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Advanced student motivation in craft teacher education

Learning new yarn crafts at university study courses

ABSTRACT

This study investigates student craft teachers' motivational issues within the course frameworks covering yarn crafts. The data consist of materials gathered from two bachelor-level university courses, which both utilized flipped learning as their pedagogy framework for learning and teaching crafts. Advanced-level student craft teachers participating in the courses (N=15+4) set their own learning objectives to reflect the general course targets defined by the course curriculum. The objectives, self-assessments, course work and course-end surveys were acquired as research data and analysed by thematical qualitative analysis, to obtain knowledge of extrinsic and intrinsic motivations. In line with Self-Determination Theory used as a theoretical framework of the study, the results suggest that possibilities to finetune course objectives to meet students' personal skills and resources were considered crucial for study motivation. Craft learning embraced realization of one's effort, inner potential and values, resulting in student satisfaction about receiving personalized attention and instructions for their own study projects. Hence, the results enhance a more detailed understanding of student diversity and related motivational issues that can promote the equity of education.

Keywords:

Craft teacher education, student motivation, university pedagogy, yarn crafts, knitting

BACKGROUND AND AIMS

Craft teacher education in Finland prepares students for practical skills and pedagogy, spreading across different craft techniques and materials (Kokko, Almevik, Høgseth & Seitamaa-Hakkarainen, 2020; Porko-Hudd, Pöllänen & Lindfors, 2018). Given the range of study orientations among students that enter craft teacher education, differences prevail in the motives for learning, particularly related to crafts in which students might already have developed competence through previous studies—while some students

may not be competent in other craft skills at all. Craft techniques that appeal to broad audiences as hobbies are also critical in terms of student diversity.

Such yarn crafts as knitting and crochet are popular leisure activities that are often being promoted by social interaction (Liddle, Parkinson & Sibbritt, 2013; Rusiñol-Rodríguez, Rodríguez-Bailón, Ramon-Aribau, Torra & Miralles, 2022; Sjöberg & Porko-Hudd, 2019) and motivations are entwined with a sense of satisfaction, relaxation and wellbeing gained from the process of making (Corkhill, Hemmings, Maddock & Riley, 2014; Johnson & Wilson, 2005; Kenning, 2015; Pöllänen, 2015; Stannard & Sanders, 2015). Indeed, yarn crafts form a meaningful leisure activity for many makers today (Brooks, Ta, Townsend & Backman, 2019; Mylly, 2020). The popularity of yarn crafts is also reflected among student craft teachers, with some students—considered in this article as advanced learners—having years of experience pursuing yarn craft hobbies. The advanced learners are avid makers, who might have skills and knowledge to experiment with complicated yarn craft structures, such as stranded colorwork, lacework and cables. Thus, providing equally meaningful and motivational learning experiences them as well as for all students despite their backgrounds and study orientations is a challenge in craft teacher education.

This study aims to promote comprehensive craft learning by investigating student craft teachers' motivational issues in two yarn craft courses. We are especially interested how intrinsic and extrinsic motivation intertwine in the goal setting and self-discovery among advanced craft makers, who set their own learning goals to develop a greater sense of competence than is required by the course curriculum. In this article, we approach student motivation with Ryan and Deci's (2020; also Deci & Ryan, 2015; Ryan & Deci, 2000) Self-Determination Theory (SDT), which presupposes that people are inherently prone toward integration, learning and psychological growth. Ryan and Deci (2000) perceive motivation as a complex concept involving energy, direction, persistence and equifinality, conditioned and experienced differently by each individual. Motivation embodies autonomous, intrinsic motivation and controlled, extrinsic forms of motivation, which are closely related but not equivalent. In SDT, extrinsic motivation dwells on tasks and activities taken to attain external regulation, to fulfil a demand, or obtain an imposed contingency. However, extrinsic motivation can vary greatly in its content, character and relative autonomy, and it may also entail personal endorsement and integrated consistency of identifications (Ryan & Deci, 2020). For example, students might work on their homework because of internally controlled regulation capturing the value of the work for a future career or they might be only taking up the work because of the adherence to external rewards and punishments (see Ryan & Deci, 2000).

