

Core Research Area: *Emotional and Motivational Aspects of TEL*

Research project proposals produced by the experts of the 4th STELLAR Delphi round

174. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Video games as models for supporting student engagement and learning

Project description

How do video games engage players so effectively?

How can schools design lessons that leverage video game design principles?

Is there a connection between these designs and improved learning outcomes in school?

Project partners

University researchers

School partners

(I am assuming you mean kinds of partners, not specific partners)

Project justification

If we don't find ways to engage learners with school, we lose an important avenue for educating members of society, and we risk decreased productivity, less productive career pathways, and increased social stratification.

A focus on better understanding educational design and motivation continues to advance knowledge in psychology and education sciences.

175. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Emotional responses to using technology in formal education

Project description

How can teachers know, through understanding learners' emotive reactions to technology, how to intervene more successfully in the educational process in the classroom?

Project partners

Various Universities and schools

Project justification

Society needs people who are confident with technology; producers of technologies need to understand how users of their technology can become more confident; researchers need to better understand the emotional and motivational aspects of TEL.

176. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Role of technology in increasing the student-perceived value of academic content

Project description

Value perceptions need to be 'educated'; there is no intrinsic reason why a 16 year old girl, say, should find matrix algebra valuable to invest effort in. General achievement motivation is not sufficient (for most). The big challenge for teachers/schools is to help students experience the value of such cultural tools; teachers/schools fail most of the time (not their fault in many cases, but we need somebody to blame). We know that to appreciate the value of abstract concepts/tools/ideas, they need to be related to self realization, self expression, identity formation. How can technology help in this? For instance,

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can it help to make students' productive activities outside of the school context more accountable in school? How does affect students' perception of such activities? Etc.

Project partners

I would probably look, in the best of worlds, to cooperate with people such as Bridget Barron (Stanford U.) (learning ecologies) and folks such as Squire (serious games) on questions of this kind.

Project justification

Well, in most motivational models we have Expectancy * Value, and if V gets close to zero, we are in trouble. And more specifically, all those findings showing the loss of interest in math, science, technology, engineering, ...

177. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Factors supporting intrinsic motivation for technology-enhanced learning

Project description

What are the factors that supports intrinsic motivation for technology-enhanced learning?

dependent variable: intrinsic motivation

independent variables: affinity to computer games or other computer issues, learning environment, personal situation, social background/social status, etc.

Project partners

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Project justification

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178. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Futurological aspects in ubiquitous learning and their impact on motivation

Project description

What are the decision-making issues in the development of ubiquitous learning?

How do the learners meet the challenges and the possibilities offered by ubiquitous learning.

How formal education can benefit from motivational aspects in ubiquitous learning.

Project partners

Department of Teacher Education, University of Helsinki, Finland

Department of Education, University of Helsinki, Finland

Department of Computer Science and Engineering, Aalto University, School of Science and Technology, Finland

School of Educational Sciences and Psychology, University of Eastern Finland

Project justification

Motivational aspects are growing in importance for educational choices of young people and they can benefit a lot of different types of ubiquitous learning. Formal education is presently alien to these problems.

179. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Intelligent Technologies for Enhanced e-Learning

Project description

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What is the role of Artificial Intelligence technology in producing effective e-Learning systems?

The project includes the following aspects;

1-Data Mining approach in e-Learning.

2-Ontological Engineering approach in e-learning.

3-Case-Based Reasoning approach in e-Learning.

Project partners

Artificial Intelligence, Knowledge Engineering, and computer science institutions/Computer Science Schools.

Project justification

developments a technological intelligent software for learning/training/education.

180. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Linking between emotional and motivational aspects and personalisation of learning using agents and affective computing

Project description

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Project partners

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Project justification

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181. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Affective Sensors in Interactive Computer Applications

Project description

To study how children react in the educational process by Affective Sensors (Rings on fingers, Mouse) which track physiological changes

Project partners

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Project justification

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182. Emotional and Motivational Aspects of TEL

Group: Researcher

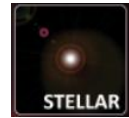
Project title

Intrinsic motivation: Helping education create learners that the world needs

Project description

Technology has provided some of the best examples of the power of intrinsic motivation: Wikipedia was created by millions in their spare time. Linux powers many of the servers at large companies in the world. Gmail and google maps come from the 20% rule at google - a system that allows workers to work on whatever they want for 1 day a week. It creates autonomy, it provides purpose, and it is driven by the desire for mastery. Intrinsic motivation isn't new, but the world has never really been ready for it. As examples like Google demonstrate, this is changing, and the education systems around the world should get on board quickly.

