opportunity to connect with employers, and that employers are motivated by introducing their company to potential future employees. This is particularly evident in the ICT area because of a high demand for ICT professionals in the labor market and a set of unique skills ICT graduates need to possess, including both professional and generic skills (Pažur Aničić & Bušelić, 2021). Findings are in line with Fleming & Hickey (2013) who found gaining experience in industry; gaining an understanding of industry; career clarification; developing skills (especially interpersonal skills) and enhancing employability (e.g., through networking) as specific themes related to the purpose of cooperative education, as recognized by students, industry supervisors and academic supervisors.

To harness the full potential of WIL and develop both their professional knowledge and skills and career potential, students expect support from both teachers and employers. This study shows that students expect help from teachers with the problems they encounter and in meeting employer expectations. On the other hand, they hope for mentorship and support from employers, including clear instructions and guidance related to their project work. As a precondition for providing students with adequate support, social aspects that consider regular communication among stakeholders, mutual respect, understanding and commitment to tasks appear to be very important. Findings from the present research are consistent with those from Fleming et al. (2018) who detected communication, compatibility and commitment as three main threads that represented the overarching factors for WIL sustainability. This is closely related to the intention of active promotion of dignity, as suggested by King et al. (2021), in order to make all stakeholders feel comfortable in this tripartite relationship. The clarification of expectations from each of stakeholders and regular, open and honest communication among them can contribute to maximizing the potential of WIL for all included parties.

Such open communication should be a good basis for providing students with valuable feedback, as constructive feedback from employers is recognized as important for students' personal and professional development (Jackson, 2017a). A role of employers, as seen by teachers, is participation in assessing student work. Students also want quality feedback from employers. Ferns and Zegwaard (2014) discussed issues in employers' assessment of student work as they are not academics and as such not appropriate individuals for assessing student work, but recognized 'robust rubrics' as a tool that enables provision of valuable and appropriate feedback. Rubrics can be used for a range of activities,

such as complex and non-structured problem assessment (Divjak, 2015), employability skills assessment (Riebe & Jackson, 2014) and many other formative assessment types (Brookhart, 2013).

As academics are responsible for the design and implementation of WIL (McManus & Rook, 2021), they should be aware of different stakeholder perceptions and encourage employers to actively participate in courses design and provision (White, 2012). Thus, the results of this paper provide a valuable starting point for educators willing to implement WIL within their courses/institutions.

#### CONCLUSION

The presented research gives insights into two aspects of WIL, motivation and expectations, which have not been thoroughly researched so far. The sample consists of representatives of all three groups of stakeholders (49 students, four teachers and six employers). The research was exploratory and inductive, and thus it revealed new insights related to WIL motivation and expectations. Data were collected using the open-ended questions, followed by qualitative data analysis in order to identify main factors that describe the motivations and expectations of each stakeholder from WIL. The research has detected seven main categories of motivational factors for three stakeholder groups: Student learning, Student career development, Student motivation, Quality of teaching and learning, Company promotion, University-business collaboration and Community contribution. All stakeholders recognize enhancement of student learning, career development and quality of teaching as motivation for their involvement in WIL. At the same time there are motivational factors that are not shared among all groups, such as company promotion, teachers' skills development or contribution to the development of the economy in general. Additionally, the paper presents student, teacher and employer expectations from each other in WIL. Regarding expectations, students and employers expect that the teachers mediate between and support students in performing tasks in WIL. Shared expectations can be recognized related to social aspects, such as a good mutual communication and respect, as well as hope for future cooperation.

Results of this research may be utilized by HEIs that are considering introducing WIL, or are in the early stages of its implementation. Understanding stakeholder motivation and expectation could help in choosing the WIL model that best fits their particular situation.

One of the research limitations is that it was undertaken by the teachers participating in WIL themselves and not by external researchers. Another limitation is the relatively small sample size from one study discipline (ICT). As the ICT industry is very agile and fast changing, there is need for future research on aspects of motivation and expectation with bigger samples and different environments, including more companies from the ICT sector. Additional efforts should be made to explore differences between bachelor and master students. As this was the exploratory and inductive research, further work on exploring and confirming factors that influence motivation and expectations of stakeholders in WIL is welcome. One of the approaches for undertaking this could be conducting exploratory factor analysis.

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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 ongoing financially supported by the Work-Integrated Learning New Zealand (WILNZ), <u>www.nzace.ac.nz</u> and the University of Waikato, New Zealand, and received periodic sponsorship from the Australian Collaborative Education Network (ACEN) and the World Association of Cooperative Education (WACE).

#### 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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