Conversely, intrinsic motivation is delineated as activity that grows out of a subjective sense of satisfaction that turns into "the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn" (Ryan & Deci, 2000, p. 70). Ryan and Deci (2020) assume that intrinsic motivation is a preponderance of human learning across the lifespan, as opposed to externally mandated learning. Indeed, research in SDT has shown that intrinsically motivated people can set optimal challenges for their learning that impact perceptions of competence within a self-determined learning framework (Wehmeyer & Zhao, 2020). However, research has also shown that a degree of both extrinsic and intrinsic motivation is required for high academic performance (Lin, McKeachie & Kim, 2003).

The aim of this study is to examine how self-set learning goals may contribute to autonomous, intrinsic, and controlled, extrinsic motivation of advanced students. As an underlying orientation, this study also enhances us as teacher educators to develop an understanding of motivating learning goals for learners with differing skills and orientations; furthermore, educators are urged to promote the formation of a more complex body of learning crafts in higher education.

RESEARCH DESIGN

The study data consist of materials gathered from two bachelor-level yarn craft courses in craft teacher education at a university. In both courses, students set their own learning objectives and chose learning activities, aligning their own study practices with the general course goals defined by the study curriculum of the university programme. This was assumed to benefit students in their learning, as students

would be able to define optimal challenges. However, students were not left alone since support for the study practices was provided by the teacher during the course when requested.

The first data set is collected from *Course 1* at a Finnish university. In this course, student craft teachers develop awareness for the bodily, cognitive and social aspects of knitting and crochet and their pedagogy through independent and collective study assignments. Advanced students may complete the course independently based on flipped learning pedagogy approach, acquainting themselves with the content to be learned (see Bergman & Sams, 2015). In this form, students complete a learning set consisting of a) a preliminary self-evaluation, b) course work with individual learning goals, and c) a reflective essay on their course learnings. Although an opportunity for independent course completion is provided each year, only a few advanced students choose this option. In this article, the data (n=4) derives from the independent course work implementations from both the 2022 (n=3) and 2023 (n=1) courses.

In comparison, the second data set were gathered from *Course 2* at a different Finnish university. The basics of crocheting and knitting had been introduced to the students during the first study year; during the second-year, the intermediate-level course revisits the basics and presents new knowledge and skills of the techniques. Furthermore, students can choose to practice with one or two special yarn techniques such as nalbinding, tatting, macramé and Tunisian crochet. The course emphasizes visual and technical design and making of yarn craft products as well as lessons in yarn craft pedagogy. Of the 49 students enrolled on the course in 2023, 15 advanced students gave their informed consent to participate in this research. The data consists of student-provided documents: a) learning objectives, b) self-assessments and artefact photos per each of the five learning tasks, c) posters of course work and d) pre- and post-course survey responses. Additionally, four advanced learners were e) interviewed after the course to probe their motivation and learning, opinions on the value of yarn crafts for a craft teacher as well as opinions on course arrangements. For the transcription of interviews, the freeware solution called tekstiks.ee was used (Olev & Alumäe, 2022).

For the analysis, the data were structured as follows: Course ID: Running number code of the student; Document type in the data (Course 1 consisting of a–c and Course 2 consisting of a–e). This coding is also used in the data excerpts in this article. Further, the data were qualitatively analysed with deductive, theory-driven thematic analysis (Braun & Clarke, 2006; Kiger & Varpio, 2020), first by identifying and labelling relevant data. The realistic approach (Braun & Clarke, 2006) that we implemented in this study utilized above described SDT by Ryan and Deci (2020) as theory that informed development of themes, addressing the type of motivation (internal–external) in the data. Further, internal and external motivation categories were scrutinized to identify nuances related to study resources and ownership in student’s own actions. This addressed theme development related to goal setting, personal growth and learning as enjoyment. As major themes, we identified extrinsic motivation in relation to course goals, intrinsic motivation in relation to interest and satisfaction and resonance between motivational factors as growing teacher competence. Examples of these themes as presented in the following as summarizing thick descriptions and data excerpts.