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What role do technology-based learning environments play in promoting self-directed and intrinsically motivated learners?

How can technology help overcome the addiction that exists for standardized testing and conditional rewards for good performance?

What are the real survival skills that will be needed in 2020 and beyond?

Project partners

Tough question... definitely a broad international team because of the differences. The aim would be to

1. Researchers from the LIFE center - Bransford, Schwartz, and team.
2. Deci & Ryan - who discovered the creativity-killing nature of extrinsic rewards and sparked this movement before the business world and certainly education was ready for it.
3. Tak-Wai Chan at the National Central University in Taiwan
4. Kurt Squire & Constance Steinkeulher - Univ. of Wisconsin-Madison
5. Mike Sharples - Univ. of Nottingham

The general goal would be to have a team with expertise in motivation and also with a track record of pushing educational technology and looking beyond school-based learning. Cognitive gain is important, but it has a stranglehold on most education research outside of informal science education.

Project justification

What if school was optional? What if educators, researchers, parents, and all adults couldn't rely on school being compulsory and had to make it a different kind of place? What would happen? What would they rely on to fill up the school with eager learning?

My guess is that they would work to make it something personally rewarding and valuable for every student. They (we) would need to work very hard to understand their needs, desires, wants and to provide experiences that met those goals.

Technology would play a vital role in this change. It would provide tools to educators, researchers, and parents that could be used to persuade kids of the value of school. It would (and does) allow them to connect socially, share, collaborate, and more. The goal of this project would be to inspire a global change in educational practices so that learners would finish school ready for a world that needed them yesterday.

183. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Flexible Mindsets, Flexible Learning, Flexible Technology

Project description

How can technology be used to scaffold the flexible mindset approach to learning that we know enables learners to make better use of the learning resources available to them?

Project partners

The London Knowledge Lab
University of Sussex
Stanford
University of Bergen
KMRC

Project justification

There is a growing body of evidence that demonstrates that

184. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Learning Intentions and Targets Investigations and Support

Project description

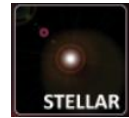
What does motivate learners?

Why do they achieve or not achieve their goals?

How can they be supported in achieving their goals?

Project partners

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TUG (Graz)
IMC
KU Leuven

Project justification

support in learning environments, lack of misunderstandings between machine and people, a great field for research investigations

185. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

the influence of motivation and emotional aspects in social networks learning

Project description

We would like to understand how are people learning in social networks vs in e-learning platforms; and accessing using different devices (getting mobile together with the geography of learning), face to face and at distance, in formal and informal settings, following others and interacting directly with teachers, opinion makers and gurus.

In this context its also crucial to understand how personality and emotional factors influence the way we interact and learn.

Project partners

Experts in sociology, educational technology and Practitioners; from different types of organizations.

Project justification

important to go further in the way we learn at distance and to design better scenarios and learning experiences to people and organizations.

186. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Empathic Pedagogic Conversational Agents

Project description

The main research question would be whether it is possible to design an interactive educational system that not only supports the students in their learning but also is able to emphatically react with different emotions in a natural and intuitive interaction (such as human teacher-human student interaction).

Project partners

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Project justification

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187. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Engaging Technology Enhanced Learning

Project description

How does CSCL, Contextualised learning, Personalisation of learning, ubiquitous and mobile technology engage learners, teachers, parents, peers, and other actors in the learning process.

Project partners

Experts in the different fields. It is long term and would require serious validations.

Project justification

In our multi-medial society, the major problem is motivation.

188. Emotional and Motivational Aspects of TEL

Group: Researcher

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**Project title**

A scaffolded Approach to Technology-Enhanced Minds-On Learning Environment: Cognitive, Affective and Emotion Considerations

Project description

While the beneficial effects of various teaching and learning strategies has been substantiated and the affordances of networked technologies have been well recognized, the goal of better seamless coupling these two is yet to be attained. How technology-enhanced learning environments can be structured and supported that enable learning experience to be augmented and challenged to the right amount will be a crucial issue. "Challenged to the right amount" implies that it is contingent upon individual learner's state (cognitive, emotional, interest, etc.), the necessity of providing dynamic supports (not limited to cognitive measures) when needed and high emphasize on reflection.

Project partners

Not specified.

Project justification

As can be expected, the constructed environment will be in a way a "contextualized" learning environment (in reference to learners' internal state versus external state). Designed features, associated effects and applications should have theoretical, practical and technological relevance.

189. Emotional and Motivational Aspects of TEL**Group: Researcher****Project title**

Effects of affective mood on learning in technology based learning environments

Project description

How does affective mood influence learning? Which "mechanisms" are behind?
Is affective mood controllable by instructional design?
In what measure? By which means?
Are there side effects of the influence of affective mood be the learning environment?

Project partners

Steinhardt School, New York University

Project justification

Scientific/technological

190. Emotional and Motivational Aspects of TEL**Group: Researcher****Project title**

Unleashing learning - through juicy complex collaborative meaningful projects

Project description

Diverse technologies can be used as tools for meaningful learning. Citizen action learning motivates learning. Questions include; How can massively multi-user game design principles be adapted to real-world projects? How can the learning technology champion best be propagated? What mechanisms assist the appropriation of technologies and ameliorate barriers to its use? How can the synergies between curriculum requirements and real community needs best be exploited?

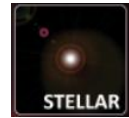
Project partners

Interested universities
Community groups, public sector, business partners.
Blizzard
Gamer user groups.
Participative design/ action research community.

Project justification

Nothing drives learning more effectively than genuine purpose and significance. Current social issues are complex and will require alacrity and resourcefulness to address. Flow deepens learning through focused attention that engages learners with increasing complexity. MMORPGs are a testing ground

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for scaffolding learning that is hugely complex and builds and sustains flow.
Cross organisational projects bring rich learning and rewards (Sarason's, Crossing Boundaries)

191. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Media for Creativity and Problem Solving in Learning

Project description

1. Screening the spectrum of current ICT tools for cognitive support like simulations, modelling and social media (strategic networking) and map them onto the stages of cognitive development as they are prompted in the best current school curricula and school books.
2. Experiment with the bandwidth of the tools found under 1, and let teachers embed these tools in their didactic repertoire.
3. Feed the outcomes of 2 to communities of teachers and let them reflect upon the best practices as they recognize in the learning outcomes and the learners' appreciation of the learning processes, their self confidence etc.
4. Schools may apply to become experimental schools and let its teachers explain why they feel proponents for the new learner methods under 3 and 4.
5. Detailed observations and student-, teacher- and parent reports are made for the interpretation and validation of the choices made under 2, 3 and 4.
- 6 Formulate the patterns under 5 into a heuristic design/decision/ideation instrument for teachers, learners and parents in the coming years
7. Monitor the effects while the device under 6 is applied and debug/optimize this project's recommendations
8. Convince and disseminate to the larger field

Project partners

David Jonassen; Missouri <http://web.missouri.edu/jonassend/>
Johannes Cronje; Cape Peninsula Univ of Tech <http://info.cput.ac.za/News/news.php?aid=641>
Meurig Beynon; Warwick Univ <http://www.dcs.warwick.ac.uk/~wmb/>
Svetoslav stoyanov; Open Univ the Netherlands <http://www.ou.nl/eCache/DEF/18/197.html>
Jan Frick Univ of Stavanger <http://stavanger.academia.edu/JanFrick>

Project justification

We need at least one integrated project that does not abstract from the real simultaneous factors as described above.

Of course the targeted partners should allow a good period to harmonize prior ideas and experimental methods before a solid project proposal can be made

192. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Investigating the emotional aspects of technology enhanced learning

Project description

Investigating the relationship between emotional regulation and social competence and technology enhanced learning

Project partners

The Open University

Project justification

Emotion regulation and social competence are a major influence of children's success at school and life. There has been very little research into their impact on technology enhanced learning.