RESULTS

Pushing on control through individual goal setting

First, students needed to contemplate their experiences and expertise in reflection of the general course goals and detail their personal study objectives with an extrinsic impulse. Advanced learners were largely adept with many of the basic yarn techniques; however, this familiarity caused difficulties for some in setting learning goals because they said that “many techniques are already familiar” (Course 1: 1: b; Course 2: 10: e). Hence, different kinds of advanced yarn craft structures or special yarn techniques new to the student as shown in Figure 1 were proposed as responses to the issues, including stranded colorwork, magic loop knitting, cables, ladder-back jacquard knitting and tatting.



FIGURE 1. Advanced sock project report completed on Course 1. The student has used an existing sock pattern as a basis for the project but made several changes to the design, including ladder-back jacquard knitting, magic loop technique and a short-row heel. Photo source and courtesy: Course 1: 2.

Advanced students seemed to admire novelty and challenge but they were also eager to gain high course grades with project reports showing their progress and learning as avid knitters. Thus, extrinsic motivation was partly related to control and grading, although the aims of the learning activity seemed to be valued by the students.

Growing teacher competence

Students also set learning goals to acquire new resources for their future work; thus they linked personal endorsement with controlled, external motivation. Self-set learning goals included trajectories of perceived expertise and the pedagogic competence of a craft teacher. Obtaining knowledge and skills for a future teacher career were seen as adaptive to different levels of craft knowledge in the craft classroom (see Figure 2), with expectations of how the yarn crafts course could provide materials and resources for teaching:

I want to learn how to make socks of different levels of difficulty so that I can use them in teaching. This way, I can guide students to the right level of difficulty if necessary. The sock must provide enough of a challenge without the sock becoming too difficult for the student to complete. (Course 2: 2: a)



FIGURE 2. Pedagogical socks designed for three different levels of learners. On the left: A sock knitted as flat knitting, suitable for pupils with fine-motoric skills challenges. In the middle: A ‘traditional’ Dutch-heel sock. On the right: A sock with cross-flipped square heel and a cable on top. In all socks, different structural parts have been emphasized with different colours. Photo source and courtesy: Course 2: 2.

Indeed, students perceived individual goal setting as a developmental opportunity to establish and evolve capabilities to impact future teaching; for instance, when right-handed students learned to knit left-handed. In the future, teacher competence with left-handed knitting would help them teach left-handed students. As one student noted:

I would like to learn how to make structural solutions with my left hand. . . . then I must practice the knit structures of the decreases the other way around [in comparison to right-handed knit]. I understand that left-handed knitting is a skill that needs to be maintained in order to remain as a skilled practice (Course 1: 2: a)

Students’ growing teacher competence and identity concern extrinsic motivation that has been partially internalized and imagined in consideration of their envisioned future careers.

Interest and enjoyment for learning as personal development and self-discovery

Study motivation was discussed and performed by the students as a way to sustain yarn crafts as personal development and find benefits in achieving personal goals of growth and learning. Similarly, this addresses intrinsic motivational aspects to seek out new tasks to learn to find satisfaction and increase contentment. Some students concentrated on reporting the learning process through the setting of personal study challenges and finding ways to overcome them; for instance, some students did so while learning to read instructions for yarn crafts (Course 2: 8: a) or working on their own knitting instructions (Course 1: 1: b, Course 1: 3: b).

My aim is to learn new and more challenging techniques. I will design the pattern for a mitten . . . and additionally practice thread dominance and smooth running of several threads at once while knitting . . . The design turned out to be surprisingly challenging, and I had to make several versions before I was satisfied. (Course 1: 1: c)

Advanced makers also reported aims to develop knowledge and skills to work on complicated structural and technical solutions they were not yet fully proficient in, as portrayed with a data excerpt and Figure 3:

I have once knitted with a machine, but never with multi-coloured knitwear. Now I'd like to learn that. I also saw a video on that topic elsewhere and became interested in using machine to knit multi-coloured pieces and exploring other possibilities of the machine. (Course 2: 10: a)



FIGURE 3. Multi-coloured and flat single knit with decrease and cast on exercises with machine. Photo source and courtesy: Course 2: 10.