193. Emotional and Motivational Aspects of TEL

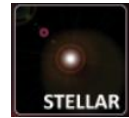
Group: Researcher

Project title

Adaptation to Motivation in TEL

Project description

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How to identify dis-engaged and unmotivated learners? How can they be re-engaged in the learning process?

Project partners

This would be explored in different settings: on-line courses, collaborative on-line learning, learning at the workplace, higher education.

Project justification

Motivation is one of the most important factors for learning. We still see rather high attrition rates. This project has the potential to make different forms of TEL much more efficient.

194. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

The forgotten conative learning domain and its implications for higher education in the 21st Century

Project description

- 1) How can levels of conative domain be described and measured in ways similar to the ways that levels of cognitive domain have been defined (originally defined by Bloom (1956) and revised by Anderson and Krathwohl (2001))
- 2) How can the will, desire, drive, level of effort, mental energy, intention, striving, and self-determination to learn and subsequently actually perform according to the highest standards possible be nurtured in 21st Century higher education?

Project partners

Teachers College at Columbia University
NIE at Nanyang Technological University (NTU), Singapore

Project justification

The personal choices people make regarding the environment, public health, and the economy are critical to human survival. For example, health costs are increasing, but much more R&D is focused on medicine rather than on public health education. We must help people become more aware of their personal responsibilities in these areas and help them develop the cognitive, affective, psychomotor, and conative skills to make a difference.

195. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

TEL for Critical Thinking and desire skills development

Project description

Identify desire student profiles (eg critical thinking, problem solving , team work) and research into appropriate TEL to improve and enhance such skills.
Construct instrument to measure such skills through TEL.

Project partners

Any interested institutions.

Project justification

Lack of investigation on identifying suitable TEL that produces desire student profiles. Normally most investigation focus on performance outcome (score, grades etc) but lack of focus on desire students' profile (eg team work, independent skill etc)

196. Emotional and Motivational Aspects of TEL

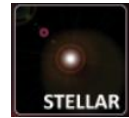
Group: Researcher

Project title

educational games how to motivate learners

Project description

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- 1) how intrinsic motivation (flow) effect learners' behavior
- 2) how perceived use (PU) effect learners' behavior

Project partners

educational games research center in Nanjing Normal University

Project justification

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197. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

The role of motivation and emotion on the use of cognitive resources while learning

Project description

Most theoretical models of media based learning only include cognitive factors. however, what are the crucial motivational and emotional aspects when learning with media? and in which way do they influence the amount of invested cognitive resources and the dynamic of resource use during learning (a process view)

Project partners

motivation researchers
cognitive load researchers
multimedia researchers
multiple representations researchers

Project justification

media based learning has a great potential but the development is almost only based on cognitive models of the user and often driven by technical possibilities. the dynamic of the actual use of tools or media is mediated by motivation and emotions. Hence the effectiveness is highly dependent on these aspects despite a "perfect", cognitively fitting design

198. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Developing pedagogies for the unmotivated and the demotivated

Project description

1. How can we identify different kinds of states of demotivation and unmotivation.
2. How can we remediate these different kinds of states in a way that improves the situation and causes minimal negative side-effects

Project partners

University of Sussex
University of Massachusetts
University of Canterbury (New Zealand)

Project justification

Without the motivation to expend intellectual and emotional effort in learning, the learner does not progress. Motivation is key. Finding ways to help learners be more productive will help make better use of the huge sums currently spent on education.

199. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

A complete piece of mathematics online

Project description

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Currently there are lots of separate "bits" of mathematics software, including geometry, algebra, chat, discussion, notice boards etc. But, it is still almost impossible to get mathematics online in a complete and coherent way. How can these be brought together effectively, that is driven by people's motivation to learn mathematics not just enthusiasts' keenness for the new.

Project partners

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Project justification

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200. Emotional and Motivational Aspects of TEL

Group: Researcher

Project title

Making learning ubiquitous, personally meaningful, and motivating

Project description

How can technology be seamlessly integrated in learning activities?

Under which conditions is TEL effective and how can this effectiveness be maximized?

In this context, how can computer-supported collaborative learning be supported while the needs of the individual are also addressed?