Conditions under which intrinsic motivation became visible seemed to highlight a high-performance standard. Yarn crafts were to be made with high quality, carefulness and virtue: “I want to focus on exercises carefully, not sloppily” (Course 2: 14: a). Indeed, students showed ambition, dedication and commitment. They not only called for effort and hard work to execute their projects, but also emphasized how important it was to apply, adapt and “explore different possibilities [of knitting]” (Course 1: 2: a) and “experimentally search for new methods for traditional solutions” (Course 1: 3: a).

In the final course reflection, one student addressed how the experience of sock knitting based on self-set learning goals had been deeply educational and integrative; it increased enormously the student’s knowledge and understanding of the significance of woollen socks to Finnish craft culture (Course 1: 4: c). This reflects how learning new yarn crafts managed to meet both academic interest and autonomous modes of motivation, through bringing in student’s integration and growth as a maker and a future craft teacher while also nurturing the sense of constructive social development and personal well-being.

CONCLUSIONS AND DISCUSSION

To conclude, it is crucial to provide students with comprehensive and adaptive learning tasks that have the potential to promote experiences of autonomy, competence and self-discovery. The study indicates that advanced learners greatly benefitted from an opportunity to set their own learning goals in relation to general course goals as defined by the curriculum and found both extrinsic and intrinsic motivation in the process of implementation and learning of yarn crafts. In line with SDT, the results indicate that autonomous and controlled motives are often applied (see Ryan & Deci, 2020). Accordingly, the study demonstrates that students may be simultaneously externally regulated and introjected and intrinsically motivated and that varied forms of motivation and regulation may come concurrently into play and shift positions. Indeed, previous research has shown that motivational processes can also influence identity formation and facilitate academic interest, engagement and achievement (La Guardia, 2009).

The results of this study include different aspects related to external and internal motivation: external regulation, introjected regulation, identified regulation and integrated regulation (Ryan & Deci, 2020). General course goals functioned as extrinsic regulations, informing students how to set their individual learning objectives in a way that relevant and consequential skills could be developed and good grades gained. External, introjected regulation paired with the meaningful rationale of the future career-oriented students to think about their skills for teaching, potentially allowing them to feel a new kind of ownership of the activities. The further intertwining of motivational factors seemed to result in student satisfaction and managed to construct a sense of success while learning new skills, as a form of identified and integrated regulation. Intrinsic motivation was realized with a high-performance standard; ambition and commitment to balance challenges and skills, interest and self-discovery were also enhanced.

From a higher pedagogy viewpoint, the study also provides a detailed understanding of student diversity and related motivational issues to promote the equity of education. Thus, we argue that there is a need to acknowledge and identify differences related to motivational goals and student performance so that individual study orientations could be better promoted. The study shows that it is possible to integrate advanced learning perspectives in the bachelor-level study courses. For these purposes, a flipped learning approach provides a way to promote agentic and motivational learning experiences among advanced learners and helps them to construct an inclination towards assimilation, exploration and new mastery (see Ryan & Deci, 2000). However, for some students, finding interesting yarn projects and self-reflection was difficult. Instead of choosing overly large and time-consuming projects providing plenty of repetition (i.e., exercise in fine-motoric skills), students could be guided to test their higher-order learning skills by applying yarn techniques and structures in different ways, designing novel creations and artefacts and practicing their self-reflection.

With respect of the two data sets, it should be noted that the profiles of the two courses were somewhat different. While Course 1 data are based on written self-reflection and assessment of highly skilled advanced students taking the course independently, Course 2 data manage to capture a wider instalment of the students and their course progress, utilizing both writing and interviews. Thus, the tone of reflection alternates in between the two data sets, ranging from descriptive and demonstrative, thin projections to deliberate, thoughtfully constructed essays. Therefore, the two data sets are complementary, building an understanding of the elaborated strategies of learning of the advanced student craft teachers and the complexities related to the finetuning their study goals.

In the future, research on yarn craft pedagogy involves several inspiring directions. In addition to comparing advanced and novice yarn crafts learners' learning and motivation on the flipped learning implementations, we are intrigued by the multiple interpretations of yarn crafts and examinations of indigenous craft knowledge materialized as part of students' works.

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