Project partners

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Project justification

TEL has real potential for cognitive development and acquiring higher-order skills. This potential can only increase but in order to capitalize on it we need to understand what motivates human actions with new media. Ubiquitous and participatory computing is already in children's everyday lives and has proven to be a motivating force. Taking advantage of such advances, can help revolutionize learning; personalization is one aspect of making learning motivating. At the same time, affording increased participation in learning with new media (e.g. social media) will provide opportunities for social and cognitive engagement.

201. Emotional and Motivational Aspects of TEL

Group: Educator

Project title

The role of safe failure in virtual educational environments

Project description

Does virtual presence / distance create an emotional safety net for learners when confronted with directed problem solving experiments?

Same question wrt the implicit emotional safety in conversational learning vs. didactic.

We know fear of failure causes a significant barrier to learning. Are there specific pedagogical strategies that can reduce or eliminate emotional risk for the learners? Conversely are the growing examples of confidence building realized by game and virtual environment participation playing a role in emotional resistance to implicit failure in experimentation / discovery learning?

Project partners

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Project justification

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202. Emotional and Motivational Aspects of TEL

Group: Educator

Project title

Increasing Student Engagement in Mathematics through the Use of Robotics Technologies

Project description

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How do pre-service teachers view the ability of robotics-based methods and materials to be integrated into the core school curriculum?

Which academic components have the greatest impact on student achievement?

What robotics-based skills and teaching strategies will result in increased student engagement and motivation in mathematics?

Project partners

Interested Connecticut K-12 School Districts
Sacred Heart University Pre-Service Teachers
Other Interested Stakeholders

Project justification

Classroom learning environments must increase student achievement through the alignment of standards, research-based teaching and learning practices, and integrating emerging technologies that prepare our students to enter the 21st century workforce. Mathematically and Scientifically literate citizens, who are equipped with the skills and knowledge for solving complex problems, are critical for sustaining and improving the quality of life, enhancing democratic societies, and maintaining the global economy. The goal of this study is to determine the effectiveness of robotics technologies in fostering student engagement, motivation, and the high academic achievement of all students.

203. Emotional and Motivational Aspects of TEL

Group: Educator

Project title

Investigation of how the Affective Domain is represented in educational games

Project description

Bloom came up with a number of domains to explain how learning could be assessed in higher education. One of these, the affective domain, is not really explored in as much depth as the others. It promotes the idea of learning taking place more effectively when the content is something that learners can be emotionally engaged with, and some games have a very strong affective component. It would be interesting to see if the level of affective areas represented in a game would impact on the learning of people using that game.

Project partners

Anyone who is interested in these areas! It could be a small scale project or an EU sized one.

Project justification

Games are becoming a more common teaching tool but we still have little evidence to show what works and what does not work when using games as an educational medium. Whilst there is work being done in this area there is a small amount being completed on the affective area. Moreover, it is something that will become more important over the next 20 years or so as many students entering HE will question their motivation for study a lot more due to increased fees (at least in the UK). This means that creating learning content that engages is more important than ever to ensure students get the most from their studies.

204. Emotional and Motivational Aspects of TEL

Group: Educator

Project title

Student Centered Learning, At-Risk Students and Technology Initiatives

Project description

1. Is technology a motivator for learning with at-risk students?
2. Are teachers effectively using technology to improve learning?

Project partners

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Project justification

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205. Emotional and Motivational Aspects of TEL

Group: Educator

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Emotional and Motivational Aspects of TEL*



Project title

Learners' and teachers' experiences of technology enhanced learning

Project description

I would like to be able to get an insight into what it is like to be an online learner or teacher in different contexts - e.g. mobile learner/teacher, synchronous online learner/teacher

Project partners

Lots - ideally to include teachers and learners in a range of post-compulsory settings (e.g. Higher Education, Vocational education)

Project justification

to help new learners and teachers understand what it is like to be an online learner or teacher (particularly relevant to new teachers in a particular technological context), and to allow teachers to be able to respond better to learners' needs and experiences.

206. Emotional and Motivational Aspects of TEL

Group: Business Person

Project title

Study on attitude and behaviour of learners (and other parties) within various physical learning environments

Project description

Which physical elements influence the learning for different types of learners?
How can this be used to enhance physical learning environments?

Project partners

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Project justification

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